5.1 Introduction

One of the key aspects of the National Environmental Policy Act (NEPA) is the mandate that all reasonable alternatives be evaluated. Reasonable alternatives are those that meet the purpose and need of the project, including consideration of cost, ease of implementation, and the basic goals of the project. The Council on Environmental Quality (CEQ) defines reasonable alternatives as "those that are practical or feasible from the technical and economic standpoint and using common sense, rather than simply desirable from the standpoint of the applicant" (Question 2a, CEQ Questions and Answers about the NEPA Regulations, 1981). For an alternative to truly be reasonable in light of fiscal constraints, it must have a viable funding scenario.

5.2 Finance Committee

As a part of the PEIS, a Finance Committee (Committee) was created to examine the range of monies that could be available for improvements in the Corridor.

5.2.1 Specific Goals of the Finance Committee

•	Identify a range of financial revenues that are adequate to support all or part of the capacity improvement alternatives under study for the Corridor.
•	Identify a range of financial resources that may be applied to the alternatives including nontraditional partnerships and funding sources that are reasonable and known.
•	Identify the certainty of securing the financial revenues. The certainty can range from reasonable to speculative.
•	Identify the timeframe of the potential revenues for both near-term (within 20-year horizon) and long-term (20-year and beyond) basis.
•	Identify the financial resources that are used for a specific mode of transportation, such as rail transit, AGS, bus in guideway or highway improvement, and be aware of any other restrictions on a funding source.
•	Better understand public and agencies' (both state and federal) viewpoints on financing a specific mode of transportation for the Corridor.
•	Learn from other successful public and private joint venture projects.
•	Explore the possibility of alternatives to be funded by users (such as tolling).
leg th Th ra	the Committee will not make recommendations to the Transportation Commission, the gislature, or others to determine the allocation of funds, nor is the Committee's role to advise e decision-makers regarding policy decisions, or the management of internal funding sources. this is especially true with regard to the potential to implement taxes or change existing fees to ise revenue for transportation projects. These and other potential sources have simply been entified and are in no way recommended by this Committee as funding measures.

The Committee was formed to ensure that known potential funding sources were investigated and, additionally, in response to public and agency comment during the process that acknowledged the need to identify an affordable preferred alternative. The purpose of the Committee is to provide information on various funding options to those responsible for making policy-level decisions on the alternatives and the related financial viability. The Supporting Documentation findings of the Committee are being used to Appendix P, Public and Agency Involvement develop overall forecasts for how much money may be available, associated applicability to each transportation mode, potential for securing the funds, and the timeframe in which the funds may be available. As a part of this effort, the Committee reviewed previous allocations of state and federal monies to develop conservative and optimistic scenarios for the amount of funding that the Corridor may be able to attract. In addition, potential new sources or changes in the allocations of existing sources have been examined. This represents a range of scenarios and sources that could be applied to improvements in the Corridor. Given that the costs of alternatives under consideration in this PEIS range from low to high, the formation of a Committee to provide information on potential funding sources was supported by the public and by local, state, and federal government agencies.

The Committee is composed of representatives from the Project Management Team, Governor's Office of State Planning and Budgeting, Summit County Commission and Colorado Intermountain Fixed Guideway Authority (CIFGA) board, Colorado Ski Country USA, Colorado Transportation Commission, Federal Transit Administration (FTA), Federal Highway Administration (FHWA), and CDOT Office of Policy and Office of Financial Management and Budget.

5.2.2 Meeting Schedule and Attendees

The Committee met during late 2001 and through mid-2002. Meetings were working sessions at which the members reviewed prepared material and actively helped shape the analysis. Specific information regarding funding sources, potential budgets, level of detail, and timing has been shared based on each individual's knowledge and professional judgment. Occasionally, representatives from branches of CDOT, federal agencies, and local groups attended to provide additional expertise related to the specific field that they represent.

A list of all meetings with the agenda and the attendance can be found in Appendix P, Public and Agency Involvement.

5.3 Financial Strategies

CDOT currently does not have enough available monies allocated to fund all improvements needed on the state's roadway system. The state has developed processes for prioritizing the multitude of improvements needed and is actively investigating additional funding sources to supplement CDOT's budgeted allocation, including innovative sources that have not vet been implemented, for generating additional monies. Cost and affordability will play a role in the identification of a preferred alternative in that the selected option resulting from the I-70 PEIS will need to have a realistic funding scenario for its implementation. An alternative that is not financially viable is not reasonable as defined by CEQ and does not meet the intent of NEPA. Funding scenarios are not limited to existing sources and are subject to shifts in the financial climate that can affect all federally and state-funded programs. As new federal legislation is passed, this document will be updated. It is currently assumed that existing bills, such as the Transportation Equity Act (TEA), will be reauthorized in the future, thereby continuing the availability of these fund sources.

The Committee identified CDOT's existing funding sources by reviewing the past and current sources from which CDOT has received revenue for transportation improvements. In addition, sources that have contributed or could contribute to transit systems were investigated. User pricing and innovative

source options were identified by means of professional judgment and literature searches. It should be noted that some sources are mode-specific and are only applicable should an option containing that mode be a part of the preferred alternative. A traffic and revenue study for the Colorado Tolling Enterprise (CTE) is being conducted, and toll revenue estimates may be revised. Bonding is another option that could accelerate completion of work in the Corridor if voters were to approve additional bonding capacity for CDOT. Although bonding is not an increase of revenues, it does result in an increase in cash flows that would then be repaid over time. In an environment where bonding is best, inflation rates on construction are higher than the borrowing rate on bonds. If, for instance, the inflation rate is around 5 percent (10-year historic average), and the double tax-exempt bond interest rates are 4 percent (rate paid on many of CDOT's TRANs bond deals), then there is a 1 percent savings on the project. In addition, the project would be accelerated and the inconvenience to the traveling public would be minimized.

The sources identified by the Committee and a description of each are presented on the following pages. This discussion is meant to define the known sources and does not include the likelihood of securing funds from the program or source for improvements in the Corridor. Not all sources can be applied simultaneously, and there may be sources that have not been identified or additional streams of revenue that cannot be anticipated (such as the creation of new federal transportation funding programs or sources).

5.3.1 CDOT Programs

5.3.1.1 Existing CDOT Programs

The following are existing CDOT programs:

- 7th Pot Program. A program of 28 statewide priority transportation projects identified by CDOT, of which the Corridor is a part.
- **Regional Priority Program.** Funds allocated to each CDOT region to be used by that region for capital improvement projects generated from the Transportation Planning Regions. The funds are from the Highway User Tax Fund and FHWA, as well as other sources.
- Statewide Construction Programs. CDOT manages the surface treatment, bridge, rest area, and additional statewide construction programs for use on Colorado's transportation network. These programs are used to preserve and maintain existing facilities and would not be available for the implementation of new capacity alternatives in the Corridor.

5.3.1.2 Future CDOT Programs

Future CDOT programs are as follows:

• **CDOT 2003 Strategic Program.** Similar to the 7th Pot Program, CDOT, the Transportation Planning Regions, and the Metropolitan Planning Organizations (MPOs) are working cooperatively to identify the next set of priority projects for Colorado's transportation network. This program would be consolidated with the 7th Pot Program. The program is not yet funded, but once it has monies dedicated to it, these funds will be used to pay for some or all of these priority projects. The Corridor is expected to be one of the statewide priority projects.

5.3.2 Existing Funding Sources Available to CDOT

The following are funding sources that contribute to the CDOT programs listed above:

• SB 02-179/HB 02-1310. In 2002 a transportation plan to help address the projected shortfall in funding for statewide transportation needs was passed. It includes a growth dividend mechanism to capture revenue from the 2000 census adjustment. This dividend can be used for capital

construction and to allow CDOT to receive their portion of the state sales tax sooner than anticipated before the passing of this legislation. The bill also created the Statewide Tolling Enterprise, mandated that 1 percent of SB 97-01 funds go to transit-related activities, and gave the Regional Transportation District (RTD) the power to petition onto the Denver regional ballot without prior concurrence by the legislature.

- associated with vehicle operation.
- constitutional requirements, and the 4 percent reserve for this appropriation to occur. this source recently.
- Century (TEA-21).

5.3.3 Potential Future Funding 5.3.3.1 Legislative Funding

Potential future legislative funding includes the following:

lanes that have served vehicular travel on a toll-free basis.

5.3.3.2 Competitive Funding

Competitive funds are monies that are awarded or allocated through a selection process. The following is a list of funds for which CDOT could apply to implement alternatives in the Corridor:

State Gas Tax (Highway Users Tax Fund). This fund for highways in Colorado is primarily derived from the state gas tax, license fees, diesel tax, registration fees, and miscellaneous fees

State General Fund/Sales and Use Tax Funds SB1. The Colorado General Assembly passed Senate Bill 97-01 (SB 97-01) in 1997 to provide CDOT with an appropriation of 10.34 percent of the state's sales and use tax (considered to be motor-vehicle-related), only if the General Fund receives enough revenue. The General Fund must receive enough revenue to support the General Fund operating appropriations plus 6 percent growth, permanent statute appropriations,

SB 02-179/HB 02-1310 added the requirement that 10 percent of these funds, beginning in fiscal year 2003, be spent on transit-related capital improvements. CDOT has not received funds from

Federal Gas Tax Fund. Funds are allocated to CDOT for work on the state roadway system. CDOT receives approximately \$300 million per year from FHWA; the uses of these funds are specified in the federal legislation known as the Transportation Equity Act for the Twenty-first

• SB 02-179/HB 02-1310. Legislation was passed in May 2002 that allocates two-thirds of the excess general fund below the TABOR limit to the Highway Users Tax Fund and one-third to the capital construction fund. The new law provides that the revenues be paid to the state highway fund for allocation to CDOT for highway reconstruction, repair, maintenance, and capital expansion. However, this allocation can happen only if the General Fund's growth limit of 6 percent is satisfied and the SB 97-001 (10.34 percent) allocation is satisfied. The act also mandates that 10 percent of the SB 97-001 allocation be dedicated to transit and transit-related projects. It also allows the Transportation Commission to create a statewide tolling enterprise that has the power to impose tolls, issue revenue bonds, and exercise other powers necessary to carry out these purposes. A toll highway is defined as a new highway or additional lane capacity and related highway improvements. The toll highway cannot eliminate previously existing highway

Colorado State Infrastructure Banks (SIB). The General Assembly authorized CDOT to establish a SIB, an investment bank that issues loans and credit assistance to local governments or private entities for capital transportation improvements for highway, transit (bus and/or rail), and aviation projects. The SIB is capitalized with state and/or federal funds and acts as a revolving loan fund, using the interest income and repayment of principle to provide new loans. The Colorado SIB is the only state-run source of competitive funding. CDOT is not eligible to receive funding from this source, as it is dedicated to local governments and private companies.

- TEA-21 FHWA Discretionary Funds. The Transportation Equity Act for the Twenty-first Century (TEA-21) continued the discretionary funding programs already in place for specific types of transportation modes, which are allocated annually by Congress. This is an ongoing program that is not anticipated to change significantly during its reauthorization. Each year CDOT applies for Federal Discretionary Funding through the congressional process.
- The following are sources of funds:
 - Interstate Maintenance Discretionary (IMD). The IMD program provides funding for resurfacing, restoration, rehabilitation, and reconstruction on the interstate system. Projects selected for funding under this program are funded at a 90 percent federal share. Projects for added lanes (excluding high-occupancy vehicle (HOV) lanes and auxiliary lanes) are funded at 80 percent.
 - Public Lands Highways (PLH) Discretionary. The PLH discretionary program provides funding for any kind of transportation project eligible for assistance under Title 23, US Code that is within, is adjacent to, or provides access to federal public land areas. Projects selected for funding under this program are funded at a 100 percent federal share.
 - **Discretionary Bridge Program (DBP).** The DBP provides funds for the replacement or rehabilitation of deficient highway bridges with estimated costs greater than \$10 million or twice the amount of the Highway Bridge Replacement and Rehabilitation Program funds that the state has received and/or seismic retrofit of highway bridges. Projects under this discretionary program are funded at an 80 percent federal share.
 - **Transportation, Community, and System Preservation (TCSP).** The TCSP discretionary program provides grants to states, local governments, and MPOs to plan and implement strategies that improve the efficiency of the transportation system; reduce environmental impacts of transportation; reduce the need for costly public infrastructure investments; ensure efficient access to jobs, services, and centers of trade; examine the private sector development patterns; and support these goals. There is no state/local share requirement for this program; projects can receive up to 100 percent federal funding.
 - **Intelligent Transportation System (ITS).** The ITS discretionary program provides funds to accelerate the integration and interoperability of ITSs to improve transportation efficiency, promote safety, increase traffic flow, reduce emissions of air pollutants, improve traveler information, enhance alternative transportation modes, build on existing intelligent transportation system projects, and promote tourism. For a single project, the federal share of ITS funding cannot exceed 50 percent, and the total federal share cannot exceed 80 percent.
 - TEA-21 FRA High-Speed Rail. TEA-21 authorized the Secretary of Transportation to provide funds to public agencies for planning high-speed rail corridors including the acquisition of right-of-way (up to 50 percent), or development of high-speed technologies (up to 100 percent). The authorization covered the fiscal years of 1998 to 2001 and is a General Fund authorization, meaning that the funds must be available in an Appropriations Act before the program can be implemented. Appropriation acts in fiscal years 2003 and 2004 contained language provisions for the allocated funds to remain.
 - Railroad Rehabilitation and Improvement Financing. The Federal Railroad Administration (FRA) may provide direct loans and loan guarantees to railroads, state and local governments, government-sponsored authorities and corporations, and joint ventures that include at least one existing railroad under TEA-21. This includes the acquisition, improvement, and/or rehabilitation of intermodal or rail equipment and facilities; the refinancing or outstanding debt incurred for these purposes; and the development or establishment of new intermodal or railroad facilities.

- engineering, project justification, and local financial commitment.
- grants authorized by the FAA.
- provided.

5.3.3.3 Potential Increase of Existing Sources

To gain additional funding from any of the sources listed below, the following increases would have to be approved by a public vote, by action of the Colorado General Assembly, or by a combination of the two.

- local governments.
- (discussed above) to inflation.
- Assembly could pass legislation to raise the fee.
- class) to the county in which the vehicle is registered.
- licenses in the state of Colorado.
- state.
- implementation in the Corridor.

Chapter 5. Financial Considerations

FTA New Starts Program—5309 New Starts Funds. Any fixed guideway system that is dedicated to mass transportation and occupies a separate right-of-way or rail line may be eligible for funding under the FTA 5309 New Starts Program. This includes both rail options and facilities dedicated for HOV (such as buses or vans). The eligibility of individual projects for funding is determined by three categories of criteria: alternatives analysis and preliminary

Aviation Funds (Discretionary). Federal Aviation Administration (FAA) Entitlement and Discretionary Funding is allocated to airports annually. Current funding is planned through 2007. Additional funds for access utilizing public transportation may be available under

• Transportation Infrastructure Finance and Innovation Act (TIFIA). TIFIA provides loans and credit assistance to large-scale transportation projects of national significance, more than \$100 million or 50 percent of the state's annual allocation of federal-aid funds, whichever is less. A cap of 33 percent of total project costs is placed on the credit assistance

• Motor Fuel Tax. Raise the current \$0.22 tax placed on each gallon of fuel (gasoline or diesel) sold in Colorado. Revenues generated by the motor fuel tax are split 60/40 between the state and

• Index Motor Fuel Tax. The Colorado General Assembly could index the state motor fuel tax

• Vehicle License Fee. Vehicle licensing requires that a fee be paid based on the weight of the vehicle. (The fee is, therefore, different for each type of vehicle.) The Colorado General

• Specific Ownership Tax. Vehicle owners pay a tax on their motor vehicles (based on vehicle

• Driver's License Fees. Fees are applied to the acquisition of general and commercial driver's

• **TABOR Surplus.** Voters in 1992 amended the state constitution to limit the state's revenue growth to the sum of the rate of inflation plus population growth from the previous fiscal year. Excess TABOR revenue must be refunded to the taxpayers. This, however, could be changed by public vote to allow the retention of the TABOR surplus for use on transportation projects in the

RTD Sales and Use Tax. Currently, the RTD levies a 0.6 percent sales tax within the district. RTD has received authorization from the Colorado General Assembly to place an increase on the public ballot and then must receive voter approval to raise the tax. Funds can be applied to only RTD priority capital projects. Only the Jefferson County portion of the Corridor is in the Regional Transportation District, and because current RTD funding does not allocate dollars to this Corridor, this funding is not assumed to be available for major alternatives under study for

5.3.3.4 User Pricing

User pricing options are measures that could be implemented to generate funds based on revenue secured by applying a fee or toll to those who travel in the Corridor.

- High Occupancy/Toll (HOT) Lanes. HOT lanes typically allow single-occupancy drivers to use HOV lanes (those that normally require two or more people in a vehicle) in return for a fee. The average vehicle occupancy on weekends in urban corridors is about 1.1. On this corridor, however, higher HOV occupancy limits would have to be considered, since the average occupancy on weekdays is already about 2.5. Only new lanes could be tolled under current state legislation, including an additional highway lane or reversible lanes.
- General Toll Lanes. SB 02-179/HB 02-1310 allows the Transportation Commission to create a statewide toll authority; refer to the description under section 5.3.2.
- **Tunnel Tolling.** Additional tunnel bores constructed either by CDOT/FHWA or under a public and private partnership at the EMJT and/or the Twin Tunnels and/or the Dowd Canyon Tunnel may be eligible for tolling. As with the tolling of highway lanes, only new capacity can be tolled under current state legislation. As mentioned in the previous section, federal law allows existing tunnels to be tolled as well.
- Colorado Tolling Enterprise. The Colorado Tolling Enterprise (CTE) Preliminary Traffic and Revenue Study is exploring several scenarios for tolling along the I-70 Mountain Corridor, including tolling laneage between the Eisenhower-Johnson Memorial Tunnels (EJMT) and Floyd Hill and tunnel bores at the EJMT and Twin Tunnels. While federal law allows for the tolling of both new and existing tunnel bores, state legislation allows only for the tolling of new bores at the tunnels. Preliminary revenue estimates indicate that tolling alone would not generate sufficient monies to build any of the alternatives under study in the PEIS. Any tolling revenues that could be generated along the Corridor would be a supplement to the funds allocated by CDOT.
- **Congestion Pricing.** Additional capacity could be tolled based on a sliding scale (a higher toll at the peak travel times) or based on vehicle occupancy. The new lanes could be constructed either by CDOT/FHWA or under a public and private partnership.
- Transit Fares. Any transit system that might be implemented in the Corridor would collect a fare from the passengers. However, because fares generally do not generate enough revenue to completely cover the operating and maintenance costs, it would be unrealistic to assume that the fares would be able to contribute to the capital costs.
- **Rental Car Tax.** A public vote could create a charge on every rental car rented in Colorado; the revenue generated could be applied to transportation improvements.
- **Gross Ton Mile Tax.** A fee applied to trucks based on weight could be assessed on trucks traveling in the Corridor. A similar tax was in place in Colorado until the mid-1980s, at which time it was replaced by a registration fee. This fee could be reinstated to generate funds for transportation improvements but would require a public vote.

5.3.3.5 Innovative Sources

Options for innovative sources include the following:

• Public and Private Partnerships. The Colorado General Assembly has given CDOT the authority to become involved in Public Private Initiatives (PPIs). PPIs are joint partnerships that could be formed between a private entity and CDOT to implement transportation projects funded mostly by private dollars. The maximum public dollars invested in any one project is limited to 10 percent by current law. Proposals received to date by CDOT focus on increased capacity to existing roadways paid for by tolls. If a private entity is awarded a project, the financing and

design/construction are the responsibility of that entity. Before the initiation of construction, CDOT must complete the appropriate environmental studies and clearances, as well as meet applicable state and federal requirements.

- service. Implementation of such a tax requires approval by public vote.
- could be applied if approved by public vote.
- transportation improvements.
- not funded.

5.3.3.6 Corridor-Specific Sources

Corridor-specific sources are those funding sources that, unlike the sources discussed above, apply only to limited geographic areas. These limitations are determined by the jurisdictions of local governments or by tax region. In effect, the sources below could potentially be implemented on a localized scale to fund specific projects or portions of a project within the jurisdiction from which the dollars were generated. Corridor-specific sources would require voter approval, constitutional amendments, or both. This information is intended for informational purposes only and should in no way be interpreted as an advocacy statement on behalf of any of these options.

- for use in the Corridor.
- generated could be applied to improvements in the Corridor.
- which the revenue generated could be applied to improvements in the Corridor.
- could be applied to improvements in the Corridor.

5.4 Estimated Costs for Alternatives and Funding Scenarios

Table 5-1 contains specific information as to the applicability of the sources to the modes of transportation under study. Figure 5-1 depicts the range of alternatives under study, estimated capital costs, and the funding sources and programs that could potentially be used to fund each alternative. An in-depth description of each alternative can be found in Chapter 2, Description and Comparison of Alternatives. Included in Table 5-1 are the potential application, dollar amount, and potential timeframe for securing funds. The existing sources are shown, as well as user pricing options,

Statewide Transportation Excise Tax. An excise tax could be implemented statewide, and the revenue generated could be allocated to transportation improvements. A Colorado excise tax is a tax imposed within the state on the production, sale, or consumption of a commodity or use of a

Removal of Exemptions to State Sales Tax. Gasoline products are currently exempt from sales tax, and the storage or consumption of gasoline is currently exempt from use tax. These taxes

Vehicle Miles Traveled Tax. Public vote could approve a tax applied to vehicle owners based on the number of miles driven each year. Monies raised from this tax could be used for

Light Density Rail Line Pilot Project. This federal program authorizes the Secretary of Transportation to provide grants to states with state rail plans and to fund pilot projects involving capital improvements to and rehabilitation of publicly and privately owned rail line structures. The grants could be authorized by legislation from the General Fund. This program is currently

• Local Tax Increase. Local taxes could be increased to generate revenue specifically designated

• **Special Taxing Districts.** New taxing districts could be created from which the revenue

Recreation Use Surcharge. A fee could be attached to recreational activities in the Corridor.

Real Estate Transfer Tax. A tax on real estate sales in the Corridor could be implemented from

Rural Transportation Authority. A Rural Transportation Authority could be created in areas where one does not currently exist (most of the Corridor). The Authority could implement a sales and user tax, motor vehicle registration fee, and/or a visitor benefit tax to generate revenue that

innovative sources, and Corridor-specific measures. The potential revenue amounts shown for the user pricing options, innovative sources, and Corridor-specific measures are based on the professional judgment of the Committee and could be changed by adjusting the tax or fee amount associated with each option. In addition, many of the sources require either legislation or voter approval, the likelihood of which cannot be ascertained in this document.

Two key elements related to every potential funding source are the mode to which the source can be applied and the likelihood of securing each source. Of the funding sources identified, some are currently applicable to any mode (such as highway or transit). Several, however, are tied only to highway improvements, with only a few exclusive to transit improvements. Applicability is shown in Figure 5-1 and Table 5-1. These limitations on how the monies may be applied directly influence the amount of dollars available for each mode and, therefore, the financial viability of each alternative. Chart 5-1 through

Chart 5-5 are companion graphics that indicate the potential amount of revenue that could be generated from each source listed in Table 5-1.

An additional consideration is the operation and maintenance (O&M) costs of the alternatives under study. The O&M costs differ among alternatives and need to be included in the financial considerations to assess the total expense of the alternative and determine whether there is a viable funding source that can pay for the upkeep of the facility.

Review of the O&M costs for the existing Corridor indicate that approximately \$17,000 is required annually to maintain each lane-mile. For this study, a lane-mile is calculated as follows: (total pavement width/12) * length in miles. As an example, if there are two 12-foot lanes with 4-foot and 10-foot shoulders, there are 3.17 lane-miles per mile. This amount includes labor, equipment, and materials used by CDOT maintenance forces, which equals about \$12,000 per lane-mile annually for this corridor costs vary among areas in the state based on factors such as snow removal. It also includes the cost of maintenance-related projects managed by the CDOT Region 1 and Region 3 traffic and design / construction management programs. Approximate yearly costs for these projects include \$240,000 for striping and traffic control; \$25,000 for signage; \$1 million for bridge rehabilitation; and \$3 million for resurfacing. Nonannual maintenance for the existing facility also includes approximately \$30 million every 30 years for lights and electronic message boards at EJMT. There are approximately 950 lane-miles currently being maintained and operated by CDOT in this Corridor at a cost of slightly more than \$17 million per year.

Using the above costs, the O&M costs of additional roadway and tunnel capacity can be calculated. The estimated O&M costs take into consideration an economy of scale for maintaining an additional bore at the EJMT but do not include speculation on the future development of O&M methods that could reduce the cost of labor, equipment, and materials. It is assumed that the costs associated with the operation and maintenance of additional highway capacity on I-70 would be the responsibility of CDOT and would need to be paid for out of CDOT's Highway Maintenance and Operations Programs.

The Reversible/HOV/HOT Lanes alternative would include \$2 million in extra O&M costs above and beyond the cost to maintain the Six-Lane Highway (55 or 65 mph) alternatives. These costs would include monitoring traffic flow, switching traffic direction, and maintaining electronic equipment. This cost would also cover tolling operations, which would be one option for operating this facility. If the reversible lanes facility were not tolled, then the O&M costs would be somewhat lower.

It is assumed that the transit O&M costs would be borne by the entity running the system and that any revenue derived from fares would help to offset the O&M costs of the facility. The amount by which the transit O&M costs exceed projected revenues is defined as the operations subsidy. Annual transit operations subsidy figures (\$ million) were calculated by determining the potential annual revenue from the fares at 10 cents per mile and subtracting it from the transit O&M costs (which include the cost of the fuel consumed (kwh or gallons), labor costs (crew, station, and dispatch staff), and the casualty and liability insurance for each facility.)

Table 5-2 shows the O&M costs associated with each alternative.

	Table 5-1. Potential Funding Sources						
Eligible Funding Source	Potential Applications (Mode-Specific)	Potential Dollar Amount	Potential for Securing Funds				
CDOT 7th Pot Program	Project-specific (policy decision)	Total = \$2.2 billion; I-70 = \$266 million	High				
State Highway Tax Fund	Highway						
Sales Tax Funds SB1	10% flex	\$1.6 billion total					
FHWA Program (includes regular program)	Bond debt	\$628 million over 20 years	Allocated toward debt				
General Funds	Project-specific by yearly designations	\$2.6 billion statewide	Variable				
Other Regional Priority Program	Any application	\$40,000 per year combined R-1 and R-3	High				
CDOT 2003 Strategic Program		This program has a	not yet been initiated				
TEA-21 FHWA Discretionary Funds (through 2003)							
Bridge	Highway	\$100 million nationwide per year; Colorado allocation 1998 = \$582,623; 1999 = \$3.78 million; 2000 = \$0; 2001 = \$500,000; 2002 = 0; 2003 = 1,490,250	Congressional earmarking				
Public lands	Highway	\$69 million nationwide per year; Colorado allocation 1999 = \$4.75 million; 2000 = \$4.22 million; 2001 = \$4 million; 2002 = 3,700,000; 2003 = 1,364,440	Congressional earmarking				
Interstate maintenance	Highway	\$100 million nationwide per year; Colorado allocation 1999 = \$32 million; 2000 = \$10 million; 2001 = \$4.4 million; 2002 = 4,858,036; 2003 = 4,470750	Congressional earmarking				
Transportation, community, and system preservation	Highway	\$275 million nationwide per year; Colorado allocation 2000 = \$400,000; 2002 = 4,708,710; 2003 = 0	Congressional earmarking				
ITS			Congressional earmarking				
TEA-21 FRA High Speed Rail (1997–2003)	Rail	Nationwide planning 1997 = \$45 million; 1998–2001 = \$10 million; 2002/3 funds may be available	Secretary discretion				
Railroad Rehabilitation and Improvement Financing	Rail	\$3.5 billion overall in loans and loan guarantees. Proposals have been received and are under review by the FRA.	FRA approval				
FTA New Starts Program	Transit infrastructure with fixed guideway element (HOV lanes, bus-only lanes, rail)Maximum \$500 million per project or \$60 million per year; Colorado allocation 2001 = \$55 million; 2003 = \$70 million; 2004–2007 = \$80 million; 2008 = \$50 million		Funding program very competitive				
5309 Bus Program	Generally for the expansion of transit	\$8 to \$10 million statewide per year; 80% match	Low for Corridor unless for a local project, although h discrete projects with independent utility (for example park-and-ride)				
Aviation Funds							
Eagle County Airport	FAA entitlement and discretionary funding	\$25.5 million (2002–2007)	High				
Hayden Airport	FAA entitlement and discretionary funding	\$25.5 million (2002–2007)	High				
Aspen Airport	FAA entitlement and discretionary funding	\$25.5 million (2002–2007)	High				
TIFIA (DOT loan)	Any	33% project cost; \$10.68 million nationwide; \$100 million minimum; \$30 million ITS; ½ state previous appointment	CDOT has never utilized before				
Reallocation of General Funds							
Increase SB 97-01 diversion from 10.34% to 15% of sales tax	Highway (10% transit eligible)	\$3.5 billion per 20 years	Medium				
Capital Construction Fund/Excess General Fund	Any	\$461 million per 20 years	Medium				
Current Sources (for potential increases)							
Motor fuel tax	Highway	@ \$0.03 per gallon = \$1,500 million per 20 years	Medium (voter approval)				
Index motor fuel tax	Highway	@ 3.2% rate: \$300 million per 20 years	Low (voter approval)				
Vehicle registration fees	Highway	@ \$3 per vehicle = \$240 per 20 years	Medium (voter approval)				
Specific ownership tax	Highway	@1% per year = \$126 million per 20 years	Low (voter approval)				
Driver's license fees	Highway	@ \$1 = \$20 million per 20 years	Low (voter approval)				
TABOR surplus	Any	Unknown to \$2 billion per 20 years	Medium (voter approval)				
RTD sales and use tax	Transit: metro	0.4% = \$2.8 billion per 20 years	Low (voter approval)				
Rental car taxes	Highway	\$200 to \$240 per 20 years	Medium (voter approval)				

	Timeframe for Securing Funds
	In place
	Variable
	Yearly
	Yearly appropriation
	RTD secures funding for one project per federal authorization (6 to 7 years); funding available yearly
ough high for ample, local	Congressional earmarking; FTA assigns funds to each agency
	June application; receive funds October/November
	June application; receive funds October/November June application; receive funds October/November
	Repay within 25 to 35 years after project completion
	Variable
	Variable

Eligible Funding Source	Potential Applications (Mode-Specific)	Potential Dollar Amount	Potential for Securing Funds	Timeframe for Securing Funds
Jser Pricing				Variable
Public and private initiatives	Any	\$1.6 billion in metropolitan Denver	High, Denver metropolitan area	
HOT lanes	Highway	\$300 million per 20 years	High, Denver metropolitan area	
Congestion pricing	Any		Low (voter approval)	
Tolling (proposed legislation)	Theoretically any mode	\$600 million per 20 years estimated	High	
Gross Ton Mile Tax	Highway	\$600 million per 20 years	Low	
EJMT tolls	Tunnels (existing and new)	@ \$1 or \$3 per vehicle = \$14 to \$42 million per year	Medium (voter approval)	
nnovative Sources				Variable
Statewide transportation excise tax (retail, contracting, utilities, rentals)	Any	@ \$0.005 (partial base) = \$6 billion per 20 years	Low (voter approval)	
Removal of exemptions to state sales tax	Any	\$1.2 billion per 20 years (increase at 1/3)	Low (voter approval)	
Vehicle miles traveled tax	Highway	@ \$0.002 per mile = \$1.7 billion per 20 years	Low (voter approval)	
Corridor-Specific Sources Rural Transportation Authority				Variable
Sales and User Tax: 1% maximum	Any	\$400 to \$500 million per 20 years	Low (voter approval)	
Motor Vehicle Registration Fee: \$10	Highway	\$30 million per 20 years	Medium (voter approval)	
Visitor Benefit Tax: \$5 on overnight guests	Any	\$180 to \$240 million per 20 years	Low (voter approval)	
Local tax increases	Any	\$100 to \$200 million per 20 years	Low (voter approval)	
Special taxing districts	Any	\$250 million per 20 years	Low (voter approval)	
Real estate transfer tax	Any	@ \$1 per \$1,000 = \$60 million per 20 years	Low (voter approval)	
Recreation use surcharge	Any	\$0.75 per person = \$200 million per 20 years	Low (voter approval)	

Boxes indicate if a funding source is applicable to that alternative.												F	Fundi	ng
Source is applicable to that alternative							CDOT Funds				DOT Funds			
Source is applicable to only highway portion of that alternative													s ve	_
Source is applicable to only transit portion of that alternative							Existing Sources	User Pricing*	Innovative Sources		Exist	ting Sources	Innovative Sources	i
			21 F.I.I.I.I.I.I.I.I.I.I.I.I.I.I.I.I.I.I.I	<u>15-13-10</u>	el follogies follogies formes	 	7th Pot	Tele Discontinue	a morent market and a second and a	5	7th (60) 10) 10) 10) 10) 10) 10) 10) 1	7 😹		
Alternative	Approximate Capital Cost (Millions)		20101 F [11] 2012 F [11] 2013 F [11]	High Draw High	Connel 1011	Publica	All and a second se	Definition of the second s	Faling	Lice Rehav	Red Long		Drec [[]	Indianes (
No Action		• • •	•][[•		• • • • •	•						
Minimal Action	\$1,300	• • •	•		•		• • • • •	• • • •			••	• • • • •	, •	
Rail with IMC	\$4,910	••	•		•			• •	•	•	•	•	• •	
Advanced Guideway System (AGS)	\$6,150	••	•		•			• •	• •	•	• •	•	• •	
Dual-Mode Bus in Guideway	\$3,470	••	•		•			• •			• •	•	• •	•
Diesel Bus in Guideway	\$3,260	••	•		•			• •			•	•	••	•
Six-Lane Highway 55 mph	\$2,410	• • •	•	• • •	•		• • • • •	• • •			• •	• • • • •	•	
Six-Lane Highway 65 mph	\$2,650	• • •	•	• • •	•		• • • • •	• • •			• •	• • • • •	•	•
Reversible/HOV/HOT Lanes	\$2,520	• • •	• •	• • •	•		• • • • •	•			• •	• • • • •	•	
Combination - Six-Lane Highway with Rail/IMC	\$6,500		• •		•						••	• • • • • •	• •	•
Combination - Six-Lane Highway with AGS	\$8,640		• •		•						••	• • • • • •		•
Combination - Six-Lane Highway with Dual-Mode Bus in Guideway	\$4,380		• •		•						••	• • • • • •	• •	•
Combination - Six-Lane Highway with Diesel Bus in Guideway	\$4,170		• •		• •						••	• • • • • •	• •	•
						. • L				•	· <u> </u>			< 💻

* User Pricing option could potentially be applied to any mode.

ng Sources

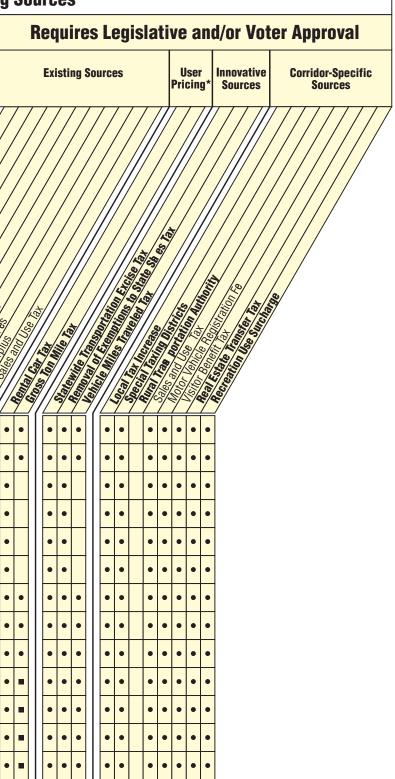


Figure 5-1. Alternative Capital Cost and Potential Funding Source

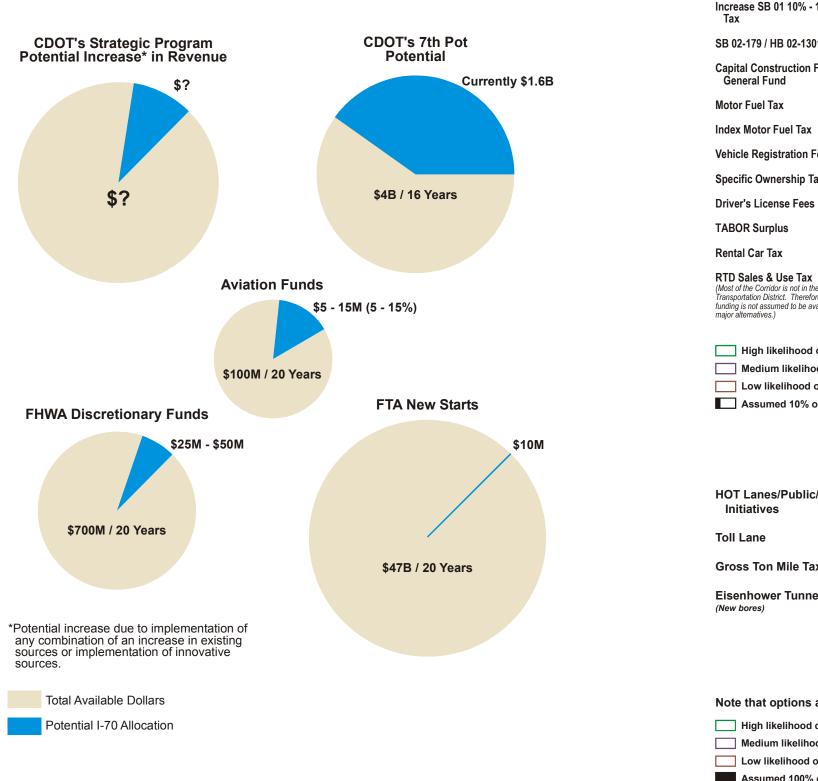
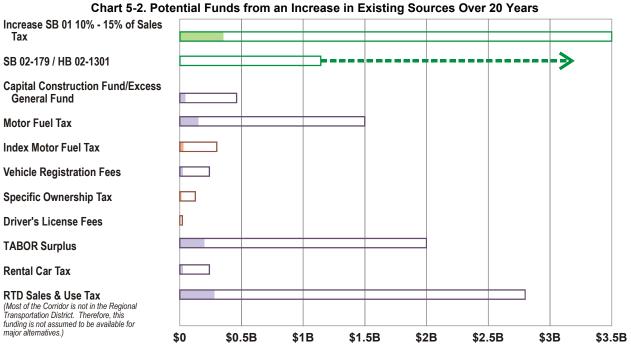


Chart 5-1. Funding Sources Over 20 Years



High likelihood of securing the source statewide

Medium likelihood of securing the source statewide

Low likelihood of securing the source statewide

Assumed 10% of fund allocated to the Corridor

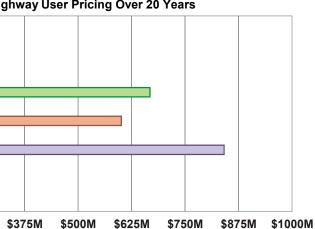
Chart 5-3. Potential Funds from Highway User Pricing Over 20 Years

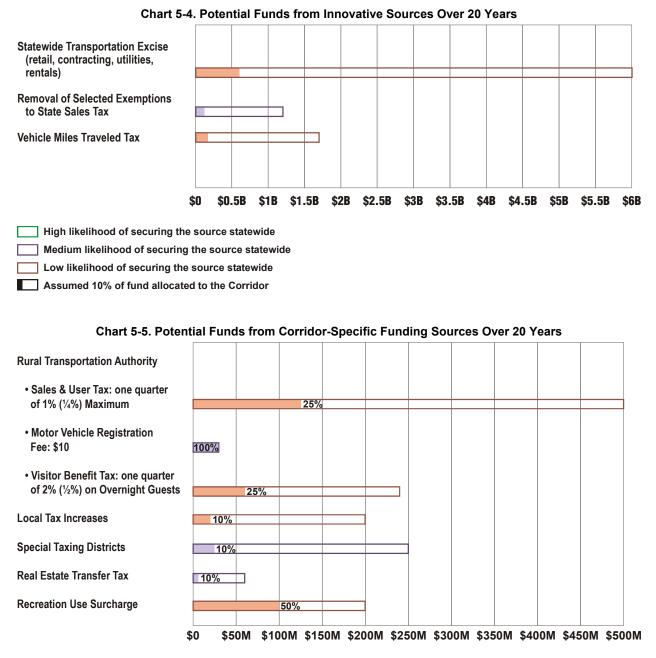
HOT Lanes/Public/Private Initiatives Toll Lane Gross Ton Mile Tax Eisenhower Tunnel Tolls (New bores) \$0 \$125M \$250M \$

Note that options are exclusionary - not all could be implemented simultaneously.

- High likelihood of securing the source
 Medium likelihood of securing the source
 Low likelihood of securing the source
- Assumed 100% of fund allocated to the Corridor

Chapter 5. Financial Considerations





High likelihood of securing the source

Medium likelihood of securing the source

Low likelihood of securing the source

Assumed percentage of fund allocated to the Corridor

Alternative	Capital Costs (\$ Million)	O&M Costs Highway / Transit (\$ Million, Year 2025)	Transit Fare Box Revenue (\$ Million, Year 2025)	Annual Transit Subsidy (O&M – Fare) (\$ Million, Year 2025)
No Action	N/A	17 / N/A	N/A	N/A
Minimal Action	1,308	17 / 31	16	16
Rail with IMC	4,915	17 / 135	83	52
AGS	6,149	17 / 180	86	95
Dual-Mode Bus in Guideway	3,468	17 / 94	74	20
Diesel Bus in Guideway	3,264	17 / 99	69	30
6-Lane Highway 55 mph	2,405	20 / N/A	N/A	N/A
6-Lane Highway 65 mph	2,648	25 / N/A	N/A	N/A
Reversible/HOV/HOT Lanes	2,520	22 / N/A	N/A	N/A
6-Lane Highway with Rail and IMC	6,400	20 / 142	88	54
Build Transit and Preserve for Highway	6,147	17 / 135	83	52
Build Highway and Preserve for Transit	2,759	20 / N/A	N/A	N/A
6-Lane Highway with AGS	8,540	20 / 200	95	105
Build Transit and Preserve for Highway	8,321	17 / 180	86	95
Build Highway and Preserve for Transit	2,601	20 / N/A	N/A	N/A
6-Lane Highway with Dual-Mode Bus	4,275	20 / 83	75	9
Build Transit and Preserve for Highway	4,008	17 / 94	74	20
Build Highway and Preserve for Transit	2,640	20 / N/A	N/A	N/A
6-Lane Highway with Diesel Bus	4,071	20 / 93	72	21
Build Transit and Preserve for Highway	3,803	17 / 99	69	30
Build Highway and Preserve for Transit	2,640	20 / N/A	N/A	N/A

O&M = operation and maintenance; N/A = not applicable

5.5 Conclusions

The typical planning horizon for transportation studies and CDOT's funding forecasts is 20 years; this Draft PEIS has used this 20-year horizon for the financial consideration of the funding sources and capital costs of the alternatives. It should be noted that some of the alternatives could be implemented over a time period that exceeds 20 years. Should a Transit alternative (or Combination alternative) be the preferred alternative, bonding may be required because building pieces of the system over time may not result in a usable facility until the entirety—or at least connections between major destinations with supporting infrastructure—are completed. Bonding would allow the entire system to be built at once; however, it would require voter approval and the dedication of a significant funding source.

The No Action alternative is assumed to be funded under existing CDOT sources; the components are projects that have been identified and planned for independently of the PEIS. In examining the costs

associated with the project alternatives and the anticipated funds available to CDOT, it becomes apparent that to afford the capital-intensive improvements, additional funding sources must be sought. These include the innovative sources, user pricing, Corridor-specific sources, and/or increases in the existing sources discussed in this chapter as well as any additional sources that become available or are not identified in this document. The monies that could be generated to implement improvements in the Corridor cannot be ascertained at this stage in the process. Investigation into the potential for each funding source to be implemented will need to be further examined to realistically determine the likelihood of generating sufficient funds for each alternative. Investigation of the sources and programs described in the preceding text, however, offers an indication of the range that could be generated.

A conservative estimate would center on the amount the Corridor could receive from CDOT's existing 7th Pot Program. **The current estimate of funds available for the Corridor from the 7th Pot Program is \$1.6 billion.** The Minimal Action alternative, which is the least expensive option after the No Action alternative, is estimated to cost \$1.31 billion.

Reviewing the other potential sources and programs allows the creation of numerous funding scenarios that vary depending on how the funding mechanisms are combined. A less conservative outlook (other than only anticipating monies from CDOT's existing 7th Pot Program) results in a larger total budget from which to draw monies for improvements in the Corridor. An optimistic funding scenario could be created by combining different types of funding sources and programs over the next 20 years to generate \$1.6 billion to \$2.2 billion. Table 5-3 illustrates a combination of sources and resultant revenue that the Committee felt was reasonable and could be attracted to the Corridor only. Tolling new capacity is possible under current legislation.

Table 5-3. Potential Components for a \$1.6 Billion to \$2.2 Billion Funding Scenario

Source	Amount of Revenue (Millions)
CDOT's Strategic Funding Program(s)	\$ 1,600
FAA and FHWA Discretionary Funds and FTA New Starts	\$ 0 — \$ 50
Tolling (highway or tunnel)	\$ 0 — \$ 250
Undefined Innovative Source(s)	\$ 0 - \$ 300

This scenario combines existing sources with very competitive federal funds, user pricing, and some application of an innovative funding source. Although this scenario, raising \$1.6 billion to \$2.2 billion over the next 20 years, is an optimistic forecast, it is still not enough money to complete the major capacity improvements under study. Additional sources would need to be made available to fully fund Transit, Highway, or Combination Highway/Transit alternatives.

There are always unanticipated shifts at the state or national level that could result in changes to funding sources and programs that could be applied to the Corridor. This includes the creation of sources or programs that are specifically for transit or that focus on the improvement of interstate facilities as a part of homeland security.

The cost of the preferred alternative will drive the combination of funding sources that are pursued for implementation; the more expensive alternatives will require that numerous measures are put into effect or that the selected measures are those that generate sufficient amounts of revenue. For instance, the taxes, fees, and tolls shown could be raised to generate a higher amount of revenue, although the exact pricing must consider the change in demand as the price is raised or lowered. If a more expensive option is selected as the preferred alternative, a more aggressive and far-reaching

effort will need to be made to secure the appropriate funding. It should also be noted that the timeframe for implementing improvements in the Corridor ranges from options that could be initiated in the short- to mid-term to those that may not be implemented until further in the future, and alternatives that may be implemented in phases based on the completion of the Tier 2 studies, associated environmental clearances, design and construction, and the timing of the actualization of the need for the improvement. The timing of initiating the different alternatives is discussed in Chapter 2, Description and Comparison of Alternatives.

Chapter 5. Financial Considerations

This page intentionally left blank.

Back to Table of Contents