Recommendations to the Secretary of Transportation

California Transportation Infrastructure Priorities White Paper:

Tolling and Pricing for Congestion Management and Transportation Infrastructure Funding

January 2015

Tolling and Pricing on State Highways

The California State Transportation Agency (CalSTA) established the California Transportation Infrastructure Priorities (CTIP) Workgroup in April 2013, to examine the current status of the state's transportation system, discuss the challenges that lie ahead, and make recommendations to the Secretary. The CTIP Workgroup includes representatives from various state entities, but is primarily composed of non-state entities, including but not limited to federal, regional and local government representatives, labor and industry groups, environmental and social equity groups. An Interim Recommendation Report was issued in February 2014 and posted on the CalSTA website. The CTIP Workgroup continued to meet on specific topics in 2014 – one of these being the subject of tolling and pricing. A CTIP subgroup on tolling and pricing met three times during the spring and summer. A draft of this whitepaper was presented to the entire CTIP Workgroup on September 16, 2014. Participants at that meeting were asked to vote in an anonymous text poll about support for the recommendation of this whitepaper – of the participants voting, 38 people (or 89 percent) indicated they "strongly agree" or "agree" with the recommendations, while 5 people (or 11 percent) indicated they "disagree" with the recommendations. A list of attendees at the September meeting is attachment I of this whitepaper.

Toll Bridges in California
Richmond-San Rafael Bridge
Golden Gate Bridge
San Francisco-Oakland Bay Bridge
San Mateo-Hayward Bridge
Dumbarton Bridge
Carquinez Bridge
Benicia-Martinez Bridge
Antioch Bridge

Toll Roads in California
State Route 73 (Orange County)
State Route 125 (San Diego County)
State Route 133 (Orange County)
State Route 241 (Orange County)
State Route 261 (Orange County)

Priced Managed Lanes in California
I-10 (Los Angeles County)
I-15 (San Diego County)
State Route 91 (Orange County)
I-110 (Los Angeles County)
State Route 237 (Santa Clara County)
I-680 (Alameda and Santa Clara Counties)

Tolls are fees that drivers pay to use specific transportation facilities; such has bridges, highways, or managed lanes. California has a total of 152 centerline miles of toll bridges, toll roads, and priced managed lanes. These facilities are located in the San Francisco Bay Area, Los Angeles County, Orange County, and San Diego County.

Traditionally, tolling has been seen as a means to get new bridges, tunnels, and roads built by leveraging the revenue stream from tolls over many years. Many states have expressed a growing interest in tolling as the introduction of more fuel-efficient vehicles and inflation have reduced the amount and buying power of fuel tax revenues, which historically have represented their largest source of transportation funding. Tolling is also seen as a true "user fee" in that the toll revenues collected from system users are reinvested back into the maintenance and improvement of the system. Toll revenues can also be leveraged to provide financing for other transportation improvements.

Tolling, in the form of pricing, is increasingly being used as a means to help improve mobility. Pricing focuses on the use of tolls to manage traffic demand, by varying the toll charged based upon the time of day, day of week, and/or real-time traffic conditions. Revenue generation is a secondary objective on priced facilities. Pricing can be applied to traditional toll roads, bridges, tunnels, or managed lanes. The majority of priced facilities in California are managed lanes, either in the form of high occupancy/toll (HOT) lanes or express toll lanes; the term "express lanes" is often used when referring to priced

managed lanes. The majority of tolled projects proposed on the State Highway System will be express lanes with the objective of mobility management.

1 Background on Tolling and Pricing in California

California has long used tolling, albeit in a very limited way, to help pay for transportation infrastructure. For much of the 20th century, the focus was to charge tolls to finance large transportation projects, specifically bridges. The State built 9 toll bridges in the San Francisco Bay Area, Los Angeles, and San Diego, and a separate bridge district comprised of several counties built and continues to operate the Golden Gate Bridge.

In 1987, two joint powers authorities were authorized to charge tolls as well as development fees to finance a 67-mile network of highways in Orange County. This was followed two years later by the State's first public-private partnership (P3) law in 1989, which authorized Caltrans to establish franchise agreements with private entities for up to four transportation facilities and mandated the use of tolls to help finance the projects. Two projects were built using this P3 provision. One of these projects, the State Route 91 Express Lanes, was the first priced managed lane facility in California, where a combination of tolling, access control, and vehicle occupancy were used in order to ensure that the facility operated at a high level of performance.

In 1993, Assembly Bill 713 was passed, implementing priced managed lanes on Interstate 15 in San Diego County. For this particular project, the San Diego Association of Governments (SANDAB) was given authority to convert existing high-occupancy vehicle (HOV) lanes to HOT lanes. The success of this project led to subsequent legislation (Assembly Bill 2032) in 2003 that authorized SANDAG and other regional transportation agencies to operate additional HOT lane projects in San Diego County as well as in Alameda and Santa Clara Counties. This was later followed by legislation in 2006 (Assembly Bill 1467) that allowed regional transportation agencies to request approval from the California Transportation Commission (CTC) to operate HOT lanes. The number of projects was limited to four - two in northern California and two in southern California. Projects were authorized in Los Angeles and Riverside Counties and the San Francisco Bay Area under this provision, which expired in 2012.

A new statute (Senate Bill X2 4) authorizing P3 projects became law in 2009. Under this statute, regional transportation agencies or Caltrans could enter into P3 agreements for projects, and tolling is an option to provide a source of financing for the projects. This law will sunset in 2017. In 2010, Assembly Bill 798 became law, establishing the California Transportation Finance Authority (CTFA). CTFA was granted the power to authorize Caltrans or other regional transportation agencies to use tolls as a means of financing a transportation facility. This authority through the CTFA has no sunset date.

2 Typical Uses of Toll Revenue

Historically, the primary intent of tolling has been for project financing, as seen with the 9 State-owned toll bridges, the Golden Gate Bridge, and the Orange County toll road system. Tolls collected on the State-owned bridges cover the costs of replacing or retrofitting bridges for seismic safety, and expanding bridges to handle increased traffic (tolls were removed from the bridges in southern California once the facilities were paid for and their seismic safety retrofits were completed). Facilities funded using a P3 may use tolling to help recoup project development costs, and toll revenues on projects authorized by CTFA are to be used to pay for the project development costs.

State law initially required that tolls be removed from the State-owned toll bridges once the revenue bonds used to finance the facilities were paid off but this requirement was removed in 1972, and tolls are now used to cover the costs of operating and maintaining the facilities as well as pay off project indebtedness. Toll revenues from P3 projects or projects authorized by CTFA may also be used to cover the costs of operating and maintaining the facility.

Tolls collected on the Golden Gate Bridge are used to cover operations and maintenance costs on that facility. The bridge district has also authorized to use tolls to subsidize transit service and ferry service. In addition, voters in the San Francisco Bay Area have twice approved specific bridge toll increases on other toll bridges to finance freeway and transit improvements in the region and to cover the costs of operating transit service. The most recent measure (Regional Measure 2) is expected to provide over $3 billion in toll revenues through the year 2040 to cover highway and transit improvements and subsidize transit operations in the region. By statute, transit operation subsidies may account for up to 38 percent of annual expenditures of toll revenue.

91 Express Lane Toll Revenue Generation (2013)
Gross Revenues = $39.3 million
Operating Expenses = $17 million
Net Revenue = $22.3 million

Revenues from express lanes are used to cover the capital, operations, and maintenance costs of the lanes. Although the intent of tolling with express lanes is to manage demand on the facilities, there is the possibility that additional revenue could be generated above and beyond what is needed for these expenditures. In that case, the remaining revenues are to be used to fund projects and services that provide congestion relief on the same freeway corridor. The express lanes on State Route 91 generated $22.3 million in net revenues in 2013. In San Diego, the express lanes on I-15 were expected to generate over $5 million in toll revenue in fiscal year 2014. Approximately 18 percent of those revenues were dedicated to financing transit service in the I-15 corridor.

The use of tolling and pricing has been increasingly supported by the federal government as a means to increase capacity and manage existing capacity. Since 2005, federal law has allowed states to convert HOV lanes to HOT lanes without federal approval. The Moving Ahead for Progress in the 21st Century Act (MAP-21), which took effect in October 2012, further streamlined the use of tolling by eliminating federal approval and tolling agreement requirements to toll new capacity on existing freeways. Federal law also requires toll revenues to be used first to cover the costs of developing, operating, and maintaining the facility, and providing a return on investment to any private investment partner. Excess revenues may be used for any transportation purpose within the subject corridor for which Federal funds would normally be used.

3 Recommendations from the Tolling and Pricing Subgroup

The California State Transportation Agency and the CTIP Workgroup have convened to discuss policies and issues related to developing a tolling and pricing policy for state highways. Through these efforts, the CTIP workgroup recommends moving forward on a clear policy that would clarify the process for determining use of toll revenues, and streamlining the statutory process to use tolling and pricing where appropriate. The following are suggested recommendations from the Tolling and Pricing subgroup:

3.1 Policy on Tolling and Pricing Related to Congestion Management and Funding Transportation Infrastructure

CalSTA or Caltrans should issue a high-level policy that provides general guidelines on the use of tolling on the State Highway System (SHS). The policy should state that Caltrans will support the use of tolling on the SHS, where appropriate, to optimize system performance and provide an alternative source of transportation funding to maintain and improve infrastructure. It is expected that tolling will be used in most cases as a system performance management strategy. Existing toll facilities and approved projects would not be subject any of the terms and conditions of the policy that would conflict with statute, existing financial commitments, existing policies on revenue usage, or voter commitments. Caltrans or a regional transportation agency should have the authority to collect tolls.

The policy would require that tolling be considered during the planning and development of capacity improvements on the SHS as a means of managing demand, financing the improvements, or both. Tolling would only be applied on new SHS facilities, new capacity added to existing SHS facilities, and existing high-occupancy vehicle lanes. State and Federal laws currently prohibit conversion of non-tolled lanes to tolled lanes, with the exception of existing HOV lanes. Congestion pricing and all-electronic tolling would be required for priced managed lanes and would need to be considered for other toll facilities where feasible. Incentives such as discounted tolls or toll-free passage could be granted to high-occupancy vehicles, transit vehicles, and zero- and low-emission vehicles, as appropriate.

The policy would require that whenever tolls are implemented on the SHS, Caltrans and regional transportation agencies would sign agreements that define overall roles, responsibilities and requirements related to maintenance, operations, data sharing, performance monitoring, and annual audits and reports. Regional transportation agencies that sponsor projects would be required to reimburse Caltrans for costs incurred relative to the development, operation, and maintenance of the facility as part of these agreements.

Toll revenues would be used first be used for direct expenses of the toll facility, including:

- Debt service, if any.
- Administration.
- Operations and maintenance.
- Capital improvements.
- Appropriate reserves for the above items.
- Reimbursement to the California Highway Patrol for enforcement services.

Unless otherwise specified by project financing requirements, excess toll revenues, if any, would need to be used for projects that improve travel reliability, provide travel options, or improve the safety and operations of the transportation corridor in which the tolls were collected. These improvements could include, but not be limited to:

- Transit service
- Active transportation projects.
- Operational improvements.
- Augmentation to existing maintenance and operation expenses on adjacent lanes.

An expenditure plan for the use of excess revenues would be developed collaboratively by project stakeholders on an annual basis. The plan and each annual update would be made available for public

review and comment for not less than 30 days prior to adoption by the governing board of the project operator. For projects operated by the department, the plan shall be adopted by the commission. The plan would take into account the financial contributions and roles and responsibilities of all project stakeholders.

3.2 Policy on Managed Lanes

It is expected that the majority of new toll facilities in California will be priced managed lanes. In anticipation of this, Caltrans has been in the process of updating its existing policy on HOV lanes on the SHS to address HOV lanes as well as express lanes. The policy has been vetted with regional stakeholders and should be finalized to reflect the comments received from stakeholders and the requirements of the statewide tolling policy.

The policy would state that Caltrans supports the use of managed lanes on the SHS as a sustainable transportation system management solution. Managed lanes will be used to promote carpooling and transit ridership, improve travel time reliability, reduce greenhouse gas emissions, and maximize the efficiency of the freeway system by increasing person and vehicle throughput while reducing congestion and delay. Caltrans will partner with regional transportation agencies to develop plans for managed lanes on the SHS in each of the State's large urban areas.

The policy would identify the types of operational strategies used on managed lanes, including pricing. Caltrans or a regional transportation agency could have the authority to collect tolls on priced managed lanes. Operational strategies (and any changes in those strategies) for managed lanes would be determined by Caltrans in cooperation with regional transportation agencies and the California Highway Patrol, and in consultation with other affected stakeholders. Operational strategies would be determined based on factors such as safety and mobility considerations, regional consistency, traffic forecasts, life cycle costs, revenue potential, enforcement needs, environmental considerations, and community support.

The use of toll revenues from managed lanes would be addressed under the statewide tolling policy.

3.3 Legislation to Expand the Use of Tolling and Pricing in California

There is currently very limited authority for Caltrans and regional transportation agencies to collect tolls on the SHS. The current processes utilizing a P3 or CTFA have not always been practical for project sponsors to utilize. Not all projects may be suitable for a P3. The CTFA process focuses primarily on the use of tolling for project funding and not so much as a mobility management strategy. Because of these constraints, the CTIP Workgroup recommends that additional tolling authority should be developed through legislation that would enable tolling to be used for either mobility management or project financing. The proposed legislation would permanently reinstate the process established under Assembly Bill 1467 in 2006, in which regional agencies could apply to the CTC to operate HOT lanes. The proposed legislation would expand this authority to Caltrans, eliminate the cap on the number of projects that could be approved, and would also include express toll lanes and toll roads in addition to HOT lanes. Provisions of the legislation would be as follows:

- Caltrans and regional transportation agencies could seek authority from the CTC to operate a toll facility.

- The California Transportation Commission would approve the projects, based on eligibility criteria established by the Commission; these criteria would most likely be similar to the criteria developed for the process established in Assembly Bill 1467.
- Toll revenues would need to be used for direct expenses related to the development, maintenance, administration, and operation, including collection and enforcement, of the facilities, and reserves for these purposes.
- Any remaining revenue would be used for projects that improve travel reliability, provide travel options, or improve the safety and operations of the State highway corridor in which the tolls were collected. An expenditure plan for the use of excess toll revenues, if any, shall be developed by the department and the regional transportation agency and updated annually. The plan and each annual update would be made available for public review and comment prior to adoption by the governing board of the project operator. For projects operated by the department, the plan shall be adopted by the commission.
- Regional transportation agencies would have the ability to issue toll revenue bonds to finance projects. The State Treasurer would be given the authority to issue toll revenue bonds for projects that would be operated by the State.
- A regional transportation agency would be defined as a regional transportation planning agency, a county transportation commission, any other local or regional transportation entity that is designated by statute as a regional transportation agency, or a joint exercise of powers authority.

4 Definitions

Below are definitions for several terms used throughout this white paper.

Tolling: Charging a price to motorists to use a transportation facility, such as a bridge, tunnel, or road. Revenues are typically used to pay for the costs of building, operating and maintaining the facility.

Pricing: Tolls that vary based on the level of vehicle demand on a highway facility. Tolls may vary by time of day (static) or according to real-time conditions on the facility. Also known as congestion pricing, value pricing, or variable pricing.

Managed Lanes: A set of exclusive or preferential use lanes on a freeway that are proactively managed in response to changing conditions using strategies such as access control, vehicle eligibility, pricing, or a combination thereof.

High Occupancy Vehicle (HOV) Lane: A type of managed lane that may be used by vehicles carrying a minimum number of occupants.

High Occupancy/Toll (HOT) Lane: An HOV lane that lower occupancy vehicles may access by paying a toll.

Express Toll Lane: A managed lane on which all users pay a toll; vehicles carrying a minimum number of occupants may pay a discounted toll to use the lane.

Express Lanes: A blanket term for HOT lanes or express toll lanes.

Electronic Toll Collection (ETC): A method of collecting tolls using a transponder (associated with a pre-paid account) mounted in a vehicle and overhead antennas that read the transponder. An ETC system may utilize an automated license plate reader to assist in identifying vehicles not equipped with a transponder.

All-Electronic Tolling: The collection of tolls on toll facilities using only ETC. Also known as cashless tolling.

Regional Transportation Agency: A regional transportation planning agency, a county transportation commission, any other local or regional transportation entity that is designated by statute as a regional transportation agency, or a joint exercise of powers authority.

Attachment I

Participants in September CTIP Meeting

First Name	Last Name	Representing
Dave	Snyder	California Bicycle Coalition
Kurt	Karperos	California Air Resources Board
Mark	Monroe	California Department of Finance
Steve	Wells	California Department of Finance
Steven	Cliff	California Department of Transportation
Ted	Toppin	Professional Engineers in California Government
Jaci	Thomson	California Department of Finance
Erin	Whealton	California Department of Finance
Mark	Neuburger	California Department of Finance
Arwen	Chenery	Senate President Pro Tempore Office
Zach	Olmstead	Office of Assembly Speaker Toni Atkins
Gary	Gallegos	San Diego Association of Governments
Steve	Heminger	Metropolitan Transportation Commission
David	Yale	Metropolitan Transportation Authority
Michael	Turner	Metropolitan Transportation Authority
Matt	Carpenter	Sacramento Area Council of Governments
Melanie	Perron	California Department of Transportation
Giles	Giovinazzi	California Department of Transportation
Brady	Tacdol	California Department of Transportation
Rachel	Falsetti	California Department of Transportation
Steven	Keck	California Department of Transportation
Anne	Mayer	Riverside County Transportation Commission
Suzanne	Smith	Sonoma County Transportation Authority
Bruce	Blanning	Professional Engineers in California Government
Jennifer	Whiting	League of California Cities
Darin	Chidsey	Southern California Association of Governments
Carol	Farris	California State Transportation Agency
Craig	Scott	Auto Club of Southern California
Darrell	Johnson	Orange County Transportation Authority
Mark	Watts	Transportation California
Sharon	Scherzinger	El Dorado County Transportation Commission
Janet	Dawson	Assembly Transportation Committee
Josh	Stark	TransForm
Joe	Rouse	California Department of Transportation
Chris	Shimoda	California Trucking Association

Andre	Boutros	California Transportation Commission
Andrew	Fremier	Metropolitan Transportation Commission
Kiana	Buss	California State Association of Counties
Tony	Boren	Fresno Council of Governments
Ella	Wise	Natural Resources Defense Council
Alix	Brockelman	Metropolitan Transportation Commission
Tony	Dang	Cal Walks
Gary	Hambly	California Construction and Industrial Materials Association
Ted	Link-Oberstar	Consultant at California State Senate
Joshua	Shaw	California Transit Association
Malcolm	Dougherty	California Department of Transportation
Mike	Duman	Federal Highway Administration
Vince	Mammano	Federal Highway Administration
Mike	Cunningham	Bay Area Council
Jim	Earp	California Alliance for Jobs
Peter	Osborn	Federal Rail Association
Stacey	Mark	San Joaquin Regional Rail Commission
Kate	White	California State Transportation Agency
Ronda	Paschal	California State Transportation Agency
Alison	Dinmore	California State Transportation Agency
Bill	Higgins	California Association of Councils of Government
Mike	McKeever	Sacramento Area Council of Governments
Brian	Kelly	California State Transportation Agency
Brian	Annis	California State Transportation Agency
Billie	Greer	Southern California Leadership Council