Interstate 25 & 392 Interchange Improvement Plan

April 2, 2008

I-25/SH392 Interchange Improvement Plan
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CHAPTER 1

Project Content

Introduction

The following section describes the Plan's purpose, plan participants, planning process, public participation activities, and related planning documents.

The bridge over I-25 at State Highway 392 exit.

The I-25/SH392 Interchange is the gateway to the Town of Windsor and southeast Fort Collins. However, more than just a key gateway, it is integral to the performance of the regional transportation system. Transportation along the Front Range is inseparable from land use. It is these land uses that will contribute to the economic sustainability of these communities.

With new growth in Windsor, southeast Fort Collins and Larimer County in recent years, the capacity of the existing I-25/392 Interchange facility has been significantly impacted. In order for new development to proceed adjacent to the interstate, adequate public facilities need to be addressed.

Although the Colorado Department of Transportation (CDOT) has identified this interchange as a high priority project, large amounts of federal or state funding are not in place. Towns and cities have not historically taken on the challenging task of funding interchanges, but as times have changed, so has the role of our municipalities.

Purpose

This plan represents a unique process with a focus on implementation and identification of critical next steps to fund and reconstruct the interchange. This plan's key components include interchange configuration design, supporting land use in activity center, natural area buffers, west frontage road alternatives and funding scenarios. All of these components will require additional discussions, refinement and coordination prior to finalization, as part of on-going implementation efforts.

Key Objectives

- Develop action strategies to implement improvements
- Determine alternative funding mechanisms (public and private sectors)
- Advance to implementation sooner
- Incorporate continuous stakeholder review
- Present to participating agencies for adoption by governing bodies
- Execute Intergovernmental Agreements, as appropriate

Participants

In March 2006, the City of Fort Collins and the Town of Windsor entered into an Intergovernmental Agreement (IGA) that focused on cooperation, land use and development at the I-25/SH392 Interchange. The purpose of the IGA includes the need to cooperate among Fort Collins, Windsor, Larimer County, and the North Front Range Metropolitan Planning Organization (NFRMPO) on design and funding interchange improvements.

Fort Collins and Windsor have joined together to lead this Plan. These communities have also partnered with NFRMPO, CDOT, Larimer County, and local property and business owners to determine key actions and funding strategies necessary to move forward towards Plan implementation.

Process

A 12-month and three-phase process was used to accomplish the Plan's objectives. (See Figure 1.)

Figure 1 on the following page, describes the three phases. Phase I focuses on an assessment of existing conditions, issues, constraints, opportunities, and preliminary funding options. Phase II describes future land use and transportation options. Phase III documents the preferred land use plan, transportation framework and funding mechanism, and the necessary actions to achieve these results.

Figure 1 - Process

	2006					2007								
	Aug	*Sept*	*Oct*	*Nov*	*Dec*	*Jan*	*Feb*	*Mar*	*April*	*May*	*June*	*July*	*Aug*	*Sept*
TAC Meetings	■	■	■	■		■	■	■				■		
Stakeholder Meetings			■		■		■							■
Public Open House						■		■						■
	Phase I – Project Start-Up/Assessment and Analysis Confirm work program and schedule. Prioritize issues. Assess conditions. Analyze opportunities and constraints.													
		Phase II – Interchange Improvement Plan Assess corridor's activity center, transportation needs and infrastructure improvement. Develop preferred CAC Plan.												
								Phase III – Implementation Develop implementation action plan. Identify financing mechanisms. Identify land use and design regulations for CAC. Facilitate adoption of this plan.						

Figure 2 - Area Stakeholders

Analysis Areas	*Stakeholders in area*	*Public Involvement Activities*	*Key Benefits to area*
Community-wide –the largest area	*Fort Collins, Loveland, Windsor, NFRMPO, Larimer County, General Public, CDOT*	*Public Meetings, Newspaper Articles, Website, Public Hearings TAC Meetings*	*Gateway to Community, Economic Development and Traffic Movement, Access to Regional Transit*
Interchange-Travelshed	*Property Owners within travelshed who primarily use the SH392 Interchange*	*Public Meetings, Newspaper Articles, Website, Public Hearings*	*Interstate Access, New Neighborhood Services and Commercial Opportunities, Access to Transit*
Corridor Activity Center (CAC) – the smallest area	*Property and business owners immediately adjacent to the SH392 interchange.*	*Stakeholder Meetings, Individual Meetings Newsletters, Public Meetings, Newspaper Articles, Website, Public Meetings*	*Property Values, Retail Sales, Property Development, Interstate Access, Improved Street Network, Transit Oriented Development*

Public Involvement

The I-25/SH392 Interchange has a number of stakeholders that represent local business and property owners within the Corridor Activity Center (CAC) area (See Figure 2.) As one of Fort of Collins' four interchanges and Windsor's primary gateway to the community, the communitywide benefit of improvements is clear. For those of the community who live in the travelshed, interchange enhancements mean a decrease in travel time and access to new services. For those who live and operate businesses in the immediate vicinity of the interchange, known as the Corridor Activity Center (CAC), improvements will allow development plans to proceed, increase property values, and increase sales to local commercial establishments.

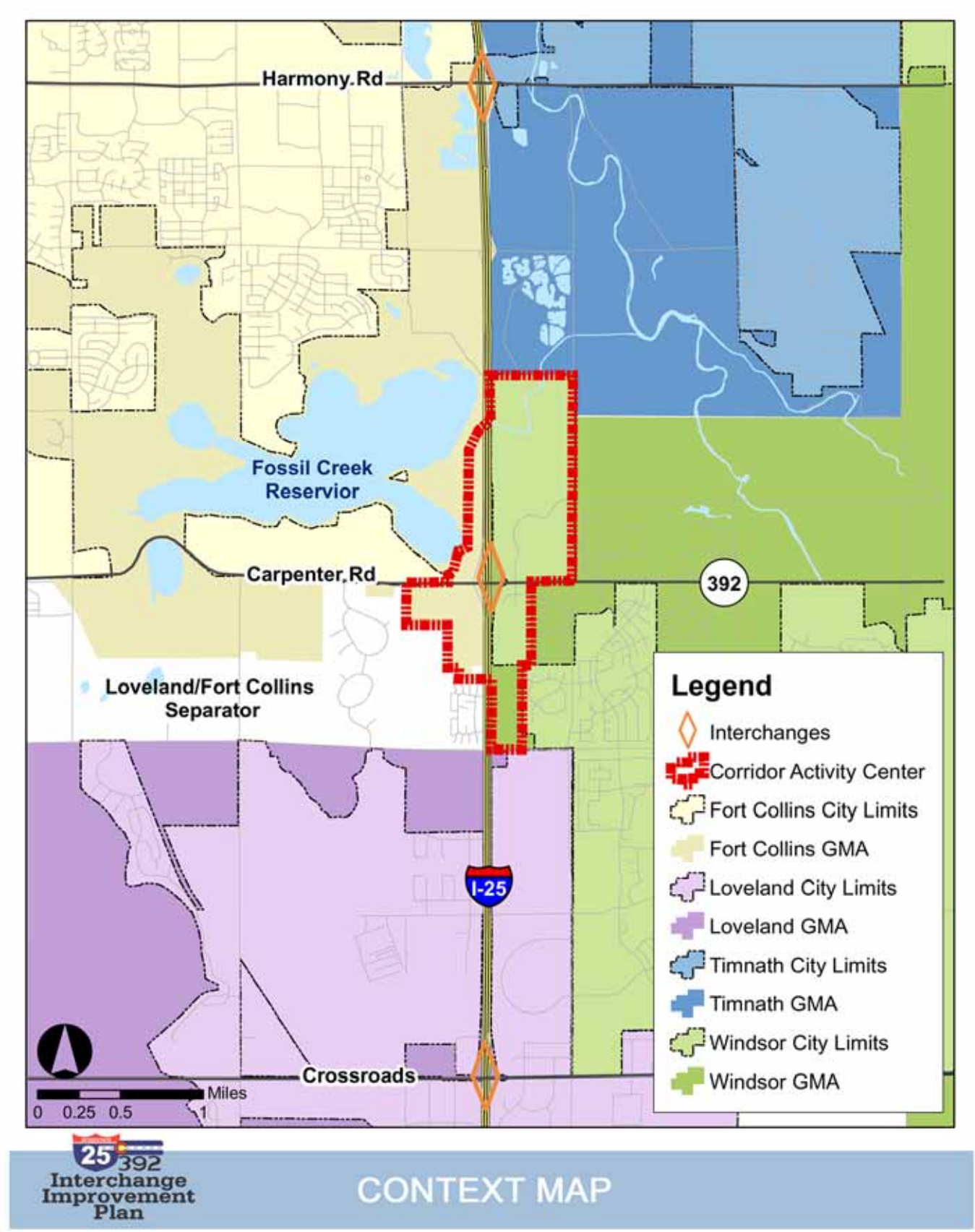
Public involvement strategies were tailored to each group of stakeholders. At the communitywide level, a Technical Advisory Committee (TAC), consisting of representatives from the NFRMPO, Larimer County, City of Fort Collins and CDOT, assisted in directing the project. Other tools, such as two public meetings, council and commission presentations, a joint Town of Windsor and City of Fort Collins work session, meetings with Town and City Finance Departments, newspaper articles and a website, involved stakeholders at the community and travelshed levels. CAC stakeholders were involved through five stakeholder meetings, consisting of immediate property and business owners adjacent to the interchange as well as potential developers. As future developers and operators of commercial enterprises, this group has the most to gain or loose from the success of the interchange. Direct mailings, four group meetings, individual meetings, and a series of bulletins were used to engage this group.

By attending stakeholder meetings, property and business owners within the CAC have helped to develop a funding strategy by identifying funding models that could be considered to expedite construction of the new interchange.

Project website.

Open house.

Figure 3 - Context Map



Southwest quadrant of interchange.

Eastside of interchange.

Westside of interchange.

Northbound I-25 exit ramp.

Related Plans

A number of regional, county, and municipal planning documents and studies have been completed that influence the I-25/SH392 Interchange Improvement Plan. We must first understand existing guidance before we can plan for the future of the area. These documents provide general and specific guidance related to natural resource protection, future land use, and transportation improvements. In almost all of these documents, the I-25/SH392 Interchange has been identified as needing improvement. In addition, SH392/Carpenter Road is identified as needing significant enhancement and expansion. Relevant elements of these documents are summarized in this section.

LAND USE PLANS

City Plan (Fort Collins) - 2004

This comprehensive plan was adopted February 18, 1997 and updated May 4, 2004 by the City of Fort Collins. The planning effort involved the Fort Collins City Council, the City Plan Advisory Committee, City staff, a consulting team, and the public.

Purpose

"City Plan illustrates how we envision Fort Collins over the next twenty years, to the year 2025 – and shows us how we can get there, step-by-step."

The City Plan is comprised of three primary sections:

- The **Community Vision and Goals** section describes the ideal values held by community members and where they see their city in the future. This includes goals for land use, transportation, community appearance and design, housing, environment, open lands, and growth management.
- The **City Structure Plan** is focused on the physical form and layout of the city. Four specific types of places found in Fort Collins are described as: Neighborhoods, Districts, Corridors, and Edges.
- The **City Plan Principles and Policies** provide specific management guidance for each type of place (as described in the Structure), as well as communitywide.

Key visions set forth in City Plan that pertain to the I-25/SH392 Interchange include the desire to promote multi-modal transportation options, an interconnected system of open lands, the development of new commercial activity centers near transit, and adherence of growth to a flexible Growth Management Area (GMA). Considering the nearby reservoir and open space, the plans for future transit, and the area's growth potential and place within the GMA, the I-25/SH392 Interchange area is an ideal location for many of these goals to converge.

Town of Windsor Comprehensive Master Plan – 2006

The Windsor Comprehensive Plan was recently updated in 2006 and adopted January 4, 2007. The plan was developed by the Windsor Planning Commission, Town Board of Trustees, Town staff, the consulting firm EDAW of Fort Collins, and its subcontractor, Leland Consulting Group.

Purpose

From pp. 8-9 of the plan: "The Plan is intended to:

a. Establish land uses and development patterns which reflect the needs and desires of the citizens;
b. Provide guidance to the Town staff and policy makers in making land use development decisions;
c. Facilitate communication between the citizens and the Town government;
d. Help coordinate various governmental functions; and
e. Provide a basis for developing specific, necessary and appropriate regulations that govern the physical development of the Town."

SH392 is recognized throughout the plan as Windsor's primary artery. Specific transportation policies are aimed at promoting the connectivity to its road network to the regional system, the integration of multi-modal options including transit, and the development of "positive, aesthetically-appealing" entryways through design and landscaping. The I-25/SH392 interchange is an opportunity to meet the transportation demands of the community, as well as promote the land use goal to encourage new commercial activity in that area.

Larimer County Master Plan (LCMP) - 1997

The Larimer County Land Use Plan was adopted as a resolution on January 20, 1988. The Larimer County Master Plan was later updated and adopted by the Larimer Board of County Commissioners on November 19, 1997. The plan was prepared as a cooperative effort with representatives from the Larimer County Planning Commission, County Planning staff, Citizens Plan Review Committee, and eight subcommittees.

Purpose

"The Larimer County Master Plan is a policy document that establishes a long-range framework for decision making for the unincorporated area of the County. It includes criteria for development decisions, decisions on public services and capital facilities and decisions on environmental resources protection through its Guiding Principles and Implementing Strategies."

The LCMP has several purposes:

- To communicate the land use policy of Larimer County to citizens, landowners, developers, and other governmental entities.

- To provide a policy basis for developing the Land Use Code and other land use regulations and procedures, and to determine whether they are in harmony with the community's vision and implementation strategy.
- To provide a basis for intergovernmental agreements with the cities and towns of Larimer County, neighboring jurisdictions, and the many public and quasi-public agencies that provide services to Larimer County residents.
- To encourage County departments, other agencies, and private developers to design projects in harmony with the natural characteristics of the land and the capabilities of public service and facilities.
- To provide a basis for setting priorities and funding mechanisms for public capital improvements in Larimer County.

Both I-25 and SH392 are recognized in the LCMP as potential mobility corridors that could "provide/ accommodate future transportation technologies including light rail or other passenger rail systems (Sec. 5.2.1)." These mobility corridors will be key to serving new development centers and, therefore will strongly influence the land use pattern. "The purpose of identifying potential mobility corridors is to reserve right-of-way in the development of land use planning for future roadway extensions and expansions to accommodate this concept. Therefore, as part of the future roadway network, it is essential that various mobility corridors be identified for future transportation needs."

Fossil Creek Reservoir Area Plan - 1998

The Fossil Creek Reservoir Area Plan (Area Plan) was adopted by the Fort Collins City Council and Larimer County Planning Commission on March 17, 1998 and March 25, 1998, respectively. The Area Plan was amended in 1999 and 2000. The Area Plan was a joint planning effort between the City of Fort Collins and Larimer County.

Purpose

"The primary objective of the Plan is to direct future urban development toward municipal boundaries, while balancing preservation of open lands and critical natural areas around the Fossil Creek Reservoir and areas between Loveland and Fort Collins, and while maintaining sensitivity to the rights of individuals.

This project is unique in that both jurisdictions – operating under different land use regulations and planning environments – came together and worked through many complex issues and policy decisions, ultimately resulting in a jointly adopted Plan. The Plan is intended to balance urban development and environmental conservation by recommending a unique combination of City-County integrated implementation strategies. The key to the success of the planning effort is the formulation and adoption of a Transfer of Density Units program by Larimer County."

According to this plan, "transportation needs in the Fossil Creek Reservoir Area are inextricably connected to city, county and regional transportation systems. Transportation planning considers land use planning needs, as well as area-specific issues (Chapter 3)."

Loveland Comprehensive Master Plan – 1994 Loveland General Plan - 2005

The Plan was originally adopted in 1994, and updated through the General Plan in September 2005. The citizens, Planning Commission, City Council and staff of Loveland prepared the Loveland Comprehensive Master Plan.

Purpose

"In September, 2005, the City Council adopted the General Plan, a broad overview of the Comprehensive Master Plan, which serves as a guide to planning many aspects of Loveland's future over the next 10 years and beyond. The City Council also adopted the 2030 Vision, created by Loveland residents in a series of public workshops. These documents updated the 1994 Comprehensive Plan, which was an outgrowth of the Agenda for the 90s and Beyond, Loveland's community visioning process held in 1992.

The Comprehensive Master Plan addresses issues well beyond land use – several of the plan's elements (transportation, parks and recreation, open lands, community design, and utilities, to name a few) focus on the physical development of the community, while other elements speak to cultural, social and educational aspects."

I-25 Corridor Plan - 2001

The I-25 Corridor Plan was completed in May 2001. The plan was conceived and written by a host of municipalities, including Fort Collins, Loveland, Windsor, Berthoud, Timnath, and Johnstown; the counties of Larimer and Weld; and the NFRMPO and CDOT.

Purpose
The I-25 Corridor Plan establishes the vision to promote attractive development, maintain regional character, and provide adequate services along a 35-mile stretch of the interstate between Berthoud to northern Fort Collins. The plan divides the Corridor into three subareas; the I-25/392 Interchange Improvement project falls within Subarea 2.

The I-25 Corridor Plan recognizes the Fossil Creek/Windsor Corridor as one of two primary scenic landscape corridors (Crossroads/Loveland Corridor is the second). These are areas defined as "remaining lands along [the I-25 Corridor] that are not agricultural or riparian, but still have dramatic views of the mountains to the west (p. 27)." The Plan includes specific Scenic Landscape Policies to "maintain and improve the scenic quality and landscape character of the [I-25] Corridor and minimize negative visual impacts of development along I-25". Land use development in this area must consider these goals and the important role that the area serves in protecting the magnificent viewshed from the interstate.

I-25 Subarea Plan – 2001

The I-25 Subarea Plan was published on August 19, 2003 by the City of Fort Collins Community Planning & Environmental Services Advance Planning Department.

Purpose
The Subarea Plan stemmed from a variety of planning efforts to shape development of the I-25 corridor in northern Colorado. First, Fort Collins City Plan was adopted in March 1997 and identified this area as the "I-25 Special Study Corridor." The City Plan also cited the corridor in its Principles and Policies chapter, calling to "tailor the City Plan's citywide perspective to individual neighborhoods, districts, corridors, and edges" in Principle LU-4, and identifying the I-25 Corridor as a "priority for future subarea planning" in Policy LU-4.5.

The Subarea Plan seeks to establish land use guidance for the areas east of the interstate. The Subarea Plan builds upon the design standards, transportation guidelines, and open lands policies set forth in the Northern Colorado Regional Communities I-25 Corridor Plan (the Regional Plan, 2001). While the Subarea Plan does not speak directly to the importance of the I-25/SH392 Interchange, it does stress the importance of interchanges as gateway features and centers for commercial activity. Design and land use decisions must adequately serve those purposes.

RESOURCE PLANS

Fossil Creek Reservoir Resource Management Plan – 2000
Resource Management & Implementation Plan for Fossil Creek Reservoir Regional Open Space – 2003

The Fossil Creek Reservoir Resource Management Plan (RMP) was adopted by the Fort Collins City Council and Larimer County Planning Commission in 2000. The updated 2003 RMP reflects newly acquired land use changes in the locations of access roads due to increased traffic on County Road 32. The Fossil Creek RMP was completed in a joint planning effort between the City of Fort Collins and Larimer County governments, as well as local citizens.

Purpose
The purpose of the Fossil Creek RMP was to build upon the vision set forth in the Fossil Creek Area Plan (1998), and specifically defines "how the important resources at the reservoir will be managed." The RMP addresses "how to balance potentially conflicting goals, such as wildlife protection and public access and use, while responding to changing conditions both in terms of adjacent land uses and habitats at the reservoir."

Regarding lands adjacent to the reservoir, the RMP sets forth a resource management area of a ¼-mile buffer around the shoreline of the reservoir. Should private landowners decide to develop their land, they are encouraged to establish conservation easements in respect to that buffer. The goal is to manage the reservoir and open space comprehensively with adjacent, undeveloped lands for the maintenance of wildlife and other environmental resources.

The RMP mentions several times the importance of avoiding eagle habitat during night roosting periods, which runs from November 15-March 15. Land uses that are more accommodating to this period are those that primarily operate during an 8 to 12-hour period during the day, such as offices.

Northern Colorado Community Separator Study – 1999

The Northern Colorado Community Separator Study was completed by EDAW in 1999 with the cooperation of the municipalities of Berthoud, Fort Collins, Greeley, Loveland, Milliken, Windsor, and Larimer County.

Purpose

The Separator Study recognizes that rapid growth in northern Colorado, especially along the I-25 corridor, threatens the unique character of individual communities. The affected communities agreed to recognize this issue and enter into a cooperative agreement intended to maintain separation that is fair and equitable to landowners.

The area surrounding Fossil Creek Reservoir and Open Space is proposed in the study to be a community separator, a goal that has been recognized by the acquisition of land by Fort Collins in that area.

TRANSPORTATION PLANS

City of Fort Collins Transportation Master Plan - 2004

The City of Fort Collins Transportation Master Plan (TMP) was adopted by City Council through Resolution 2004-038 on March 2, 2004.

Purpose

"The Fort Collins TMP 2004 serves a variety of purposes. It is a vision document that defines the long-term transportation system that Fort Collins needs in the future. The plan also provides policy direction for how decisions regarding the implementation of the transportation system should occur. It is also a framework document that serves as a comprehensive reference guide regarding transportation issues in Fort Collins. Additionally, the plan provides priorities for implementing projects to meet short-term deficiencies while working towards the ultimate transportation system the City is trying to achieve. Finally, the plan identifies transportation issues that need to be resolved as part of the next plan update or under specific department work plans (Section S.1)."

Specific to the I-25/SH392 Interchange, the area is recognized in the Plan to be integral to the regional network and an optimal place to locate transit serving the Fort Collins, Windsor, and Greeley communities.

Crossroads Subarea Transportation Study – 2003

The Crossroads Area Transportation Study was prepared for the NFRMPO in January 2003.

Purpose

The Crossroads Area Transportation Study was a cooperative effort between the City of Loveland, the Town of Windsor, CDOT, Larimer County, the NFRMPO, and the development community. The study developed a transportation improvement plan to support the rapidly developing six-square-mile area surrounding the I-25/Crossroads Boulevard (Larimer County Road 26) interchange. Recommendations included improvements to the I-25 interchanges at Highway 34, Crossroads Boulevard, and State Highway 392. The study also recommended the development of a parallel arterial roadway network. Improvements to the I-25/SH392 interchange and the western frontage road adjacent to the interchange were predicted to occur by 2010 and 2012, respectively, though these improvements have not yet occurred.

Fort Collins Master Street Plan

The Master Street Plan (MSP) was first adopted in 1981 and has been amended over the years in accordance with the Fort Collins Comprehensive Land Use Plan, City Plan, and the Transportation Master Plan (2004).

Purpose

"The Master Street Plan (MSP) is a map-based representation of the City of Fort Collins' long-range vision of its major street network....and is intended to reflect the functional class (the category of street, e.g., arterial, collector, etc.) of the ultimate street network." The map provides a reference for guiding future development by illustrating important transportation connections.

Carpenter Road, directly to the west of I-25, is not within the Growth Management Area (GMA) of the City of Fort Collins; however, it is shown in the Master Street Plan (MSP) as a 6 lane major arterial. In the MSP, Carpenter Road continues to the west as a planned 6-lane facility into the City Limits and GMA. A Travel Demand and Level of Service Analysis with a 2025 planning horizon (conducted as part of the Transportation Master Plan) demonstrate the need for Carpenter Road to be a 6-lane facility from College Avenue to I-25. SH392, to the east of I-25, is shown as a 4-lane arterial, and the frontage road to the west of I-25 is shown to be realigned. The roadways

outside the GMA are shown for contextual purposes only and are not part of the MSP. The city is currently considering adding the area immediately west of I-25 into the GMA boundary. It is important to note that SH392 through Fort Collins is now managed by CDOT.

Town of Windsor Transportation Study – 1999

The Town of Windsor Transportation Study was completed in November 1999.

Purpose

The study was done to complement the Circulation and Transportation Element of the Windsor Comprehensive Plan, which provides a "framework to begin to understand the Town's future transportation improvement needs." Relevant to the I 25/SH392 Interchange Improvement Plan, Chapter 3, Section E recommends a conceptual access management strategy for SH392, including restricted movements, desirable access spacing, and increased laneage.

The plan acknowledges that "State Highway 392, between I-25 and WCR 19, and SH 257, south of SH392, will experience the largest daily traffic volumes in the GMA with traffic volume levels between 21,000 and 29,000 vehicles per day (vpd)." The plan also established a conceptual access management plan along SH392 between I-25 and WCR 15.

City of Loveland Transportation Plan – 2000

The City of Loveland 2020 Transportation Plan was completed by the city on July 18, 2000.

Purpose

Factors such as residential and commercial growth in Loveland "will all have a dramatic effect on the future of Loveland's transportation system. Mobility in the community plays a large role in the standard of living for residents. A well-balanced, well-maintained transportation system is critical for sustaining Loveland's high quality of life." Studies have shown that the construction and maintenance of new streets have not kept up with growth in recent years. The Transportation Plan seeks to analyze growth trends to adequately plan for transportation needs in the future.

City of Loveland 2020 Transportation Master Plan - 2002

The limits of the Transportation Master Plan do not extend to SH392/Carpenter Road; however, there are plan elements that have some significance to the I-25/SH392 Interchange. The plan shows an overpass of I-25 without an interchange, and also shows realigned frontage roads on both east and west sides of I-25. It appears from this plan that the frontage road on the west side of I-25 is planned to be realigned further to the west of I-25, likely an alignment that would avoid the residential housing development that exists adjacent to I-25. The frontage road on the east side is also shown to be realigned, although not as far away from I-25 as on the west side.

SH392 Environmental Overview Study – 2006

The SH392 Environmental Overview Study (EOS) was conducted to meet the growing transportation needs on SH392, Carpenter Road and Larimer County Road 32, from US 287 through Windsor. The EOS does not directly address the I-25/SH392 Interchange because it is being evaluated as part of the North I-25 Front Range Environmental Impact Statement (EIS). The final report was published November 6, 2006.

Purpose

The SH392 EOS was initiated by CDOT "to identify transportation solutions along the SH392 corridor to meet 2030 mobility needs (Chapter 1.)" The study begins with an inventory of the natural and cultural resources found in the area, current services and land use patterns, census projections for population and employment, and estimates of future traffic demands from the 2030 NFRMPO Traffic Demand Model. From there, several transportation system alternatives were evaluated on three levels: initial, qualitative, and quantitative. A 'No Action Alternative' was also evaluated in which the SH392 corridor would remain unchanged. The alternatives were compared across east and west alignment groups (in relation to I-25). The recommendations from this study include 4-lane capacity improvements on SH392 and Carpenter Road, from US 287 on the west to SH 257 on the east, to "avoid unacceptable congestion and poor Level of Service (Chapter 6)." The typical section shown in this report near the I-25 interchange includes a raised median with left turn pockets, two through lanes in each direction, and a bike lane in each direction. The EOS also recommends several multi-model elements to meet mobility demands, including transit, dedicated

bike lanes, and pedestrian sidewalks. The EOS recognizes that if the Bus Rapid Transit (BRT) location proposed in the North I-25 EIS in the near vicinity to the I-25/392 Interchange is approved, bus service for the surrounding communities would be especially viable.

2030 NFRMPO Regional Transportation Plan – 2004

The 2030 Northern Front Range Metropolitan Planning Organization's (NFRMPO) Regional Transportation Plan (RTP) was adopted September 2, 2004.

Purpose

The RTP "provides vision for how local governments want to see future regional transportation needs met (http://www.nfrmpo.org/planning/rtp.asp)." This plan includes key transportation features that are directly relevant to the I 25/SH392 Interchange. Most notable is the inclusion of SH392 to the east of I-25 and Carpenter Road to the west as Regionally Significant Corridors. The MPO defines the term "regionally significant" as "A multi-modal, regional system comprised of transportation corridors that connect communities by facilitating the timely and safe movement of people, goods, information and services (NFRMPO, 2003)." This being said, the NFRMPO further recognizes the I-25/SH392 Interchange's bridge to be "functionally obsolete (Table II-4)". This term is defined as "those bridges which have acceptable load carrying capacity, but impose unacceptable physical restrictions (narrow width, restricted vertical clearance, limited sight distances, speed reducing curves, or insufficient waterway adequacy)."

CDOT SH392 Access Control Plan – 2006

The recommendations from this study include moving the intersection of the frontage road on the west side of I-25 further to the west, adding a signal, and allowing full movement access at the intersection. The study also recommends reconstructing the interchange ramps to improve alignment of the ramp terminals. There are no recommended changes to the Westgate intersection just to the east of I-25.

CDOT SH392 Striping Plan – 2006

This plan puts forth intermediate changes to SH392 and its adjacent frontage roads such as the realignment of the northbound ramp and a new southbound turning lane. These changes are focused on improving the safety of the current interchange. Many of these changes would be modified once the new interchange is constructed. Implementation of these changes began in August, 2007.

North I-25 Environmental Impact Statement – Draft

The Draft Environmental Impact Statement (DEIS) will determine the effect that adding various transportation improvements along I-25 will have on the lives of residents and commuters in the area.

Purpose and Need

"The Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA), in cooperation with the Colorado Department of Transportation (CDOT), have initiated preparation of the DEIS to identify and evaluate multi-modal transportation improvements along approximately 70 miles of the I-25 corridor from the Fort Collins Wellington area to Denver. The EIS will address regional and inter-regional movement of people, goods and services in the I-25 corridor."

Current Draft Alternatives, include the following:

1) No-Action; 2) Package A - New general purpose lane in each direction on I 25, commuter rail (US 287), a feeder bus system and an improved interchange at SH392.

3) Package B – New barrier-separated tolled express lanes in each direction, bus rapid transit station/routes, feeder bus connections and an improved Interchange at SH392.

This study is expected to continue through the solution screening process in which a preferred Package will be identified. The DEIS is expected in late 2009. Following that, funding will have to be identified for all of the construction measures. A record of decision could occur as early as 2009. The selected alterative will influence the future planning of the CAC and the interchange.

CHAPTER 2

Existing Conditions

The following sections describe the existing conditions surrounding the I-25/SH392 Interchange, issues, and constraints and potential opportunities. The following section focuses primarily on the CAC, but in certain cases will make reference to the larger analysis areas.

Overview

The I-25/SH392 Interchange borders the western edge of the Town of Windsor and the southeastern limits of the City of Fort Collins. This vital interchange serves many significant purposes for Fort Collins and Windsor, and the neighboring communities of Loveland and Larimer County.

Foremost, the interchange is an integral part of the regional transportation network. Nearly all of Windsor's traffic passes through the interchange, and an increasing number of drivers are using it as an alternative access point to Fort Collins. The interchange is also a key access point to residential areas in Larimer County as well as a regional entertainment destination, the Budweiser Center. According to some models, traffic here is expected to double or triple its current demand by 2030. With this level of growth, the importance of the interchange to the region's mobility is unquestionable.

Being situated on the border of two expanding communities, the interchange area serves an important aesthetic role for Windsor and Fort Collins. Currently, no distinctive gateway features or signage exists, and drivers are most likely to pass through the area without recognizing this as the entryway to these communities. With innovative planning, the interchange area could transform into a striking, revenue-generating gateway for both communities.

Perhaps the interchange area's most distinguishing feature is its environmental resources. Fossil Creek Reservoir and Regional Open Space, which sits just northwest of the interchange, is a critical resource for migratory waterfowl, nesting shore birds, and other wildlife. During the fall, as many as 50 bald eagles can be seen roosting in the mature willow and cottonwood trees circling the water. The complex network of wetlands and open water provides outstanding opportunities for wildlife viewing and other recreational activities. Fossil Creek Reservoir is a prized resource for the surrounding communities and a driving force in the interchange's planning efforts.

Finally, the interchange area provides services to the local and regional community. The area is comprised of a variety of land uses, with most existing development located within the Town of Windsor. Hundreds of acres of vacant land sit poised for development, and their fruition dependent on an improved interchange and frontage roads.
The following sections further elaborate on the area's existing land use, transportation network, utility systems, and natural resources.

Land Use and Aesthetics

EXISTING LAND USE

Figures 4-5 illustrate the existing land use composition within the CAC. Developed land uses only comprise 126 acres, or 20 percent, of the CAC.

The primary developed land use is commercial. Specific uses include retail stores and service related activities that depend heavily on their proximity to the interchange. Adjacent land uses primarily include rural estate residential, low density residential uses and open space.

Existing business on eastside of interchange.

FUTURE LAND USE

According to existing plans, growth is planned for this area – transitioning the region from a rural development pattern to a more urban pattern. Over 600 acres remain undeveloped in the CAC. Windsor and Larimer County zoning provide sources of information about the future. Fort Collins' zoning data does not include this area because it is part of the GMA and not yet within city limits.

The western portion of the CAC, within the Fort Collins GMA, is comprised of residential, farming, tourist, and commercial districts north of SH392, and an airport district south of SH392. The eastern portion of the CAC is predominately zoned by Windsor as commercial, with some limited industrial on the south side of the interchange and some residential in the northern portion of the study area.

Future land use plans for the interchange area provide a clearer picture of how the area will be developed in the future. The future land use data on the western half of the study area is based on the Fort Collins City Plan's Structure Plan (2004), and the Windsor information is based on the Windsor Comprehensive Plan (2002).

Fort Collins City Plan proposes new mixed-use commercial for the area. Adjacent to the CAC's western border, the future land use is urban estate, rural open lands, or a community separator. The land use plan also accounts for the preservation of Fossil Creek Reservoir. Integrating commercial and residential development with land preservation enhances the visual character and pedestrian experience through walking paths, view corridors, and educational opportunities.

Windsor's future land use follows a similar pattern, however with less of an emphasis on open lands and more on providing a residential, employment, and retail base. Within the CAC west of I-25, less than eighty percent of the area is allotted to be either commercial or employment district. The remaining area is comprised of residential mixed-use, natural areas and drainageways. Outside the CAC, the area is bordered by various residential density classes and some open lands farther north.

The total acreage within the CAC (including existing development) is approximately 760 acres. Of that, 626 acres are undeveloped. The entire CAC is privately owned (see table below).

Figure 4 - Future Land Use

LAND USE	*ACRES*	*% OF AREA*
Mixed-Use Commercial	*143*	*24%*
General Commercial	*252*	*39%*
Employment	*114*	*18%*
Mixed-Use Residential	*117*	*19%*
TOTAL	***626***	***100%***

GATEWAY ELEMENTS/SCENIC CHARACTER

Several studies acknowledge the scenic resources and character of the study area, such as the Northern Colorado Community Separator Study, Resource Management and Implementation Plan for Fossil Creek Reservoir Regional Open Space, Larimer County Open Lands Master Plan, and the Land Conservation and Stewardship Master Plan. As urban development is perceived as one of the primary threats to scenic resources, several land use plans have proposed appropriate uses and densities in order to protect the area's scenic character. To control the visual quality of commercial developments along I-25, design guidelines (such as the I-25 Corridor Plan and Development Design Standards for the I-25 Corridor) have been adopted by municipalities and regional coalitions and apply to portions of the study area.

The CAC contains two distinct visual character areas. The eastern part of the CAC contains commercial, retail and residential land uses in Windsor. On the west side of I-25, rural and natural lands, including cultivated landscapes, farms and related outbuildings, water bodies and wetlands, and county residential lots, are located. Agricultural lands in the foreground of these areas provide open, sweeping views of the foothills and Rocky Mountains to the west, and the Great Plains to the east. Fossil Creek is a significant component of the rural/natural area. Aside from directional signs associated with the Town of Windsor, there are no gateway features developed in this area.

Figure 5 - Developable Land Map

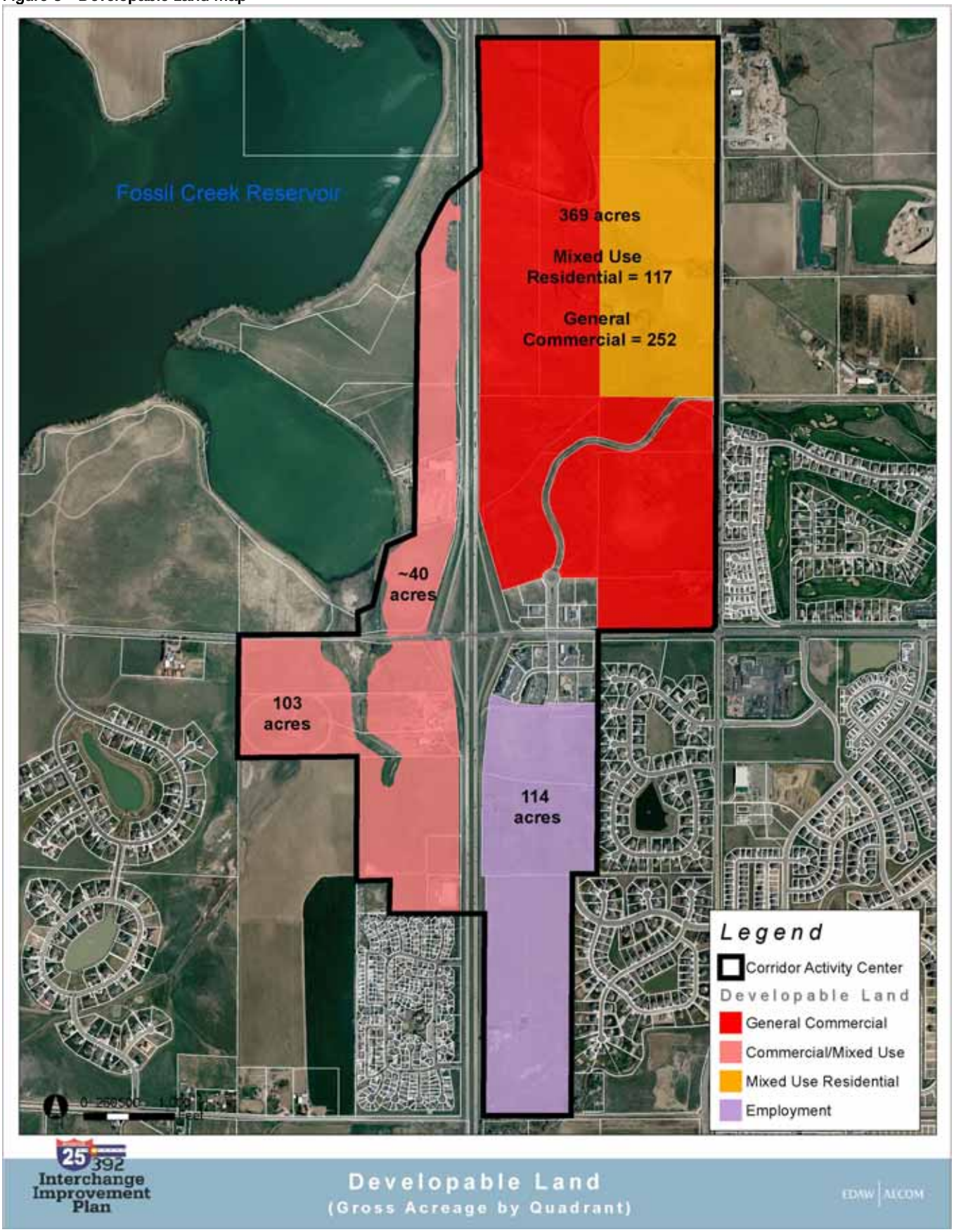
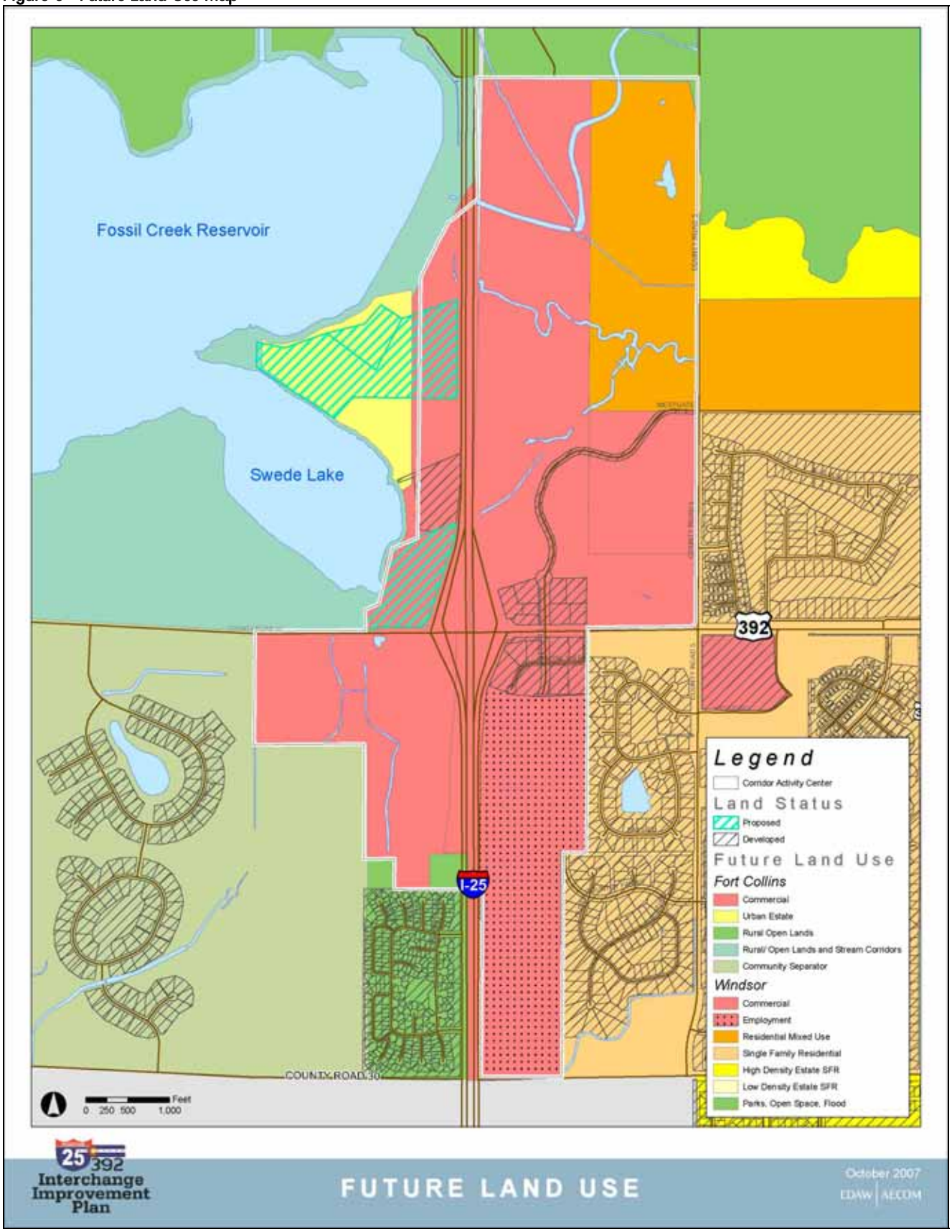


Figure 6 - Future Land Use Map



Transportation

TRANSPORTATION FRAMEWORK

Currently, SH392 (a 2-lane arterial) crosses over I-25 through the center of the site. On and off-ramps serve I-25 northbound and southbound from SH392, and an access road paralleling the west edge of I-25 serves an RV dealer to the north and agricultural and residential interests to the south of SH392. The 4-lane Westgate Drive serves commercial areas just north and south of SH392 immediately east of I-25, then turns into a 2-lane access road following the east edge of I-25 and connects to the I-25 frontage road through the south end of the property. The intersection of SH392 and Westgate Drive has traffic signal control. As noted in Chapter 1, approved future transportation guidance is provided by the Fort Collins and Windsor Transportation Plans (see Figure 12). Additional guidance can also be found in the SH392 EOS.

Existing Interchange

The existing I-25/SH392 Interchange is a diamond interchange with two-way frontage roads that intersect SH392 to the east and west of the interchange ramps. The SH392 bridge over I-25 is one lane in each direction, with left turn lanes at the interchange ramps. The one-lane ramps are currently spaced at 600 feet apart and have signal control; however the ramps on the north do not directly align with the ramps on the south. The frontage road to the west intersects SH392 approximately 120 feet to the west of the ramps, and the frontage road to the east, Westgate Drive, intersects SH392 approximately 600 feet to the east of the ramps. Both frontage road intersections are signal controlled.

The 2007 CDOT safety project at the interchange will add left turn lanes on SH392 at the I-25 southbound and northbound on ramps. The I-25 northbound off ramp will shift 100' to the east.

According to the 2000 Highway Capacity Manual, the overall performance of an intersection is determined based on the level of control delay experienced by motorists at the intersection. Depending on the level of delay that is experienced, each intersection can be scored on a Level of Service (LOS) scale and given a letter grade from 'A' to 'F', with 'A' being the best possible grade for the intersection. For signalized intersections, the delay for each individual turning movement is evaluated, then entire approaches are graded, and finally the intersection as a whole can be given a single LOS. For two-way stop controlled (TWSC) intersections, each minor approach is given a separate LOS and the worst LOS is reported as a single rating for the intersection.

Figure 7 - Level of Service Criteria

	Control Delay per Vehicle (sec/veh)	
LOS	*Un-signalized Intersection*	*Signalized Intersection*
A	*0-10*	*≤10*
B	*>10-15*	*>10-20*
C	*>15-25*	*>20-35*
D	*>25-35*	*>35-55*
E	*>35-50*	*>55-80*
F	*>50*	*>80*

The 392 EOS states:
"Currently, the highest volumes are found just east of I-25 with over 20,400 vehicles per day (vpd). Volumes decrease gradually traveling east and west to approximately 9,500 vpd at each end of the study area. The Level of Service (LOS) will continue to degrade as traffic volumes increase over time. Currently, the worst LOS on the corridor occurs at the I-25 interchange and is LOS E. The data indicates that existing signalized intersections operate at LOS D or better, and in most cases operate at a LOS of C or better.

Consistent with regional planning, the SH392 EOS considered future travel demand for the year consistent with the currently-approved NFRMPO 2030 Regional Transportation Plan. Travel demand projections for the SH392 EOS were forecasted using the 2030 NFRMPO Travel Demand Model. Volumes on the corridor were projected to increase in 2030 to 37,500 vpd just east of I-25 and taper off to 21,000 vpd at the western terminus and 24,600 vpd at the eastern terminus. These numbers represent a two- to three-fold increase in volumes over the existing year. In 2030, all sections of the corridor will operate at LOS of F."

As shown by Figure 8, the interchange and nearby transportation infrastructure are currently operating at failing or near failing levels of service. Delay to the driver on SH392 and on the interchange ramps is recurring and significant in the peak hours of the day.

Figure 8 - Existing Level of Service

Existing Intersection Level of Service, AM/PM	*SH392 EOS (2006)*	*I-25 EIS (Ongoing)*
West Frontage Road	*D/E*	*C/D*
West Ramps	*C/D*	*F/F*
East Ramps	*B/C*	*B/B*
East Frontage Road	*B/B*	*B/B*

Figure 9 - Year 2030 Level of Service

2030 Intersection Level of Service with No Action (AM/PM)	*SH392 EOS (2006)*	*I-25 EIS (Ongoing)*
West Frontage Road	*F/F*	*F/F*
West Ramps	*F/F*	*F/F*
East Ramps	*F/F*	*F/F*
East Frontage Road	*F/F*	*F/F*

In addition to the operational issues at the interchange, the following design deficiencies were also noted:

- SH392 and the interchange ramps do not meet current AASHTO design and safety standards for sight distance and clear zone.
- The existing SH392 bridge over I-25, built over 50 years ago, is functionally obsolete; and the number of lanes and shoulder width on the bridge do not meet current or forecast traffic demands.
- In addition to operational deficiencies, inadequate intersection spacing and lack of turn lanes also lead to safety concerns.
- The relatively steep profile grades at the west intersection approach further reduce the sight distance along SH392 and provide minimal vertical clearance over I-25.
- The interchange and surrounding infrastructure provide little or no features to accommodate pedestrian or bicycle travel.

Overall, the interchange is outdated and does not meet the needs of the existing transportation network. Delays and potential accidents, due to deficient design characteristics, will only increase as development in the area continues.

Interchange Use by Origins-Destinations

Working with the North Front Range Metropolitan Planning Organization (NFRMPO), data from the regional travel demand model was used to estimate the major regional origins and destinations, which currently use and are projected to use the I-25/SH392 Interchange. The 2000 Base Year Model is calibrated to 2000 U.S. Census data, and the 2030 Build Model reflects the 2030 programmed transportation network and 2030 socioeconomic forecasts for the region.

Using the models, PM Peak Period select link analysis was used on the links directly east and west of the interchange on SH392. The results of the analysis are shown on Figure 10 (2000 Base Year Model) and on Figure 11 (2030 Build Model).

Figures 10-11 show percentage of total trips, by major jurisdictional origins and destinations in the area, that travel on the SH392 roadway links directly east and west of the interchange. Also shown on the 2000 Base Year map are current (2005-2006) ADT traffic counts that were collected from the City of Fort Collins, City of Loveland, and CDOT databases. The 2030 Build Model map also shows projected traffic volumes developed for the SH392 EOS and North I-25 EIS.

Interchange Alternatives

Several interchange types have been previously studied at the I-25/SH392 Interchange. The following three interchanges were studied using considerations such as cost, traffic operations, and impacts to the surrounding environment:

- Full Diamond, 600-700 feet between ramp terminals
- Tight Diamond, 300-450 feet between ramp terminals
- Single Point Urban Interchange, all ramps converge in the middle

The interchange configuration, which is used as the basis for this report, is a tight diamond configuration. This configuration is recommended as part of the ongoing North I-25 EIS. According to the EIS, preliminary evaluations of this interchange configuration indicate the tight diamond will help avoid significant environmental resource impacts and will allow acceptable traffic operations. The City of Fort Collins and the Town of Windsor analyses found that both the tight and the full interchange perform adequately; however, frontage roads required adjustment. The following intersection spacing is recommended from the North I-25 EIS:

- 600 feet between the realigned west frontage road and the southbound ramp terminal
- 450 feet between ramp terminals
- 600 feet between the northbound ramp terminal to Westgate Drive

Figure 10 - Interchange Use by Origin Destination Year 2000

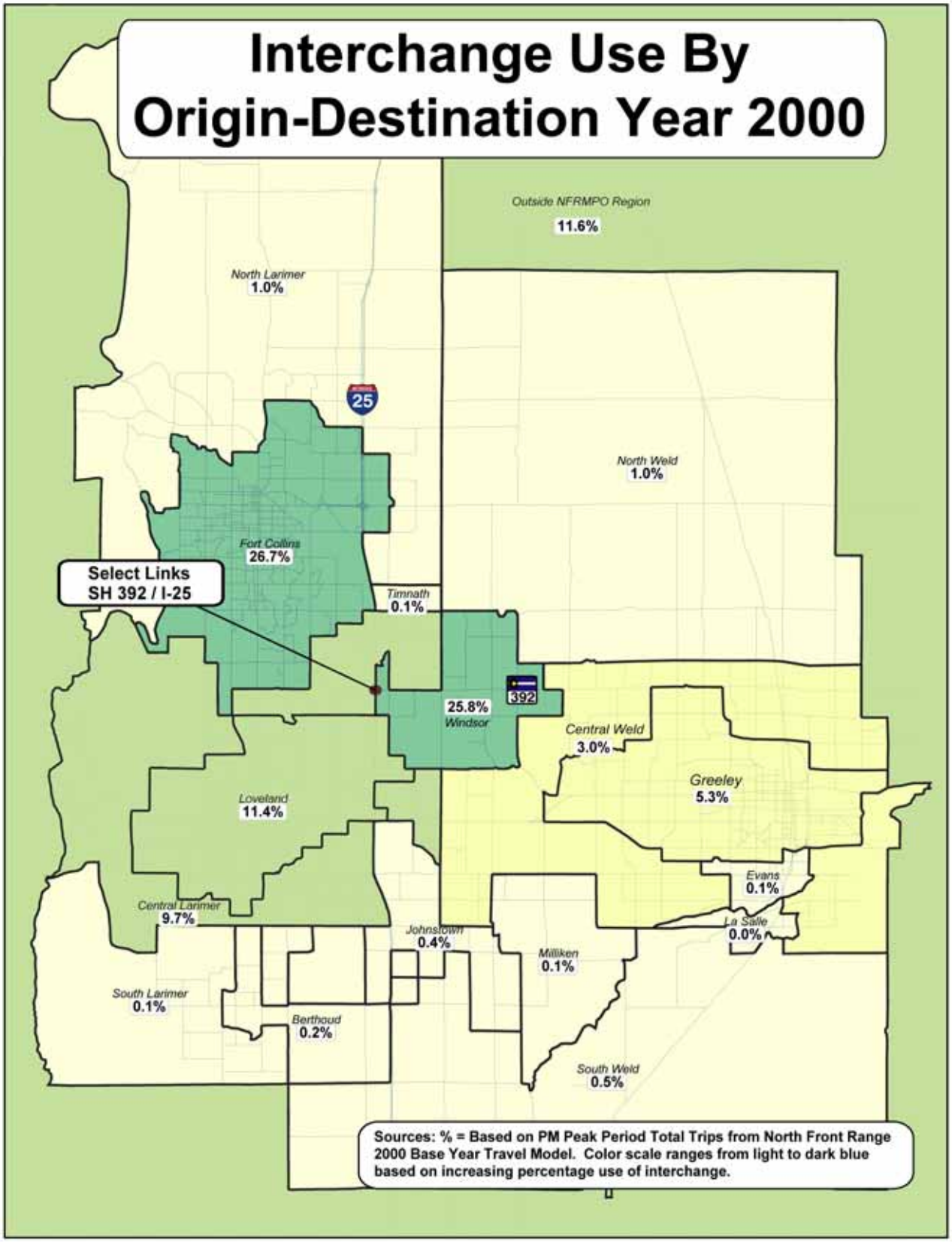


Figure 11 - Interchange Use by Origin-Destination Year 2030

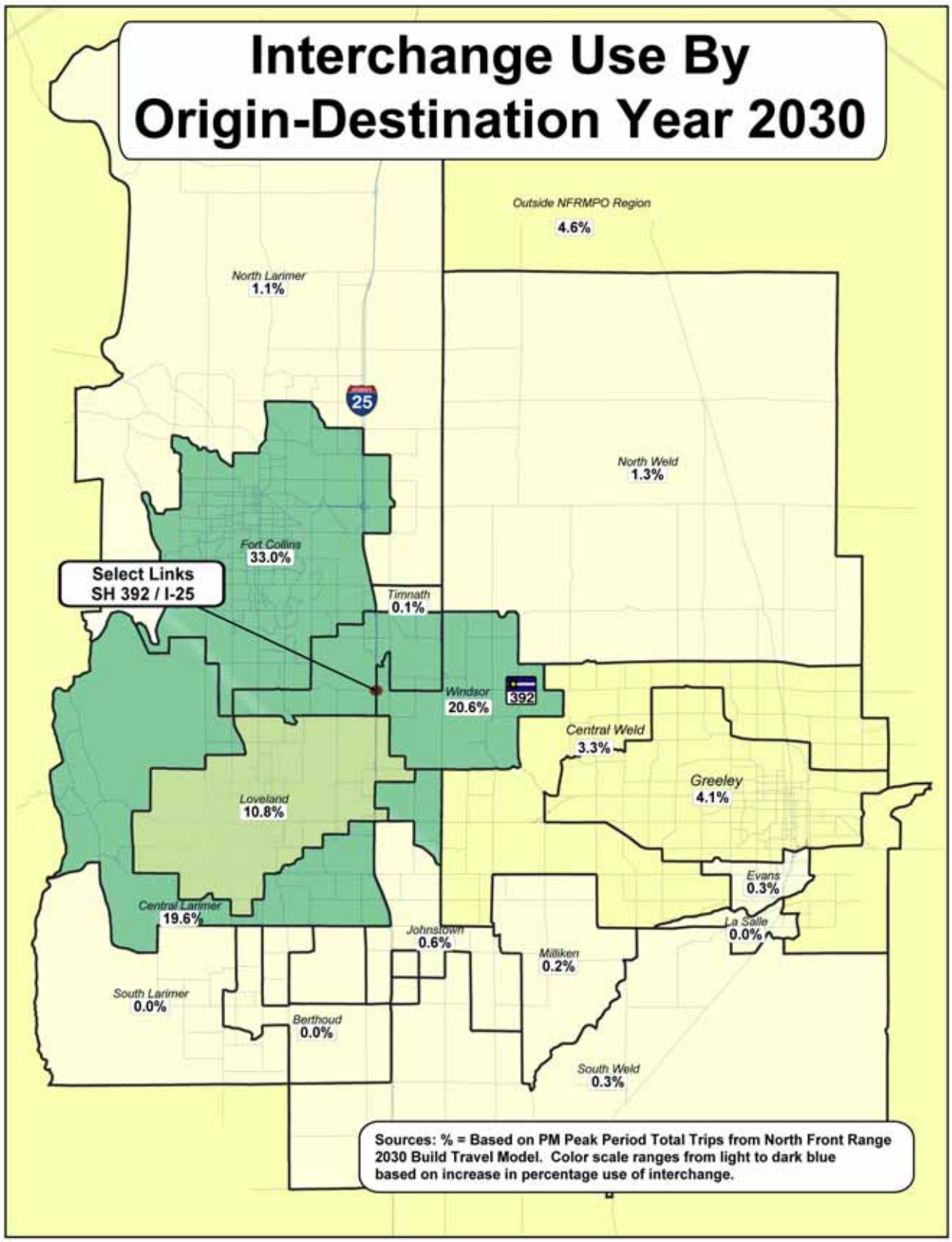
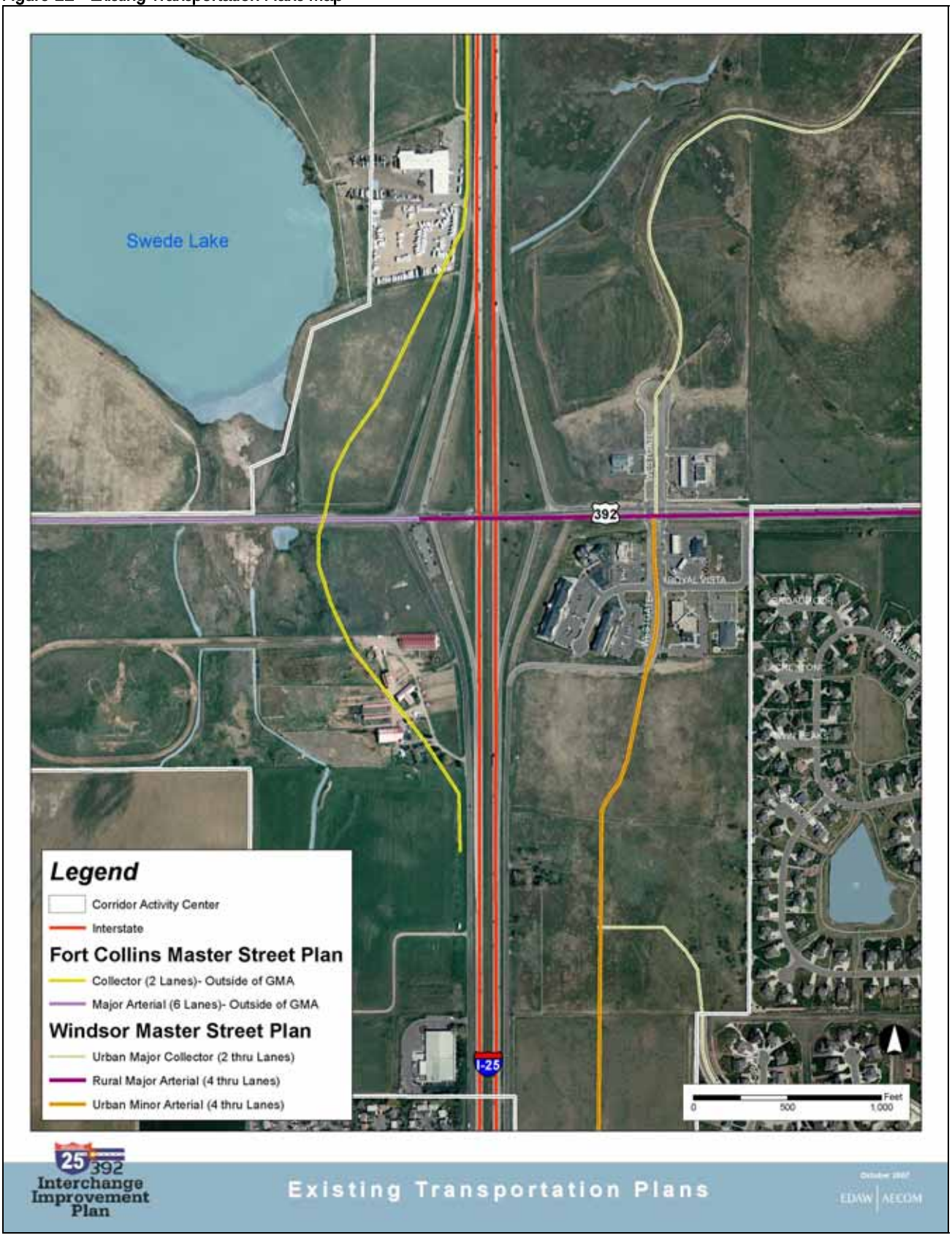


Figure 12 - Existing Transportation Plans Map



Transit

The surrounding cities of Fort Collins, Loveland and Greeley, each have existing transit systems, which provide public transportation within each city. All of these services consist of bus service on fixed routes. The City of Fort Collins TransFort bus system runs the Fox Trot service hourly on US 287 between Fort Collins and Loveland. None of these transit elements currently provides service to the I-25/SH392 Interchange area.

In addition to these existing services, two proposed projects are listed on the NFRMPO 2030 RTP. These projects are the Fort Collins to Greeley Transit Service during peak hours with four roundtrips each weekday via SH14; and the Windsor Transit Service that would establish transit service in the Windsor area. Both of these projects could provide a connection from these municipalities to a proposed Bus Rapid Transit (BRT) station at the I-25/SH392 Interchange via SH392.

The North I-25 DEIS Package B currently includes a proposed BRT station near the interchange at I-25 and SH392.

Fourteen potential BRT sites surrounding the I-25/SH392 Interchange were evaluated for the North I-25 DEIS Package B Alternative. Evaluations were made using a series of station site evaluation criteria outlined in Figure 13.

Figure 13 - Station Site Evaluation Criteria

Parks	*Wetlands*	*Environmental Justice*
Historic Property	*Hazardous Materials*	*Threatened/ Endangered Species*
Existing or Committed Infrastructure	*Platform Site Relationship – BRT*	*Platform Site Relationship – Commuter Bus*
Site Access	*Traffic Impact*	*Access to Bus Routes*
Pedestrian + Bicycle Connectivity	*Zoning*	*Adjacent Land Use*
Compatible with Plans	*Access to Destinations/ Origins*	*Proximity to Residential*
Parcel Availability	*Visual Impact*	*Expansion Opportunity*
Joint Development Opportunity	*Engineering*	

Source: North I-25 EIS

Sites were scored with regard to the criteria listed above, and are outlined in Figure 14. Some sites were determined to have fatal flaws. These fatal flaws had to do with issues regarding wetlands and threatened / endangered species. For the site to be considered to have a fatal flaw with regard to wetlands would mean that over 20% of the site would impact wetlands. For a site to be considered a fatal flaw due to issues regarding threatened / endangered species, the station site would need to impact threatened / endangered species considered high quality. More specifically, if a site were within a ¼-mile buffer zone of a bald eagle nesting area, the site would be considered to have a fatal flaw.

Five out of the potential 14 sites were determined to have fatal flaws (Figure 14) due to issues with either one or a combination of the following criteria: wetlands and threatened / endangered species. However, under closer examination, it was found that portions of Sites A through D would be outside of the bald eagle buffer zone. Therefore, these sites should not necessarily be considered to have fatal flaws due to threatened / endangered species. Since these sites are not necessarily fatally flawed sites, their scores were calculated as per the criteria mentioned above, and are included in Figure 15.

The sites with the highest potential for the BRT include the northwest, southwest, and southeast quadrants of the interchange. Sites A and B scored highest among the sites in the northwest quadrant. A portion of either Site A or Site B could accommodate a BRT station without encroaching on the ¼-mile bald eagle buffer zone. Site C is already developed and should be removed from consideration. Site D scored significantly lower than Sites A and B, and should be removed from consideration. Site M was identified as the preferred site by the North I-25 EIS. Further discussion of potential BRT sites can be found in the next chapter.

Figure 14 - Station Site Evaluation

Potential Sites	Comments	Site Score*
I-25 and SH392 BRT-A	Fatal Flaw T/E	FF
I-25 and SH392 BRT-B	Fatal Flaw T/E	FF
I-25 and SH392 BRT-C	Hazmat/ Fatal Flaw T/E	FF
I-25 and SH392 BRT-D	Hazmat/ Fatal Flaw T/E	FF
I-25 and SH392 BRT-E	Fatal Flaw/ Wetlands	FF
I-25 and SH392 BRT-F	Can be located to mitigate impacts to Bald Eagle population	6
I-25 and SH392 BRT-G	No Comments	12
I-25 and SH392 BRT-H	Can be located to mitigate impacts to Bald Eagle population	6
I-25 and SH392 BRT-I	Can be located to mitigate impacts to Bald Eagle population	0
I-25 and SH392 BRT-J	Can be located to mitigate impacts to Bald Eagle 2% grade	4
I-25 and SH392 BRT-K	Location already developed	12
I-25 and SH392 BRT-L	Can be located to mitigate impacts to Bald Eagle population	8
I-25 and SH392 BRT-M	Can be located to mitigate impacts to Bald Eagle population	14
I-25 and SH392 BRT-N	Property owner opposed	14

** FF = Fatal Flaw*
Source: North I-25 EIS

Figure 15 - Station Site Evaluation – Outside of Eagle Buffer

Potential Sites	Comments	Site Score
I-25 and SH392 BRT-A	Can be located to mitigate impacts to Bald Eagle population	14
I-25 and SH392 BRT-B	Can be located to mitigate impacts to Bald Eagle population	14
I-25 and SH392 BRT-C	Location already developed	2
I-25 and SH392 BRT-D	No Comments	6

Infrastructure

Existing utilities and infrastructure related to site development are described in the following paragraphs. An electric transmission line follows along the west edge of I-25 from the north end of the property to about ¼ mile south of SH392, then crosses over to the east edge of I-25 and proceeds south through the remainder of the property. Poudre Valley REA would supply power to the site (overhead or underground) from this transmission line.

Xcel Energy has an existing 4-inch plastic gas main in SH392, entering the east edge of the property and then serving the Ptarmigan Center north and south along Westgate Drive. Another 4-inch plastic main in SH392 serves Eagle Ranch Road to the west of the site. Both of these lines would be expanded to supply the site with natural gas.

Qwest serves telecommunications to existing customers within the project area. Fiber optic lines are available east of I-25, and the section west of I-25 is copper line fed. Interaction with the Qwest LDA Coordinator would be necessary to initiate telecommunications throughout the undeveloped portion of the site.

The Fort Collins–Loveland Water District / South Fort Collins Sanitation District presently serves customers in the project area with potable water and wastewater removal. There is a 12-inch water line in County Road 5 and a 24-inch line adjacent to SH392 east of I-25. Wastewater on the east side could be collected by extending a line to the interceptor, which is ½ mile east of County Road 5 on 32E. Wastewater on the west of I-25 may be combined with the Eagle Ranch gravity feed system.

Windsor Public Works supplies stormwater service to the Westgate Commercial Center and Ptarmigan Business Park east of I-25. Since portions of the study area lie in the Fort Collins Growth Management Area, stormwater improvements on the west side of I-25 will need to be coordinated with the City of Fort Collins.

The site drains from south to north. The southwestern corner of the site (west of I-25 and south of SH392) drains to Swede Lake. The rest of the site drains to the north, and ultimately to Fossil Creek or to the Fossil Creek Reservoir outlet (the Fossil Creek Reservoir outlet crosses the very northern portion of the site).

Fossil Creek Reservoir outfall station.

The Fossil Creek Reservoir collects runoff from a 28.25-square-mile drainage basin, and has a capacity of 11,100 acre-feet. Peak design flood inflow to the reservoir is 80,800 cubic feet per second (cfs); outflow from the spillway for the design flood is 68,926 cfs (Figure 16). Outflow from Fossil Creek Reservoir and Fossil Creek is discharged into the Cache La Poudre River approximately two miles east of the site.

SH392 on Westside of interchange.

Figure 16 - Spillway

Natural Areas & Open Lands

PROTECTED LANDS

Fossil Creek Reservoir is one of the region's most important wildlife habitats. A complex of open water, wetlands, and riparian areas makes it a critical area for raptors, migratory waterfowl and nesting shorebirds. In addition to its role in sustaining the region's ecosystem, it is a valuable open space resource for the community. The site offers outstanding recreational opportunities and preserves key viewsheds. The designated open space is supplemented by several private conservation easements and other smaller city or county protected areas.

City or County Protected Areas:

- Fossil Creek Regional Open Space
- Fossil Creek Reservoir Natural Area
- Fossil Creek Wetlands Natural Area
- City of Fort Collins Natural Area off northeast edge of Reservoir

Several conservation easements in the vicinity of the study area:

- Fossil Lake PUD conservation easement
- Dickinson conservation easement
- Conservation easement - north side of the reservoir
- Conservation easement - southern edge of Swede Lake

WILDLIFE HABITAT

A search of county, state, Colorado Natural Heritage Program (CNHP), and federal databases was performed to determine if significant wildlife species or habitat were present or have the potential to occur in the area.

Numerous city and county natural areas and open lands are present in the vicinity of the project area and include the following:

- Eagle View City of Fort Collins Natural Area – approximately 86 acres, 1.5 miles north of project area on the west side of I-25
- Larimer County Fossil Creek Regional Open Space – located around Fossil Creek Reservoir
- Fossil Creek drainage – located ½ mile north of project area

Other natural features include:

- Outlet from Swede Lake
- Prairie dog colony northwest side of intersection of SH392 and I-25
- Wetlands on south side of Swede Lake
- Wetlands on Swede Lake outlet
- Other wetland areas

Wetlands on the parcel have been mapped by the U.S. Department of the Interior, Fish and Wildlife Service National (USFWL) Wetland Inventory (NWI) (Windsor, Colorado Quadrangle 1996) and by Larimer County (Cooper and Merritt 1996). Both mapping efforts used aerial photography to determine wetland areas. Wetlands identified by Cooper and Merritt were based on the USFWS wetland definition, where a wetland would require only one of the three parameters of wetland vegetation, hydrology, or soil to be classified as a wetland. Larimer County wetland mapping has also classified wetlands by wetland type and assigned a quality rating. This mapping can be considered a preliminary tool for determining jurisdictional wetlands for regulation under Section 404 of the Clean Water Act (the U.S. Army Corps of Engineers (Corps) permit program. A wetland delineation, based on the 1987 Wetland Delineation Manual, would need to be performed to determine if all three parameters (i.e., occurrence of hydrophytic vegetation, hydric soils, and wetland hydrology) were present, and thus potentially regulated by the Corps if they were determined to be "jurisdictional."

Both NWI and Larimer County mapping show wetland areas in or in close proximity to the project area (Figure 21). Wetlands identified by NWI mapping include Swede Lake, which is classified as lacustreine limnetic / open water / artificial / intermittently exposed / permanent (NWI code of L1OWKZ), and surrounding emergent wetlands classified as palustrine emergent / saturated / semi permanent / seasonal (PEMY). Wetlands identified by Larimer County mapping include herbaceous wet meadow, herbaceous salt meadow, herbaceous, bare mineral soil, aquatic, and littoral. Larimer County mapping also assigns an importance, quality, and sensitivity ratings for each wetland, each on a scale of 1 (low) to 4 (high). Wetlands found in the project area ranged from a 1 to 4 rating, with most falling in the 3 to 4 category. Both

the NWI and Larimer County mapping were done over 10 years ago; a field wetland delineation will be necessary to make a final determination on the status of wetlands.

Likely jurisdictional wetlands in the project area would include wetlands directly associated with the Fossil Creek drainage and the drainage channel flowing from Swede Lake to Fossil Creek. A "blue line," either solid or dashed, represents a drainage on a 1:24,000 USGS quadrangle map, and typically represent a "waters of the U.S." that are regulated by the U.S. Army Corps of Engineers under Section 404 of the Clean Water Act (1972). If impacts to jurisdictional wetlands are greater than 0.5 acre, a Nationwide Permit #14 would be required for construction and the general conditions of the permit followed.

Presidential Executive Order 11990 (1990), Protection of Wetlands, was signed by President Jimmy Carter in 1977 and requires all federal agencies to avoid and minimize impacts to the nation's wetlands, whether those impacts are direct or result in the indirect degradation of wetlands. All impacts to wetlands for CDOT projects must be mitigated – the size of the impact does not matter, nor does it matter whether the wetlands are jurisdictional or non-jurisdictional (non-jurisdictional wetlands include irrigation ditches and roadside drainage ditches). Mitigation for all wetland impacts that are either jurisdictional or non-jurisdictional would be at a replacement ratio of 1 to 1.

Figure 17 - Federally Listed Species for Larimer County, Colorado (USFWS 2007) and Potential for Occurrence in the Project Area

Common Name	*Scientific Name*	*Status*	*Potential for Occurrence*
Bald Eagle	*Haliaeetus leucocephalus*	*Threatened*	*Observed within and in the vicinity of the project area.*
Black-footed Ferret	*Mustela nigripes*	*Endangered*	*Potential habitat for species (prairie dog colonies) present on site. No known past or present occurrence on site.*
Colorado Butterfly Plant	*Gaura neomexicana ssp. coloradensis*	*Threatened*	*Potential habitat (wetlands and irrigation ditch) present on site. No known past or present occurrence on site.*

Important wildlife in the vicinity of the project area includes bald eagles (*Haliaeetus leucocephalus*), great blue heron, white pelicans, a variety of waterfowl, wading and shore birds, and other raptors. Several prairie dog towns are also found in the vicinity, which can provide nesting and habitat values to the Colorado State threatened burrowing owl (*Athene cunicularia*). A list of Federal and Colorado State listed species of importance in Larimer County is presented in Figures 17-18 respectively. A search of the CNHP database indicated that no rare or imperiled species and natural communities (an element occurrence or EO) have been recorded in the project area or the immediate vicinity (CNHP 2007).

Critical roosting habitats on portions of Fossil Creek Reservoir.

Bald eagles are one of the more notable species found in the project area. The USFWS follows the Northern States Bald Eagle Recovery Plan (NSBERT 1983) guidelines for protection of essential wintering areas, which are important for survival and recovery of the eagle. Essential winter habitats are defined as "Locations used by 15 or more eagles for two weeks or more." Areas in or near the project area falling under these regulations would be portions of Fossil Creek Reservoir and Swede Lake. Bald eagles are known to occur in the Fossil Creek Reservoir area, specifically at Fossil Point; along the shoreline of the northeast corner of the reservoir; and along the northwest corner of the reservoir. Bald eagles use these areas for staging areas before moving to roost sites, as day and night time roosting areas, and have also been observed foraging in other areas of the reservoir.

Surveys found that the greatest numbers of eagles occurred in December and early January, and that few remained by March (ERO 2006). The nearest active nest site to the project area is located approximately two miles east of Fossil Creek Dam along the Poudre River.

Recommendations by CDOW include: "Activities should be eliminated within ¼-mile radius of winter roosts between November 15 and March 1

Open lands on the northeast corner of interchange.

15 (also a recommendation stated in the *Fossil Creek Area Management Plan* (1998) and the *Resource Management & Implementation Plan for Fossil Creek Reservoir Regional Open Space*, EDAW, April 2003) Restrictions may be necessary out to line of sight from roost to activities.

Recent communications with CDOW specific to the project indicate that because of the high level of pre-existing activity at the I-25/SH392 Interchange area, line of sight requirements would likely be waived. In addition, if construction activities are in proximity to the northeastern corner of the reservoir (i.e., haul road location), proximity to roosts in this location may be an issue (personal communication with Brent Bibles, CDOW, 2006).

REGULATIONS

Both the City of Fort Collins and Larimer County have specific regulations related to natural habitat and features, including wetlands and natural areas. See Figures 19-20. The City has established buffers in their land use code (Fort Collins Land Use Code – Article 3, General Development Standards, Section 3.4.1 – Buffer zone performance standards) for these areas.

Figure 18 - List of State Special Status Species and their potential to Occur in the Project Area

Common Name	Scientific Name	Status1	Habitat and Occurrence
AMPHIBIANS			
Northern Leopard Frog	Rana pipiens	SC	Potential habitat present around Swede Lake perimeter, ditches and canals. Minimal refugia from predators i.e. fish, herons. Occurrence unknown.
REPTILES			
Common Garter Snake	Thamnophis sirtalis	SC	Potential habitat present around margins of Swede Lake, ditches and canals.
BIRDS			
Bald Eagle	Haliaeetus leucocephalus	ST	Potential habitat present in Swede Lake and Fossil Creek Reservoir area.
Burrowing Owl	Athene cunicularia	ST	Potential habitat present in prairie dog town areas. Occurrence unknown.
Ferruginous Hawk	Buteo regalis	SC	Potential habitat present in prairie dog town areas. Occurrence unknown.
Western Snowy Plover	Charadrius alexandrinus	SC	Potential habitat present in prairie dog town areas. Occurrence unknown.
Mountain Plover	Charadrius montanus	SC	Potential habitat present in prairie dog town areas. Occurrence unknown.
Long-Billed Curlew	Numenius americanus	SC	Potential habitat present around lake margins. Occurrence unknown.
MAMMALS			
Black-Footed Ferret	Mustela nigripes	FE, SE	Potential habitat present. Occurrence unknown.
Preble's Meadow Jumping Mouse	Zapus hudsonius preblei	FT, ST	Potential habitat present around wetland margins. Occurrence unknown.
Black-tailed Prairie Dog	Cynomys ludovicianus	SC	Known to occur on site
Swift fox	Vulpes velox	SC	Potential habitat present in prairie areas. Occurrence unknown.
PLANTS			
Colorado Butterfly Plant	Gaura neomexicana var. Coloradensis	FT	Potential habitat present in wetland areas. Occurrence unknown.
Ute Ladies'-Tresses	Spiranthes diluvialis	FT	Potential habitat present in wetland areas. Occurrence unknown.

Figure 19 - Relevant Buffers Established by the City of Fort Collins for Natural Habitats & Features

Isolated Areas	*Buffer Zone Standard***
Irrigation ditches that serve as wildlife corridors	*50 feet*
Isolated patches of native grassland or shrubland	*50 feet*
Isolated patches of native upland or riparian forest	*50 feet*
Woodlots/farmstead windbreaks	*25 feet*
Naturalized irrigation ponds	*50 feet*
Naturalized storm drainage channels/detention ponds	*50 feet*
Lakes or reservoirs	*100 feet*
Wetlands < 1/3 acre in size	*50 feet*
Wetlands > 1/3 acre in size, without significant use by waterfowl and/or shorebirds	*100 feet*
Wetlands > 1/3 acre in size with significant use by waterfowl and/or shorebirds.	*300 feet*
Stream Corridors	
Fossil Creek and Tributaries	*100 feet*
Special Habitat Features/Resources of Special Concern	
Bald eagle communal feeding sites	*660 feet*
Bald eagle communal roost sites	*1,320 feet*
Red-tailed ferruginous and Swainson's hawk nest sites	*1,320 feet*
Winter raptor concentration areas	*300 feet*
Great blue heron colonial nest sites	*825 feet*
Migratory waterfowl concentration areas	*300 feet*
Nesting waterfowl concentration areas	*300 feet*
Special Habitat Features/Resources of Special Concern	
Migratory shorebird concentration areas	*300 feet*
Nesting shorebird concentration areas	*300 feet*
Migratory songbird concentration areas	*300 feet*
Locations of Preble's meadow jumping mouse	*300 feet*
Locations of rare butterfly species	*site analysis*
Locations of rare, threatened or endangered plant species	*site analysis*
Locations of geological or paleontological sites of special interest	*site analysis*

Table distances may be modified as described in Section 3.4.1(E)(1) above to meet performance standards.

***Buffer zone table distances shall be measured in a straight line without regard to topography. Measurements will be made from the outer edge of the natural habitat or feature to the boundary of the lot, tract, or parcel of land that defines and describes the development.*

The City of Fort Collins *City Plan Principles and Policies* determines the City can best achieve the values and ideals expressed in the *Community Vision and Goals* document and the basic framework of the future of Fort Collins as reflected in the *City Structure Plan* to the year 2025. Relevant policies include the following:

- **Fort Collins City Plan and Polices – Policy ENV-6.1, Protection and Enhancement**. The City's regulatory powers will be used to preserve, protect, and enhance the resources and values of natural areas by directing development away from sensitive natural features – such as wetlands, riparian areas and wildlife habitat. When it is not possible to direct development away from natural areas, these areas will be protected in the developed landscape.
- **Fort Collins City Plan and Polices – Policy OL-1.2, Open Lands.** The City will conserve and integrate open lands into the developed landscape by directing development away from natural habitats and features, and by using innovative planning, design, and management practices. When it is not possible to direct development away from natural habitats and features, they should be integrated into the developed landscape in a manner that conserves their integrity. If integration will not effectively conserve the integrity of the natural habitats and features, then either on-site or off-site mitigation will be applied. The City will encourage and assist efforts by private landowners and organizations to integrate open lands into new development, and to protect, restore, or enhance privately owned natural areas within the Growth Management Area.
- **Fort Collins City Plan and Polices - Policy OL-1.6, Preservation, Protection and Enhancement of Natural Area**. The City will acquire and manage land and water to preserve, protect, and enhance natural areas.

Other regulations and guidelines that may be specific to wildlife species in the project area include:

- **Federal Endangered Species Act (ESA).** The Act provides protection for plants and animals whose populations are dwindling to levels that are no longer sustainable in the wild. The Act sets out a process for listing species, which allows for petition from any party to list a plant or animal.
- **Bald and Golden Eagle Protection Act of 1940.** The Act prohibits the taking or possession of and commerce in bald and golden eagles, with limited exceptions.
- **Migratory Bird Treaty Act of 1918.** The Act decreed that all migratory birds and their parts (including eggs, nests, and feathers) were fully protected.

- **Programmatic Biological Assessment**, Conference Report, and Conservation Strategy for Impacts from Transportation Improvement Projects on Select Sensitive Species on Colorado's Central Short Grass Prairie. U.S. Fish and Wildlife Service's programmatic biological opinion on impacts to federally listed endangered and threatened species associated with Federal Highway Administration (FHWA) funding of the Colorado Department of Transportation's (CDOT) routine maintenance and upgrade activities on existing transportation corridors of eastern Colorado over the next 20 years.

SOILS

Soils on the site are dominated by the Wiley silt loams, which are well drained upland soils that formed in uniform, silty, wind deposited material (NRCS 1980). These soils are mildly alkaline, and are typically used for dry-farmed crops and for pasture and native grasses. The range site for the Wiley silt loam is "loamy plains." Soils of the Longmont series are found in a small area adjacent to the eastern perimeter of Swede Lake. These soils are deep and poorly drained and formed in alluvium, mainly from clay shale. Surface soils are strongly alkaline and are used for native grasses. The range site for the Longmont series is "salt meadow." None of the soils found in the project area are listed as hydric on the Colorado Hydric Soil list (USDA 1980).

WEEDS

Control of weeds is addressed by the Larimer County Weed Control Districts and is regulated under Chapter 20, Article III of the Fort Collins City Code (1987).

Weeds identified on the Larimer County weed list include:

- Canada thistle (*Cirsium arvense*)
- Knapweed, diffuse (*Centaurea diffusa*)
- Knapweed, Russian (*Acroptilon repens*)
- Knapweed, spotted (*Centaurea maculosa*)
- Leafy spurge (*Euphorbia esula*)
- Musk thistle (*Carduus nutans*)
- Toadflax, Dalmatian (*Linaria genistifolia*)
- Toadflax, yellow (*Linaria vulgaris*)
- Tamarisk (*Tamarix ramosissima, parviflora*)
- Yellow Toadflax (*Linaria vulgaris*)

The following weeds have not been declared noxious, but are troublesome:

- Perennial Pepperweed or Tall Whitetop (*Lepidium latifolium*)
- Hoary Cress (*Cardaria draba*)

A weed survey of the site should be conducted before any construction occurs. Questions to be addressed include:

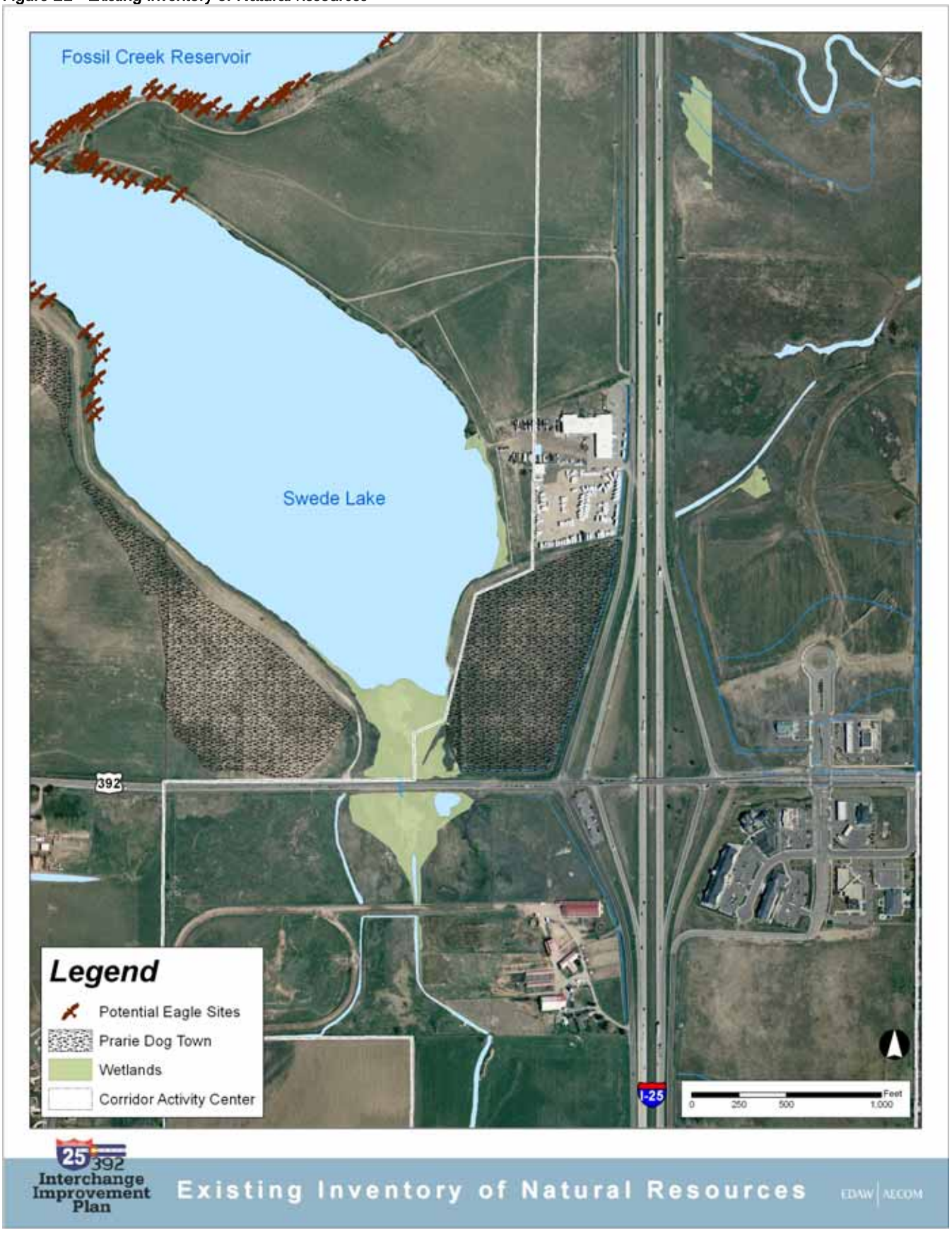
- How will costs be equitably apportioned between Fort Collins, Windsor, CDOT, NFRMPO and CAC landowners, and residents and business owners in the greater vicinity?
- Which type of district is most appropriate to achieve the funding goals of the project?
- If a district is formed, which municipality might oversee its formation and administration?
- Will Larimer County participate in district administration or revenue enforcement?
- Which governmental entity will be responsible for tax or fee collection enforcement?
- Will the municipalities support the bond issuance necessary for interchange improvements? Or will the district be solely responsible?
- What is CDOT's role in funding or maintaining the improved interchange?
- Who will "own" the overpass once it is improved?

Figure 20 - Buffers established by Larimer County for Natural Habitats & Features.

Natural Habitat or Feature	*Buffer Zone*
Bald eagle winter roost sites	*1,320 foot*
Bald eagle hunting and feeding sites	*660 to 1,320 feet*
Colonial nesting sites for great blue heron and black crowned night herons	*825 feet*
Wading bird, shorebird and waterfowl production areas, wintering areas or feeding areas	*300 feet*

Southwest vacant land and wetlands.

Figure 21 - Existing Inventory of Natural Resources



CHAPTER 3

Issues

The following list contains issues relevant to the I-25/SH392 Interchange Improvement Plan. The issues are listed according to their priority, as interpreted from initial stakeholder, property owner and TAC meetings.

West Frontage Road at I-25/SH392 interchange.

Partnerships / Intergovernmental

Forging successful partnerships between landowners and among agencies is an integral part of this project's success. Partnerships between landowners will facilitate unified development of the area. Intergovernmental coordination will serve as the foundation for a viable financing solution.

The interchange serves two incorporated communities as well as residents in the unincorporated area. The financial burden of upgrading the current facility will be borne by the City of Fort Collins, the Town of Windsor, NFRMPO, landowners in the immediate vicinity, and CDOT. A taxing district will most likely be necessary to collect taxes or fees, and to fund interchange replacement and frontage road realignment. There are several issues that arise when cooperation is required from several jurisdictional layers:

- How will costs be equitably apportioned between Fort Collins, Windsor, CDOT, NFR MPO and CAC landowners, and residents and business owners in the greater vicinity?
- Which type of district is most appropriate to achieve the funding goals of the project?
- If a district is formed, which municipality might oversee its formation and administration?
- Will Larimer County participate in district administration or revenue enforcement?
- Which governmental entity will be responsible for tax or fee collection enforcement?
- Will the municipalities support the bond issuance necessary for interchange improvements? Or will the district be solely responsible?
- What is CDOT's role in funding or maintaining the improved interchange?
- Who will "own" the overpass once it is improved?

GMA Expansion

Key properties near the interchange are currently not within the Town of Windsor's Urban Growth Area (UGA) or the City of Fort Collin's Growth Management Area (GMA). Inclusion of property within the GMA permits greater control of the development by the municipalities. Alternatively, properties outside these areas may develop at lower intensity which may or may not be consistent with the ultimate vision for the area.

Funding

Early in the process, funding emerged as high priority to both stakeholders and the government entities involved. Despite the obvious need to improve the interchange, there is a lack of adequate public funds to finance the project. Landowners of the affected properties are motivated to move forward and will be key to reaching a fair and equitable solution. Beyond the immediate stakeholders mentioned, there is potential for the greater communities to play a small role in the financing strategy.

Most financial issues are associated with ensuring an equitable method of attributing improvement costs to those parties that benefit directly from interchange improvements. Specifically, financial issues include:

- What physical locations or classification of highway users benefit from interchange improvement?
- How can costs be apportioned to follow benefit?
- What type of fee or tax structure is most appropriate to provide a reliable revenue stream?
- What is the appropriate balance of cost burden between residential and commercial land uses?
- Should future development be burdened more or less than current development?
- Are fees, such as impact fees, special assessments or motor vehicle registration fees, a more appropriate funding mechanism to employ than property taxes or public investment fees?

Transportation

With the current interchange, there are major traffic congestion and service problems. The interchange is unable to adequately handle the traffic capacity that is currently passing through it during peak hours. Some models suggest that traffic at the interchange will more than double by 2030. With traffic already beyond its capacity here, this issue is fundamental to all the rest. A local road system that works in conjunction with a functioning interchange has not been identified to-date.

Peak hour traffic on I-25/SH392 bridge.

TRANSIT AND TRAILS

Transit is a key component of the transportation vision of CDOT, NFRMPO, Fort Collins and Windsor. The location of this area as the gateway to Windsor and the southern terminus of Fort Collins make it a strategic location transit. The viability of this transit hub will depend on the land uses that are planned in the vicinity, the development of viable transit service and the provision of a new transit facility. A key issue will be the need to preserve a parcel of land for a new transit facility.

Trails also need to be developed as part of the transportation system. Key issues associated with trails in this area include:

- The locations of trails near sensitive natural resources
- The challenge with having trails and pedestrian crossings across I-25 and;
- The need to preserve trail corridors in three jurisdictions.

Natural Resources

The protection of natural resources is an important element in the interchange improvement plan. While some small wetland habitat areas exist in the northwest quadrant within the CAC, a majority of shoreline and wetland habitat are located west of the Interchange, adjacent to Swede Lake. Various levels of restrictions exist pertaining to federally endangered species and wetland protection. These resources center on Fossil Creek Regional Open Space, although these resources extend beyond these boundaries.

Wildlife habitat near Fossil Creek Reservoir shoreline.

As part of the DEIS recommendation, the "Tight Diamond" interchange configuration was selected to avoid and minimize any potential impacts to existing natural resources, including shoreline, wetland, riparian and grassland habitat.

Other potential disturbance areas include wetlands, some of which will be jurisdictional. The Fossil Creek outlet from Fossil Creek Reservoir is located at the northern portion of this area. Water flows support riparian vegetation in this drainage which creates habitat for wildlife, including great blue herons, which were observed along banks of the creek in January. Other wetlands mapped by Larimer County are found around the perimeter of both Swede Lake and Fossil Creek Reservoir to the west of the grassland area. These wetlands may be jurisdictional by their connection to Fossil Creek which is connected to the Poudre River, a "water of the US."

Wetlands along the perimeter of the lake and reservoir are dominated by mature cottonwood and peach-leaf willow with an understory of coyote willow and other grasses and forbs. The location of a potential raptor nest has been observed in this stand of cottonwoods. The value of these wetlands to wildlife would be for thermal and escape cover as well as perching and

nesting areas for birds including bald eagles and great blue herons. The shoreline at this location may also provide feeding areas for shore and wading birds.

A second area of possible impact would be west of I-25 between the RV sales center and Swede Lake. Currently a distance of approximately 200 feet separates the RV property from the edge of Swede Lake. Wetlands along the lake margin are dominated by cottonwoods. The outlet to Swede Lake would need to be crossed if a road alignment were to be located in this area. Wetlands that occur in this area would likely be found to be jurisdictional by the Corps if a connection to a "water of the US" (the Poudre River) was found. As habitat for wildlife, the lakeside wetlands in this location provide thermal and escape cover for a variety of species as well as travel corridor to other portions of the lake and reservoir complex.

A third location where impacts to habitat would likely occur is to the north and south of SH392 where the drainage crosses the roadway. Realignment of a roadway at this location may encroach upon the edge of an existing wetland. This area currently supports a cattail wetland. NWI wetland mapping shows palustrine wetlands at this location and Larimer County has mapped the area as having littoral and salt meadow wetlands. Importance of this wetland to wildlife would be primarily as a movement corridor from other habitat areas and as escape and thermal cover. This drainage continues to the south but is concentrated in what appears to be a remnant channel that was used to drain agricultural water used for irrigating croplands. Several small stands of Russian olive and cottonwood trees are present along the drainage. Habitat values in the location of the upper drainage are minimal as little cover or other habitat is present.

Development near or in wetlands and other habitats in the project area will have the effect of reducing natural habitat around a concentration area (Fossil Creek Reservoir and Swede Lake) for a variety of avian and terrestrial species. Fossil Creek Reservoir, Swede Lake, and the surrounding upland areas provide habitat for ducks, geese, wading and shore birds, as well as various raptors. Grasslands, shrub stands and wetland margins in the area can also be important to terrestrial animals. These areas are used by these species for food acquisition, nesting and denning, loafing, roosting, and as travel corridors and are influenced by what occurs in surrounding area. Encroachment into existing habitat and introduction of people and their pets into areas adjacent to wildlife concentration areas can cause stress to these populations, which if it occurs at critical periods such as nesting, can reduce the numbers of a population.

Land Use

The current land uses found in the interchange area are a mixture of estate residential, commercial, and open lands. The area is still in transition and its ultimate form is still to be determined. Community plans provide a glimpse of the future once there is the required transportation infrastructure. With improved access and capacity, the area could transform into a thriving commercial center that also includes some integration of residential development and open space preservation. A key challenge will be the consolidation of parcels to ensure the area is planned holistically.

Design

As part of the Interchange Improvement Plan, the site area could transform into a distinctive gateway area for Windsor and Fort Collins. This would require collaboration between the two communities to develop a unified design theme for gateway elements and funding to support these enhancements. Such elements could include signage, landscape features, a pedestrian bridge, and actual interchange design.

Utilities

The site's current infrastructure will need to be improved to accommodate the increased use that will occur once the interchange is improved and the land is developed. Adequate public facility requirements necessitate that the property is able to be serviced by water and sewer prior to approving future developments.

CHAPTER 4

Opportunities & Constraints

Elaborating on the Issues List found in Chapter 3, an assessment of opportunities and constraints that affect the planning and development of the interchange area was made. The assessment is based on analysis of the existing conditions, property owner meetings, site visits, and TAC meetings. For each issue, a discussion of the opportunities and constraints is provided, followed by a map illustrating them collectively.

Partnerships

P1 FORT COLLINS AND WINDSOR LAND ANNEXATION

Opportunity

The potential exists for the City of Fort Collins to expand their GMA in the southwest quadrant of the interchange area, north of County Road 30 and east of Boyd Lake Road.

Constraints

If an appropriate opportunity exists, the City Council would evaluate the GMA expansion against the following criteria:

- Whether the proposed amendment is consistent with community goals, principles, and policies as expressed in City Plan;
- Whether the proposed amendment has a positive net fiscal benefit to the community;
- Whether the proposed amendment is necessary to accommodate an activity that cannot be reasonably accommodated on lands within the existing GMA boundary;
- Whether the land proposed for inclusion in the GMA contains any environmental resources or hazard constraints that make the area unsuitable for its proposed use; and
- Whether the proposed amendment would result in a logical change to the Growth Management Area.

Factors to be included in making this determination will include, but need not be limited to, the following:

- Whether the proposed amendment would allow for the logical, incremental extension of urban services;
- Whether the proposed amendment would offer a desirable new "edge" to the community;
- Whether the existing boundary to be extended is contiguous to existing developed areas of the city, and;
- Whether the proposed amendment would contribute to the compact urban form of the city.

P2 PROPERTY CONSOLIDATION

Opportunity

The current land ownership pattern found in the interchange area is not ideally suited for unified commercial development to occur at one time. The main reason for this is the lack of large parcels with a small number of owners. Consolidating land in the process of sale for development would facilitate cohesive transformation of the area.

Constraints

Forging partnerships between private landowners will be challenging due to conflicts of goals and perceived equitability to individuals. It may also be difficult to identify willing buyers to elicit the process of land consolidation until the future funding structure for the interchange is in place.

Funding

F1 INTERCHANGE FINANCING

Opportunities

There are opportunities to fund the interchange improvement primarily related to those stakeholders who will benefit as well as public sources (see Chapter I). The stakeholders most impacted by the poorly functioning interchange are the landowners in the immediate CAC area. Because they will experience the greatest benefit from the project, such as heightened property values, retail sales, and access, they have the biggest opportunity to benefit and potentially contribute to funding. Other funding tools could include other beneficiaries of the improvements, such as those within the I-25/SH392 travelshed who use the interchange on a regular basis. The last opportunity for funding comes from the surrounding communities, NFRMPO and CDOT; all of whom will benefit from interchange improvements.

Three overall funding opportunities are uniquely suited to the issues associated with this interchange. These

options need to help ensure a bondable and reliable revenue stream. Opportunities include:

- Focus on private sources in the immediate area and include a special assessment, public improvement fee and property tax associated with CAC landowners, as well as impact fees for the travelshed.
- Focus on private sources described above, as well as financial support from CDOT, the NFRMPO, and the municipalities of Windsor and Fort Collins.
- Focus on private and public forces described above as well as an expanded property tax district.

Constraints

As described in the Chapter 3 and later in Chapter 7, funding constraints include stakeholder's willingness to solve the problem, the need for large commercial development, ensuring the project can be bonded, the challenges passing new taxes, as well as which funding tools are appropriate.

Transportation

T1 INTERCHANGE REPLACEMENT

Opportunity

As discussed in the previous sections of this report, the interchange is currently operating at failing levels of service during peak hours of the day and does not meet AASHTO standards. The replacement of the interchange would alleviate identified concerns. Currently, the tight diamond is proposed as the preferred interchange design.

Constraints

The foremost constraint to replacing the interchange is the cost. Despite it being identified by CDOT as a high priority project, there is a lack of public funds available to finance the project. Finding a viable and equitable funding strategy is paramount to the project. Related to this, intergovernmental coordination is a factor that has also constrained the replacement of the interchange.

T2 FRONTAGE ROAD REALIGNMENT

Opportunity

The North I-25 EIS identifies two potential alignments for the frontage road on the northwest quadrant of the interchange area. The first alignment leaves it close to where it is, which is close to the highway, leaving open area to the west of the road. This is identified as preferred in the DEIS. The second alternative is closer to alignments preferred by stakeholders and opens up a significant amount of land for development (and therefore the opportunities associated with development, refer to Land Use on page 40). These alternatives would take on a westernmost alignment through this quadrant, allowing the land east of the frontage road and west of I-25 to be developed. This would create a new north / south local road integrating properties in the area. This would also create a new intersection several hundred feet away from the interchange. The location of the frontage road on the east side of the interchange has mostly been constricted with existing development

Constraints

Constraints to the frontage road realignment include wildlife buffers associated with bald eagle roosting and feeding areas, Fossil Creek and wetlands. There is also the potential for direct impacts to wetlands adjacent to lake and along SH392, as well as the dam spillway area. Mitigation and design measures would need to address any direct impacts of frontage road realignment.

Northwest Frontage Road looking south.

Transit/Trails

TT1 INTEGRATION OF MULTI-MODAL TRANSPORTATION OPTIONS

Opportunities

The interchange's convenient location along I-25 and between several growing communities makes it an ideal location to become a hub for northern Colorado commuters. The proposed BRT from the North I-25 EIS could be integral to serving this purpose. Additional multi-modal options that should be integrated into the development of the interchange area include bike and pedestrian lanes, bus stations for local service, and possibly a pedestrian bridge to connect development

on both sides of the highway. The NFRMPO is also considering the development of a regional serving transportation system. The strategic location of the area and the potential to connect three communities provides an opportune location for this type of transit.

As described in the Transportation Section of Chapter 2, a number of BRT sites scored high in the North I-25 EIS, with the M alternative (located in the southeastern corner of the Plan study area) receiving the highest composite score. However, based on interviews with the I-25/SH392 TAC, frontage road realignments and proposed future land uses may prove that the southwest quadrant of the study area may serve as the best BRT location for the community. The BRT station will likely begin as a Park-and-Ride service. Unlike what is illustrated in the DEIS document, one opportunity is to access the BRT from both sides of the interstate (discussed in further detail in Chapter 5).

Constraints

Each of the multi-modal transportation elements will need time, money, and public support to be realized. The BRT station in particular is part of the EIS process and needs further analysis to reach the most appropriate site. As the development of the interchange area progresses, it will be an ongoing goal to integrate these transportation options to connect the communities better, but will surely receive some public opposition, inadequacy of funds, and design challenges. Land preservation for facilities that are planned far out in the future poses another challenge. It will be up to the communities to determine whether land is set aside for this facility. A key factor in any decision will the development plans of property owners.

BRT at 18th Street in Denver, Colorado.

Natural Resources

NR1 COMMUNITY ASSET

Opportunities

Wetlands - Various options for mitigating development impacts to wetlands within the interchange area exist, including on-site, off-site, and mitigation banking. The preferred mitigation approach will be dependent upon the location and classification of each wetland. There is the potential to also enhance key wetland areas (mitigation sites)thus improving their functionality.

Endangered orchid, Ute Ladies-tresses (spiranthas diluvialis).

Threatened and Endangered Species - Avoidance of threatened and endangered species will occur where possible. Otherwise, mitigation measures could be considered.

Other Wildlife - The interchange area provides habitat to a multitude of wildlife species that are not protected by legal regulations. In these cases, the project should seek to avoid the species where possible.

Constraints

Constraints include the numerous Federal, state, and local regulations summarized in the following table. Key applicable buffers include a 100 to 300-foot buffer from the riparian edge of Fossil Creek Reservoir and a 1,320-foot buffer from bald eagle roosting areas.

Figure 22 - Buffers Constraints

Name	Jurisdiction	Policy	Guiding Regulation
Bald eagle protection- Federal	*USFS (threatened)*	*Endangered Species Act, Western States Bald Eagle Protection Plan*	*Referred to CDOW raptor specialists' recommendation*
Bald eagle protection- state	*CDOW*	*State Species of Concern List*	*Various buffers: Communal feeding area = 300 ft Roosting = 1320 ft Raptor concentration area = 300 ft*
Bald eagle protection- local	*City of Fort Collins / Larimer County*	*City and County code as recommended by the Fossil Creek RMP*	*Yield to CDOW raptor specialists' buffer recommendations*
Wetland protection	*City of Fort Collins*	*Land Use Code 3.4.1 Natural Habitats and Features-Buffer Zone Standards*	*Lakes or reservoirs- 100 ft Wetlands < 1/3 acre- 50 ft Wetlands > 1/3 acre, without significant use by waterfowl and/or shorebirds- 100 ft Wetlands > 1/3 acre in size with significant use by waterfowl and/or shorebirds-300 ft*
Wetland protection	*Larimer County*	*8.2.8. Wetland Development Standards*	*The following minimum buffer areas must be established from the boundary of a wetland: 1. Wetlands of one acre or less-50 ft. 2. Wetlands of more than one acre-100 ft. 3. Class 3 and 4 wetlands of any size as delineated on Larimer County Partnership Land Use System Wetland Classification and Protection Program Maps-100 ft.*

Land Use

LU1 DEVELOPMENT POTENTIAL

Opportunities

The interchange area has the potential to become a thriving commercial center of northern Colorado once transportation improvements area made. Being situated along the interstate has proven to bring in substantial numbers of consumers. The area will attract business as a major destination point, as well as bring in business from those who use the area on a regular basis for travel to other areas.

Property consolidation would encourage the development of this area in the most efficient, structured manner. The success of commercial development within this study area will generate tax revenue for Fort Collins and Windsor. To ensure the area's success, proposed development must include supporting residential uses, integrate a mix of uses, and capitalize on future transit development.

The largest vacant properties are described in the following table.

Figure 23 - Vacant Properties

Parcel No	Acres	Future Land Use	Jurisdiction
8622247702	*30*	*Commercial*	*Fort Collins*
8622000003	*30*	*Employment*	*Windsor*
8615000001	*34*	*Commercial*	*Windsor*
8615000021	*36*	*Commercial*	*Windsor*
8610000015	*39*	*Residential Mixed Use*	*Windsor*
8622000017	*39*	*Commercial*	*Fort Collins*
8615000005	*40*	*Commercial (portion within CAC)*	*Fort Collins*
8615000017	*41*	*Commercial*	*Windsor*
8622000004	*58*	*Employment*	*Windsor*
8615000020	*78*	*Residential Mixed Use*	*Windsor*

Constraints

To realize the opportunity described above, the greatest challenge is the need to cohesively plan the area. Currently there are approximately 30 private landowners within the CAC. These landowners must work together and communicate in order to create a development that will compete against other northern Colorado developments. Likewise, developers must coordinate with each other and City and Town planners to reach the most lucrative mixture of development. A second challenge will be to carefully integrate land uses with the surrounding natural resources.

Harmony Corridor Gateway Landscape features on Westside.

Design

D1 GATEWAY DESIGN

Opportunity

As discussed in Chapter III, the I-25/SH392 Interchange is clearly a central access point for two growing communities. The interchange area has the opportunity to become a striking gateway for not only Windsor and Fort Collins, but a memorable feature to all travelers arriving in northern Colorado. In providing unique, thematic design features carried through on welcome signs, landscaping, pedestrian overpasses and bridges, the area will serve the communities as an attractive, revenue-generating entryway. Land use can also support the gateway concept. New offices and other mixed-use development, back-dropped by Fossil Creek Reservoir and the mountains, can create a unique statement. The proposed BRT station development and the interchange are also unique opportunities to fulfill this goal.

Bridge at the Harmony Road exit on eastside.

Constraints

To become a noticeable gateway area, the project will require funding and design coordination between Fort Collins and Windsor. While both communities could have unique requirements, they should follow some common themes and integrate well with the entire area's design.

CHAPTER 5

Interchange Improvement Plan

The framework plan outlines the preferred transportation, land use, and natural resources frameworks necessary to address current issues, capitalize on opportunities, and set the stage for funding scenarios described in the next chapter.

Transportation Framework

The I-25/SH392 interchange will be completely reconstructed, largely according to the tight diamond configuration preferred in the North I-25 DEIS. This will include bridge replacement, reconstruction of SH392 to tie in with the existing highway, frontage road relocation and/or reconstruction, ramp improvements, and acceleration/deceleration lanes on I-25.

The new bridge will carry a total of four lanes (two through lanes in each direction), bike/pedestrian path in each direction, back-to-back double left turn lanes, and a raised median. It will provide bike/pedestrian access, consistent with future sidewalk and trail plans. The length of the proposed bridge will be significantly longer than the existing bridge in order to accommodate the ultimate section of I-25. Piers will be located so as to preserve the median to allow for future transit plans on I-25, consistent with the North I-25 EIS. It will be located with its centerline close to that of the existing bridge. Phased construction of the bridge will be required in order to maintain traffic, which may require the new centerline to vary slightly from its existing position.

All four ramps will need to be reconstructed to accommodate the preferred tight diamond alternative. The west ramps will intersect SH392 closer to I-25 than the existing ramps, and all ramps will need to be adjusted vertically to meet the proposed SH392 grade. Additionally, widening will be required along the outside edges of I-25 to accommodate the new acceleration/deceleration lanes at the ramps.

Overall, SH392 will need to be widened and reconstructed. The Plan addresses the first ¼-mile on either side of the interchange. The road in this section is expected to be a minimum of four lanes, following the cross section outlined in SH392 EOS. According to the EOS, additional ROW may be necessary. At a minimum, additional ROW will be needed at intersections where left and right turn bays are necessary.

SH392 will be widened and/or reconstructed to accommodate the new diamond interchange configuration between Westgate Drive and the new west frontage road intersection. The roadway section will taper to the existing roadway width outside of these limits. A significant portion of the roadway and associated sidewalks, curb and gutter, signals, lighting, and other elements will need to be reconstructed to accommodate the widened bridge cross section.

The frontage roads on the east side of the interchange have previously been realigned to intersect SH392 at Westgate Drive. On the west side, the three frontage road options (see Figures 24-26) would intersect SH392, creating new north-south road options. This will create a new signalized intersection at this location. Option A, the proposed westernmost alignment, would provide the optimal development opportunities; however, the road is located within 100 feet of Fossil Creek Reservoir. Option B is sited to be outside of recommended environmental buffers, except where existing development is present. The North I-25 EIS preferred alternative would locate the frontage road closer to I-25 (Option C).

The funding options described in the next chapter address only limited frontage road and SH392 improvements, as well as a new bridge and interchange ramps. Costs focus on the minimum amount necessary to construct a new interchange and SH392 to both frontage roads. The cost does include improvements associated with transit or Park-and-Ride facilities.

Figure 24 - Future Transportation (Planned & Proposed)

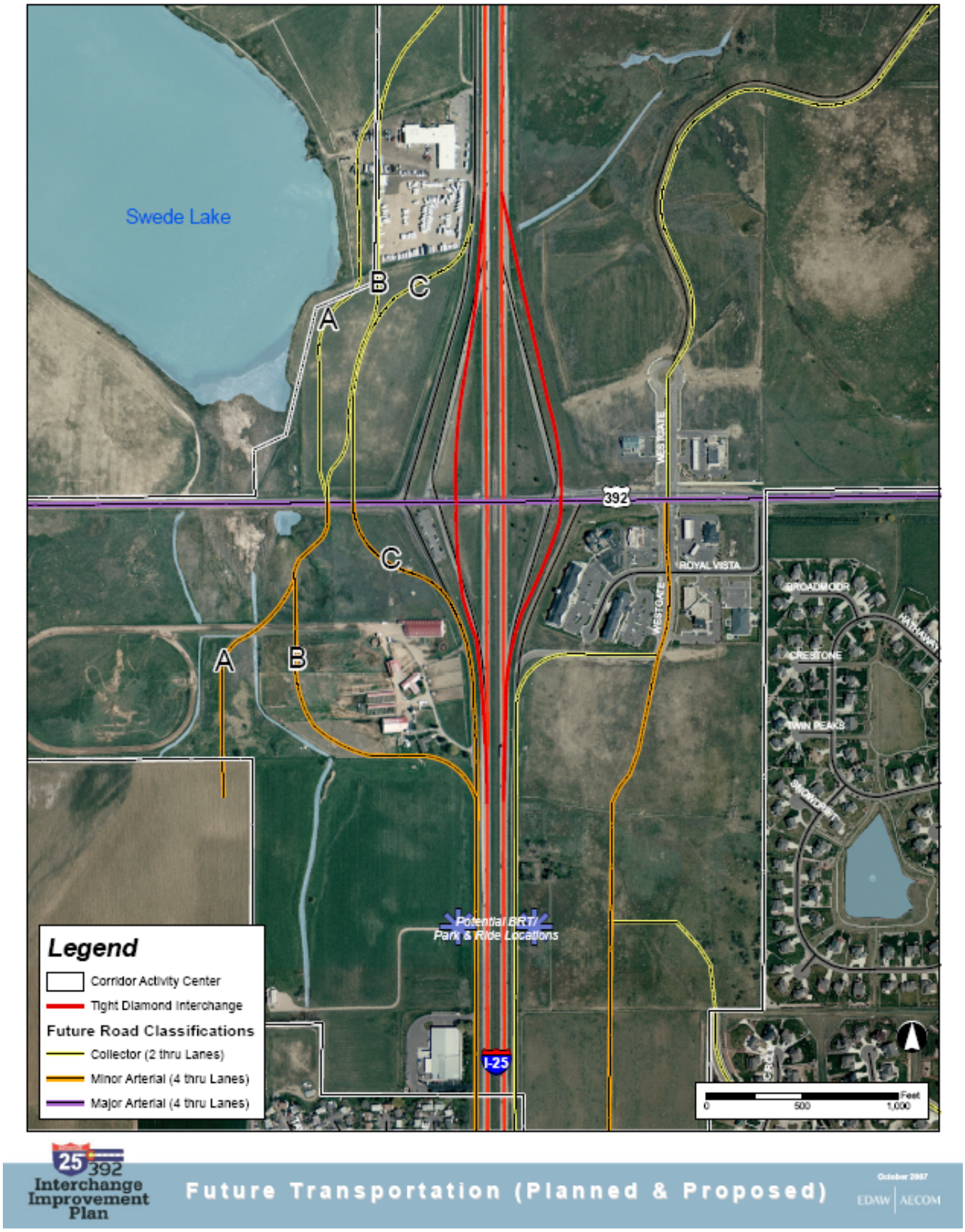


Figure 25 - NW Frontage Road Alternatives

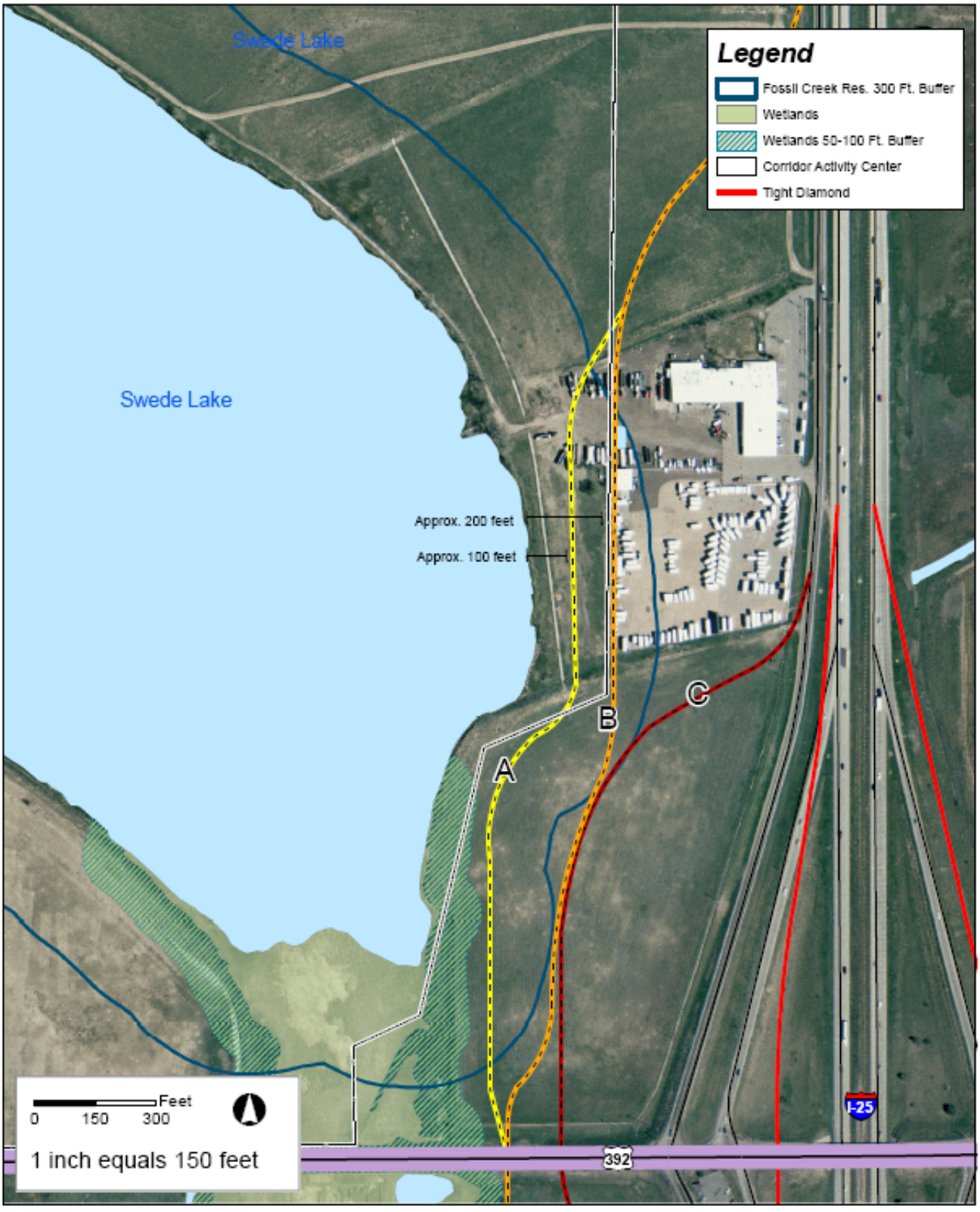


Figure 26 - SW Frontage Road Alternatives

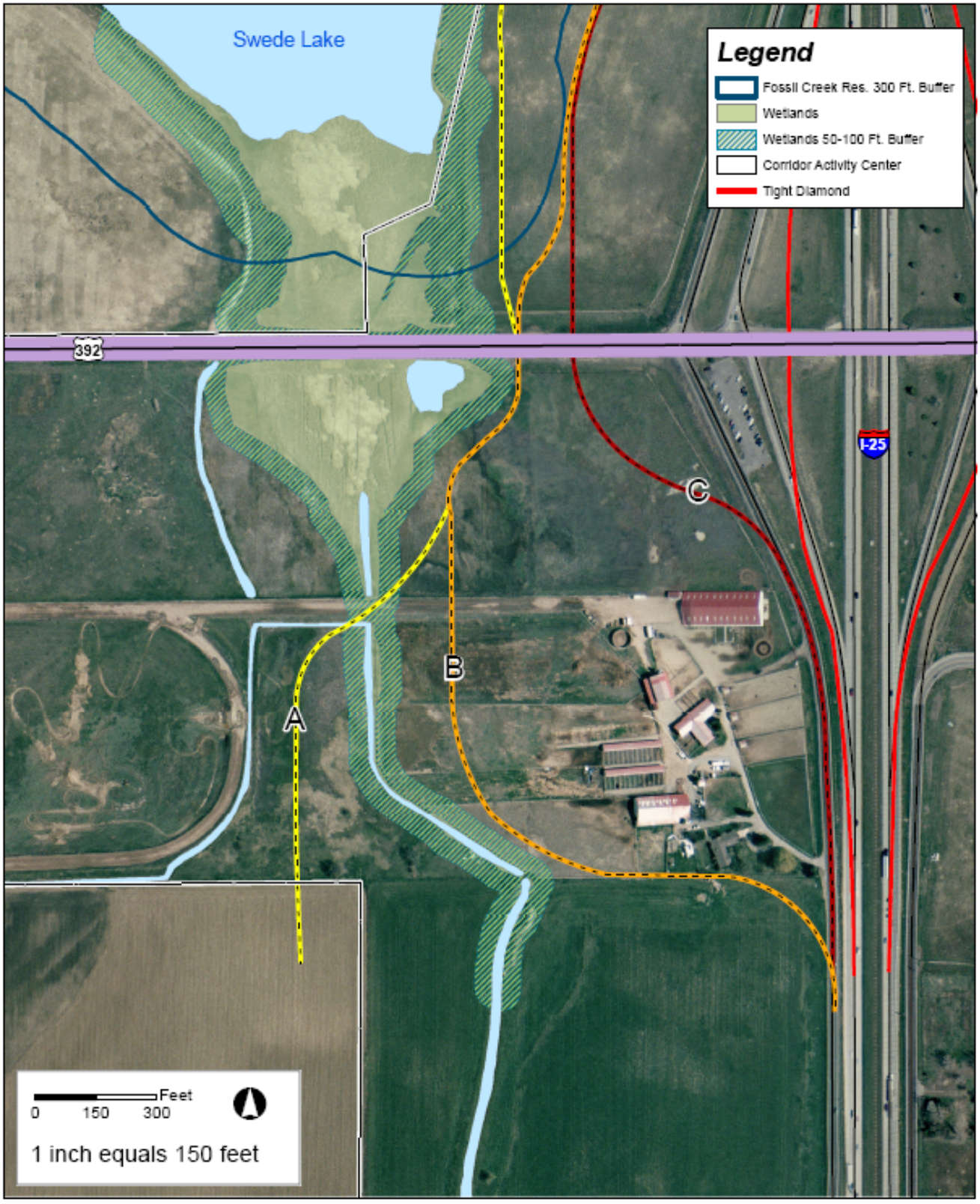
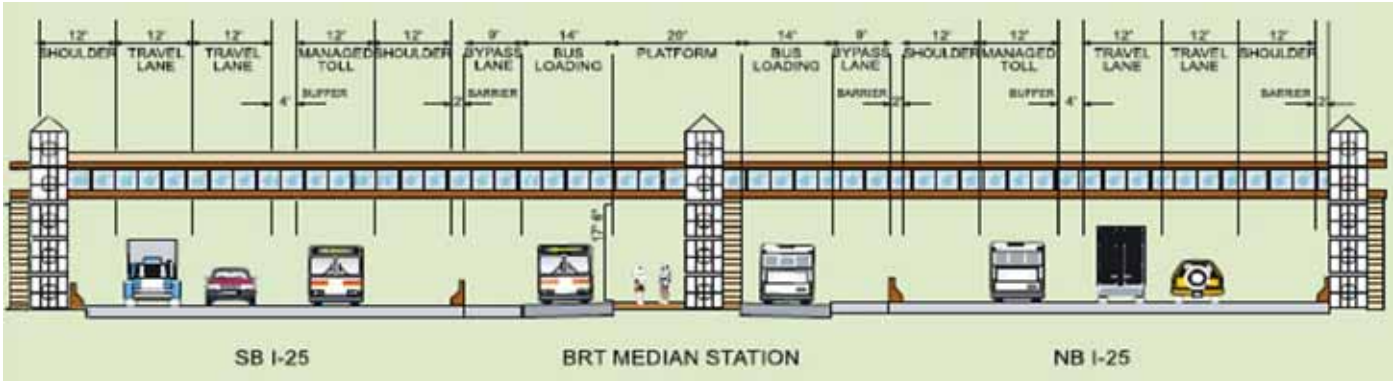


Figure 27 - Bus Rapid Transit Station – Access from East & West



Note: The following cross section was modified from North I-25 DEIS to illustrate a concept. This cross section differs from the single side access depicted in the DEIS. Details such as toll lanes, bypass lanes, etc. may not be representative of final design.

Transit service such as local and regional bus service, in combination with highway capacity improvements that include bike paths and sidewalks, will provide alternative transportation options to communities surrounding the I-25/SH392 interchange. As described in Chapter 2, other transit options will be greatly influenced by which transit options are selected in the North I-25 EIS (e.g. commuter rail or BRT on I-25).

Local bus service from the new transit hub at College Ave. and Harmony Rd. would act as a feeder system to the proposed Bus Rapid Transit (BRT) or Park-and-Ride hub within the CAC. According to the DEIS, if Package B is selected, a BRT facility within the CAC would be located in the median of the highway with a pedestrian bridge connecting it to a Park-and-Ride facility on the east side of I-25 (see Figure 27). There would be 143 parking spaces at this location to provide for carpooling services for local communities. As depicted in Figure 27, this plan proposes that the BRT be located in the center of I-25 and be accessed from Park-and-Ride facilities on both sides of I-25 via a pedestrian bridge. If the BRT alternative is not proposed by the EIS, the plan assumes that Park-and-Ride facilities in this location would still be constructed along with the new pedestrian bridge over I-25.

Additional transportation options could include a dedicated on-street bike lane for cyclists, a detached sidewalk for pedestrians, and a trail for other users.

Land Use Framework

The future land use for the Corridor Activity Center (CAC) generally follows the City of Fort Collins City Plan (2004) and the Town of Windsor's Comprehensive Plan (2006). The western half of the study area may consist of commercial/ mixed use comprised of retail space, offices, and higher density residential units. The eastern side may consist of mostly commercial and employment parcels.

Areas to the east and/or west will be supported by parking and commercial uses associated withBRT/Park-and-Ride facilities. New transit oriented development may be integrated with adjacent commercial and employment lands. Lower density neighborhoods will be located in key areas, providing a compatible transition to lower density neighborhoods adjacent to the CAC.

New development will adhere to design standards established for this area as described in both Windsor and Fort Collins' land use codes.

Natural Resources Framework

The natural resource framework centers on the Fossil Creek Reservoir and Open Space and its associated wetlands. Existing regulations, standards, and guidelines should continue to protect the key natural resources in the area. The range of buffers identified include a 100 to 300 foot buffer of the edge of the natural features surrounding Fossil Creek in order to further protect this sensitive resource. A 50 foot buffer is identified for wetlands not immediately adjacent to Fossil Creek Reservoir. Based on resource agency recommendations, a buffer of 1,320 feet is proposed to protect bald eagle winter roosting areas as defined by CDOW (See Figure 29).
The identified ranges of natural resource buffers provide a framework for future discussions. For projects within the Fort Collins GMA, a final buffer setback determination will be made in response to proposed future development through the City's Development Review Center. See Figure 30

As Figure 28 indicates, buffer distances increase with the sensitivity of the resource. This is reflected in the alternatives for the western frontage road alignments (Figure 25). Frontage road options B and C are located outside of recommended buffer distances (except where existing development is present). Option C is located within the 300 foot Fossil Creek buffer; however a 100 foot buffer is maintained. Frontage road options A and B cross a potential jurisdictional wetland south of SH392. Mitigation of existing wetland areas at a minimum ratio of 1:1 is recommended. Wetland mitigation sites could include the expansion of the existing wetland, enhancement of the wetlands associated with the existing canal, or off-site mitigation of existing wetlands such as Duck Lake. Additional information can be found in Chapter 2.

Figure 28 - Range of Identified Buffers

Resource	*Buffer*
Bald Eagle	*1,300 feet*
Fossil Creek Reservoir	*300 feet*
Wetland (northwest corner adjacent to Fossil Creek Reservoir	*100 feet*
Other Wetlands	*50 feet*

Figure 29 - Natural Resources Overview Map

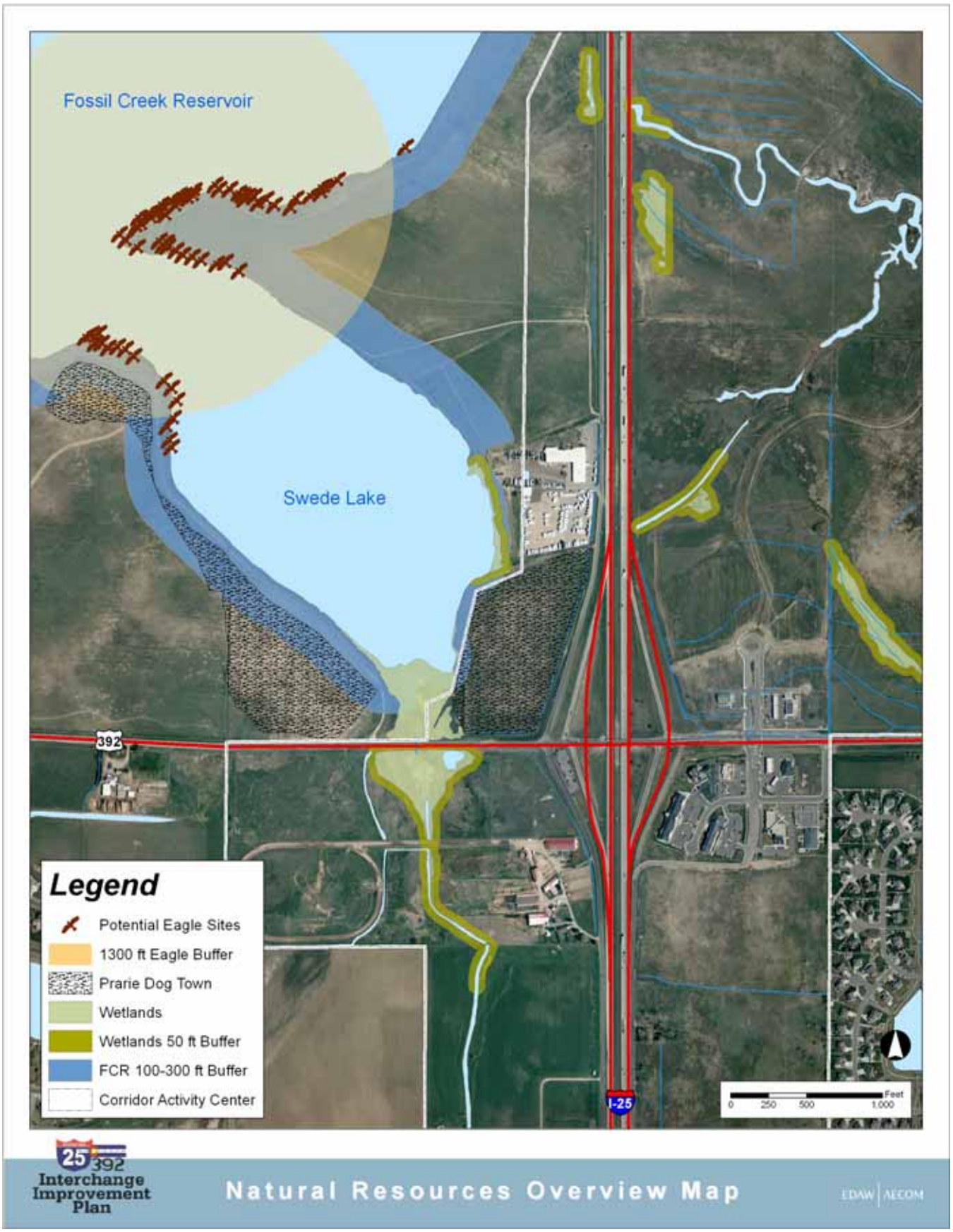


Figure 30 - Natural Resources Buffer Detail Map

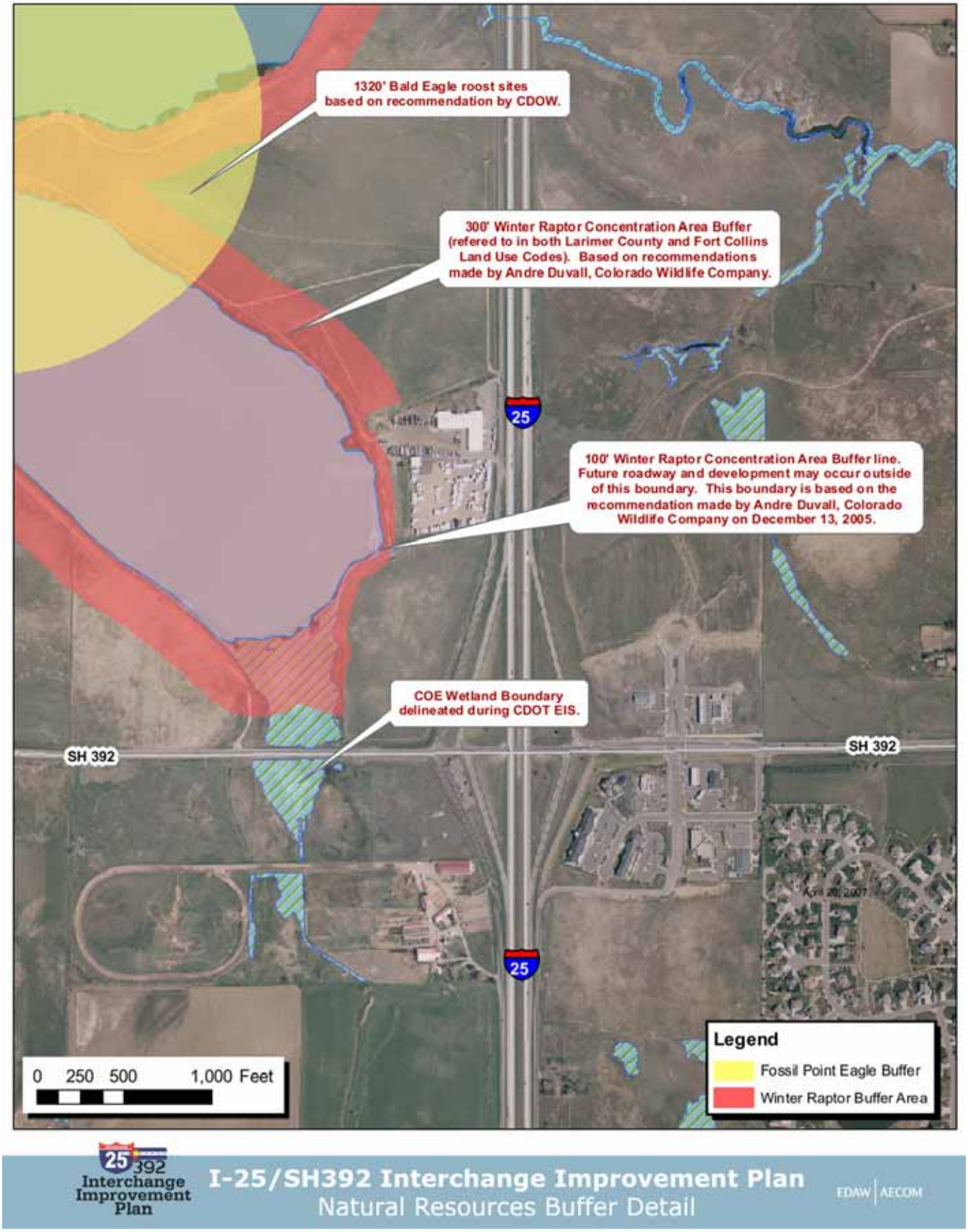
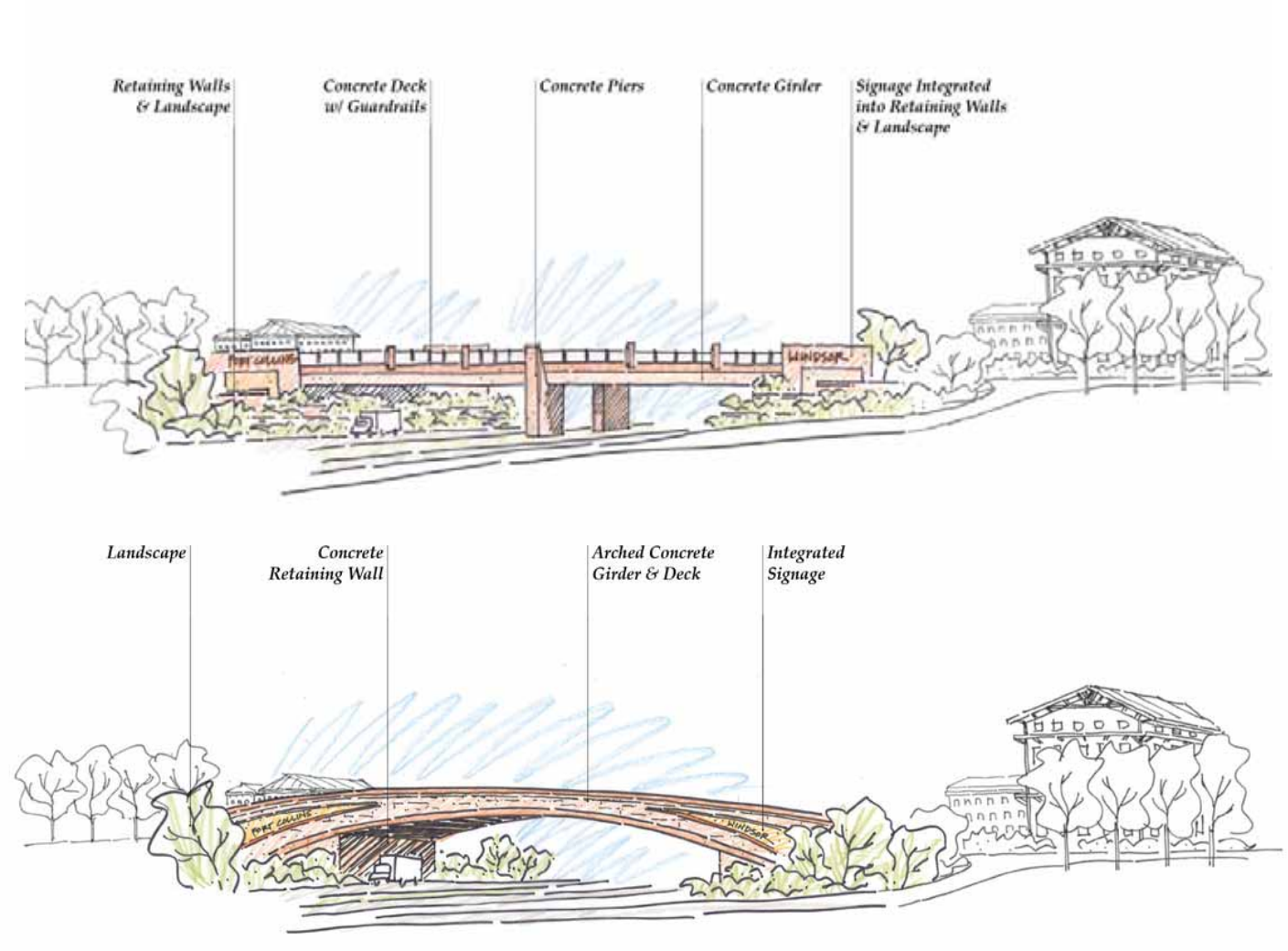


Figure 31 - Bridge Concepts



Interchange Area Design

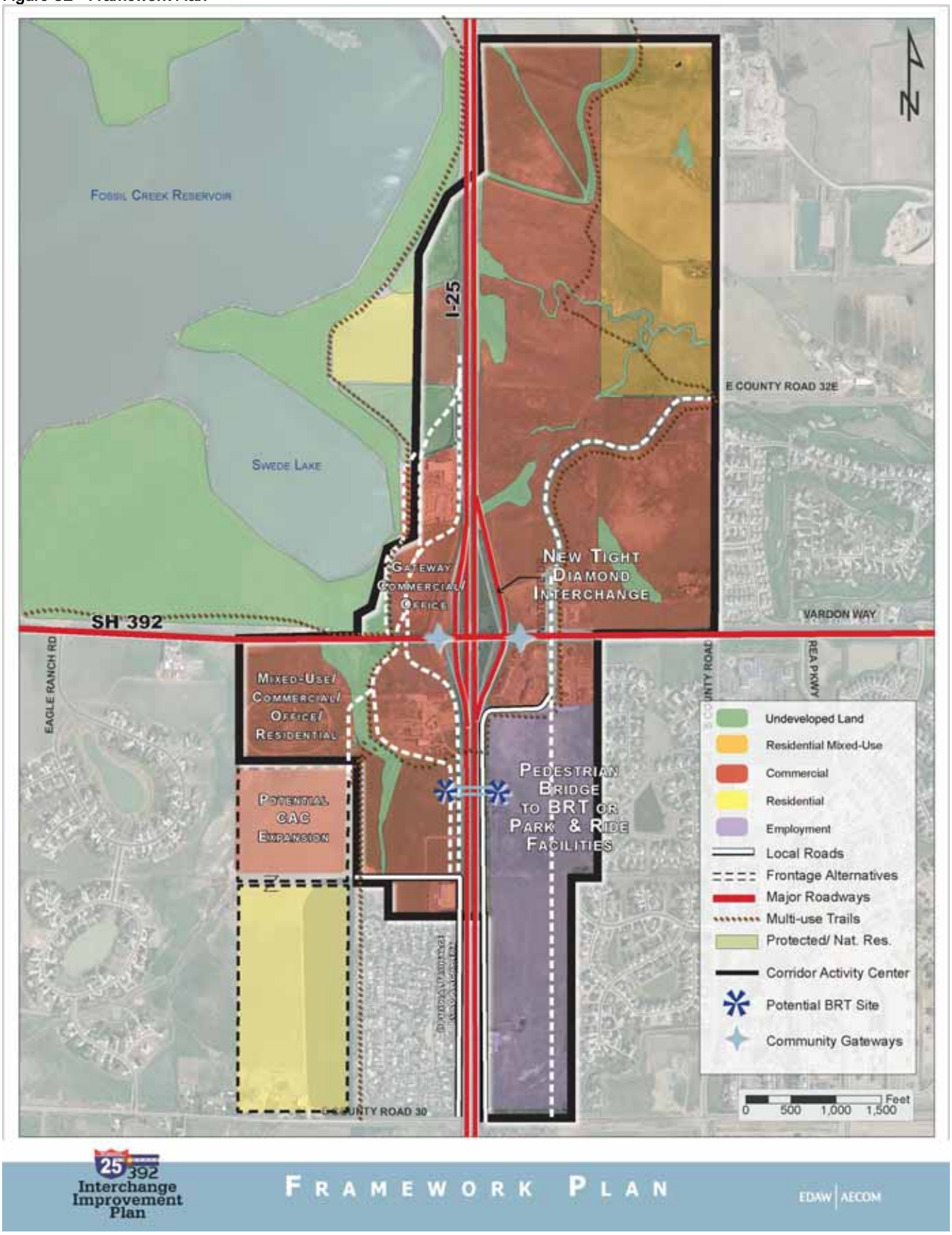
High quality development should represent the gateway into the two communities (see Figure 31). Complimenting elements should include signage, streetscape, median treatments, landscaping, gathering areas, public art and other amenities.

In addition to the character of the buildings, landscape and signage, two structural elements will create the character of the area, the pedestrian bridge (associated with the BRT/Park-and-Ride facilities) and the new interchange. These two features should complement each other and include common design elements.

The design for the SH392 bridge could include a number of themes. One theme could consist of a double span bridge, concrete structure, and concrete bridge abutment. This option may be attainable with double span bridge, concrete structure, and concrete integration of a bridge abutment. This last option may be attainable with stone veneer fascia retaining walls and signage at each end of the bridge.

An alternative would consist of a single arch structure that spans I-25, made of steel and concrete, with signage integrated into the bridge form. To keep the design within the projected budget, transportation engineers recommend that the arch be a facade that masks a more traditional bridge structure. This option is more distinctive, compliments the natural landscape found nearby, and would create a recognizable sense of place for drivers, consumers, and residents.

Figure 32 - Framework Plan



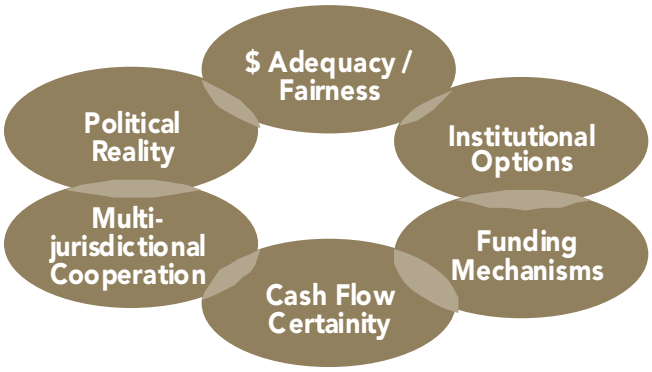
CHAPTER 6

Funding

BBC Research & Consulting, (BBC) was retained as a subcontractor by EDAW to assist the Technical Advisory Committee (TAC) and consultant team in identifying interchange capital funding options and, with input from the TAC, develop a preferred capital funding plan. The following section describes the process undertaken by BBC for identifying and evaluating funding alternatives and developing a fair and practical funding model.

Fair and Practical

The foundation of BBC's funding model is the concept that the cost of interchange improvements should be borne principally by those that benefit from improved highway access, and that beneficiaries should participate in rough proportion to their degree of benefit. Early in the planning process, consultants, land owners, and community representatives acknowledged that defining a fair and practical funding plan meant balancing many disparate factors. In the TAC discussions, the below graphic was employed to represent the core issues involved in fashioning an appropriate interchange funding solution and to demonstrate that the requirement for practicality implied an imperfect balancing of multiple community objectives.



Source: BBC Research and Consulting, Inc

Interchange Cost and Benefits

Beneficiaries of interchange improvements are those individuals, property owners, or businesses that experience increased business volume, travel convenience, time savings or property value enhancement because of interchange improvements and more efficient traffic flow. The following is a hierarchy of transportation improvement benefits:

- Landowners whose property is adjacent to the interchange will have more lucrative development options once interchange improvements are complete. Currently, adjacent properties are severely limited in their development options because of the interchange's inadequate capacity. These properties have significant commercial potential if they can be attached to a functioning highway network. This small group, referred to as the Corridor Activity Center (CAC), will experience the most benefit from improvements.
- Residents, property owners, and business operators in close proximity to the interchange are directly benefited through the increased functionality of SH392.
- All travelers who regularly use the interchange as their most convenient access to I-25 will experience the benefits of shorter travel times. This area is referred to as the "travelshed."
- Improvements at SH392 will relieve congestion at other important interchanges because travelers will no longer avoid the I-25/SH392 interchange. As a result, residents and businesses in a wide area of Fort Collins and Windsor will benefit from increased network functionality.
- Occasional users and pass-through traffic are minor beneficiaries of interchange improvement.

The consultants developed three funding alternatives that allocate costs to closely reflect benefits. DMJM Harris engineering estimated the interchange development costs of approximately $22.0 million (see Figure 39). Cost estimates are based on actual bid and construction costs of three bridges along I-25 that perform a similar function and are of comparable size and complexity. These bridges (SH52, 120th Av and Castle Pine Pkwy) were built between 2003 and 2006. Unit costs for these bridges were inflated to present day in order to obtain a consistent $90/SF used in the estimate for SH392. Variance with estimates from the North I-25 EIS can be attributed primarily to a higher bridge unit cost applied by that study. Minor variance in funding year and project limits may also be factors.

The cost estimate focuses on the minimum cost necessary to construct a basic interchange and SH392 to both frontage roads. The cost includes utilities, drainage, native landscaping, traffic controls and signalization, construction maintenance of traffic, mobilization, and other incidental items. The cost does not include improvements associated with transit or

Park-and-Ride facilities. The cost may need to be modified based on selected outcomes in the North I-25 EIS.

The above hierarchy of benefits is reflected in all three funding scenarios, and the parties who benefit most from the interchange improvement (CAC landowners) consistently bear a higher proportion of overall improvement costs.

Figure 33 - Cost Summary

Project Element	*Approximate Cost (Millions)*
SH392	*$6.8*
SH392 Bridge	*$4.8*
Interchange Ramps	*$3.5*
West Frontage Road (1)	*$1.7*
I-25 Accel/Decel Lanes	*$1.5*
Subtotal	*$18.3*
Engineering	*$1.5*
Construction Management	*$1.8*
Agency Review	*$0.4*
Total Cost (approximate)	***$22.0***

Source: DMJM Harris. Note. The following cost is an estimate and may vary depending on preliminary and final design. Cost will also change depending on components and alternatives selected in the North I-25 EIS. Cost would increase based on the ability to accommodate transit options contained in DEIS.

Challenges

There are several challenges to funding the intersection including:

- Multiple property owners adjacent to interchange, which makes fashioning a mutually agreed upon fee agreement difficult to achieve and reduces the prospect of immediate commercial development;
- Absence of a committed large commercial project in the immediate future;
- Uncertain area development pattern and timeframe;
- Need for an immediate reliable revenue stream for bond support; and
- Multi-jurisdictional cooperation.

Traditionally, interchange improvement projects are funded largely by a single commercial project strategically located along a major corridor that can recover some of the interchange investment costs through the new development enabled by the improved access. In these situations, development prospects and property tax, or sales tax revenue generation, are more certain than what exists at the I-25/SH392 interchange. In light of these challenges, the consultant team evaluated funding mechanisms that could generate appropriate levels of revenue in a complex and uncertain environment.

Funding Evaluation Process

BBC evaluated several funding mechanisms and supporting institutions (e.g. special districts) that could be used to generate and collect funds for interchange improvement. Figure 34 presents a list of potential revenue generation tools and administrative institutions that were evaluated by the consultant team and the TAC participants.

The revenue generation tools in the list were evaluated against the benefit theory principles stated above and several other criteria, including revenue stream certainty, ability to generate revenue early in the bond payment period, and ability to generate revenue during all phases of land development.

Once an appropriate mix of funding mechanisms were identified, administrative institutions were evaluated based on a set of standards that included ease of formation, administrative requirements, and legislative authority to impose the selected taxes, assessments and fees.

Figure 34 - Potential Revenue Generation Mechanisms and Taxing Institutions

Revenue	*Institution*
General Fund	*Metro District*
Property Tax	*Urban Renewal Authority*
Special Assessment District	*Special Improvement District*
Public Improvement Fee	*Private Agreements*
Impact Fees	*Local/Regional Authority*
Surcharges on Driver Licenses	*Local Improvement District*
Real Estate Transfer Assessment (private)	*Intergovernmental Agreement*
Utility Fee	*General Improvement District*
Lodging Tax	

Source: BBC Research and Consulting

The TAC and the consultant team selected a mix of funding mechanisms that offer a fair apportionment of costs and reliable revenue production. The selected administrative institution has broad revenue raising power and offers a relatively streamlined formation process. At this point in the process, additional advice was sought from other city officials and the city attorneys of both Fort Collins and Windsor.

Selected Funding Mechanisms

Funding mechanisms were chosen because they can be employed in a manner that reflects the core benefit principles expressed above, encourages land assemblage and site development, and generates revenue during all phases of land development. Three different scenarios, each offering a different balancing of these revenue options, were devised and tested. Funding mechanism options included the following:

Special Assessment - A special assessment in this context is an annual per acre charge placed on undeveloped property adjacent to the interchange. A per acre assessment will provide immediate revenue for bond support and appropriately burden those property owners with immediate and significant benefit from interchange improvements. The special assessment is charged only on undeveloped property and is removed when the raw land is converted to development—an encouragement to consolidate and develop properties. In addition, there is a 10-year sunset provision on this revenue stream in Scenarios 2 and 3.

Impact Fee - An impact fee is a one-time fee assessed on new residential and commercial development within a jurisdiction. Typically, impact fees are applied on a per unit basis for residential and a per square foot basis for commercial development. The purpose of impact fees is to recover the costs of expanding public facilities, such as fire stations, police stations, sewer and water supply systems, parks, libraries, or other government agencies and services in proportion to the demand created by the new development. In this situation, impact fees can be assessed on new construction within the travelshed and used to pay for a reasonable and proportional share of interchange construction costs.

Property Tax - Property tax is an ad valorem tax that property owners pay on the market value of real and personal property. A 5-mill levy will be assessed on CAC properties to fund interchange improvements. A property tax is productive during all phases of property development and will capture the value appreciation associated with more intensive land uses.

Public Improvement Fee - A public improvement fee (PIF) is a fee that commercial property owners require their commercial tenants to collect on their customers' retail sales transactions by a covenant in the deed or the lease. A PIF is imposed at the point of sale and is usually a percentage of the sales price of purchased goods- in essence, a private sales tax. The funding scenarios apply PIFs that range from 0.2% to 0.5%. This fee will produce revenue from developed property and will capture spending from all customers including exogenous beneficiaries of interchange improvement.

The funding mechanisms described above will generate revenue at all phases of property development. When land is undeveloped, the special assessment and property tax will generate revenue. Once land starts to develop, it will be assessed an impact fee (Scenario 1 only) and property tax will continue to produce revenue. Developed land will be subject to property tax and PIF. Once the 20-year bond is paid, all taxes, fees and assessments will be retired.

Selected Administrative Institution

The TAC and the consultant team evaluated a variety of administrative arrangements that could offer an appropriate mechanism for collecting funds and overseeing project implementation. The Fort Collins City Attorney's office also provided advice on this issue. Although a variety of special districts could be employed, a general improvement district (GID) appears to be the most appropriate institution. A GID is legally authorized to collect all the revenue sources recommended above and offers the greatest ease in organization and formation. A GID is a political subdivision of the state, organized under one municipality, and governed by the organizing municipality's council. A GID has authority to construct and operate any improvement or provide any service that the municipality creating it is authorized to provide- although in this instance, another institution, perhaps the organizing municipality, may oversee interchange construction. GID's have the authority to raise revenue by imposing property taxes, special assessments and other fees, tolls and charges on property and facilities located within the district. GID's are authorized to issue general obligation, revenue and special assessment bonds.

The GID must be formed by petition signed by at least 30% or 200 of proposed district property owners, whichever is less. The governing jurisdiction will then call an election for all district residents and landowners

to decide on organization. If a petitioning effort can obtain 100% of property owner signatures, then an election is unnecessary and a legislative action can form the GID.

Revenue Modeling

After the appropriate revenue generation strategy and administrative institution were selected, the following steps were used to model revenues available to support a hypothetical bond issue:

- Quantify CAC gross acreage by proposed land use;
- Determine appropriate travelshed;
- Translate gross CAC acreage into possible new residential units and commercial space;
- Apply proposed tax rates, fees and assessments; and
- Project future market values and commercial sales performance.

Figures 35-37 illustrate assumptions used to model development in the CAC. The interchange funding scenarios used in this analysis were developed using hypothetical development assumptions. If development pace, character or density varies from these assumptions, actual revenue generation may be different from the results shown here.

Figure 35 - Development Assumptions (CAC only)

Proposed Land Use	Vacant Gross Acreage	Developable Acreage
Mixed-Use Commercial	143	121
Employment/Office	114	91
General Commercial	252	202
Mixed-Use Residential	117	94
Total	**626**	**508**

Figure 36 - Revenue Generation Assumptions

Property Tax	
Market Valus per square foot	
Residential	$180
Commercial	$140
Office	$120
Initial CAC Assessed Value	$5,146,900
Mill Levy	5.00
Public Improvement Fee (PIF)	
Sales Tax Producing Square Footage	80%
Sales per Square Foot	$275

Figure 37 - Acreages & Unit Assumptions

Acreage to Unit Conversion	
Floor Area Ratio – Commercial/Office	25%
DU per Acre - Residential	6
DU per Acre – M/U Residential	12
Residential Unit/Commercial Space Potential	
Residential (units)	396
M/U Residential (units)	612
M/U Commercial (sf)	1,045,440
General Commercial (sf)	2,221,560
Office (sf)	1,001,880
Development Period	20 years 80% developed

Development Schedule

Development assumptions from the previous page were used to model residential and commercial development in the CAC. Efforts were made to portray an even pace of development over the 20-year bond payment period. It is important to note that the consultants took a conservative approach by only modeling 80 percent of total residential and commercial development potential over the 20-year period. Development earlier on such as a very large commercial development would greatly improve funding alternatives.

- BBC's funding model includes three revenue generation scenarios. The levels of fees charges and taxes were calculated to produce adequate annual funds to retire the full $22.0 million in bonds with reasonable coverage ratios. Efforts were made to ensure a bondable, reliable revenue stream and to maintain the appropriate cost/benefit distribution among participants which was discussed earlier in the chapter. The three scenarios are described below and demonstrated in the attached spreadsheets.

Scenario 1. This scenario includes a special assessment (Commercial-$3,000 and Residential-$1,000 per acre) and 5-mill property tax for CAC landowners, an impact fee ($250 per unit) imposed on the "travelshed," and a 0.5% Public Improvement Fee (PIF). No municipal or other public support is assumed for this scenario.

Scenario 2. This scenario includes financial support from CDOT, the North Front Range MPO and the municipalities of Windsor and Fort Collins, a special assessment (Commercial-$925 and Residential-$400 per acre) on CAC landowners (undeveloped land only) that sunsets in 10 years, a 0.5% PIF and a 5-mill property tax on CAC landowners. There is no impact fee under this scenario.

Scenario 3. This scenario includes all public funding from Scenario 2 and an expanded property tax district with a 5-mill levy. There is also a special assessment ($150 per acre) on all undeveloped CAC land which sunsets in 10 years and a 0.5% PIF. The boundaries for the expanded property district would include, at a minimum, several miles around the immediate CAC.

The following pages show revenue streams available for bond support under Scenarios 1 through 3. Bonds are assumed to be issued for the full amount of the interchange improvement project ($22 million) plus 33% required coverage reserves and 5% issuance costs. The assumed bond interest rate is 4% and the tenure of the debt is 20 years. The annual required bond payment is about $2 million over 20 years. All revenue raised from public sources and the CAC or other stakeholders are assumed to be held in a fund supporting debt service payment. The three scenarios are illustrative and the projected revenues are highly dependent upon uncertain projections of commercial and residential development. If funds are identified in the future, potential payback by CDOT may modify these scenarios.

Please see Appendix A, Figures 41-44 for complete funding scenario schedules.

Key Public Funding

The municipalities of Fort Collins and Windsor, the North Front Range Metropolitan Planning Organization, and CDOT have provided conceptual funding assumptions that can be considered in funding scenarios for planning purposes. Table 6-6 shows potential public support incorporated into funding scenarios 2 and 3. A summary of private, public and related contributions is outlined in Figure 39.

Figure 38 - Potential Public Funding Sources Scenarios 2 and 3

Funding Source	*Contribution*
CDOT	*$1,800,000*
North Front Range MPO	*$1,200,000*
City of Fort Collins	*$1,000,000*
Town of Windsor	*$1,000,000*

Source: BBC Research and Consulting, Inc.
Note: Funding estimates are represented for discussion purposes only and do no represent a commitment. Also please note, NFRMPO funding potential would only be available if historic STP Metro funding levels continue, and if the Planning Council approves.

It is important to note that the above figures and tables are preliminary estimates only and do not represent a formal commitment by any governmental entity. All public funds are assumed to be available at the commencement of the bond payment period, with the exception of North Front Range MPO funds.

Potential Regional Transportation Authority Support

Efforts are currently underway to continue to evaluate the feasibility of a regional transportation authority (RTA) that would provide a funding source for road and public transit improvements in urban parts of Larimer and Weld Counties. If approved by voters, the RTA will likely impose a1% sales and use tax, and a $10 annual motor vehicle registration fee. RTA funds will be used for regional road improvements, regional public transit expansion, and distribution to local governments for local road and transit improvements. A private contribution would still be necessary.

In the future, if an RTA is approved, these funds could provide substantial support to the I-25/SH392 interchange improvement project. RTA support is not assumed in any funding model because voter approval has not been secured.

Figure 39 - Funding Scenario Summary

Scenario/Revenue Source	Revenue	Percentage
Scenario 1		
Government Support 1	$0	0%
Landowner Support 2	$30,395,888	48%
PIF Support3	$33,241,725	52%
Total Funds Raised (20 years)4	$63,637,613	100%
Scenario 2		
Government Support	$5,000,000	10%
Landowner Support	$12,779,691	25%
PIF Support	$33,241,725	65%
Total Funds Raised (20 years)	$51,021,416	100%
Scenario 3		
Government Support	$5,000,000	10%
Landowner Support5	$16,710,386	30%
PIF Support	$33,241,725	60%
Total Funds Raised (20 years)	$54,952,111	100%

Notes:

1. *Includes funding from Fort Collins, Windsor, CDOT and NFRMPO.*
2. *Includes funding from special assessment, impact fee (Scenario 1 only) and property tax.*
3. *Includes funding from the public improvement fee.*
4. *20-year total funds raised for bond support.*
5. *Scenario 3 includes a larger property tax district than Scenarios 1 and 2.*

CHAPTER 7

Implementation

The following chapter outlines the steps necessary to implement the Partnerships, Transportation, Land Use, Natural Resource and Design Frameworks, as well as the Preferred Funding Scenario. Figure 40 outlines the sequential steps and timeframe associated with each action.

Action Items

PARTNERSHIPS

P1: Accept the Plan
The Town and City should "Accept the Plan" by resolution in order to set the stage for implementation. The City may also choose to formally adopt the Plan. Larimer County may also choose to formally recognize the document in order to provide additional planning guidance in the area.

P2: Append the IGA - Implementation
Any funding scenarios are highly dependent on partnerships. One of the first steps should be the amendment of the IGA between the Town, City, and possibly the County to commit to implementation of the Plan. At this time, the Town and City could agree to commit funds to the 1601/NEPA process (required by CDOT).

P3: Append the IGA - Funding
The IGA between the City, Town, and County would be modified to outline funding commitments. Ideally, this step would happen following the 1601/NEPA compliance action. The IGA would be necessary to secure funding from CDOT. This IGA would also outline bond requirements and each community's role in land planning and potential administration of the General Improvement District.

FUNDING

F1: Secure Public Funding Commitments
Public funding should be secured at this time. Action items specific to F1 include engaging the municipal councils of Fort Collins and Windsor to dedicate funds towards interchange improvement. Additionally, other regional and state institutions should be contacted to secure or initiate funding support including but not limited to the North Front Range Metropolitan Planning Organization and the Colorado Department of Transportation. Securing early public funding commitments is crucial to obtaining more favorable bond payment conditions.

F2: Engage Property Owners
Support from property owners in the Corridor Activity Center (CAC) is necessary to induce public funding support and to form the General Improvement District that will administer the funding plan. Although it has been ongoing for some time, continued efforts to engage CAC landowners will ensure a more successful funding plan.

F3: Form General Improvement District
A General Improvement District (GID) is the political institution responsible for providing administration over the funding plan. Once formed, the GID will collect revenue, issue bonds and manage highway improvements. Key steps to form the GID include: decide district administrator (Fort Collins, Larimer County or Windsor)

- Secure municipal agreements for an inter-jurisdictional GID
- Petition CAC property owners (at least 30% of district ownership required)
- Hold election for GID formation
- Determine GID Board of Directors (usually council members)
- GID Board to adopt preferred funding mechanisms and initiate bond underwriting process.

F4: Transfer Public Funds to GID
Public funds will be transferred to GID.

F5: Bonds Issuance
Once the GID is formed, funds from Fort Collins, Windsor, other public entities, and landowners within the GID will support bond payments. Bond issuance is expected to occur immediately upon formation of the GID and final approval of bridge design. The following steps will occur:

- Transfer public funds to GID
- GID to issue bonds
- GID to collect revenue and make required bond payments

F6. Revenue Collection
GID to collect revenue and make required bond payments.

F7. Continue to Explore Additional Funding Options
The current funding packages address the replacement of a basic interchange. Additional funding mechanisms, such as an RTA, will be necessary to fund transit enhancements such as a future BRT or Park and Ride facilities.

TRANSPORTATION

T1: Preliminary Engineering
Typically, 30% of design is completed in this stage. It will establish:

- Lane configuration of SH392 from Westgate Drive to the west frontage road intersection, including tie-ins to the existing roadway;
- Horizontal alignment of the four on and off ramps and the northwest and southwest frontage roads;
- Vertical profile of SH392, on and off ramps for I-25, frontage roads, and acceleration/deceleration lanes on I-25;
- Bridge length and width, pier and abutment locations, and general structure type.
- Prepare preliminary cost estimate.

T2: Separate Action/1601 Interchange Approval Process/NEPA
An alternative to deferring to the ongoing North I-25 EIS for compliance, the Town and City may request a justification for separate action from CDOT and the Federal Highway Administration (FHWA). Based on the results, a decision will be made to utilize the ongoing EIS (finalized in 2009) or to proceed with an accelerated 1601 process. The 1601 process is the Colorado Department of Transportation's policy to evaluate new interchanges or major improvements to existing interchanges along interstates and major highways. The 1601 process would initiate a feasibility study for the I-25/SH392 Interchange and could include the following steps:

- Operation and capacity analysis for existing conditions and estimate year 2030
- Identify all reasonable and feasible interchange access alternatives
- Screen all of the alternatives (identify pros and cons)
- Review environmental conditions in area
- Work toward a single best alternative
- Develop a funding plan

A preferred alternative will be identified based on this analysis. Additional environmental analysis may be necessary at this time, which will most likely include an Environmental Assessment (EA) or a Categorical Exclusion (CE). The 1601/EA or CE will utilize the data currently being collected as part of the EIS and contained in the Improvement Plan. A key consideration at this stage is whether the frontage roads are included in the analysis.

EIS or Separate Action?

Reason for pursuing a separate action and 1601 Study:

- National developer discussing projects on both sides of Interchange
- Need for an accelerated process to reconstruct the interchange
- Greater predictability

Required Steps in Separate Process with CDOT:

- Request a justification for separate action from CDOT/FHWA
- If approved – Proceed with accelerated 1601 Process
- Environmental Assessment (EA) or Categorical Exclusion (CE)

Reason for utilizing the ongoing EIS:

- Ongoing study
- Consistency of analysis

T3: North I-25 EIS – Record of Decision (ROD)
An alternative to the Separate Action outlined in T2 would be to defer to the ongoing North I-25 EIS for compliance. The final signoff by the FHWA for the reconstruction of the I-25 corridor is anticipated in 2009. The I-25/SH392 Interchange will be cleared with the preferred alternative being the Tight Diamond. Due to pending development, preliminary design and engineering could begin to ensure that a Record of Decision in 2009 does not significantly delay development. It is also possible for the Town, City, and CDOT to consider allowing development to occur as long as a funding package and improvement plan are in place to replace the interchange. A 1601 process would still be necessary.

T4: Environmental Clearance and Final Determination of Western Frontage Road
The Interchange Improvement Plan recommends three alternative locations for the western frontage road.

Based on further consideration of environmental resources, mitigation, development potential and proposed development plans, the final alignment should be identified. The alignment of the frontage road may be considered during NEPA compliance activities or addressed through local processes. Additional permitting will be necessary if wetlands are impacted. The North I-25 EIS will permit an alignment that is much closer to the I-25 ramps, due to avoidance of wetlands.

T5: Final Design

In this stage, all details of design are completed. Full construction drawings and specifications will be produced, ready for construction bids. Final design cannot start until environmental clearance is complete. Final cost estimates would be prepared at this time.

T6: Inclusion in the North Front Range Transportation Improvement Program (TIP)

The SH392 Interchange project is already included in the current Fiscally Constrained 2030 Plan. The 2007 – 2012 TIP contains a total of $1.8M by 2008. The source of the remainder of the funding must be identified in order for this to be included in a future TIP.

T7: Advertisement for Construction

Public request for construction contract bids. The lowest priced qualified bidder will have the successful proposal.

T8: Construction Contract Award and Notice to Proceed

Construction commences on the entire project.

T9: Construction

It is anticipated that construction of the entire project could be completed in 18 months, if all conditions are favorable.

TRANSIT AND TRAILS

Developing a transit element in a successful project requires building upon past and concurrent planning efforts, identifying preferred plan elements, identifying funding resources for each plan element, and identifying action items within a time line for completion. Action items specific for this plan to be successful are identified below, and illustrated in the phasing diagram at the end of the section.

TT1: Provide Recommendations Regarding the North I-25 DEIS.

Cooperation between planning efforts is vital for the successful implementation of a plan. When multiple studies promote the same vision, the desired outcome typically comes to fruition sooner. Overall, this Plan supports generally supports both packages outlined in the North I-25 EIS. One significant change is apparent:

- BRT Station located on either side of I-25 or access from both sides.

This change should be provided as written comments to the North I-25 EIS planning team.

TT2: Coordinate with NFRMPO Regarding Projects that Would Provide Regional Bus Service between Fort Collins and Greeley that Could Utilize a Park and Ride at the I-25/SH392 Interchange

Work with the NFRMPO in support of a planned bus service network that will connect to the park and ride in the study area, with additional connections to potential BRT service, for regional connectivity to the Fort Collins Loveland Airport, Fort Collins, Greeley, and Loveland. These bus routes would serve as a feeder system to the BRT system.

TT3: Coordinate with the Town of Windsor to Implement Bus Service Identified in the NFRMPO 2030 Plan to Utilize the Park and Ride

Work with the Town of Windsor in support of a planned bus service network to provide connections to the park and ride and potential BRT service as well as to the Fort Collins Loveland Airport, Fort Collins, Greeley, and Loveland.

TT4: Identify a Preferred Location and Construct a Park and Ride to Facilitate Carpooling and Eventually a BRT Station

A park and ride would be the first element of transit to be built in the study area, as this would serve multiple functions throughout various transit phases. Initially it could serve as a carpool lot, ultimately serving as a park and ride for a BRT station. Therefore, identification of the construction site is a vital component with several benefits. The first benefit is that a park and ride would serve individuals choosing to carpool. Secondly, the NFRMPO has already identified bus service between Fort Collins and Greeley, as well as the Town of Windsor choosing to implement bus service. This park and ride could be incorporated into

those bus routes. Additionally, the site could potentially assist the Fort Collins Loveland Airport by providing parking to travelers and through bus service connections to the airport. Finally, the North I-25 EIS has identified an option that would include express lanes and BRT, which would provide service to a park and ride facility to improve regional mobility. New bus routes would serve as a feeder system to the BRT system.

TT5: Require Adequate Bike Lanes and Sidewalks from Developers as Development Continues for a Contiguous Network

Trail connectivity to existing off-street trails will be provided by on-street bike lanes and sidewalks along SH392. These facilities will be constructed as requirements from developers.

NATURAL RESOURCES

NR1: Perform Wetland Delineation

Following the Preliminary Engineering, a wetland delineation and jurisdictional determination will be performed to identify areas that are potentially considered to be waters of the U.S. and subject to Section 404 of the Clean Water Act. The delineation will be conducted in accordance with the 1987 Corps of Engineers Wetlands Delineation Manual. This wetland delineation should build upon previous delineation efforts.

NR2: Section 404 Permitting

Impacts to jurisdictional waters of the U.S. will require a 404 permit from the U.S Army Corps of Engineers. The activity will likely be permitted as an individual permit. Unlike the nationwide permits, an individual permit will require an alternatives analysis, including a no action as well as an off-site alternative. As part of the permitting process, a mitigation plan will be required to compensate for impacts to wetlands and waters of the U.S. associated with the construction of the new interchange.

NR3: Federal Executive Order 11990 "Protection of Wetlands" Compliance

In addition, if this project receives any federal funding, the Federal Highway Administration requires that Federal Executive Order 11990, "Protection of Wetlands," be implemented. This executive order requires that short-term and long-term adverse impacts to wetlands (irrespective of Clean Water Act jurisdiction) be avoided to the extent possible and to avoid wetlands wherever there is a practical alternative. CDOT has developed a protocol to comply with Executive Order 11990, which includes the preparation of a Wetlands Findings Report and Mitigation Plan.

NR4: Endangered Species Act Compliance

Habitat assessments will be performed prior to construction to determine if suitable habitat is present for federally listed species. Species may include Preble's meadow jumping mouse (Zapus hudsonius preblei), Ute's ladies tresses orchid (Spiranthes diluvialis), and Colorado butterfly plant (Gaura meomexicana coloradensis). If suitable habitat is present, then focused surveys will be required. Surveys will be performed during their prescribed survey protocol windows between June and September. If any Federally-listed species are determined to be present on the site, the U.S. Army Corps of Engineers will initiate a Section 7 consultation under the Endangered Species Act with the U.S. Fish and Wildlife Service to negotiate "take" authorization, potential minimization measure, and mitigation.

NR5: Bald Eagle Protection Act Compliance

The bald eagle (Haliaeetus leucocephalus) is covered by the Bald Eagle Protection Act. Mitigation for the bald eagle will be to perform construction adjacent to the buffers outside of the November 15 to March 15 winter roosting season.

NR6: Migratory Bird Treaty Act Compliance

Immediately prior to construction, a survey should be conducted to ensure that no nesting migratory birds are present, subject to the Migratory Bird Treaty Act of 1918. Construction will avoid impact to nesting migratory birds.

NR7: Prairie Dogs

Colorado Division of Wildlife (CDOW) requires that any black-tailed prairie dogs (Cynomys ludovicianus) be removed prior to grading. A professional licensed by CDOW should be used to either kill or relocate prairie dogs. Regulations applicable to prairie dogs are located at: www.wildlife.state.co.us/WildlifeSpecies/SpeciesOfConcern/Mammals/BlacktailedPrairieDog/btpraried ogpg4.htm

In addition, prairie dogs are also regulated by the Fort Collins' Animal Control Code and Land Use Code as

described in "Prairie Dog Policy For City Natural Areas" 1998, which states that prairie dogs will be removed prior to the commencement of grading either by relocation or humanely eradicating by city approved methods.

NR8: Burrowing Owls

In addition, the burrowing owl (Athene cunicularia hypugaea) is listed by the State of Colorado as Threatened and is subject to the Migratory Bird Treaty Act. Focused surveys will be performed prior to construction and removal of black-tailed prairie dogs. If burrowing owls are present, owls will be removed prior to construction and prairie dog removal activities.

NR9: "Noxious Weed Management" Compliance

The importing of fill material from off-site locations will be carefully monitored to help prevent the importation of noxious weed seed into the construction site. Invasion by noxious weeds will likely have harmful effects to the Fossil Creek Reservoir Regional Open Space. Noxious weeds are regulated by Colorado Executive Order D 006 99 and will be addressed by any post-construction restoration and/or landscape plan. Pre-construction weed surveys will be performed in the spring or early summer, prior to construction at the project site, as well as at the source for any fill material. If noxious weeds are discovered, an alternative import site may be selected.

NR10: General Development Standards, "Protection of Wildlife Habitat and Ecological Character" Compliance

Development on City Natural Areas needs to comply with the "General Resource Protection Standards for Easements or Rights of Way on City of Fort Collins Natural Areas and Open Lands". Some of the general resource protection measures are those already described above.

NR11: Determination of Final Environmental Buffers

Based on the results of T4, final environmental buffers should be identified. Buffers around Fossil Creek and its associated wetlands should range from 50 to 300 feet.

LAND USE

LU1: Amend Plans

As described in Chapter 1, a number of comprehensive, corridor and subarea plans provide general guidance for this area. Select plans may need to be updated to reflect any final decisions related to the road system, new interchange, land use plan and environmental buffers. One key plan that is anticipated to be updated in the future is the City of Fort Collin's Master Street Plan. The Master Street Plan should consider recommendations contained in the SH392 Environmental Overview Study, Access Control Study and the Interchange Improvement Plan.

LU2: Amend Zoning Codes to Formalize Buffer Distances

Zoning changes could be considered to formalize decisions related to natural resource buffers.

LU3: Identify Lands for BRT/Park and Ride

A key future step will be the identification of lands suitable for the BRT and Park and Ride facility. Development plans of property owners need to be considered when making this selection. The City and Town should also discuss whether the land is acquired by the City or the Town. Lands could be used as parking for development in the short-term and be transitioned to other uses in the future.

LU 4: Land Consolidation and Concept Plans

The City and Town may wish to work with property owners, investors and developers to consolidate land and develop concept plans consistent with the Land Use Framework described in Chapter 5.

LU5: Review the Potential for City of Fort Collins GMA Expansion

If an appropriate opportunity exists for GMA expansion, the City Council should evaluate the GMA expansion against the criteria described in City Plan.

LU6: Discontinue Development Moratorium

Once a funding mechanism is identified to replace the interchange, the Town and City may consider lifting the development moratorium.

DESIGN

D1: Preliminary Design

As part of the preliminary engineering phase, a set of 30% construction documents should be completed and would include:

- Refinement of conceptual architectural design
- Refinement of general planting and irrigation plans
- Development of conceptual lighting design

- Development of furnishings, materials and color palettes
- Development of preliminary plant lists
- Development of preliminary design details
- Development of conceptual signage and gateway features
- Development of a preliminary cost estimate
- Preliminary Design Review submittal and review meeting

D2: Final Design

As part of the final engineering phase, a set of 60% and 95% construction documents should be completed and would include:

- Development of CAD layout of planting and irrigation plans
- Development of preliminary construction details, lighting, and furnishing options
- Development of preliminary construction specifications
- Development of an updated cost estimate
- Preliminary 60% design review submittal and review meeting
- Final 95% Design Review submittal and review meeting

100% construction documents would be completed and would include:

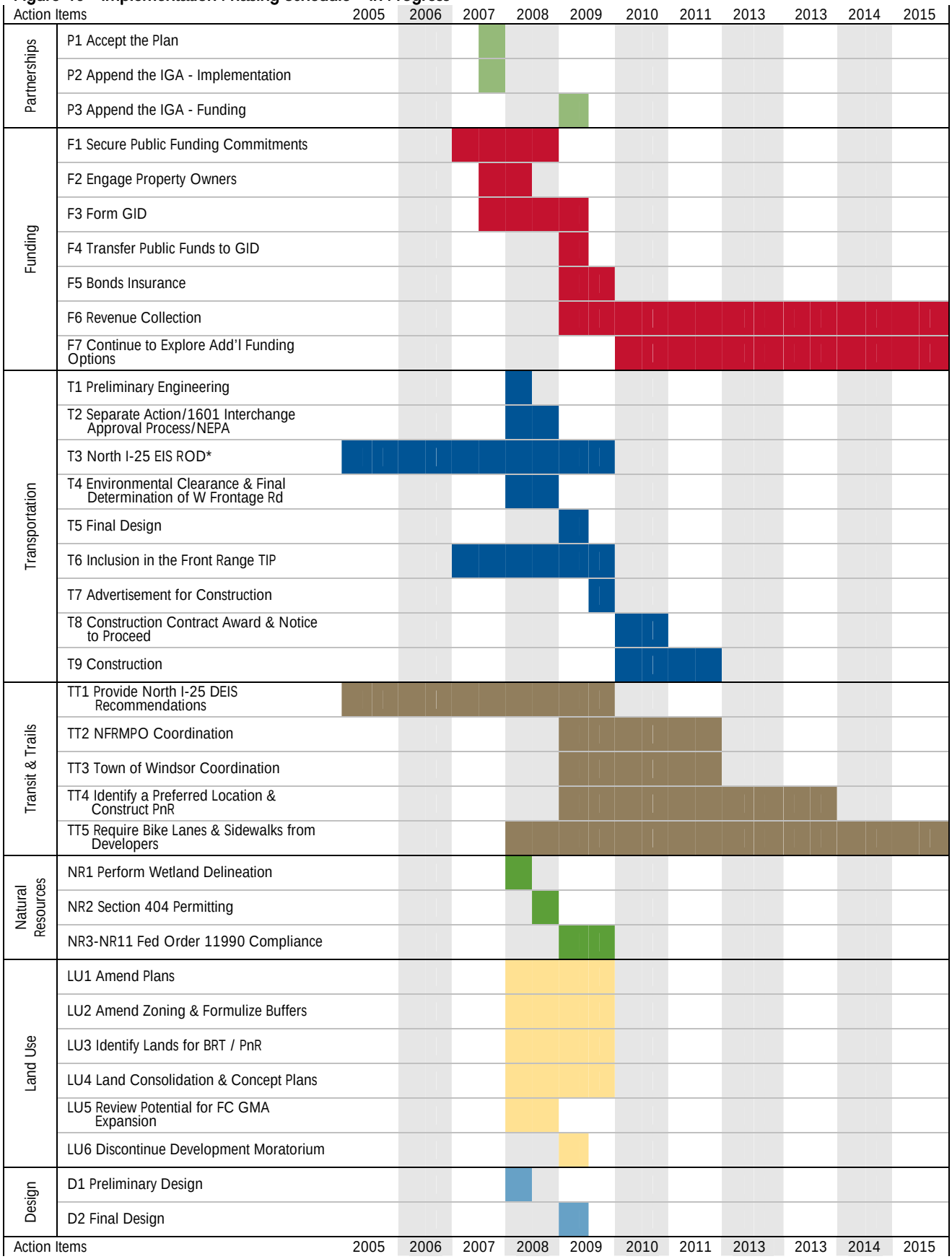
- Development of complete construction documents
- Development of complete technical specifications
- Updated cost estimate

SUMMARY

In summary, initial action steps that are critical to the success of this Plan include the following:

1. Accept the Plan.
2. Amend the IGA to continue partnership/initial funding.
3. Request justification for separate action or utilize existing EIS.
4. Commit funding for 1601/NEPA (EA/CE) process and other compliance activities.
5. Amend IGA to secure public and private funding commitments.
6. Form a General Improvement District.
7. Discontinue development moratorium.
8. Determine final locations and funding for frontage roads.
9. Preliminary/Final Engineering.
10. Begin construction in 2009 – 2010.

Figure 40 - Implementation Phasing Schedule – In Progress



Appendix A

Figure 41 - Development Schedule

Land Use Category	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Residential										
Residential (units)	-	99	-	-	-	99	-	-	-	-
Mixed Use Residential (units)	-	153	-	-	-	153	-	-	-	-
Total (Annual)	-	252	-	-	-	252	-	-	-	-
Total (Cummulative)	-	252	252	252	252	504	504	504	504	504
Commercial										
General Commercial (SqFt)	-	-	555,390	-	-	-	-	-	555,390	-
M/U Commercial (SqFt)	-	-	261,360	-	-	-	-	-	261,360	-
Total (Annual)	-	-	816,750	-	-	-	-	-	816,750	-
Total (Cummulative)	-	-	816,750	816,750	816,750	816,750	816,750	816,750	1,633,500	1,633,500
Total Sales Tax-Producing Sq. Ft (Cumulative)	**-**	**-**	**653,400**	**653,400**	**653,400**	**653,400**	**653,400**	**653,400**	**1,306,800**	**1,306,800**
Office										
Office (SqFt)	-	-	-	-	-	250,470	-	-	-	-
Total (Cumulative)	-	-	-	-	-	250,470	250,470	250,470	250,470	250,470
Annual Commercial and Employment "Units"	-	-	408	-	-	125	-	-	408	-

Land Use Category	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20
Residential										
Residential (units)	-	99	-	-	-	99	-	-	-	-
Mixed Use Residential (units)	-	153	-	-	-	153	-	-	-	-
Total (Annual)	-	252	-	-	-	252	-	-	-	-
Total (Cummulative)	504	756	756	756	756	1,008	1,008	1,008	1,008	1,008
Commercial										
General Commercial (SqFt)	-	-	-	555,390	-	-	-	-	-	-
M/U Commercial (SqFt)	-	-	-	261,360	-	-	-	-	-	-
Total (Annual)	-	-	-	816,750	-	-	-	-	-	-
Total (Cummulative)	1,633,500	1,633,500	1,633,500	2,450,250	2,450,250	2,450,250	2,450,250	2,450,250	2,450,250	2,450,250
Total Sales Tax-Producing Sq. Ft (Cumulative)	**1,306,800**	**1,306,800**	**1,306,800**	**1,960,200**	**1,960,200**	**1,960,200**	**1,960,200**	**1,960,200**	**1,960,200**	**1,960,200**
Office										
Office (SqFt)	250,470	-	-	-	-	-	250,470	-	-	-
Total (Cumulative)	500,940	500,940	500,940	500,940	500,940	500,940	751,410	751,410	751,410	751,410
Annual Commercial and Employment "Units"	125	-	-	408	-	-	125	-	-	-

Figure 42 - Revenue Summary – Scenario 1

Revenue Category	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Special Assessment (Comm - $3,000/ac. Res - $1,000/ac.)	$1,610,050	$1,573,556	$1,293,038	$1,293,038	$1,293,038	$1,171,044	$1,171,044	$1,171,044	$1,171,044	$1,171,044
Impact Fee ($250 per unit)	90,855	155,957	197,111	97,568	99,829	196,396	104,520	106,952	211,695	112,249
Property Tax (5 mills)	25,735	24,253	54,630	220,430	220,430	217,792	295,546	295,546	295,546	461,346
PIF (0.5%)	-	-	898,425	898,425	898,425	898,425	898,425	898,425	1,796,850	1,796,850
Subtotal	$1,726,640	$1,753,767	$2,443,204	$2,509,461	$2,511,722	$2,483,657	$2,469,534	$2,471,967	$3,475,135	$3,541,489
Beginning Fund Balance	$1,726,640	$1,567,060	$2,048,936	$2,614,698	$3,203,609	$3,786,304	$4,376,237	$4,990,143	$6,629,934	$8,399,565
Annual Bond Payment	$1,943,542	$1,984,324	$1,985,937	$1,987,646	$1,989,320	$1,991,229	$1,993,246	$1,995,048	$1,997,114	$1,999,326
Ending Fund Balance	($216,902)	($417,264)	$62,999	$627,052	$1,214,289	1,795,075	$2,382,991	$2,995,095	$4,632,821	$6,4500,239
Interest Earnings @ 4% of average balance	$30,195	$22,996	$42,239	$64,835	$88,358	$111,628	$135,185	$159,705	$225,255	$295,996

Revenue Category	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20
Special Assessment (Comm - $3,000/ac. Res - $1,000/ac.)	$1,085,544	$1,049,050	$1,049,050	$488,013	$488,013	$451,5191	$366,019	$366,019	$366,019	$366,019
Impact Fee ($250 per unit)	146,116	180,549	120,298	225,365	126,252	192,211	163,494	135,602	138,788	142,054
Property Tax (5 mills)	480,190	502,290	536,462	528,871	694,672	687,081	687,081	721,253	764,835	764,835
PIF (0.5%)	1,796,850	1,796,850	1,796,850	2,695,275	2,695,275	2,695,275	2,695,275	2,695,275	2,695,275	2,695,275
Subtotal	$3,488,700	$3,528,739	$3,502,660	$3,937,524	$4,004,211	$4,004,211	$3,911,869	$3,918,150	$3,964,917	$3,968,183
Beginning Fund Balance	$10,184,935	$12,079,469	$14,021,291	$16,473,220	$19,087,372	$21,825,206	$24,555,663	$27,398,716	$30,399,216	$33,519,903
Annual Bond Payment	$2,001,571	$2,003,938	$2,006,319	$2,008,812	$2,011,517	$2,014,137	$2,016,983	$2,019,966	$2,023,005	$2,026,221
Ending Fund Balance	$8,183,364	$10,075,531	$12,014,971	$14,464,408	$17,075,855	$19,811,068	$22,538,680	$25,378,750	$28,376,212	$31,493,682
Interest Earnings @ 4% of average balance	$367,366	$443,100	$520,725	$618,753	$723,265	$832,725	$941,887	$1,055,549	$1,175,509	$1,300,272

- Special assessment is imposed only on undeveloped CAC property, $3,000 per acre commercial, $1,000 per acre residential.
- Impact fee is applied on the entire travelshed, $250 per commercial or residential unit.
- A 5-mill Property tax is imposed on the CAC only.
- 0.5 percent Public Improvement Fee (PIF) is imposed on developed CAC retail property.
- ~~The CAC produces about 96 percent of revenues in this scenario.~~
- Each commercial 'unit' is equivalent to 2,000 sf.

Figure 43 - Revenue Summary – Scenario 2

Revenue Category	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Special Assessment (Comm - $950/ac. Res - $450/ac.)	$529,313	$512,890	$424,059	$424,059	$424,059	$380,562	$380,562	$380,562	$380,562	$380,562
Property Tax (5 mills)	25,735	24,253	54,630	220,430	220,430	217,792	295,546	295,546	295,546	461,346
PIF (0.50%)	-	-	898,425	898,425	898,425	898,425	898,425	898,425	1,796,850	1,796,850
Subtotal	$555,047	$537,144	$1,377,114	$1,542,915	$1,542,915	$1,496,779	$1,574,533	$1,574,533	$2,472,958	$2,638,759
Public Funding (1-time)	$3,800,000	1,200,000								
Beginning Fund Balance	$4,355,047	$4,283,980	$3,808,443	$3,478,040	$3,132,677	$2,725,658	$2,378,164	$2,014,713	$2,533,311	$2,638,759
Annual Bond Payment	$1,943,542	$1,984,324	$1,985,937	$1,987,646	$1,989,320	$1,991,229	$1,993,246	$1,995,048	$1,997,114	$1,999,326
Ending Fund Balance	$2,411,505	$2,299,656	$1,822,507	$1,490,394	$1,143,358	$734,429	$384,918	$19,665	$536,198	$1,237,021
Interest Earnings @ 4% of average balance	$135,331	$131,673	$112,619	$99,369	$85,521	$69,202	$55,262	$40,688	$61,390	$89,467

Revenue Category	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20
Special Assessment (Comm - $950/ac. Res - $450/ac.)	-	-	-	-	-	-	-	-	-	-
Property Tax (5 mills)	460,190	502,290	536,462	528,871	694,672	693,190	726,206	769,788	769,788	769,788
PIF (0.50%)	1,796,850	1,796,850	1,796,850	2,695,275	2,695,275	2,695,275	2,695,275	2,695,275	2,695,275	2,695,275
Subtotal	$2,257,040	$2,299,140	$2,333,312	$3,224,146	$3,389,947	$3,388,465	$3,421,481	$3,465,063	$3,465,063	$3,465,063
Beginning Fund Balance	$3,583,527	$3,984,406	$2,006,319	$5,788,101	$7,360,584	$8,991,725	$10,718,455	$12,554,933	$14,461,827	$16,441,898
Annual Bond Payment	$2,001,571	$2,003,938	$2,426,758	$2,008,812	$2,011,517	$2,014,137	$2,016,983	$2,019,966	$2,023,005	$2,026,221
Ending Fund Balance	$1,581,956	$1,980,468	$2,426,758	$3,779,289	$5,349,067	$6,977,588	$8,701,472	$10,534,967	$12,438,822	$14,415,677
Interest Earnings @ 4% of average balance	$103,310	$119,297	$137,197	$191,348	$254,193	$319,386	$388,399	$461,798	$538,013	$617,151

- Special assessment is imposed only on undeveloped CAC property, $925 per acre commercial, $400 per acre residential.
- Includes public funding of $5 million over 2 years.
- A 5-mill Property tax is imposed on the CAC only.
- 0.5 percent Public Improvement Fee (PIF) is imposed on developed CAC retail property.
- ~~The CAC produces about 90 percent of revenues in this scenario.~~

Figure 44 - Revenue Summary – Scenario 3

Revenue Category	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Special Assessment ($150/ac. - Res and Comm)	$95,100	$89,626	$75,600	$75,600	$75,600	$65,851	$65,851	$65,851	$65,851	$65,851
Property Tax (expanded area, 5 mills)	396,090	394,609	424,985	590,786	590,786	588,147	665,901	665,901	665,901	831,702
PIF (0.50%)	-	-	898,425	898,425	898,425	898,425	898,425	898,425	1,796,850	1,796,850
Subtotal	$491,190	$484,234	$1,399,010	$1,564,811	$1,564,811	$1,552,423	$1,630,177	$1,630,177	$2,528,602	$2,694,403
Public Funding (1-time)	$3,800,000	1,200,000								
Beginning fund balance	$4,291,190	$4,164,659	$3,706,246	$3,393,651	$3,066,808	$2,712,798	$2,420,434	$2,114,318	$2,692,545	$3,457,593
Annual Bond Payment	$1,943,542	$1,984,324	$1,985,937	$1,987,646	$1,989,320	$1,991,229	$1,993,246	$1,995,048	$1,997,114	$1,999,326
Ending Fund Balance	$2,347,648	$2,180,335	$1,720,309	$1,406,005	$1,077,489	$721,569	$427,188	$119,270	$695,431	$1,458,267
Interest Earnings @ 4% of average balance	$132,777	$126,900	$108,531	$95,993	$82,886	$68,687	$56,952	$44,672	$67,760	$98,317

Revenue Category	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20
Special Assessment ($150/ac. - Res and Comm)	-	-	-	-	-	-	-	-	-	-
Property Tax (expanded area, 5 mills)	830,545	872,645	906,818	899,227	1,065,027	1,063,546	1,096,561	1,140,143	1,140,143	1,140,143
PIF (0.50%)	1,796,850	1,796,850	1,796,850	2,695,275	2,695,275	2,695,275	2,695,275	2,695,275	2,695,275	2,695,275
Subtotal	$2,627,395	$2,667,495	$2,703,668	$3,594,502	$3,760,302	$3,758,821	$3,791,836	$3,835,418	$3,835,418	$3,835,418
Public Funding (1-time)										
Beginning fund balance	$4,183,979	$4,979,231	$5,838,051	$7,619,629	$9,635,728	$11,728,231	$13,934,776	$16,270,262	$18,696,125	$21,215,923
Annual Bond Payment	$2,001,571	$2,003,938	$2,006,319	$2,008,812	$2,011,517	$2,014,137	$2,016,983	$2,019,966	$2,023,005	$2,026,221
Ending Fund Balance	$2,182,408	$2,975,293	$3,831,732	$5,610,817	$7,624,211	$9,714,093	$11,917,793	$14,250,296	$16,673,120	$19,189,702
Interest Earnings @ 4% of average balance	$127,328	$159,090	$193,396	$264,609	$345,199	$428,846	$517,051	$610,411	$707,385	$808,112

- Special assessment is imposed only on undeveloped CAC property, $150 per acre, all land uses.
- Includes public funding of $5 million over 2 years.
- A 5-mill Property tax is imposed on expanded area (see map next page)
- 0.5 percent Public Improvement Fee (PIF) is imposed on developed CAC retail property.
- ~~The CAC produces about 89 percent of revenues in this scenario.~~

Appendix B

Figure 45 - Outreach Sample, Stakeholder Bulletin Page 1

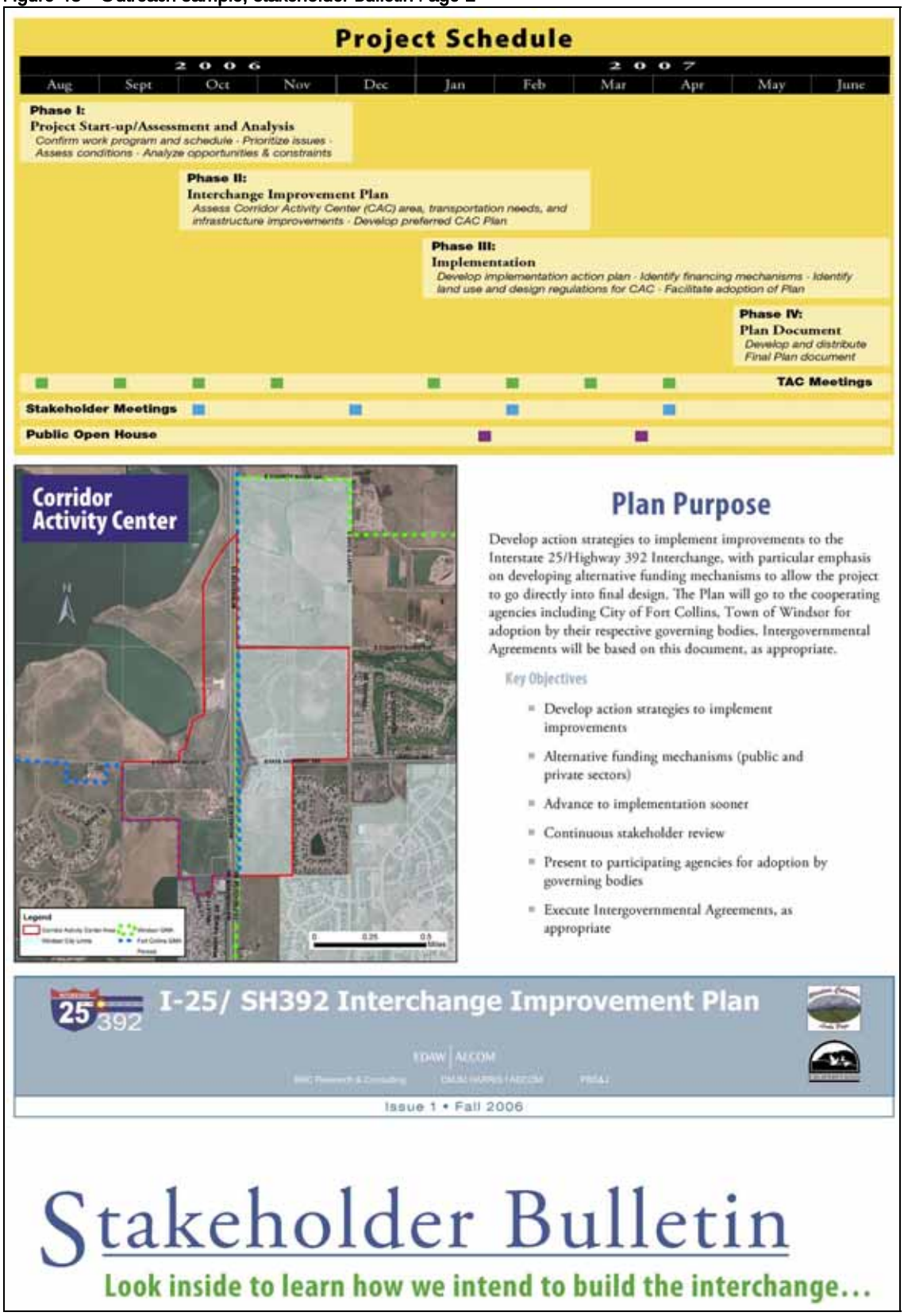


Figure 46 - Outreach Sample, Stakeholder Bulletin Page 2

The I-25/SH 392 Interchange Improvement Plan seeks to replace obsolete interchange

With new growth in Windsor and in southeast Fort Collins in recent years, the capacity of the existing I-25/SH 392 Interchange facility has been significantly impacted. In order for new development to proceed adjacent to the interstate, adequate public facilities must be built. Although the Colorado Department of Transportation (CDOT) has identified this area as a high priority project, there is no federal funding available for a new interchange design.

In other words, the need for the interchange improvement is there, but the money is not.

In January 2006, the City of Fort Collins and the Town of Windsor entered into an Intergovernmental Agreement (IGA) regarding land use and development at the I-25 and Carpenter Road/392 Interchange. The purpose of the IGA includes the need to cooperate among Fort Collins, Windsor, Larimer County, and the North Front Range Metropolitan Planning Organization (NFRMPO) on design and funding interchange improvements.

The purpose of the I-25/SH 392 Interchange Improvement Plan is to develop action strategies to implement improvements to the interchange, with particular emphasis on developing alternative funding mechanisms to allow the project to go directly into final design.

Contact the Project Sponsors

If you have any questions, comments or concerns about the I-25/SH 392 Interchange Improvement Plan, please contact the project sponsors:

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Frequently Asked Questions

Q Who are the lead agencies on this Plan?

A The City of Fort Collins and the Town of Windsor are leading the study, with cooperation from Larimer County, NFRMPO, and CDOT.

Q What is the purpose of this Plan?

A To develop action strategies to implement improvements to the I-25/SH 392 Interchange, with particular emphasis on developing alternative funding mechanisms to allow the project to go directly into final design.

Attend Our Workshops and Open Houses

By attending stakeholder meetings, property and business owners within the improvement area will help develop a funding strategy by identifying revenue sharing alternatives, such as special districts, in order to expedite the construction of the new interchange.

Stakeholders can help spread the word by informing their neighbors about the Plan and encouraging them to participate. The more input that is offered, the more likely it is that a viable funding strategy will be developed.

Q The North I-25 Environmental Impact Statement (EIS) is also studying improvements to the interchange. How does this study relate to the EIS?

A The Plan seeks to develop a funding plan to advance the interchange concept being considered in the EIS. Other than minor modifications, such as the location of the west frontage road, the configuration would be the same. This Plan just allows it to be constructed sooner.

Q What funding mechanisms are you considering?

A The funding plan will likely be composed of several different strategies, but the primary ones may be special assessments and impact fees on property owners within a defined area around the interchange. Other potential sources may be various local, state, and federal funds.

Q What do you need me to do?

A Attend the stakeholder meetings and provide input. Tell your neighbors about the Plan so they can also get involved!

SAVE THE DATE

Be sure to mark the following meetings on your calendar:

- ☒ **December 13, 2006:** Stakeholder Group Meeting II
- ☒ **January 31, 2007:** Public Meeting
- ☒ **February 14, 2007:** Stakeholder Meeting III