

CTE AD HOC ADVISORY COMMITTEE

Report and Recommendations

November 15, 2005

a. Introduction

Over the past ten years, Colorado has been evaluating creative methods to finance transportation in Colorado. Key among those measures is the concept of tolling new roadway capacity. In 2002, House Bill 1310 (CRS 43-4-801-12) authorized the Colorado Transportation Commission (TC) to create the Colorado Tolling Enterprise (CTE) to implement, operate and maintain new tolled capacity. In 2005, the legislature provided additional clarification to the authorizing legislation in House Bill 05-1148. The recommendations in this report are consistent with, and provide guidance on how to implement the requirements in HB05-1148.

The TC serves as the board of CTE which appoints the director of the enterprise with the consent of the Colorado Department of Transportation (CDOT) Executive Director.

The enterprise is a Division of the CDOT and operates as a “government owned business”. The CTE is an enterprise as long as they issue revenue bonds and receive less than 10% of annual revenues from state and/or local governments.

The CTE Board has the authority, among other responsibilities, to:

- Issue revenue bonds
- Designate a state toll highway, or system of toll highways
- Establish and charge tolls
- Acquire by purchase, gift, grant or condemnation rights of way
- Make and enter into contracts or agreements with private, non-profit or public entities to facilitate public-private partnership
- Acquire, construct, relocate, operate, regulate, and maintain toll highways, including toll stations
- Transfer money, property or other assets to CDOT

The legislation authorizing CTE also requires that:

“A toll highway financed, constructed, operated, or maintained pursuant to this part 8 shall conform to and be an approved part of the applicable regional transportation plan and the statewide transportation plan developed pursuant to section 43-1-1103.”

HB05-1148 clarified that

“The Board shall develop a plan for the construction of a toll highway that addresses the operation of the toll highway, the technology to be utilized, the project feasibility, the project financing, and any other federally required information. Each toll highway plan in a toll highway system shall be separately approved by each metropolitan planning organization or regional planning commission that is located in whole or in part within the toll highway system.”

b. Creation of the Ad Hoc Committee on Tolling

Tolling is a new concept for Colorado and there are many issues to work out prior to implementation, including the development of policies and processes that guide decision making. Recognizing the need for a well coordinated decision making process and an integrated regional and statewide transportation system, and, recognizing that existing transportation planning processes are sound, and not wanting to create a whole new process, the CTE Board invited potentially affected planning partners to participate in this Ad Hoc Committee on Tolling (The Committee) to provide advice to CTE and as appropriate CDOT/TC.

c. Committee Structure/Membership

The CTE requested participation from planning partners whose area includes potential tolling facilities as identified through an initial round of technical and financial screening studies. The invited membership consisted of 22 board and/or executive staff members from potentially affected regional planning agencies as indicated in **Figure 1**.

Figure 1: Ad Hoc Committee on Tolling Membership

- Denver Regional Council of Governments Board (DRCOG)
 - Lorraine Anderson – Councilmember, City of Arvada
 - Bob Broom – Councilmember, City of Aurora
 - Rene Bullock – Councilmember, Commerce City
 - Happy Haynes – Council Liaison, City and Council of Denver
 - Bill Macy – Councilmember, City of Idaho Springs
 - Bob Nelson – Mayor Pro Tem, City of Golden
 - Jack O'Boyle – Mayor, City of Lone Tree
 - Karen Stuart – Mayor, City and County of Broomfield
 - Will Toor – County Commissioner, Boulder County

- Pikes Peak Area Council of Governments Board (PPACG)
 - Jerry Heimlicher – Councilmember, City of Colorado Springs
 - Wayne Williams – County Commissioner, El Paso County

- North Front Range Transportation and Air Quality Planning Council Board (NFR)
 - Glenn Gibson – County Commissioner, Larimer County
 - Kurt Kastein – Councilmember, City of Fort Collins

- Upper Front Range Regional Planning Council
 - Mike Geile – County Commissioner, Weld County

- Intermountain Regional Planning Council
 - Mick Ireland – Pitkin County Commissioner

- Denver Regional Transit District (RTD) Board
 - Bill McMullen – Board Member, RTD District E

- Federal Highway Administration (FHWA)
 - David Nicol – Colorado Division Administrator

- Colorado Toll Enterprise Board (CTE)
 - Terry Schooler – Board Member
 - Joseph Jehn – Board Member
 - Joseph Blake – Board Member
 - Douglas Aden – Board Member

- CTE Acting Executive Director
 - Peggy Catlin

The Committee agreed to operate on a consensus basis and recognized there may be need to allow for minority reports should a committee member so desire. No committee members have submitted minority reports.

d. Committee Charge

The Committee was created to advise the TC and the CTE Board regarding “policy and process on toll road planning and implementation”. It was convened on January 25, 2005 and has met 9 times.

The Colorado Toll Enterprise and the Transportation Commission (CTE/TC) suggested that the Committee may wish to consider issues related to:

- Designation of Statewide Tolling System
- Roles and Responsibilities of Affected Agencies
- Toll System Framework and Relationship to the Transportation System
- Business Factors of Tolling

e. Expectations/Definitions of Success

Based on the charge to the Committee, the membership defined more specifically their expectations, and a common definition of success. The definition of success developed by the Committee is summarized in **Figure 2**:

Figure 2: Expectations/Definitions of Success

- Define a process for how tolling decisions are made
- Identify roles and responsibilities related to the decision processes
- Use existing processes as much as possible
- Define questions that need to be answered regarding tolling during the decision process
- Incorporate business factors of tolling into the decision process

f. Ad Hoc Committee Recommendations

Following a series of informational and background presentations on tolling and the statutory basis and structure of transportation planning in Colorado, the Committee structured their work by considering when in the decision-making process specific issues and concerns should be addressed.

In this effort, the Committee identified 56 questions/issues in seven categories related to major steps in the decision-making process from policy to implementation. The Committee then discussed and developed consensus recommendations on the following areas:

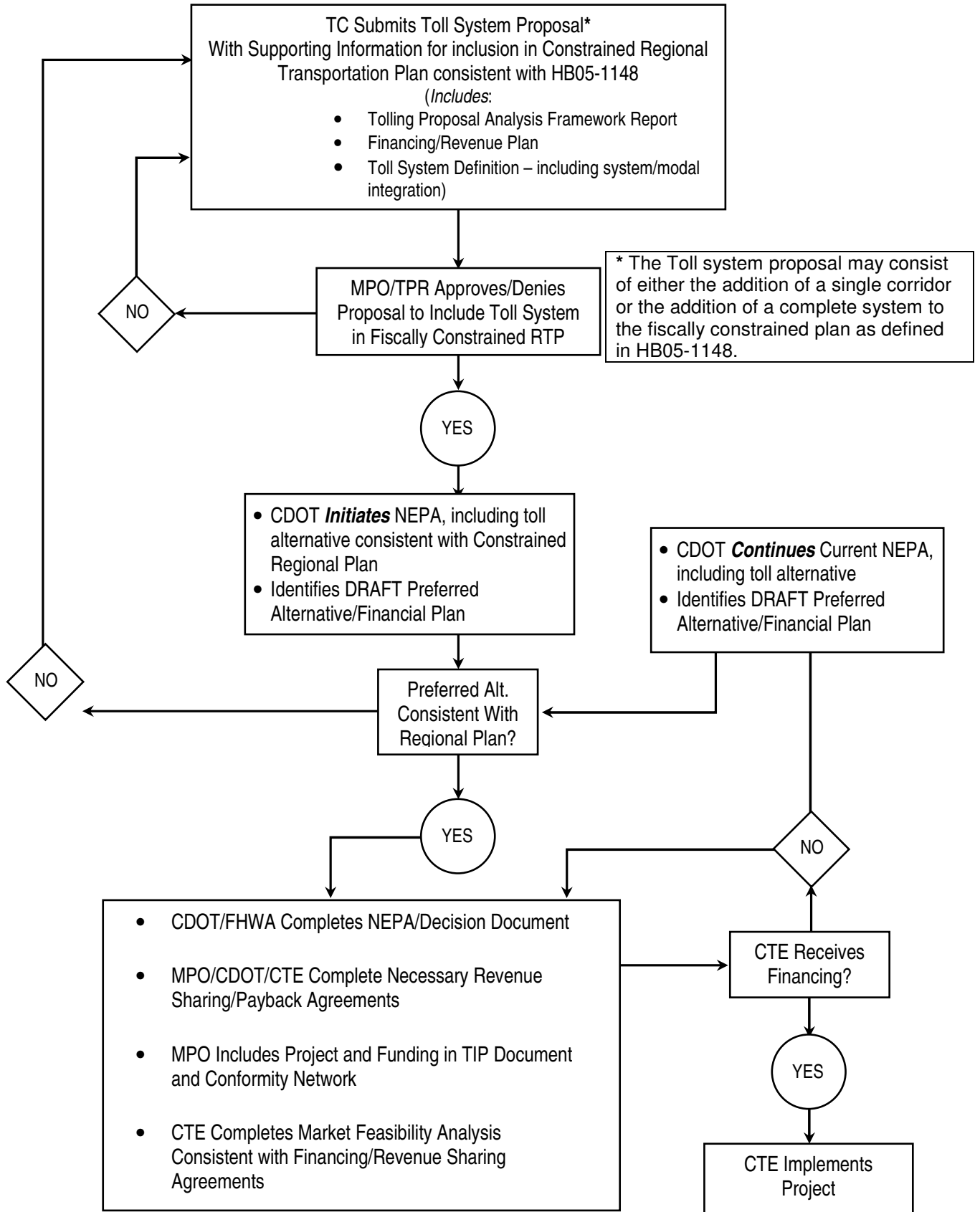
- Toll Related Decision Processes
- Roles and Responsibilities in Toll Related Decision-making
- Toll System Regional Transportation Plan Amendment Analysis Framework
- Identification of Key Policy Issues and Recommended Policy Positions.

Each of these areas recommendations are discussed in greater detail in Sections g through j.

g. Toll Related Decision-making Process

The Ad Hoc Committee identified the primary steps and key decision points in the tolling related planning process. There are a number of different steps by different public agencies and partners in the decision to implement a toll facility in Colorado. The proposed process is illustrated in the flow chart in **Figure 3**.

Figure 3: Tolling Decision Process



h. Roles and Responsibilities in Toll Related Decision-making

One key difference between a toll revenue funded project and the traditional tax supported transportation project is the important role of the private sector in the decision to fund a proposed project. The metropolitan planning organization (MPO) regional planning process includes representation from local governments, regional transit providers, CDOT and the regional or state air quality agencies. Most, if not all, toll projects will involve funding by the private financial markets and/or other contributions by the private sector. It is therefore necessary for any proposal that includes toll revenue based financing be acceptable to the financial markets, and perhaps the private sector for implementation and operation.

A summary of the key roles and responsibilities of the partner agencies in the toll decision-making process is provided **Figure 4**.

i. Toll System/Regional Transportation Plan Amendment Analysis Framework

The Committee also identified the critical topics that should be addressed in any proposed amendment to a regional transportation plan that includes a tolling system or facility. Each topic identified in the matrix in **Figure 5** should be addressed as indicated in the technical documentation supporting a request to include a tolling system related Regional Transportation Plan (RTP) amendment.

The Committee recognized that a proposal to amend the regional plan would need to meet the federal and state requirements regarding fiscal constraint by developing a planning level "Financing/Revenue Plan" based on the toll system defined in the proposed amendment. The plan should include a planning level financial analysis that addresses how revenues and costs of toll facilities relate to system implementation timing and corridor phasing, revenue and cost sharing among corridors, as well as system financing assumptions, consistent with the criteria identified in the "Financial Analysis" portion of the framework identified in Figure 5.

The Committee recognized that such a financial analysis would be based on the information and detail available at a planning level, and as a specific proposal makes its way through the process described in Figure 3, additional detail would be provided and documented in the Market Feasibility Analysis and any necessary revenue sharing agreements.

The Committee also recognized that if a RTP amendment submittal adequately addresses the topics as identified in the Framework Matrix below, the Regional Planning Commission/MPO Boards will have sufficient information from which to take action on a proposed amendment.

Figure 4: Summary of Roles And Responsibilities

- **COLORADO TRANSPORTATION COMMISSION**
 - Establish Statewide Transportation Policy.
 - Approve STIP and Statewide Transportation Plan.
 - Approve new interchanges/interchange modifications on State Highways, use of state highway rights-of-way.
 - Propose designation of state toll highways/system.

- **STATE TRANSPORTATION ADVISORY COMMITTEE**
 - Advise CDOT on Transportation Planning Issues.
 - Reviews Regional and Statewide Transportation Plans.

- **COLORADO TOLLING ENTERPRISE (CTE) BOARD**
 - Designates state toll facility
 - Adopts Operating Procedures/Business Plan.
 - Decision regarding financing/issuance of revenue bonds.
 - Develop operational, maintenance, and construction policies and standards.
 - Coordinates with state and regional transportation plans.

- **COLORADO DEPARTMENT OF TRANSPORTATION (CDOT)**
 - Facilitate, support, and implement Transportation Commission policy development and direction.
 - Negotiate implementation, operation, and maintenance agreements with CTE.
 - Conduct appropriate planning, engineering, and environmental reviews, clearances, and studies to ensure compliance with Commission Policy, state, and federal law and regulations.

- **TRANSPORTATION PLANNING REGIONS/METROPOLITAN PLANNING ORGANIZATIONS (TPR/MPO)**
 - Review and approve a toll highway plan per HB05-1148
 - Consider proposals to include tolling facilities/system in fiscally constrained Regional Transportation Plan (Plan amendment process to be defined by the TPR/MPO).
 - Develop and adopt policies, regional plans, and Transportation Improvement Programs in compliance with state and federal law and regulation.
 - Comment and participate in development of Commission and Enterprise Board policy.
 - Participate in environmental review and evaluation of NEPA documents on toll corridors.

- **LOCAL GOVERNMENTS**
 - Comment and participate in development of Commission and Enterprise Board policy.
 - Participate in regional planning process with applicable transportation planning region
 - Participate in NEPA Process and the review and evaluation of NEPA documents

- **FEDERAL HIGHWAY ADMINISTRATION/FEDERAL TRANSIT ADMINISTRATION (FHWA/FTA)**
 - Review and act on proposals that affect interstate facilities.
 - Produce, review, and act on NEPA documents resulting from federal actions.
 - Approve TIP/STIP and conformity findings.
 - Review and act on possible financing requests.

- **Environmental Resource Agencies**
 - Participate in MPO/TPR Planning Process
 - Participate in NEPA process
 - Ensure compliance with environmental laws/permits as necessary

- **PRIVATE SECTOR**
 - Respond to Request for Proposals by CTE.
 - Propose public/private initiative opportunities to CTE.
 - Financing of proposed toll facilities.

FIGURE 5: TOLL SYSTEM/REGIONAL TRANSPORTATION PLAN AMENDMENT ANALYSIS FRAMEWORK

TOPIC	MEASURE	METHOD
General Purpose Lane Impacts– planning level comparison of tolling, general purpose lane, and no-action alternatives (peak period)	<ul style="list-style-type: none"> • Person miles of travel/person hours of travel. • Duration of congestion • Reliability • Travel time/speed • # of toll users/vehicles on facility • % share of total corridor peak hour trips by toll users • Peak period volume/capacity/Level of Service by lane type 	<p>MPO transportation model output in DRCOG area. PPACG and NFR level of analysis will vary depending on model capability. Analysis may require analysis separate from regional model. Where available CTE and MPO modeling will be compared and validated.</p>
Local Transportation Network Impacts	<ul style="list-style-type: none"> • Traffic impact on local transportation network with and without toll system. • Potential mitigation for anticipated impacts to local network per HB05-1148 	<ul style="list-style-type: none"> • MPO transportation model output to minor arterial level, combined with corridor specific analysis to evaluate impacts on collectors. • Where available CTE and MPO modeling will be compared and validated.
Rail Transit Impacts	<ul style="list-style-type: none"> • Impact of toll system on ridership. 	<ul style="list-style-type: none"> • MPO Model.
Other Mode Impacts	<ul style="list-style-type: none"> • Impact of toll system on general transit/bus rapid transit/carpool/vanpool (person trips/travel time) • Peak hour mode share in toll lanes and general purpose lanes • Bike and pedestrian impact 	<ul style="list-style-type: none"> ▪ MPO transportation model output in DRCOG area. PPACG and NFR level of analysis will vary depending on model capability. Analysis may require analysis separate from regional model. Where available CTE and MPO modeling will be compared and validated. ▪ Comparison to applicable local and regional plans
Toll Facility Design	<ul style="list-style-type: none"> • Concrete barrier separated. • Interchange/access locations. • Number of lanes • Connection/transitions to general purpose lanes • Associated necessary state and local roadway improvements 	<ul style="list-style-type: none"> • System description consistent with Updated CTE Traffic and Revenue Study and NEPA, as appropriate.
Toll Facility Operations	<ul style="list-style-type: none"> • Average level of service/speed • Access by other modes • System interoperability. 	<ul style="list-style-type: none"> • System description from Updated CTE Traffic and Revenue Study and NEPA, as appropriate.
Right-of-Way Analysis	<ul style="list-style-type: none"> • Impact of toll system on right-of-way/cost to implement. • Available right-of-way analysis regarding general purpose lanes, tolling, rapid transit. 	<ul style="list-style-type: none"> • Corridor specific/planning level analysis of available right-of-way and modes identified for corridor in Regional Plan.

Financial Analysis	<ul style="list-style-type: none"> • Analysis of how separate toll facilities relate to system implementation/phasing: • Revenue • Cost • Cost/user (toll and general purpose lane) • Cost/passenger – mile (toll and general purpose lane) • Timing/corridor phasing. • Revenue/cost sharing among corridors • Financing (including federal/state/local/other) • Life cycle cost (Total capital, administrative & O&M costs of proposed system/corridor) for toll and general purpose lane) • Anticipated toll fee structure • Financial responsibility if revenue projections not met. 	<ul style="list-style-type: none"> • Updated CTE Traffic and Revenue Study
Environmental Impacts	<ul style="list-style-type: none"> • Air emissions. • Land use implications of tolling. • Noise • Other corridor specific issues (ie wildlife crossings) 	<ul style="list-style-type: none"> • Air Quality - MOBILE 6 Emissions Model/MOVES as appropriate • Land Use - Consistency with Regional Plan policies. • Noise - Screening level analysis of noise impacts.
Social Impacts	<ul style="list-style-type: none"> • User demographic analysis. • Toll rate impact on equity. • Number of relocations/right-of-way to implement (demographic analysis of impacts). 	<ul style="list-style-type: none"> • User - Study of current similar facilities. • Equity - Literature search. • Demographic Analysis - Census based analysis.
Economic Analysis	<ul style="list-style-type: none"> • Cost of implementation with and without tolls (life cycle costs). • Incorporate time/cost analysis (how much is saved by building now versus later). • Effect of tolling on existing and new businesses: • Geographic competitiveness. • Relocation/expansion decisions of tolling, general purpose, no-action. • Time value to businesses. • Cost/user and cost/passenger mile of toll lane and GP lanes 	<ul style="list-style-type: none"> • Life cycle cost analysis – Updated CTE Traffic and Feasibility Study • Time/Cost - Identification of average construction cost increase, and discussion of cost increases/year of delay/cost of congestion until construction occurs • Business Effect - Qualitative/rely on survey of recent relocates along E-470/NW quadrant, other literature and available research and consultation with economical development agencies.
Other	<ul style="list-style-type: none"> • Expectations of public/local residents. 	<ul style="list-style-type: none"> • ID unique circumstances specific to each corridor.

j. Identification of Key Policy Questions and Recommended Responses

The Committee identified a number of key policy questions or issues that they felt would need to be addressed and resolved before they felt a Regional Planning Council/MPO Board would be willing to take action on a proposed amendment to include a tolling system or facility in a regional transportation plan. These issues and recommended responses are summarized in **Figure 6**.

Figure 6: SUMMARY OF POLICY RECOMMENDATIONS

Policy Issue 1: CDOT resource allocation

- a. Any tolling decision by CTE should not reduce the allocation of TC funding to the region in which the facility or system lies.
- b. Tolling revenue should not be considered when calculating the proportion of state or federal highway funds received by a transportation planning region or CDOT region.
- c. Toll facilities should not be included in the state highway inventory used for resource allocation purposes.

Policy Issue 2: Definition of a toll system

- a. An integrated toll system should be defined as a network of toll facilities and toll corridor improvements identified in the adopted regional transportation plan.
- b. Revenue sharing may occur among facilities within an integrated toll system.
- c. Revenue sharing between toll facilities on an integrated toll system must be within the same TPR/MPO or, when the system crosses TPR/MPO boundaries, with the mutual agreement from the adjoining TPR/MPOs.
- d. CTE is encouraged to undertake a public education campaign before proposing an amendment to include specific toll facility or system in a regional plan.

Policy Issue 3: Integration of other modes into the toll system

- a. It is appropriate to acknowledge and pursue ways to integrate tolling and other modes. The decision on whether/how to integrate alternative modes into a toll system/corridor should be a cooperative CDOT/CTE-TPR/MPO decision based on Regional Transportation Plan, NEPA and financing decisions by bond markets.
- b. All assumptions will be refined through the regional plan/NEPA/market feasibility analyses. There are two opportunities for integration of alternative modes one - at initial project financing (item c below.) and two - if the toll facility generates revenue above that needed for operations and maintenance (item d below).
- c. Initial project financing may include "toll corridor related improvements" (defined in e. below) as part of the project scope as determined on a corridor specific basis and associated financial feasibility analysis.
 - Capital construction, financing and related obligations, maintenance, operations, replacement and responsibilities to bond holder should be the highest priority for toll revenues.
 - Public transit buses may use toll facilities free of charge
 - The decision on whether, or at what rate, High Occupancy Vehicles should be tolled is a corridor specific decision made cooperatively between CDOT/CTE and the TPR/MPO.
 - Right of way needs/costs should be considered for all modes as part of the tolling analysis, regardless of whether or not alternative modes become part of the initial toll financing

- d. Implementation of “toll corridor related improvements” with toll revenue should be considered as part of any decision to reduce toll rates after bond and ongoing maintenance, operation and replacement obligations are satisfied.
- e. “Toll corridor related improvements” should be defined as improvements beyond those necessary to implement the basic scope for a toll facility, including, but not limited to:
 - Alternative mode improvements such as public transit, bicycle, pedestrian
 - Roadway improvements not included in the basic scope
 - Open Space acquisition
 - Utilities.

Policy Issue 4: Funding of long term operations, maintenance and replacement costs

Toll Revenues should be used for the planning, design, financing, administration, construction, operations, maintenance, and reconstruction of the toll facilities.

Policy Issue 5: Leveraging tolling and federal/state dollars/Effect of tolling on project selection

- a. Tolling and other modal improvements should not be viewed as competing, but as key components of an integrated transportation system necessary to provide a full range of travel choices to the public.
- b. Shared funding sources to implement an integrated transportation system can result in additional funding for the entire transportation system.
- c. Use of toll credits as a soft match for federal funding for any transportation purpose allowed under Title 23 of the Code of Federal Regulations may leverage funds for the region.
- d. Toll revenue may be used as a local match to leverage additional federal transportation funding consistent with CTE/TC and MPO/TPR objectives.
- e. Federal, state and local funds may be used to leverage toll financing, consistent with any state and federal restrictions. The eligibility of a tolling facility for federal transportation funds will be determined with FTA or FHWA on a corridor or system basis based on the characteristics of the specific proposal and financial plan.
- f. Toll revenue may be used to repay a TPR/MPO that programs federal/state/local funds to finance a toll facility/system (subject to TABOR limitations), recognizing that priorities for the use of federal and state transportation funds are set through the cooperative state and regional transportation planning and programming process.
- g. Use of federal/state/local funds to leverage financing, and the use of toll revenue to repay such funds, must be documented in a memorandum of understanding (MOU) between the CTE, CDOT, and the regional planning commission/MPO. The MOU should include reasonable assurances that any repayment of funds by CTE to CDOT should be allocated by the TC to the region and/or program from which the funds originated.

- h. The highest priorities for toll revenues are capital construction, financing and related obligations, maintenance, operations, replacement and other named responsibilities to bond holders.
- i. The relationship between tolling and transit ridership, as well as a demographic analysis of toll facility users, will be evaluated as part of the request to include a toll system in the regional transportation plan, as well as in the NEPA analysis. This information will aid decision-makers in their actions regarding tolling and financing.
- j. CTE recognizes that TPR/MPOs have the responsibility to propose projects that match the long-range vision for transportation within the region. Conversely the TPR/MPO and sponsoring agency have the responsibility to solicit formal comments from CTE on proposed projects, including, but not limited to, parallel access controlled freeways, that may compete with current and proposed toll facilities, or otherwise affect the ability of CTE to meet its obligations. The CTE has the responsibility to respond to requests for comment from a TPR/MPO in a timely fashion.
- k. The CTE has the responsibility to provide guidance that the TPR/MPOs should use to determine what could constitute a competing project.

Policy Issue 6: Assumptions Used By Market in the Financial Feasibility/Market Analysis

- a. The TPR/MPOs recognize that CTE has the responsibility to propose tolling projects that are financially attractive to the markets and consistent with agreements and commitments made through the RTP, NEPA and financing agreements.
- b. If the financial markets do not support a proposal by CTE, the planning partners commit to re-evaluate the project scope and feasibility to determine if the project can be modified to be financially viable. If modified the necessary changes will be processed as appropriate through the RTP, NEPA document and financial agreements.

Conclusion - Next Steps

The Committee recommendations were provided to the TC and CTE Board in this report with the comments from the STAC, for their review and consideration, according to the following process.

- **Presentation to State Transportation Advisory Committee (STAC):** This Committee report was provided to the STAC for review so that the TC and the CTE can consider the STAC comments when evaluating the recommendations of The Committee. The STAC, which consists of representatives from each of the fifteen regional transportation planning commissions, has the statutory responsibility to advise the CDOT on planning related issues.
- **TC/CTE Workshops:** The TC and the CTE considered these recommendations, STAC comments, and provided an opportunity for public comment in a workshop setting at their August and October 2005 meetings.
- **MPO/TPR Discussion:** Each affected MPO/TPR discussed with its board and/or advisory committees the recommendations included in this report through its individual decision making procedures.
- **Action by TC/CTE:** Based on public comment and comments from the MPO/TPR's, the TC/CTE will consider taking action on the applicable proposed policies and procedures recommended in this report.
- **Action by MPO/TPR:** Based on public comment and comments from the TC/CTE, the MPO/TPR Boards will consider taking action on the applicable proposed policies and procedures recommended in this report.

APPENDIX: House Bill 05-1148



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