EXECUTIVE SUMMARY

INTRODUCTION

The *"Colorado Intercity and Regional Bus Network Plan – 2014" (Network Plan)* has been prepared to guide the development of bus services operating in Colorado that travel between cities and regions. The *Network Plan* was developed as part of the long-range planning process undertaken by the Colorado Department of Transportation (CDOT) and will be integrated into the State Transit Plan and the 2040 Statewide Transportation Plan, both now underway.

The *Network Plan* is a comprehensive long-range plan for regional and intercity bus services in Colorado. It includes as appendices two major sub-plans, Appendix A: I-70 Corridor Analysis and Appendix B: Interregional Express Service Plan. This Executive Summary provides an overview of the *Network Plan* document as well as Appendices A and B.

This *Network Plan* is an update of a 2008 plan. This update emphasizes the development of regional services that meet a wide range of needs, including connections to the national intercity bus network and air or rail modes of travel, employment travel requiring regional travel, and essential travel needs from the far corners of Colorado. It recognizes that the intercity schedules are not effective at meeting the diverse needs of Colorado residents and that a range of services will be needed to provide viable alternatives to meet these travel needs. It identifies a set of goals, objectives, strategies, and service standards to guide the development of long-distance transit services. The recommended *Network Plan* provides a framework for developing services addressing diverse travel needs and the opportunities to build upon extensive regional services provided by local entities.

The major changes in the policy context for Colorado regional and intercity services have occurred in the state program. The creation of a new Division of Transit and Rail within the Colorado Department of Transportation with significantly broader powers, combined with availability of state FASTER funding that can be used for regional or interregional services, creates a different environment for consideration of transit needs for regional or intercity connections.

KEY STUDY ISSUES

Key study issues emerged through various means, including discussions with CDOT staff, comments from intercity and transit operators in different forums, and a review of what was implemented in the last plan, what was not, and looking at why some plans did not come to fruition. Key issues include:

- The need for an agency to take a lead role in connecting the local transit systems in Colorado emerged since the last plan was developed. Local agencies were not able to sustain the Front Range Express (FREX) commuter bus operating from Colorado Springs to Denver. It ceased operation despite solid ridership.
- As part of this study, CDOT is developing a plan to implement interregional services to connect local transit systems and major activity centers. This will result in CDOT becoming a transit operator, a role that it has not had in the past.
- The decision to use Colorado FASTER funds for operations provides opportunities and policy issues to consider.
    - With this funding opportunity, decisions are needed on how best to allocate FASTER funds to support the network of services in Colorado, while still maintaining critical capital funds. This is a policy discussion that is occurring with a broad group of stakeholders based on information developed in the *Network Plan* and other Division of Transit and Rail activities.
- The need for regional services that are oriented to travel needs within Colorado. These are services that would enable residents to make a one-day trip to a major city for a variety of purposes, including accessing medical and governmental services, as well as accessing air travel.

Funding remains a key issue. The costs of providing the services identified in the *Network Plan* are substantial. The *Network* Plan points out the importance of supporting the substantial private sector investment in long-distance transit services that exists today for those services that can be operated at a profit. As policies are developed it is important that the impact of the private sector operators be considered. Colorado's subsidized transit services are funded primarily by local entities and, in the rural areas, Federal Transit Administration (FTA) funds administered by CDOT. Developing increased funding will necessarily be a partnership between CDOT and local entities.

STAKEHOLDER INVOLVEMENT

A Technical Advisory Committee (TAC) provided guidance for the overall plan. The TAC assisted in identifying needs, providing perspective on how to address the needs, and reviewing goals and objectives and technical reports on existing conditions, demand, draft network plan, and policy recommendations.

A Technical Advisory Group (TAG), served in a similar role for the I-70 Corridor Analysis. Participants included public and private I-70 Corridor providers and representatives of jurisdictions along the corridor.

Finally, a subcommittee of the Transit and Rail Advisory Committee supported the development of Interregional Express bus service. This subcommittee included representatives of operators along the north and south I-25 corridors and the I-70 corridor and met throughout

the study to address both policy and implementation aspects of developing Interregional Express bus services.

Public involvement activities were important to the results of the *Network* Plan and included:

- Meetings of both the TAC and TAG held at the CASTA conference in May of 2013 to obtain a broader awareness of the study among providers throughout Colorado.
- A survey of intercity providers was conducted to identify issues they might face. Providers served on the TAC and with conference call-in capability were able to participate regularly.
- Presentation of a compendium of regional and intercity services at meetings held throughout Colorado's rural planning regions as part of the development of Regional Coordinated Transit and Human Services Transportation Plans.

NETWORK PLAN

EXISTING SERVICES

There are various types of long-distance services, with significant overlap between the categories. These types of services are defined and Chapter 2 provides an inventory of intercity, regular fixed route regional services, airport shuttle services, casino shuttle services, and Amtrak Thruway services. Within the national context, Colorado has a relatively high level of both regional and intercity services. A map of existing services is provided as **Figure ES.1**.

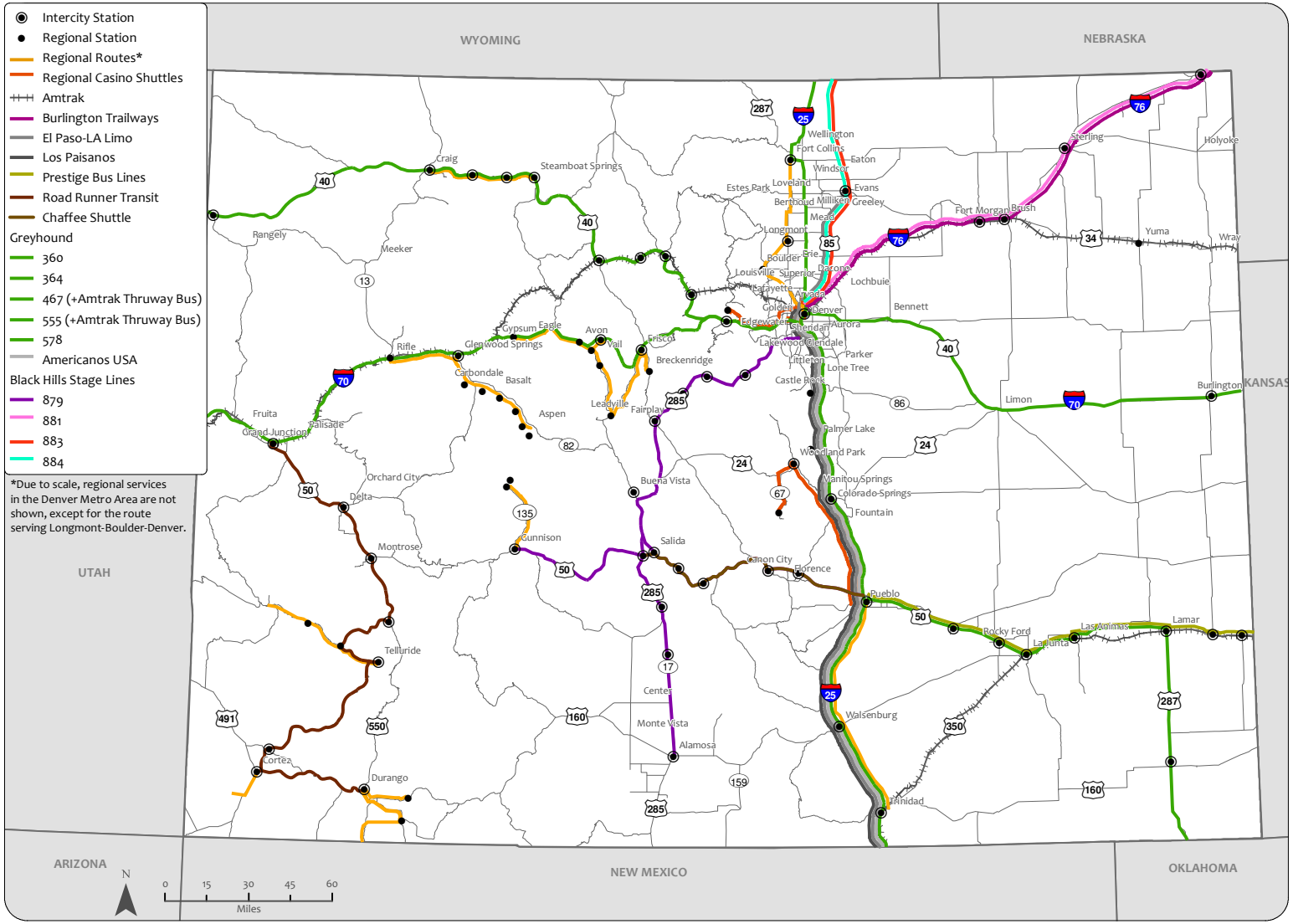
LEVEL AND QUALITY OF SERVICE

As in the 2008 Study, the I-25 corridor still has the greatest levels of intercity services. The I-70 corridor on the other hand has experienced a notable decrease in service levels, with the reduction in Greyhound frequencies (discontinuation of TNM&O services) between Denver and Grand Junction. Most major corridors in other parts of the state are served by one to two round-trips per day. While Colorado has lost service frequencies in some areas, the statewide network has grown in terms of geographic coverage. This result is attributable to the CDOT implementation of a rural intercity bus program using the FTA Section 5311(f) funding.

Productivity Considerations

This *Network Plan* focuses on productivity as an important basis for investment decisions and development of the intercity and regional bus network. Characteristics vary among different types of services. CDOT's Section 5311(f) program funds six corridors in the FY 14 year, with one round-trip daily in each corridor. Annually the program supports routes covering 1.5 million bus miles, with .9 million of them in Colorado.

Figure ES.1: Existing Services



The intercity routes supported by Colorado's 5311(f) program reflect $5.7 million in annual investment, with $3.2 million of the investment in the Colorado portions of the routes. The Colorado Section 5311(f) program invests $1.4 million in these services.

Fares are estimated to cover 48% of intercity bus expenses overall. The subsidy per passenger is an important standard, a composite of route productivity and efficiency measures. The top ranked routes are the Denver-Omaha route and the two segments connecting Alamosa and Gunnison to Denver, with subsidies of $23 and $30, respectively. At the other end of the spectrum are the routes serving Denver-Salt Lake City via US 40 and Salida-Pueblo with $74 and $87 subsidies per passenger, respectively. There is a need to increase ridership or otherwise strengthen route performance on routes with high subsidy per passenger levels.

The regional routes provided by local entities have annual operating expenses of $14 million and carry over 2.6 million annual riders. The average corridor length is just over 31 miles so passengers travel significantly shorter distances than on intercity bus services. The average cost per passenger is $6.42 with costs typically ranging between $5 and $16 per passenger trip.

The highest ridership corridors far outstrip the more typical corridors: Highway 82 between Aspen and Glenwood Springs carried over 1.5 million riders and the corridor between Vail and Gypsum carried about .75 million riders. FLEX service between Fort Collins and Longmont carried 184,000 riders, and two corridors, Rifle-Glenwood and Crested Butte-Gunnison, carried about 65,000 riders each. Several corridors carried about 25,000 riders: Leadville-Vail, Craig-Steamboat, and the combined Telluride-Placerville-Norwood corridor.

Role of the Private Sector

Colorado's regional services are a mix of publicly funded and private for-profit services. Estimates based on scheduled service miles show that profitable intercity lines represent approximately 78% of the total network miles operated. Subsidized routes represent the remaining 22% of the total network miles.

For the I-70 Corridor Analysis (Appendix A), an order-of-magnitude estimate of the systems operated by the public sector and private sector was calculated. Publicly funded services reflected an investment of $41 million annually in 2011, the last year for which data was available through the National Transit Database. An estimate of private for-profit services based on current (2013) schedules was estimated at a minimum of $58 million annually. The estimate of private services is believed to be quite low, as it does not reflect any of the trips where additional capacity (more vehicles or larger vehicles) are scheduled to respond to demand levels, particularly in regards to the airport shuttle services. It is estimated that private sector services constitute 58% to 70% of the total investment in public transit services in the corridor. Supporting private sector investment in the regional transit network will continue to be an important policy consideration.

NEED FOR SERVICES

Chapter 3 examines the extent to which Colorado's current bus network meets the public need for intercity and regional connections. It builds upon an analysis of demographic characteristics and the location of common destinations served by long-distance services. By overlaying the existing bus network with origin areas of higher relative need and potential destination points, the analysis reveals key intercity connections and gaps.

The analysis compared the current intercity bus network with locations that are potentially in need of service, based on population characteristics and potential destinations. Some cities and towns in the state that were served in 1980 no longer have service. In the more recent past, however, service has both been lost and gained. Much of the current network service appears to be responsive to identified need.

Colorado has a variety of regional services in both urban and rural areas. In the Denver Metro areas, regional services are an important part of RTD's network. In the rural areas, many regional transit services have developed around resort economies. Generally, such services were originally designed to meet the needs of employees traveling to and from work. People traveling to ski resorts for recreation are also an important part of the ridership in many corridors. While these systems may have begun catering to just the primary work trip, as they develop they tend to serve as the primary mode of transportation for employees, many of whom do not own autos. Both the ECO and RFTA systems are good examples of this trend.

Given the financing structure in Colorado, local areas have worked together to serve primary markets (generally employees) while leaving gaps between systems. Examples of such regional gaps are on US 34 from Greeley to Loveland and in the I-70 corridor from Glenwood Springs to Gypsum and from Vail to Frisco

GOALS, OBJECTIVES, AND SERVICE STANDARDS

Goals were developed in an iterative process that began with identification of needs at the first Technical Assistance Committee (TAC) meeting. The goals reflect four basic areas of concern:

- Provide for a network of services meeting multiple trip purposes
- Develop infrastructure to support intercity and regional bus services
- Provide for good quality services
- Provide for stable funding

Each goal includes the need statements to which it is responding and is followed by a series of objectives, strategies, and suggested standards for measuring progress.

The goals reflect the long-range orientation of this *Network Plan* while the objectives and strategies have more of a near-term focus. The development and use of service standards are a

key part of this *Network Plan*. There are additional potential services to be developed (unmet needs) but limited resources and a concern that the state focus its support on projects that are efficient and effective. Service standards and policies can be used to evaluate and guide the intercity bus program as it goes forward. In addition, with the development of the Interregional Express (IX) bus service, CDOT will be responsible for monitoring the effectiveness of the services it provides under contract. This too calls for service standards to guide decisions on adjustments to the services. Chapter 4 discusses recommended measures and service standards for intercity and IX bus services.

POTENTIAL AND RECOMMENDED NETWORKS

In order to assess potential network improvements and expansions, it was useful to classify existing corridors by service characteristics. Based on an examination of the route lengths and frequencies, four classes of service were identified:

- Intercity Bus Services connect rural communities to the national intercity network for travel to more distant points. Services are characterized by limited frequencies (often one trip in each direction per day) and daily operation.

- Interregional Express services connect urbanized areas of the state that have existing local, and in some cases regional, transit service networks. Often these routes are focused on commuters, providing high frequency express services, but they also provide connecting services across two or more regions. Commute services typically operate with at least eight round trips a day, on weekdays.

- Regional Bus Services: Routes on these corridors have moderate frequency (often several trips in each direction per day), and operate at least every weekday if not every day of the week. These routes allow for passengers to complete a round trip in a day, and may be used for commuting purposes.

- Other Essential Regional Services: Primarily operating on a fixed route and fixed schedule for traveling from rural to urban areas, these have flexible routing at either end of the route. They are designed to serve areas within 200 miles of a regional service center (3.5 hours drive time), allowing for a same day trip with 4 – 5 hours to conduct business.

Different levels of service are appropriate to each of the classes, and potential service improvements reflect the classification.

An analysis was conducted to determine first places that are not presently served by intercity bus services that might be expected to carry a reasonable level of passengers. These places were then compared to existing services to identify routes that might be developed to meet these needs. For those potential routes, ridership was estimated and service characteristics (revenues,

costs, farebox recovery, etc.) identified in order to determine if any of the routes would be feasible. Several potential intercity routes merited additional consideration:

- Limon-Colorado Springs
- Canon City-Colorado Springs
- Grand Junction-Denver (local service)
- Alamosa-Walsenburg-Pueblo-Colorado Springs
- Denver-Greeley-Loveland-Estes Park

For regional services, corridor level analysis and statewide values in regard to providing regional and interregional services. Corridor analysis have been prepared for the I-70 corridor (as detailed in Appendix A) and Interregional Express Bus services (as detailed in Appendix B). A high-level review of each region in the State indicated the quality of service on the existing network and gaps that exist. While this review indicates where improvements may be needed and even some potential ways of meeting the needs, corridor plans are recommended prior to developing new services to assure that the solutions are effective at meeting stakeholder needs and provide for good use of scarce resources.

Identifying where residents can make a same day trip to the nearest big city is an important measure of gaps in the long-distance transit network. The availability of such service depends on the schedule for existing intercity bus services, distance, and travel times. Traveling up to 200 miles and back in a day and having 4-5 hours at the destination city requires at least 12 hours and generally requires service that begins between 5 and 6 AM. For distant locations, an overnight stay is a necessity because single day travel makes for too long a day to be practical. Priority areas where some improvements, such as the provision of regional or Essential Services routes, are warranted are:

- *Lamar to Pueblo*: a regional route providing same day service is warranted.
- *Trinidad/Walsenburg to Denver*: regional services providing either same day or a one-night stay-over is warranted.
- *Greeley to Denver*: a route serving towns on US 85 is warranted.
- *US 40 Corridor to Denver*: a route that allows same-day service for those residents living fairly close in (e.g., Kremmling) and a one-night stay for those living at greater distances.

The first three corridors have relatively high levels of Medicaid Non-Emergency Medical Transportation (NEMT), Veterans transportation, and general-purpose trips that are presently met by a mix of volunteer driver programs, county-based services, friends and family, and private providers. Because of the high level of resources presently spent in these corridors, it may be possible to provide comprehensive services (open to all riders instead of each vehicle carrying only a single type of client) with little additional cost.

The US 40 corridor would not likely support daily service, but would rather start at a lower level of service – one to three days per week – and might include the option of purchasing tickets from private providers operating in the corridors.

Comprehensive Network Recommendations

In developing recommendations regarding the best way to serve these various corridors, each route was assessed to determine the appropriate level of service for initial service development. A comprehensive regional service network plan with a diverse range of services was developed. Each component is important to the network. All services showing a reasonable chance of meeting service standards for the category of service in which they fall are included in the network plan. Adjustments may occur to frequencies based on demand levels, and some services may be a priority to implement sooner than others based on local conditions. **Figure ES.2** presents a map of the existing and proposed services for intercity, interregional, regular regional, and essential service routes.

The proposed regional network is scaled to provide varying levels of service to areas with different economic and population characteristics. Higher levels of service would be provided near resort communities and in congested corridors, building or strengthening the presence of transit services in these corridors. A base level of service would be provided to Colorado residents in rural areas, with an emphasis on providing a coordinated network of services that would meet needs for education, medical, dental, and other trip purposes.

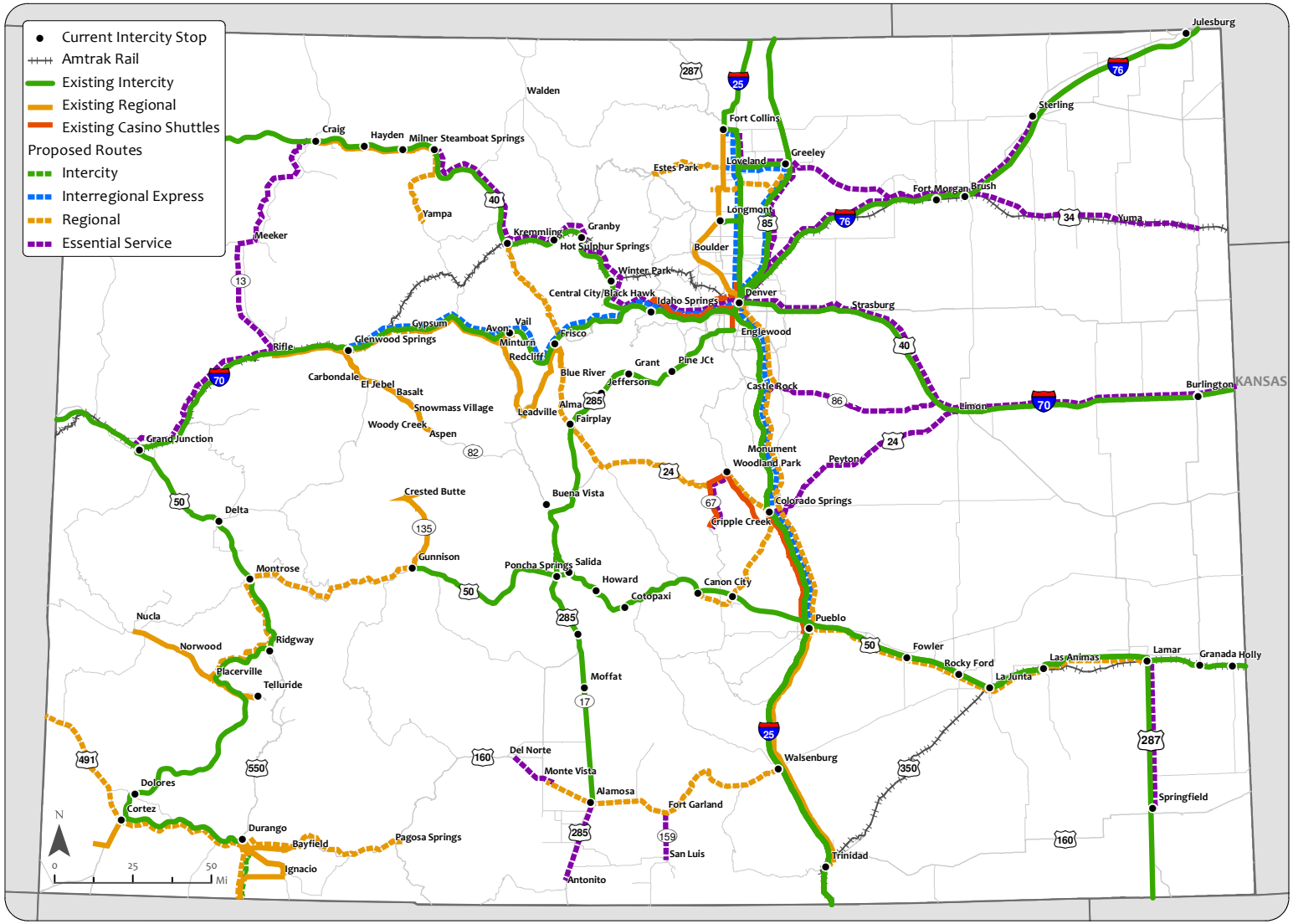
Today there are a good number of instances where:

- Outlying entities operate through communities nearer to the urban center but usually do not pick up passengers along the way. As a result the closer in community also needs to operate service.
- Services are funded by different programs and not open to riders from the general public or from other programs. Both NEMT and Veterans' programs provide extensive regional services in many corridors, often with duplicated services.

The proposed regional network plan would not necessarily eliminate all duplicative services, but it would provide a framework for providing services open to a broad segment of the population and assist in making rational decisions about how best to use Colorado's limited transportation resources. In many cases detailed service and financial planning would be required to determine the best way to provide services within a corridor. Ultimately this will result in the highest level of services for the rural residents and the most effective use of resources.

The planning done for this report was carried out at a fairly high level and is meant to provide an understanding of what a comprehensive network would include and the order of magnitude of its service levels and costs. Detailed service planning will be needed in these corridors to refine the plans and develop an implementation plan for each corridor.

Figure ES.2: Existing and Proposed Statewide Routes



Data sources: ESRI Census 2010 base map files, ACS 2007-2011, Census 2010, and provider bus schedules as of Jan. 2013.

Colorado Department of Transportation Division of Transit and Rail

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The barriers to developing such a cohesive network include:

- Lack of financial resources and the importance, to local officials, of spending local revenues for the benefit of local residents.
- Different planning boundaries, as regions rarely consider services provided by those in other regions.
- Program and funding barriers that require fairly sophisticated cost accounting to be able to share passengers among programs. There are presently no agreed upon standards among state departments on how revenue and expenses would be shared among programs if passengers were carried on a single vehicle.

Additional revenues are important to develop a comprehensive network. Equally important are the individual steps that will serve as building blocks to a comprehensive system. These might include:

- Service planning studies that cover travel corridors, including more than one planning area, to determine the best way to use existing operational and financial resources to provide the most effective mobility.
- Pilot programs in a particular corridor where it appears there are duplicative services or the existing services are expensive.
- Statewide transit travel information using the latest technology to assist riders in finding out what services are available and how to use them.
- Creating a means to share ticketing across multiple public and private providers.
- Identifying how costs and revenues can be allocated among state level programs that use Federal dollars. This will enable State agencies to address the policy and administrative issues related to using program funds to provide rides on shared services.

The administrative and planning activities can and should be carried out as Colorado works to identify how to fund a more comprehensive regional network.

FACILITIES

Existing facilities are inventoried in Chapter 6. There are just over 100 stops for private intercity and regional shuttle buses in 43 communities in Colorado. Chapter 6 focuses on the priority stops, based on connectivity and level of service. It is these stops where investments in improvements are most likely warranted.

Public facilities also include transit centers and park-and-ride facilities. These facilities support both the transfer of passengers between modes and private operators who do not also have to provide separate facilities. The shared use of public facilities happens on all scales, from DIA

and Denver Union Station where many passengers and private providers are served, to resort communities like Steamboat Springs where perhaps only one intercity bus a day may serve a stop that is also served by the local transit provider. Vail, Pueblo, and Frisco are examples of facilities with significant intermodal activity for rural areas.

Priorities for upgrades or development of some type of facility should be those locations where lines connect or the volume of passengers is great enough to warrant a waiting facility. There is a balance between investment in a location and the number of passengers served. There are significant needs for expenditures on facilities, many of which cross over to other modes (park-and-ride development and infrastructure to speed buses along). These will need to be balanced with other development priorities.

For intercity bus service, a high priority is improved signage and information. Some relatively small facilities would improve the passengers experience and make both the ICB mode and transfers more appealing. An example is providing for a passenger waiting area in Idaho Springs. As service is developed in southeast Colorado, a simple passenger transfer facility in Walsenburg would be warranted.

For regional commuter buses, a significant investment will be needed in park-and-ride facilities. As the regional commuter bus network grows over twenty years, it is expected additional capacity will be needed at initial locations and new park-and-rides will need to be developed for additional stops.

For other regional services (regular regional routes or essential services) the need for passenger facilities should be evaluated when corridor service planning is carried out. Traditionally, Colorado's transit operators have been responsible for providing and maintaining local transit facilities. CDOT may participate in a variety of parking and infrastructure projects, as these decisions are made through the transportation planning process. As CDOT takes on a more active role as a provider, consideration of its role in facilities for these services needs to be evaluated.

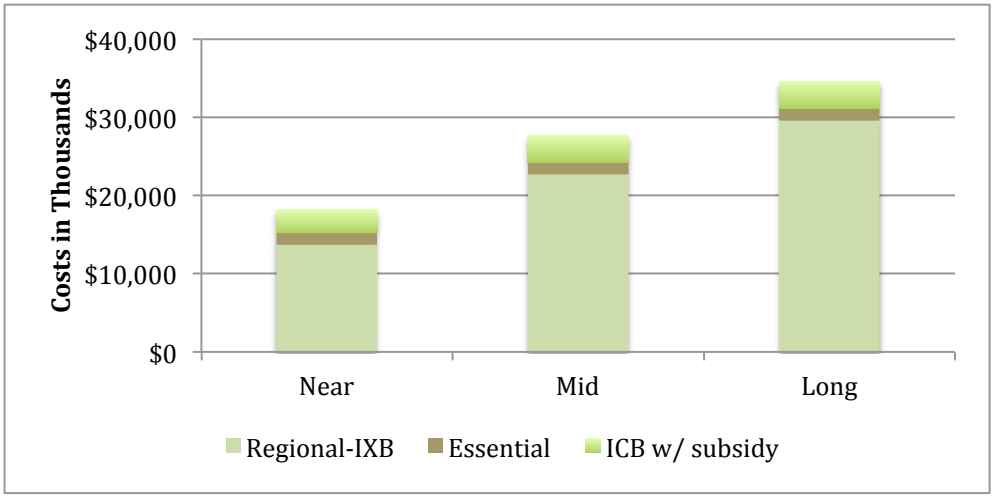
The mountain resorts are a special case. Park-and-ride capacity is needed to serve employees within the I-70 corridor, and may be needed in other resort communities. Such projects are being defined and developed by transit agencies, although funding through CDOT may be requested. When CDOT begins to pursue the development of an interim solution to congestion between the metropolitan area and mountain resorts, significant parking capacity will need to be provided in the metro area. While such a project is in line with the PEIS, the development will require a significant investment in facilities, vehicles, and operational expenses. Additional facility planning and service planning will be needed to develop a final corridor plan for such service.

FINANCIAL PLAN

In Chapter 7, the financial requirements of the proposed service network and related policy issues are identified. Attention is paid to the cost of facilities and to funding the Section 5311(f) program. Cost and service level estimates are provided for each of the proposed regional routes.

For regional services (regular, IX Bus, and essential services) the services and their costs are broken out into annual expenses for the near-term (first 7 years or 2014-2020), mid-term (middle 8-year period or 2021-2028) and long-term (last 12 years or 2029-2040). **Figure ES.3** illustrates annual expenses by time period. For the most part, services have been included in the near-term unless there are specific reasons why service cannot begin. Reasons might include the need for additional planning work or the need to establish a base level of service prior to making decisions on expansion.

Figure ES.3: Annual Operating Costs by Time Period



The above cost calculations were capped at 16 one-way trips each day (8 round-trips) in order to provide a conservative estimate of need and to balance that need equally across the State. It is important to note that some agencies, such as RFTA and ECO Transit, provide far more service than 16 one-way trips.

Comparing costs and revenues requires that the analysis use total costs of service, not the constrained levels. So, in **Table ES.1** a total expense of $14.3 million (the estimated additional expense for services over the constrained level) has been added to the "capped" service costs identified in **Figure ES.3**, for each time period. These estimates are conservative as new services are capped at 16 one-way trips a day and because they do not account for increases in expenditures since 2012. In the Roaring Fork Valley there has been a significant increase with the opening of bus rapid transit in the Highway 82 corridor.

Table ES.1 – Estimated Gap Between Costs and Revenues

Existing and Proposed Services	Costs in Millions of Dollars		
	Near-term	Mid-term	Long-term
Estimated Operating Costs	$32.5	$36.5	$43.9
Estimated Facility Costs*	$1.0	$1.0	$1.0
Current Revenues	$17.5	$17.5	$17.5
Shortfall	$16.0	$20.0	$27.4

* $1.0 million estimated for all facility improvements – significantly less than the needs.

The primary funding source for intercity bus services is Section 5311(f) with in-kind match provided by Greyhound or other providers. The Section 5311(f) funds for the ICB services are largely adequate to meet the ICB needs, although there are options for funding a greater percentage of losses or developing additional corridors.

The IX bus services are programmed for CDOT FASTER funds, up to a level of $3M annually. This allows for some expansion, depending on the level of farebox recovery, but this expansion likely will only occur in the initial corridors. Expansion to other corridors is likely to require some additional funding.

Other regional services are primarily funded with local funds, with some Section 5307 and 5311 support. This is the area where the greatest shortfall exists. Finally, essential services are typically funded with a combination of Section 5311/5310, agency contracts or human service funds supporting the program, and minimal local funds. Existing services are typically operated in a demand response mode, so information was not collected on these. However, many rural agencies indicated that they struggle to match the limited services that are now operated so providing a network of essential services will likely require State participation in lieu of or in addition to available local match.

FINANCIAL POLICY CONSIDERATIONS

A variety of potential policies have been identified throughout this study, and are summarized in Chapter 7. The emphasis on building a network with decisions based on service effectiveness remains at the heart of financial policies. Policy topics are:

- Performance Standard Policies
- Rural and Essential Service Policies:
- FASTER Funding Policies
- Infrastructure Development Policies

In each of the above areas, policies are recommended. In discussing and refining these policies, it will be necessary to find a balance between competing needs for:

- Operating and capital

- Services in very rural corridors and services in corridors with high levels of passenger demand
- Existing and needed new services
- Funds that have the option for being used for more than one purpose

Two key items to assist in refining financial policies are the use of performance standards and monitoring ridership and service experience over time. In addition, note that the *Network Plan* presented here artificially constrains services at 16 one-way trips daily (8 round trips). Final decisions on whether there is value in constraining services at an artificial limit will be a policy decision.

I-70 CORRIDOR PLAN

OVERVIEW

The I-70 Corridor Analysis evaluates bus service needs between Denver and Grand Junction, Colorado. It considers seasonal, weekly, and time-of-day travel patterns, identifies connectivity needs and opportunities to connect with local transit, addresses commuter, human services and recreational/other service markets, and presents options for short, medium, and long-term planning horizons. The analysis of demand in the I-70 corridor is summarized in this report, with more detail provided in Appendix C to the *Network Plan* where demand for regional commuter buses in the north and south I-25 corridors is considered in addition to demand in the I-70 corridor.

The foundation for this work is a combination of the "I-70 Mountain Corridor Final Programmatic Environmental Impact Statement", March 2011 (PEIS) and an analysis of the existing transit services and facilities in the corridor. A Technical Advisory Group (TAG) for the I-70 Corridor provided guidance in the study. This Appendix begins with a description of the long-range context from prior planning studies, followed by existing conditions, demand, and service alternatives.

EXISTING SERVICES AND FACILITIES

Existing services in the I-70 corridor are a mix of private and public services. There is approximately a $100 million annual investment in operating transit services in the I-70 Mountain corridor. With the private sector being responsible for more than half of the total, finding ways to maintain that investment is an important strategy CDOT and other stakeholders.

Transit infrastructure in the mountain I-70 corridor includes:

- Bus stops, ranging from transfer centers to simple bus stops;
- Maintenance and operations facilities; and,

- Park-and-ride lots.

CDOT is beginning to build infrastructure on I-70 that can speed the movement of buses. A short (3-mile) managed lane was just completed as part of the renovations to the Twin Tunnels outside of Idaho Springs. CDOT is currently considering implementation of peak period shoulder lanes on I-70 between Empire Junction and Idaho Springs. I-70 roadway improvements that allow buses to bypass congestion would greatly enhance the viability of transit service in the I-70 mountain corridor.

Park-and-ride lots with sufficient capacity would need to be placed along the corridor, including in western metropolitan Denver in Jefferson County.

Most existing passenger facilities in the I-70 Corridor are owned and operated by the public sector. Exceptions include the Greyhound facility in Grand Junction (a rented facility) and the AMTRAK station in Glenwood, owned by Union Pacific Railway. Maintenance and operating facilities are located in Grand Junction, Glenwood Springs, Gypsum, Avon, Vail, and Frisco. Greyhound has facilities in both Grand Junction and Denver and the other maintenance facilities are operated by other providers.

SERVICE SCENARIOS

Service scenarios were developed for the near-term, mid-term and long-term time periods. The services for the near-term are based on the Interregional Express Bus (IXB) operating between Glenwood Springs and Denver. This will accomplish three things: (1) it will connect the existing systems and investment in transit in the corridor; (2) it will provide a back-up for intercity services provided by Greyhound; and (3) it will provide a foundation to begin building transit services in the corridor, from developing agreements with local providers to marketing services. Significant expansion of services will be based on demand, funding, and infrastructure that will allow buses to bypass congestion.

In advance of implementation of a long-term transit system, a mid-term operating scenario has been developed to serve the variety of travel markets in the I-70 mountain corridor. This mid-term scenario, with moderate levels of bus service, would be implemented over 10 to 20 years, and would require associated investments in supporting infrastructure such as park-and-ride lots, stations, roadway improvements, and maintenance facilities. It would serve each of the market segments (commuter, recreational, and human services), start at a lower level of service, expand over time, and would provide an example of how publicly funded services may operate after several years of development and implementation.

The mid-term scenario is developed at a conceptual level of detail. It is meant to provide a starting point for discussion and highlight issues related to the development of services in a corridor where there are a variety of public and private transportation providers. While this service scenario focuses on publicly funded transit services, the intention is that these would

operate within a broader network that includes the full range of private transportation operators as well. It is anticipated that the services described in this scenario would be provided under contracts and infrastructure investments would benefit both public and private providers.

Service Characteristics of Proposed Mid-term Alternative

Routing – The routing pattern for the I-70 corridor would be comprised of the following segments:

- Denver-Frisco
- Frisco-Vail
- Vail-Eagle
- Eagle-Gypsum
- Gypsum-Glenwood Springs
- Glenwood Springs-Rifle
- Rifle-Grand Junction

The proposed segments reflect natural travel patterns, show where differences in headways are warranted, and are developed from current operational divisions among publicly funded transit providers. The service would consist of seven interlined routes between Denver and Grand Junction, and a separate route between Denver and Winter Park. The level of service would vary by segment per expected levels of demand. The service level would typically be higher on weekends and lower on weekdays. In general the routes would fully connect communities and serve all the various travel markets, including commuter, human service, and recreational.

The service plan includes two levels of service:

- Extended Service Days: 103 days per year, generally Friday – Sunday during the winter and summer seasons with some additional days during holidays
- Regular Service Days: 262 days per year, generally Monday – Thursday during the winter and summer seasons and daily during the shoulder seasons.

The service plan is planned to be integrated with existing services, not duplicative of them. So, in Eagle County, existing ECO Transit services are considered to be part of the plan. The same is true for RFTA services between Glenwood Springs and Rifle. The service plan includes 2.6 million revenue miles operated annually at a cost of $13 million. Of this total, the existing local financing is approximately $3.6 million and operating revenues would cover approximately $3.1 million, leaving $6.3 million in new funding required.

This service plan has been developed at a conceptual level. More detailed planning for both operating and park-and-ride facilities will be needed to support development of a funding source with which to implement the service plan. A variety of implementation steps covering a range of management, service, and infrastructure development activities that will be needed are summarized in the report.

INTERREGIONAL EXPRESS BUS SERVICE

As part of the "Colorado Intercity and Regional Bus Network Plan - 2013 Update" (Network Plan), specific emphasis was placed on developing express interregional bus services. While most of the *Network Plan* provides mid-level planning appropriate for policy development and resource allocation, this Inter-regional Express bus work extended to service and implementation planning.

The first part of this appendix provides planning information, including a peer analysis, demand analysis, and conceptual service plans. The report continues with more detailed implementation plans in part two. This includes service plans for the initial phase of services, information on park-and-ride development, fare revenues, and operating and capital budgets.

FINDINGS AND STRATEGIES

The planning work showed that the services that seem to provide the most benefit do not all fit in the regional commuter bus category; providing connectivity between regions and their transit systems is an important purpose.

In addition to operating services, it will be important for the Division of Transit and Rail to pursue other activities in developing a seamless statewide network of services, such as:

- Creating a framework for measuring performance of the States investments in regional and intercity bus services.
- Developing comprehensive customer information that will support passengers traveling regionally across more than one transit system.
- Working with urban area partners to include statewide vanpool options.

PEER ANALYSIS

A peer analysis was conducted to gain perspective on how other state DOT supported / operated long-distance commuter bus operations are organized and operated. The team identified agencies operating service similar to that proposed by CDOT and contacted these systems to obtain information on:

- Organizational structure
- Infrastructure provision and ownership
- Contracting models
- Operating costs
- Ridership and farebox recovery

Key findings included:

- There is no single model for organizational structure and state agency role.

- Commuter bus riders are Park-and-Ride customers, not using local transit to access the commute trip.
- All of the programs provide for Park-and-Ride facilities, either building/maintaining them, or leasing from private owners for use by riders,
- State role in oversight varies with scale of services, number of contractors—appears minimal for limited service, single (reliable) contractor.
- State role in information and marketing varies. While NH places responsibility on the contractor, the other four peer states/agencies maintain this responsibility in-house.

DEMAND ANALYSIS

The demand analysis for regional commuter services is documented in Appendix C of the *Network Plan*. It addresses both overall potential demand and the ridership that might be expected given a proposed level of service. Some general findings were that:

- Colorado residents will use transit when services are available and viable for their travel needs. While mode shares provide an important guide to what might be expected, quality of service factors are also important.
- There are a variety of corridors with high levels of employment travel that have the potential for regional commuter bus services. Many of these areas have higher total commuter flows than North and South I-25, but have more dispersed travel patterns. Future planning activities can be undertaken to develop viable services to serve workers in Larimer, Weld, and Pueblo counties.
- Another issue is how to serve mid-range cities in the north and south I-25 corridors. The Carbon Valley communities (Firestone, Dacono, and Frederick) and Castle Rock are important contributors to the congestion on I-25 as many workers live in these communities. Policy discussion regarding the role of these cities in funding services will be important prior to beginning service to these communities.

SERVICE RECOMMENDATIONS

Service plans were developed for the three corridors. North and South I-25 begin with peak hour services and one mid-day trip, serving only downtown Denver. As ridership develops, additional trips can be added. The value of strengthening service in an existing corridor versus expanding to additional markets will need to be weighed.

In the Mountain I-70 corridor, the recommended services are focused on (a) positioning CDOT to develop regional services between the mountain resort communities and Denver and (b) filling gaps between systems that are primarily responsible for commuter services. Only the Glenwood Springs - Denver service is proposed for interregional express service; the service that would fill gaps is categorized as regional service. The services are:

- Glenwood Springs - Denver: begin with one round-trip a day that complements the intercity service in the corridor. Expand to two round trips as demand warrants, with the second round trip operating between Vail and Denver.
- Eagle/Gypsum - Glenwood Springs: six or more round trips daily, connecting with services provided by ECO and RFTA. (Regional services operated by local agencies)
- Frisco – Vail: three round trips daily (Regional services operated by local agencies)

IMPLEMENTATION PLAN

A detailed implementation plan is provided that addresses:

- Working with partners to address both planning and policy issues
- Service contracting
- Fares
- Capital and operating budgets
- Park-and-ride facility needs

CONCLUSION

For this *Network Plan* update, three related topics were included in a single study: updating the 2008 intercity and regional bus plan, developing an I-70 corridor plan, and developing a plan for Interregional Express bus services. The base data for service and analysis of need was shared, although different approaches were required for each service type.

This comprehensive approach also fostered the ability to take a holistic approach to policy questions. Examples are: (1) the discussion of how allowing the use of FASTER funds for operations would impact the availability of capital and providing regional services across the State; and (2) how performance measures can be used for each type of service, and the different values that might be appropriate for intercity and the various types of regional services.

The use of FASTER funds for operating services provides opportunities to move beyond the limited intercity services that could previously be funded and make strides forward in connecting Colorado's key activity centers to one another and to the rural residents of the state. The *Network Plan*, provides CDOT with the tools necessary to:

- Adapt financial policies to address the changing environment. CDOT will be able to consider how the Section 5311 program and FASTER funds work with local financing to build a comprehensive network that meets the needs of the Colorado residents.
- Implement Interregional Express bus services.
- Develop the internal management capacities necessary for the operation of transit services and monitoring the effectiveness of the intercity and regional service network.