RECORD OF DECISION

FOR THE

I-25 VALLEY HIGHWAY
LOGAN TO US 6
DENVER, COLORADO

CDOT Project IM 0252-315
FHWA-CO-EIS-05-01-F

US DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

and

COLORADO DEPARTMENT OF TRANSPORTATION

June 2007

COOPERATING AGENCIES
Federal Railroad Administration
Federal Transit Administration
Regional Transportation District
City and County of Denver

STATUTE OF LIMITATIONS

A Federal agency may publish a notice in the Federal Register, pursuant to 23 United States Code (USC) §139(l), indicating that one or more Federal agencies have taken final actions on permits, licenses, or approvals for a transportation project. If such notice is published, claims seeking judicial review of those Federal agency actions will be barred unless such claims are filed within 180 days after the date of the notice, or within such shorter time period as is specified in the Federal laws pursuant to which judicial review of the Federal agency action is allowed. If no notice is published, then the periods of time that otherwise are provided by the Federal laws governing such claims will apply.

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ENVIRONMENTAL IMPACT STATEMENT AVAILABILITY

The Environmental Impact Statement is attached to this document in electronic format on a compact disc. If you cannot open or use this disc and would like to view a hard copy, please contact either of the above individuals.

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LIST OF ABBREVIATED TERMS

ADA	Americans with Disabilities Act
AM	morning
APCD	CDPHE Air Pollution Control Division
BMP	best management practice
CCD	City and County of Denver
CDOT	Colorado Department of Transportation
CDPHE	Colorado Department of Public Health and Environment
CDPS	Colorado Discharge Permit System
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CHS	Colorado Historical Society
CML	Consolidated Main Line railroad
CO	carbon monoxide
DOI	US Department of Interior
DRCOG	Denver Regional Council of Governments
EB	eastbound
EIS	Environmental Impact Statement
EPA	US Environmental Protection Agency
FHWA	Federal Highway Administration
I-25	Interstate 25
IGA	intergovernmental agreement
ITS	intelligent transportation system
LOS	level-of-service
LOSS	level-of-service of safety
LRT	light rail transit
MS4	municipal separate storm sewer system
NAAQS	National Ambient Air Quality Standard
NB	northbound
NEPA	National Environmental Policy Act
NRHP	National Register of Historic Places
PM	afternoon/evening
PM_{10}	particulate matter less than 10 microns in size
PUC	Public Utilities Commission
RCRA	Resource Conservation and Recovery Act

ROD	Record of Decision
RTD	Regional Transportation District
RTP	Regional Transportation Plan
SB	southbound
SHPO	State Historic Preservation Officer
TIP	Transportation Improvement Plan
T-REX	Transportation Expansion Project
US 6	6th Avenue
USACE	US Army Corps of Engineers
USC	US Code
USFWS	US Department of Interior Fish and Wildlife Service
WB	westbound

1.0 DECISION

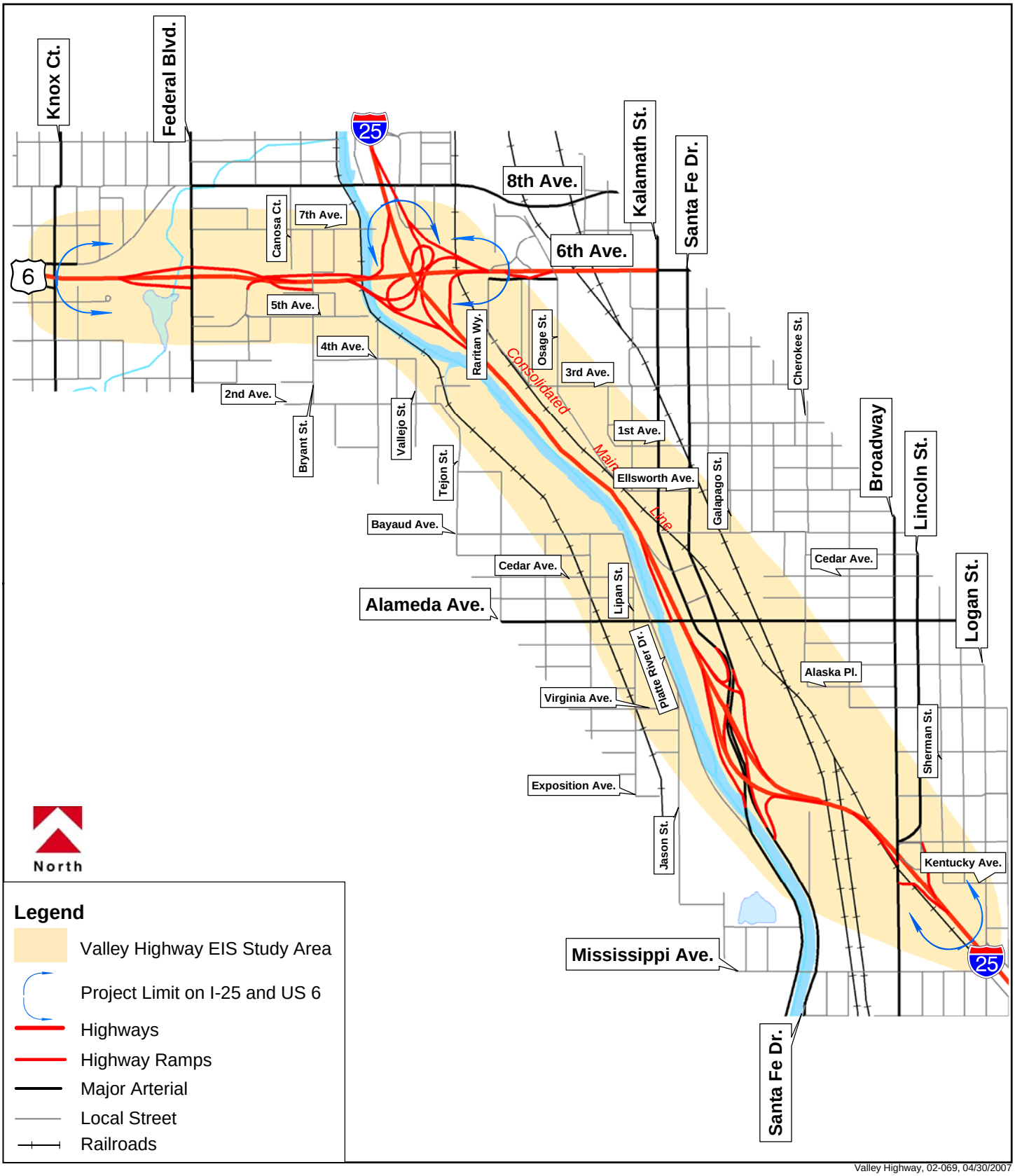
The purpose of this Record of Decision (ROD) is to document the Federal Highway Administration's (FHWA) decision on the Interstate 25 (I-25) Valley Highway Project in Denver, Colorado. The I-25 Valley Highway project includes the reconstruction of I-25 and reconfiguration of interchanges from Logan Street to 6th Avenue (US 6), US 6 from I-25 to Federal Boulevard, and the crossing of Santa Fe Drive and Kalamath Street with the Consolidated Main Line railroad. The project study area is shown on **Figure 1-1**. This ROD has been prepared in compliance with FHWA Regulation 23 Code of Federal Regulations (CFR) 771, Council on Environmental Quality (CEQ) Regulations 40 CFR 1500-1508, and the requirements of the National Environmental Policy Act of 1970 (NEPA), as amended.

The purpose of the Valley Highway Project is to:

- Provide lane continuity and balance on I-25 from Logan Street to US 6, linking with sections of I-25 to the north and south
- Optimize highway system operations while recognizing the constraints on highway expansion identified through the regional transportation planning process
- Improve connectivity between transportation modes
- Improve pedestrian/bicycle mobility across the project corridor
- Increase safety along and across the corridor for motorists, pedestrians, and bicyclists
- Correct roadway deficiencies along I-25 and US 6 to meet current design standards to provide a safer, more efficient, and more reliable transportation system
- Increase safety and reduce congestion and delays related to the at-grade crossing of Santa Fe Drive / Kalamath Street and the Consolidated Main Line (CML) railroad

FHWA and the Colorado Department of Transportation (CDOT) identified a Preferred Alternative (see **Figure 1-2**) for the project in the Final Environmental Impact Statement (EIS; FHWA and CDOT, November 2006). With this ROD, FHWA and CDOT are selecting Phases 1 and 2 (see **Figure 1-3**), which constitute a portion of the Preferred Alternative, for implementation.

As described in the Final EIS, FHWA and CDOT intend to work toward implementation of the Preferred Alternative in its entirety. Due to current funding limitations and the requirements for fiscal constraint, only Phases 1 and 2 are being selected for implementation in this ROD. Subsequent project phases will be selected and implemented as additional funding becomes available, enabling FHWA and CDOT to work toward implementation of the entire Preferred Alternative. For each subsequent phase, a ROD will be issued detailing the phase to be implemented. FHWA and CDOT will review the information provided in the Final EIS and this ROD in preparing each subsequent ROD.

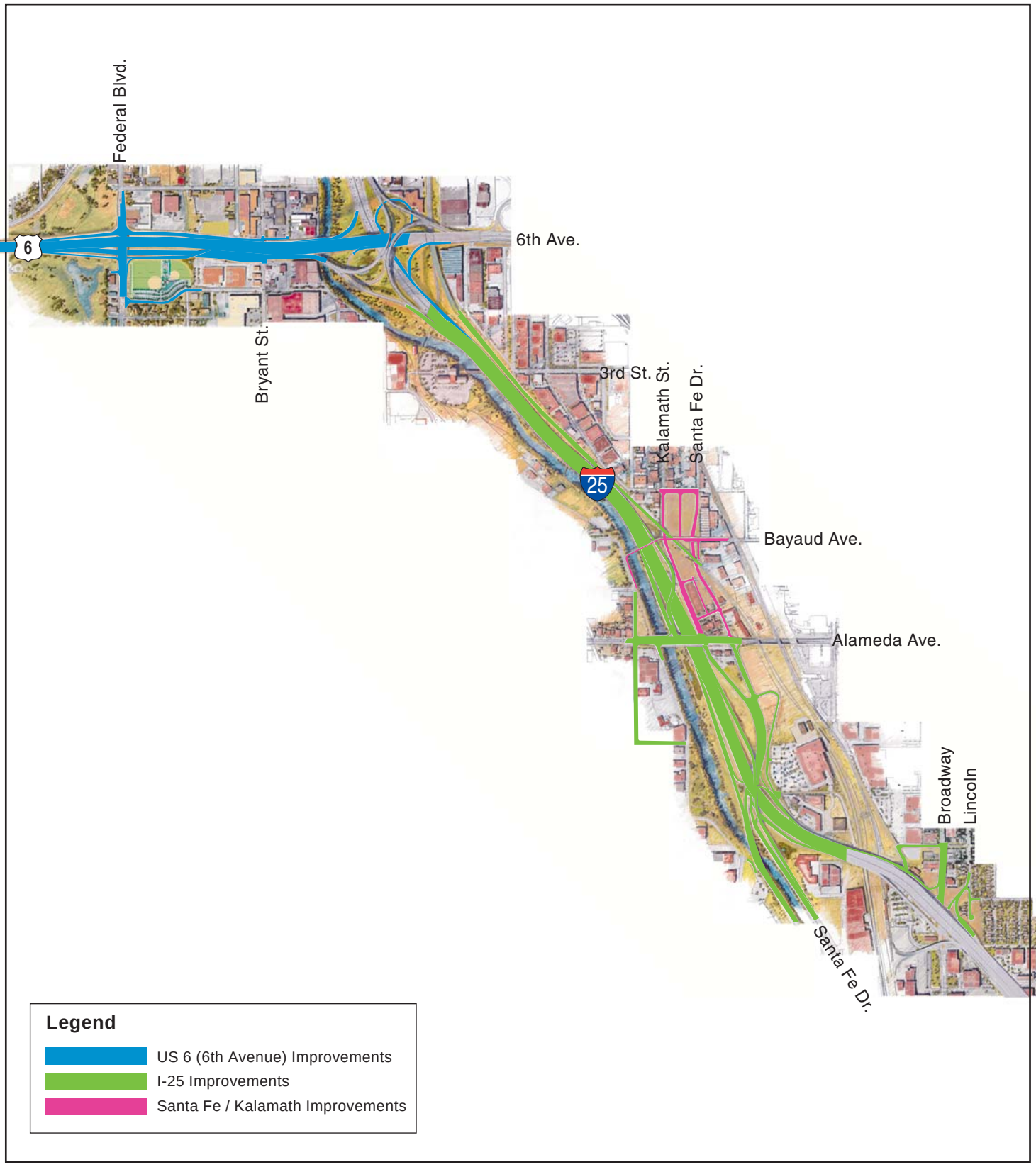


Valley Highway, 02-069, 04/30/2007

0 0.25 0.5 1 Miles

Project Study Area

Figure 1-1

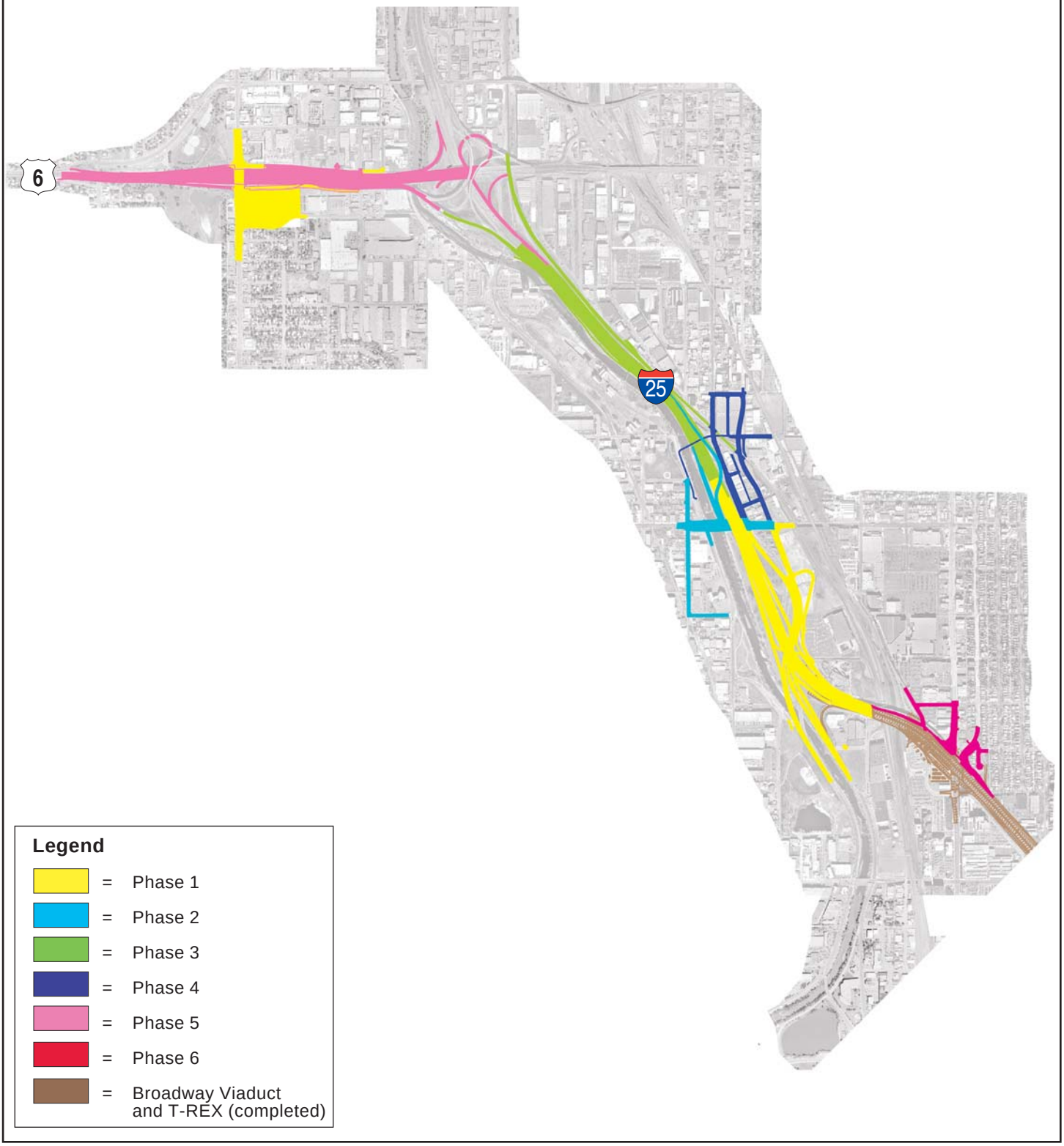


North

Preferred Alternative

Valley Highway - Logan to 6th Ave. Record of Decision (ROD)

Figure 1-2



North

Phased Implementation Plan

1.1 Preferred Alternative

The Preferred Alternative, as described in the Final EIS, includes the following major elements:

- **I-25 Mainline**: Widening of I-25 to provide a consistent section with four through lanes plus auxiliary lanes in each direction through the project area
- **I-25/Broadway**: Tight diamond interchange
- **I-25/Sante Fe Drive**: Single point urban interchange with a flyover ramp for northbound Santa Fe Drive to northbound I-25
- **I-25/Alameda/Santa Fe/Kalamath**: Offset partial urban interchange at I-25 and Alameda Avenue; Santa Fe Drive and Kalamath Street grade separated under the railroad close to their current alignments
- **US 6**: Ramp improvements at the I-25/US 6 interchange; Closure of the Bryant Street interchange; Diamond interchange at US 6/ Federal Boulevard with slip ramps to Bryant Street and a braided ramp from Federal Boulevard to eastbound US 6; reconstruction of US 6 with collector-distributor roads/auxiliary lanes through the project area

The Preferred Alternative is shown on **Figure 1-2**. It is further discussed in **Section 2.3** of this ROD, and is described in detail in the Final EIS.

1.2 Phased Implementation

Total funding for the Preferred Alternative has not been identified at this time. Budget placeholders are included in the 2030 Regional Transportation Plan (RTP). These budgets fall short of the estimated costs for the Preferred Alternative as reflected in the Final EIS. As a result, FHWA and CDOT are planning for phased implementation of the Preferred Alternative.

Chapter 7 of the Final EIS discussed phased implementation of the Preferred Alternative and presented six logical project phases. These six phases that were identified in the Final EIS are illustrated on **Figure 1-3.** Phased implementation is further discussed in **Section 2.4** of this ROD. Phased implementation was discussed with the public and agencies during the Draft and Final EIS public hearings.

The identification of a Preferred Alternative for the entire project in the Final EIS is consistent with the FHWA's objective of analyzing and selecting transportation solutions on a broad enough scale to provide meaningful analysis and avoid segmentation. The selection in this ROD of initial phases for implementation is consistent with FHWA requirements to have funding for projects identified before final decisions are made (this is known as "fiscal constraint" for transportation projects).

1.3 Selected Alternative – Phases 1 and 2 of the Preferred Alternative

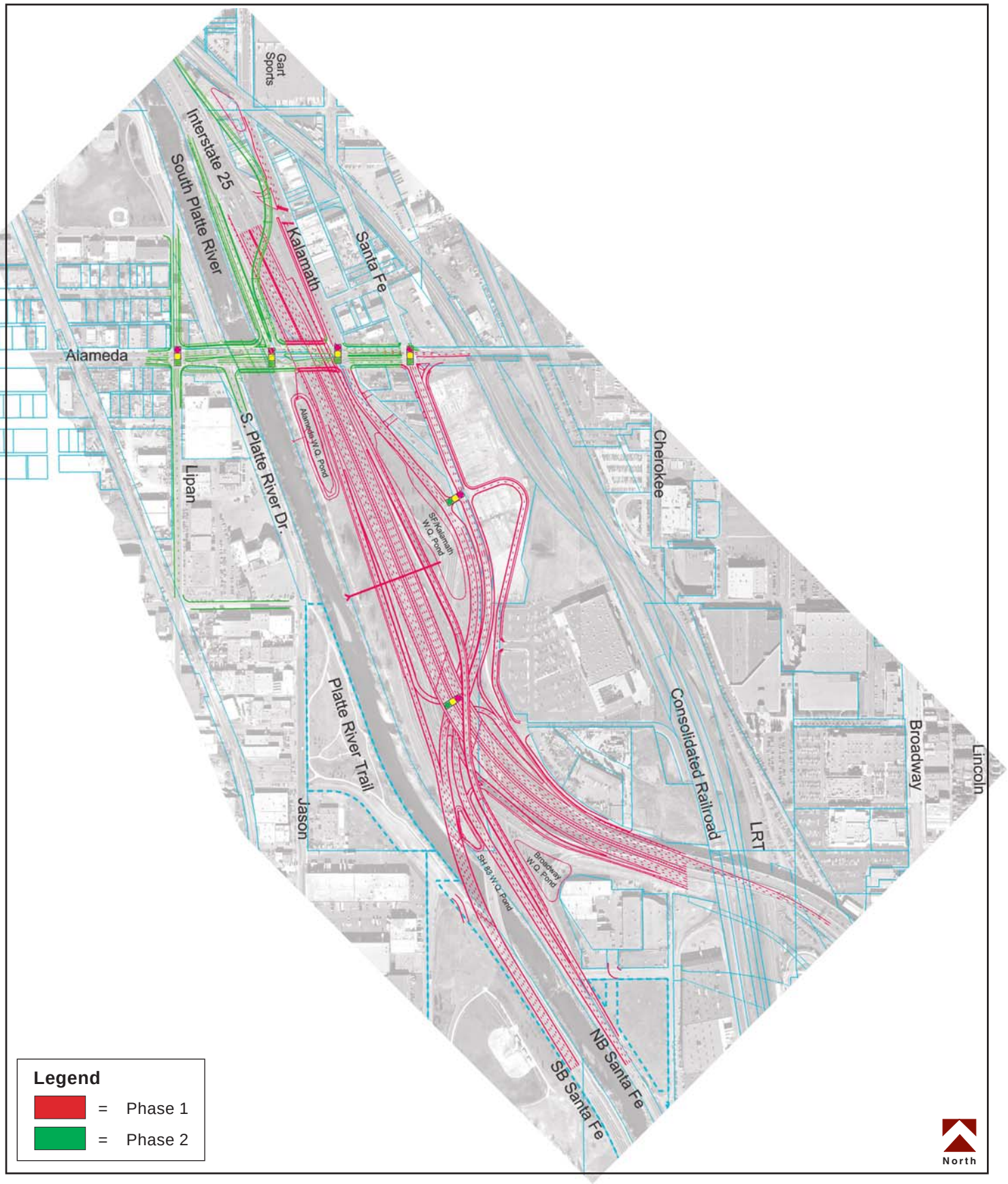
The Final EIS indicated that FHWA and CDOT were likely to select Phase 1 for implementation in an initial ROD. However, based on comments received on the Final EIS and further agency coordination, FHWA and CDOT have determined that Phases 1 and 2 should be selected for implementation and that this can be accommodated within the requirements for fiscal constraint and air quality conformity. Therefore, Phases 1 and 2 are being selected for implementation with this ROD. Phase 1 includes improvements to both I-25 and US 6. Phase 2 includes additional improvements to I-25, but no additional improvements to US 6.

Figure 1-4 shows Phase 1 and 2 improvements to I-25. For I-25, Phase 1 consists of the following improvements:

- Reconstruction of the I-25 / Santa Fe Drive interchange. As identified in Chapter 2, the reconstructed interchange will be a single-point urban type, with a flyover ramp carrying traffic exiting northbound Santa Fe Drive bound for northbound I-25
- Replacement of the southbound Santa Fe Drive bridge over the South Platte River
- Reconfiguration of Santa Fe Drive and Kalamath Street between I-25 and Alameda Avenue, along with associated access roads in this area
- Replacement of the Alameda Avenue bridge over I-25
- Reconstruction of the I-25 mainline from the northern end of the I-25 over Broadway viaduct to a point north of Alameda Avenue where the merge of northbound Santa Fe Drive to northbound I-25 will be completed
- Minor additional improvements to nearby roadways as shown on **Figure 1-4**

Phase 2 (also shown on **Figure 1-4**) consists of improvements to the I-25/Alameda Avenue interchange, as follows:

- Widening of Alameda Avenue from Lipan Street to Santa Fe Drive
- Replacement of the Alameda Avenue bridge over the South Platte River
- Construction of Lipan Street and closure of Platte River Drive north of Alameda Avenue
- Widening of Lipan Street south of Alameda Avenue
- Replacement of Alameda Avenue ramps to and from I-25



Phase 1 and Phase 2 - I-25 Corridor

Figure 1-5 shows Phase 1 improvements to US 6. (As noted above, Phase 2 does not include any additional improvements to US 6.) For US 6, Phase 1 consists of the following improvements:

- Relocation of the on ramp from Federal Boulevard to eastbound US 6 from the south and east sides of Barnum East Park to the north side of Barnum East Park. This will result in a more standard diamond configuration for the US 6/Federal Boulevard interchange
- Conversion of 5th Avenue to two-way operation east of Federal Boulevard
- Reconstruction of Barnum East Park
- Construction of a south side slip ramp providing access to Bryant Street via the US 6/Federal Boulevard interchange
- Closure of the partial interchange at US 6 and Bryant Street, with Bryant Street access to be provided via the slip ramps and collector-distributor system included in the US 6/Federal Boulevard interchange
- Replacement of the Federal Boulevard bridge over US 6, along with associated improvements

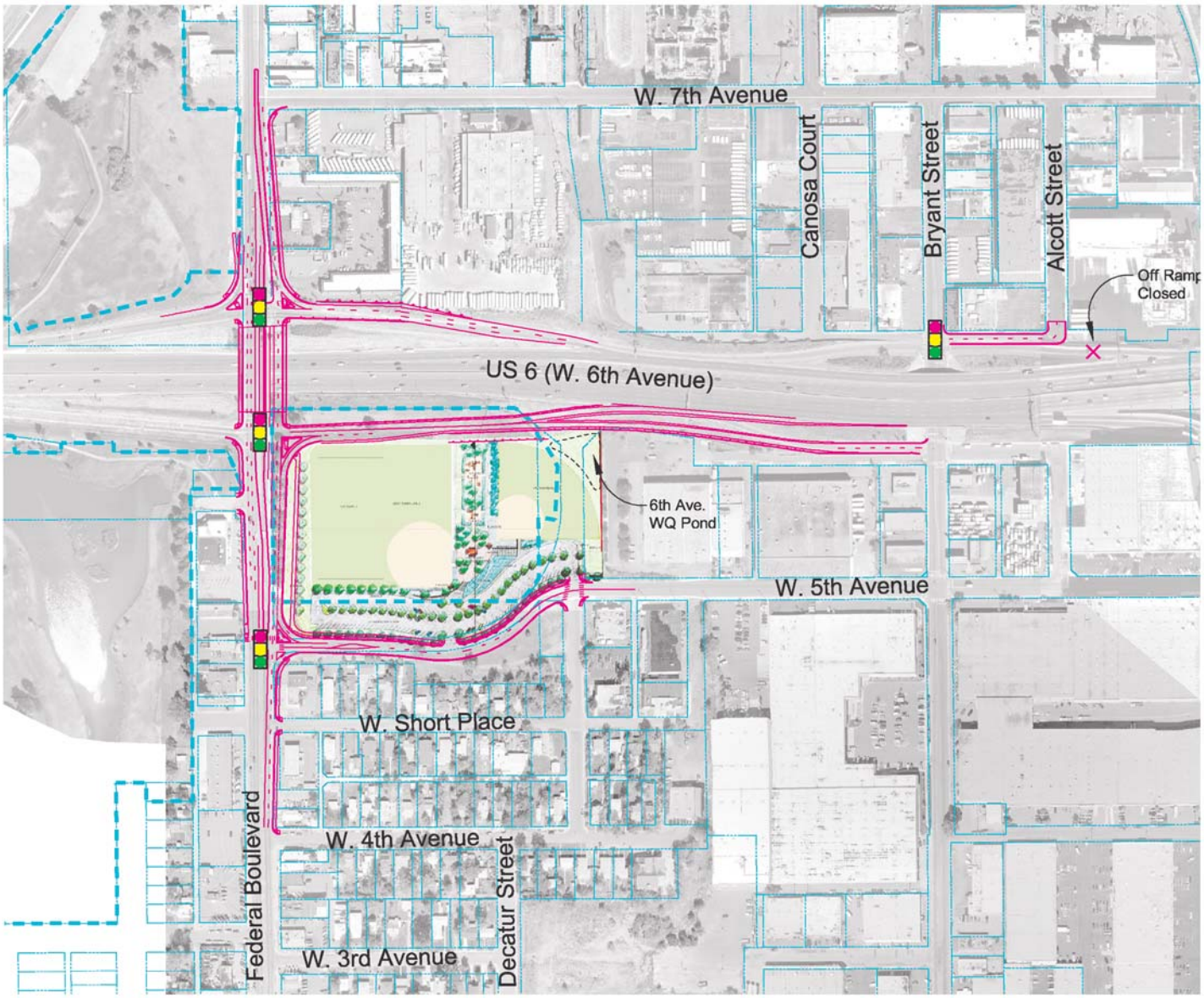
Phase 1 was selected to provide improvements aimed at addressing the most critical needs in the I-25 and US 6 corridors. Specifically:

- On I-25, Phase 1 provides for the replacement of structurally-deficient structures at I-25 and Santa Fe Drive
- Also on I-25, Phase 1 provides lane continuity with four through lanes on I-25 to match the sections to the north and south
- On US 6, Phase 1 provides for closure of the Bryant Street interchange with standardization of the Federal interchange. These actions will enhance safety through this high accident area

Phase 2 was selected to provide additional operational and safety benefits at the I-25/Alameda Avenue interchange that would not be provided by Phase 1 alone.

In cases where a project is implemented in more than one phase, care must be taken to ensure that the transportation system operates acceptably at the conclusion of each phase. This is referred to as “independent utility” – the ability of each phase to operate on its own. Additionally, it must be demonstrated that air quality conformity will not be jeopardized. In addition, any mitigation measures needed in response to project impacts must be implemented with the phase in which the impacts occur, rather than deferred to a later phase.

For the implementation of Phase 1 and 2, traffic analysis has been done to support the determination of independent utility. This is presented in **Section 2.3** of this ROD. Air quality conformity has been established through coordination with the Denver Regional Council of Governments (DRCOG) and the Colorado Department of Public Health and Environment (CDPHE) Air Pollution Control Division (APCD). The results of this coordination are described in **Section 1.5** of this ROD. And finally, mitigation measures to be implemented with Phases 1 and 2 are detailed in **Section 5.0** of this ROD.



Legend

= Phase 1

North

Phase 1 - US 6 Corridor

1.4 Project Funding Scenario

DRCOG is the designated metropolitan planning organization for the Denver metropolitan area. As such, it is federally charged with developing a long-range regional transportation plan that defines the integrated, multimodal, metropolitan transportation system. The DRCOG Metro Vision 2030 RTP, as amended presents the vision for a multimodal transportation system that is needed to respond to future growth, as well as to influence how growth occurs. This vision is unconstrained by financial limitations. A federally required component of the plan, the DRCOG Fiscally Constrained air quality conforming 2030 RTP examines transportation needs and identifies the federal and state funding that can reasonably be expected to be available for major transportation projects within the current planning horizon. The RTP is periodically amended and updated.

Phases 1 and 2, being selected with this ROD, have a total estimated cost of approximately $130 million include the following project scope and costs:

- $84 million – Reconstruction of the I-25 /Santa Fe Interchange with lane continuity to Alameda Avenue
- $23 million – Reconstruction of the Alameda / I-25 bridge, reconstruction of the ramps at I-25/ Alameda Interchange and replacement of the Alameda Avenue bridge over the South Platte River; other related improvements including widening of Alameda Avenue from Lipan Street to Santa Fe Drive, widening of Lipan Street south of Alameda, construction of Lipan Street and closure of Platte River Drive north of Alameda Avenue
- $15 million – US 6/Bryant Interchange – ramp closure
- $8 million – US 6/Federal Interchange reconstruction

The 2030 Fiscally Constrained RTP includes $107 million for the following specific projects studied in the I-25 Valley Highway EIS:

- $84 million for “I-25, Broadway to Alameda Avenue (viaduct and 3 interchanges), and widen to US 6”
- $15 million for reconstruction of the interchange at US 6 and Bryant Street, and
- $8.1 million for reconstructing the interchange at US 6 and Federal

Of that $107 million, roughly $13 million has been expended on the replacement of the Broadway viaduct, leaving a balance of $94 million for projects in the I-25 Valley Highway EIS. DRCOG records show that approximately $13 million of the $84 million identified in the RTP for the I-25 Broadway to Alameda project has been expended by CDOT on the Broadway viaduct replacement project. None of the $23.1 million identified in the fiscally constrained plan for reconstructing the interchanges at US 6/ Bryant and Federal Boulevard has been expended.

The remaining $36 million (i.e.; the difference between the estimated Phase 1 and 2 cost of $130 million and the balance of $94 million from the 2030 RTP) needed to fund the Phase 1 and Phase 2 of the Preferred Alternative will be covered by a portion of the $264 million identified in DRCOG’s 2030 Fiscally Constrained RTP for state highway bridge repairs and reconstruction in CDOT Region 6. Within the $107 million cost estimate to complete the I-25/ Santa Fe Drive and I-25 / Alameda Avenue interchange improvements (including reconstruction of the Alameda Avenue bridge over I-25 and the Alameda Avenue bridge over the South Platte River) at least $36 million can be considered to be related to reconstruction, and therefore qualify under this line item in the plan.

The scope of projects proposed is also consistent with the DRCOG 2030 Fiscally Constrained air quality conforming RTP as amended. Specifically:

- The I-25 /Santa Fe Interchange with lane continuity to Alameda was modeled as part of the 2030 RTP
- Reconstruction of the ramps at I-25 /Alameda, replacement of Alameda Avenue bridge over the South Platte River and related improvements were not specifically modeled in the DRCOG 2030 RTP, as they did not meet the definition of "regional significance" for inclusion in the model
- Closure of the ramps at US 6 / Bryant St Interchange as well as the Interchange Reconstruction at US 6 / Federal were modeled as part of the 2030 RTP

Based on the above, the Phase 1 and 2 improvements selected in this ROD are consistent with the DRCOG Fiscally Constrained air quality conforming 2030 RTP with respect to project cost and scope.

1.5 Air Quality

Air quality impacts from transportation projects generally are considered on both a regional and a local basis. Regional impacts generally are examined by the responsible metropolitan planning organization (DRCOG) through transportation planning activities such as RTPs and Transportation Improvement Plans (TIPs). Local air quality impacts are assessed through "hot-spot" computer modeling using procedures developed by the US Environmental Protection Agency (EPA).

The Final EIS discussed the air quality impacts of the Preferred Alternative (and other alternatives). In addition, the Final EIS discussed the air quality implications of phased project implementation. Since publication of the Final EIS, several agency actions have been taken to complete the air quality conformity and concurrence steps that were required before this ROD could be executed. These actions and accompanying concurrence steps are described below. Relevant agency correspondence is included in **Appendix A**.

1.5.1 Regional Air Quality Conformity for the Selected Alternative

In January 2007, the DRCOG Board formally adopted the latest (2006 cycle 2 – see **Appendix A**) amendments to the Metro Vision 2030 RTP. These amendments included changes needed to include the Preferred Alternative in its entirety in the Metro Vision (unconstrained) roadway network, and the Selected Alternative (Phases 1 and 2 of the Preferred Alternative) in the fiscally constrained roadway network.

The fiscally constrained element of the 2030 RTP, as amended, was found to meet the air quality conformity requirement. Inclusion of the Selected Alternative in the Fiscally Constrained 2030 RTP establishes that the Selected Alternative meets the "regional conformity test" with respect to air quality. Project funding relative to the RTP was discussed above in ***Section 1.4***.

1.5.2 Local Air Quality Concurrence

In February 2007, CDOT forwarded a letter (presented in **Appendix A**) reporting the results of the hotspot analysis to CDPHE APCD. In the letter, CDOT indicated that the project would not cause or contribute to an exceedance of the eight-hour carbon monoxide (CO) National Ambient Air Quality Standard (NAAQS). CDOT also indicated that FHWA and CDOT intended to select Phases 1 and 2 in this ROD, and requested the concurrence of APCD with the results of the analysis and conclusions with regard to the project. In March 2007, APCD indicated their concurrence by signing and returning a copy of CDOT's letter (see **Appendix A**).

1.5.3 Regional Air Quality Evaluation for the Preferred Alternative

As was described in the Final EIS, an evaluation of the likely regional air quality impact of the Preferred Alternative was performed in addition to the regional conformity evaluation described above. This evaluation was undertaken by DRCOG and CDPHE APCD, at the request of FHWA and CDOT, and has now been completed.

Because only part of the Preferred Alternative (Phase 1 and Phase 2) is included in the fiscally constrained RTP this evaluation does not establish conformity for the Preferred Alternative. Rather it demonstrates that the Preferred Alternative would not jeopardize conformity if placed in the RTP. It should be noted that the only regionally-significant improvement included in the Preferred Alternative and not the Selected Alternative is the construction of a continuous auxiliary lane on I-25 between Alameda Avenue and US 6, which would likely have only a minor effect on the regional model. This is part of Phase 3, as described in the Final EIS.

The evaluation of the likely regional air quality impacts of the Preferred Alternative has been completed as follows:

- DRCOG has run the regional transportation model that consists of the latest fiscally constrained RTP transportation system, with the entire Preferred Alternative. DRCOG described their methodology in a letter to CDOT dated February 7, 2007 (see Appendix A). DRCOG forwarded vehicle miles traveled results from this modeling effort for years 2015, 2020 and 2030 to CDPHE APCD.
- The CDPHE APCD used the DRCOG model output to calculate 2030 regional emissions for the hypothetical transportation system. CDPHE reported the results in a letter to CDOT dated January 30, 2007 (see Appendix A). CDPHE APCD reported that based on the modeling results, the Preferred Alternative would not result in significant additional air quality emissions.

Based on the analysis by DRCOG and CDPHE APCD, it appears that construction of future phases of the Preferred Alternative will be unlikely to create problems with regard to regional air quality conformity. As additional funding becomes available and future phases are advanced, this result will be confirmed through inclusion of such future phases in the fiscally constrained air quality conforming RTP that is in affect at the time that a ROD is prepared for that phase.

2.0 ALTERNATIVES CONSIDERED

The I-25 Valley Highway EIS process commenced with the publication of the Notice of Intent to prepare an EIS in the Federal Register on July 23, 2002. In April 2005, the Draft EIS was made available for public review and comment, with a Notice of Availability published in the Federal Register on April 29, 2005. An informational meeting and a public hearing were held during the Draft EIS comment period, which ended on June 14, 2005.

The Final EIS was made available for public review and comment in November 2006, with a Notice of Availability published in the Federal Register on November 17, 2006. A public hearing for the Final EIS was held on November 30, 2006, and the public comment period ended on December 18, 2006.

As described previously, the purpose of the Valley Highway Project is to:

- Provide lane continuity and balance on I-25 from Logan Street to US 6, linking with sections of I-25 to the north and south
- Optimize highway system operations while recognizing the constraints on highway expansion identified through the regional transportation planning process
- Improve connectivity between transportation modes
- Improve pedestrian/bicycle mobility across the project corridor
- Increase safety along and across the corridor for motorists, pedestrians, and bicyclists
- Correct roadway deficiencies along I-25 and US 6 to meet current design standards to provide a safer, more efficient, and more reliable transportation system
- Increase safety and reduce congestion and delays related to the at-grade crossing of Santa Fe Drive / Kalamath Street and the Consolidated Main Line (CML) railroad

2.1 Alternatives Evaluated in the Draft EIS

Chapter 2 of the Draft EIS described the process that was used to develop, evaluate, and eliminate or advance potential alternatives to meet the purpose and need for the project. A No Action Alternative and the following three System Alternatives were considered in detail in the Draft EIS:

- **No Action Alternative** – includes only those projects that have committed funds for improvements. This includes the Transportation Expansion (T-REX) project and the Broadway Viaduct Replacement Project, which have now been completed. The No Action Alternative is basically a decision not to select a build alternative. The No Action Alternative has been fully evaluated in the EIS and serves as a "baseline" against which other alternatives are compared.
- **System Alternative 1** – Maximize Use of Existing Right of Way – a combination of roadway improvements that provide the narrowest roadway width or/and had the least footprint, or were closest to the current configurations. System Alternative 1 would include widening of I-25 to provide a consistent section with four through lanes plus auxiliary lanes in each direction through the project area (common to all system alternatives), a tight diamond interchange at I-25 and Broadway with northbound left as existing, a single point urban interchange with a flyover ramp for northbound Santa Fe Drive to northbound I-25 (common to all system alternatives), an offset partial urban interchange at I-25 and Alameda Avenue, Santa Fe Drive

and Kalamath Street grade separated under the railroad close to their current alignments, ramp improvements at the I-25/US 6 interchange, and relocation of the US 6 and Bryant Street interchange to align with Decatur Street.

- **System Alternative 2** – Maximize Operation Performance/Safety - a combination of roadway improvements that provide the most direct travel route, best avoid friction between traffic streams, or reduce traffic signals. System Alternative 2 would include widening of I-25 to provide a consistent section with four through lanes plus auxiliary lanes in each direction through the project area (common to all system alternatives), a diamond interchange at I-25 and Broadway with the southbound on ramp grade separated, a single point urban interchange with a flyover ramp for northbound Santa Fe Drive to northbound I-25 (common to all system alternatives), a half diamond interchange at I-25 and Alameda Avenue with Santa Fe and Kalamath grade separated over Alameda, Santa Fe Drive and Kalamath Street grade separated under the railroad close to their current alignments, ramp improvements at the I-25/US 6 interchange, closure of the Bryant Street interchange, a diamond interchange at US 6/ Federal Boulevard with slip ramps to Bryant Street and a braided ramp from Federal Boulevard to eastbound US 6, and reconstruction of US 6 with collector-distributor roads/auxiliary lanes through the project area.
- **System Alternative 3** – Maximize Facilitation of Local Objectives – a combination of roadway improvements that attempt to enhance the local street systems operations as well as to best meet local land use and community value goals. System Alternative 3 does not necessarily represent the City and County of Denver's preferred alternative, but rather includes a number of improvements suggested by the City and County of Denver to be evaluated through the EIS process. System Alternative 3 would include widening of I-25 to provide a consistent section with four through lanes plus auxiliary lanes in each direction through the project area (common to all system alternatives), a tight diamond interchange at I-25 and Broadway, a single point urban interchange with a flyover ramp for northbound Santa Fe Drive to northbound I-25 (common to all system alternatives), an offset partial urban interchange at I-25 and Alameda Avenue with Santa Fe and Kalamath grade separated under Alameda, Santa Fe Drive and Kalamath Street grade separated under the railroad, ramp improvements at the I-25/US 6 interchange, closure of the Bryant Street interchange, and a single point urban interchange at US 6 and Federal Boulevard.

These alternatives were fully evaluated in the Draft EIS with regard to transportation benefits and environmental considerations. These system alternatives were established on the basis of a multi-stage screening process, which considered 80 different element alternatives. The alternative development and screening process is described in detail in the Final EIS.

2.2 Alternatives Evaluated in the Final EIS

For the Final EIS, FHWA and CDOT identified a Preferred Alternative that combines elements of the three system alternatives that were analyzed in the Draft EIS. The Preferred Alternative did not represent a new alternative, but rather combined elements of System Alternatives 1, 2, and 3 with refinement based in the analysis contained in the Draft EIS and comments received from the public and agencies.

The Preferred Alternative was documented in the Final EIS and was compared with System Alternatives 1, 2, 3 and the No Action Alternative, which were carried through from the Draft EIS. Each of these alternatives was fully evaluated in the Final EIS with regard to transportation benefits and environmental considerations.

2.3 Preferred Alternative

The Preferred Alternative, as presented in the Final EIS, includes the following major elements:

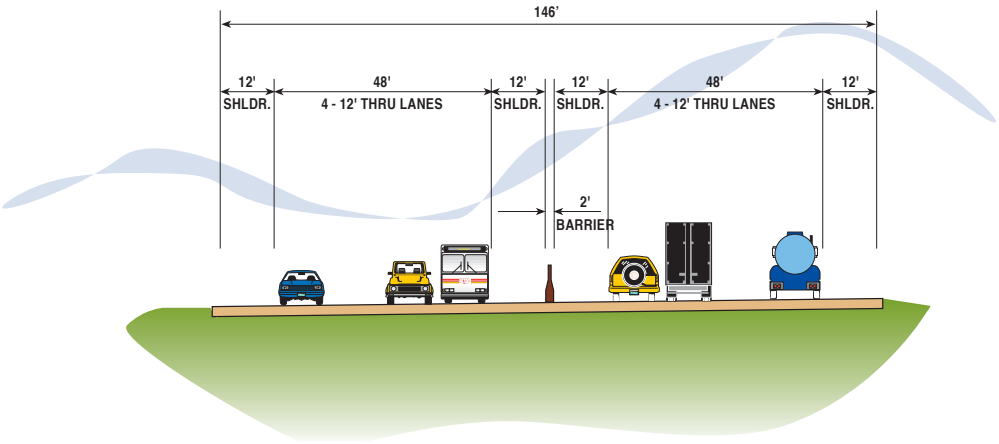
- **I-25 Mainline:** Widening of I-25 to provide a consistent section with four through lanes plus auxiliary lanes in each direction through the project area (these improvements were common to System Alternatives 1, 2, and 3 in the Draft EIS)
- **I-25/Broadway:** Tight diamond interchange (these improvements were included in System Alternative 3 in the Draft EIS)
- **I-25/Sante Fe Drive:** Single point urban interchange with a flyover ramp for northbound Santa Fe Drive to northbound I-25 (these improvements were common to System Alternatives 1, 2, and 3 in the Draft EIS)
- **I-25/Alameda/Santa Fe/Kalamath:** Offset partial urban interchange at I-25 and Alameda Avenue with Santa Fe Drive and Kalamath Street grade separated under the railroad close to their current alignments (this combination of improvements was included in System Alternative 1 in the Draft EIS)
- **US 6:** Ramp improvements at the I-25/US 6 interchange; closure of the Bryant Street interchange; diamond interchange at US 6/ Federal Boulevard with slip ramps to Bryant Street and a braided ramp from Federal Boulevard to eastbound US 6; reconstruction of US 6 with collector-distributor roads/auxiliary lanes through the project area (these improvements were included in System Alternative 2 in the Draft EIS)

Following identification of the major elements of the Preferred Alternative, FHWA and CDOT reviewed the elements in light of comments that had been received on the Draft EIS to establish whether any refinements should be made to the elements to address specific concerns. This resulted in a number of refinements being included in the Preferred Alternative as presented in the Final EIS. These refinements are shown in **Table 2-1**.

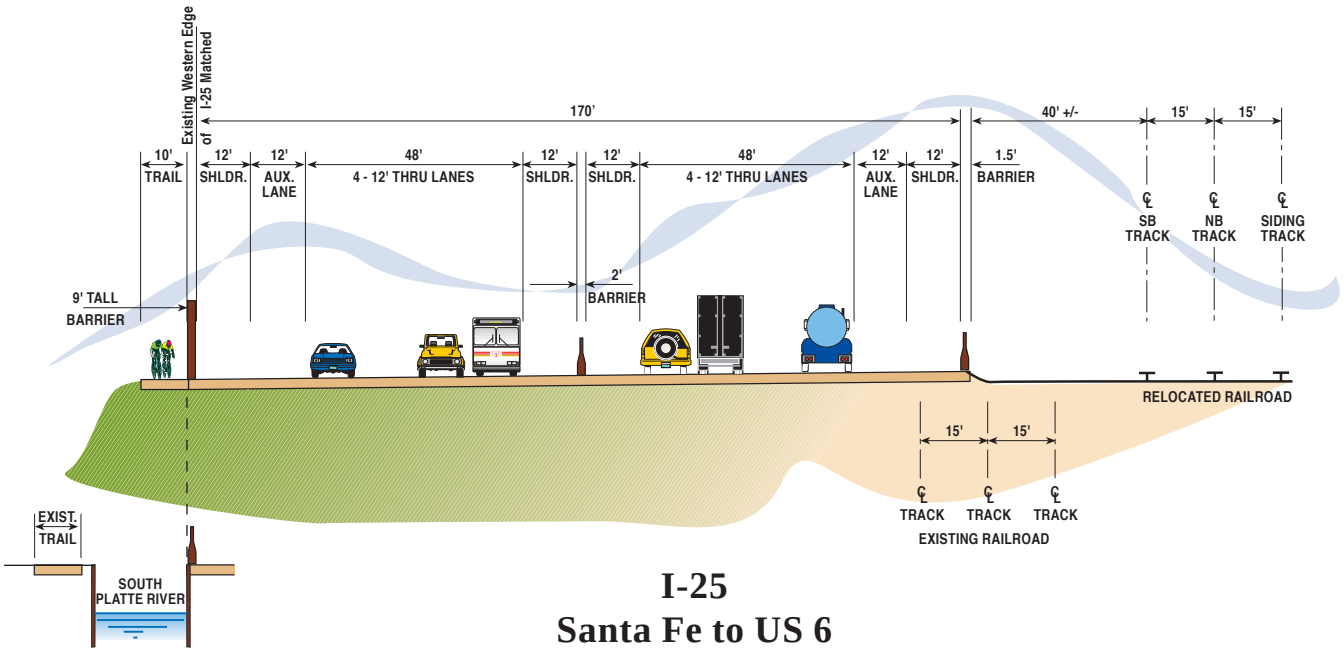
Table 2-1 Preferred Alternative Refinements included in the Final EIS

Location	Refinement to Preferred Alternative	Reason for Refinement
I-25/Broadway	Retain signal and full movement operation at Broadway and Kentucky Avenue (instead of right-in right-out access)	Improved access to Regional Transportation District (RTD) station and park-n-Ride; avoids introduction of buses onto Exposition Avenue between Broadway and Lincoln Street
I-25/Alameda	Add auxiliary lane on westbound Alameda Avenue from Kalamath Street to northbound I-25 ramp	Improved operations
I-25/Alameda	Add auxiliary right turn lane on northbound Lipan Street at Alameda Avenue	Improved operations
Santa Fe/ Kalamath/ CML	Alignment refinements to Santa Fe Drive at the Consolidated Main Line and refinement of the bicycle/pedestrian bridge connection	To enhance constructability and local business access
US 6/Federal	Reposition braided ramp entrance to south side of combined ramp	Improved operations realized through easier weaving, ease of signing, and improved driver expectancy
US 6/Federal	Reconfiguration/reconstruction of Barnum East Park with the acquisition of additional property	To maintain and enhance park function and to minimize harm to the park

These refinements have been included in the Preferred Alternative as presented and analyzed in the Final EIS. The Preferred Alternative layout is shown on **Figure 1-2**. Typical freeway and arterial sections with the Preferred Alternative are shown on **Figures 2-1** and **2-2**, respectively.

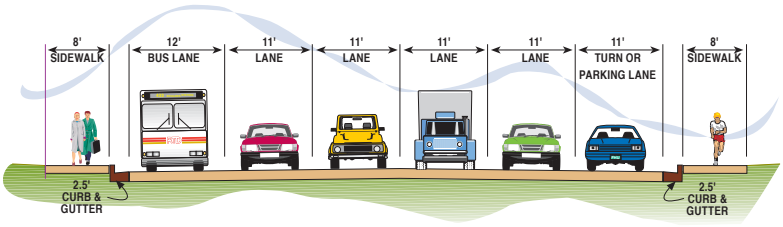


I-25
Broadway to Santa Fe

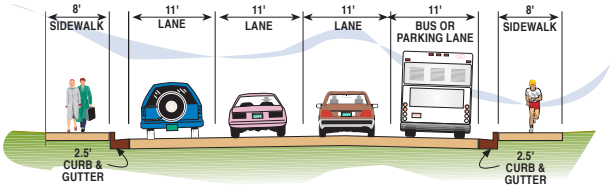


I-25
Santa Fe to US 6

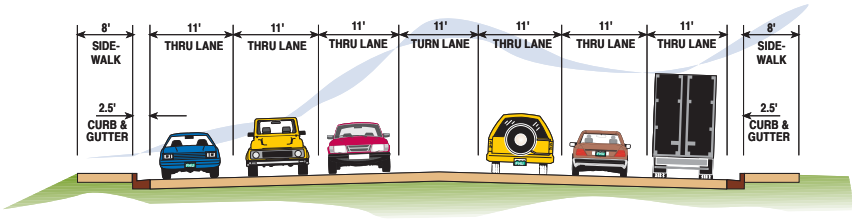
Preferred Alternative
I-25 Typical Sections



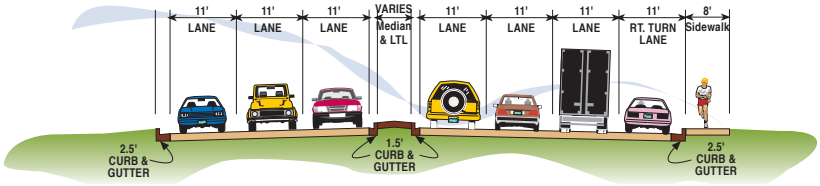
BROADWAY SECTION



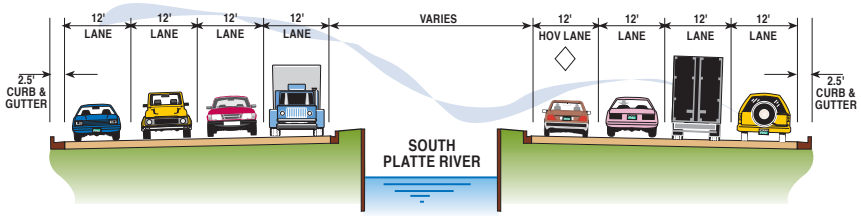
LINCOLN SECTION



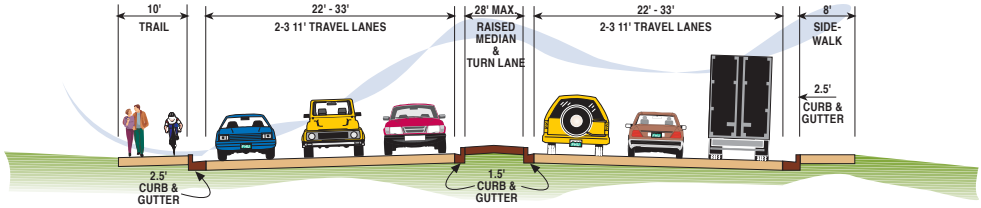
BROADWAY SOUTH OF I-25
TENNESSEE TO I-25



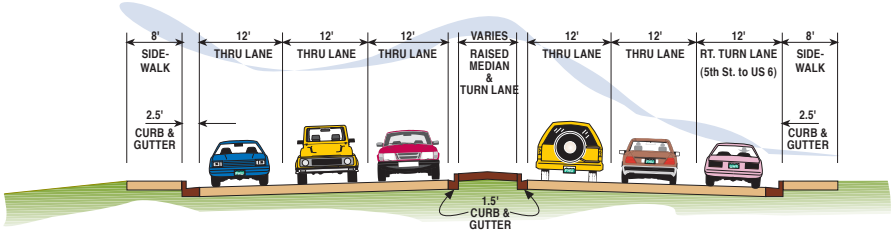
US 85 / SANTA FE SECTION
NORTH OF I-25



US 85 / SANTA FE SECTION
SOUTH OF I-25



ALAMEDA SECTION



FEDERAL SECTION

Arterial Street Typical Sections with the Preferred Alternative

Figure 2-2

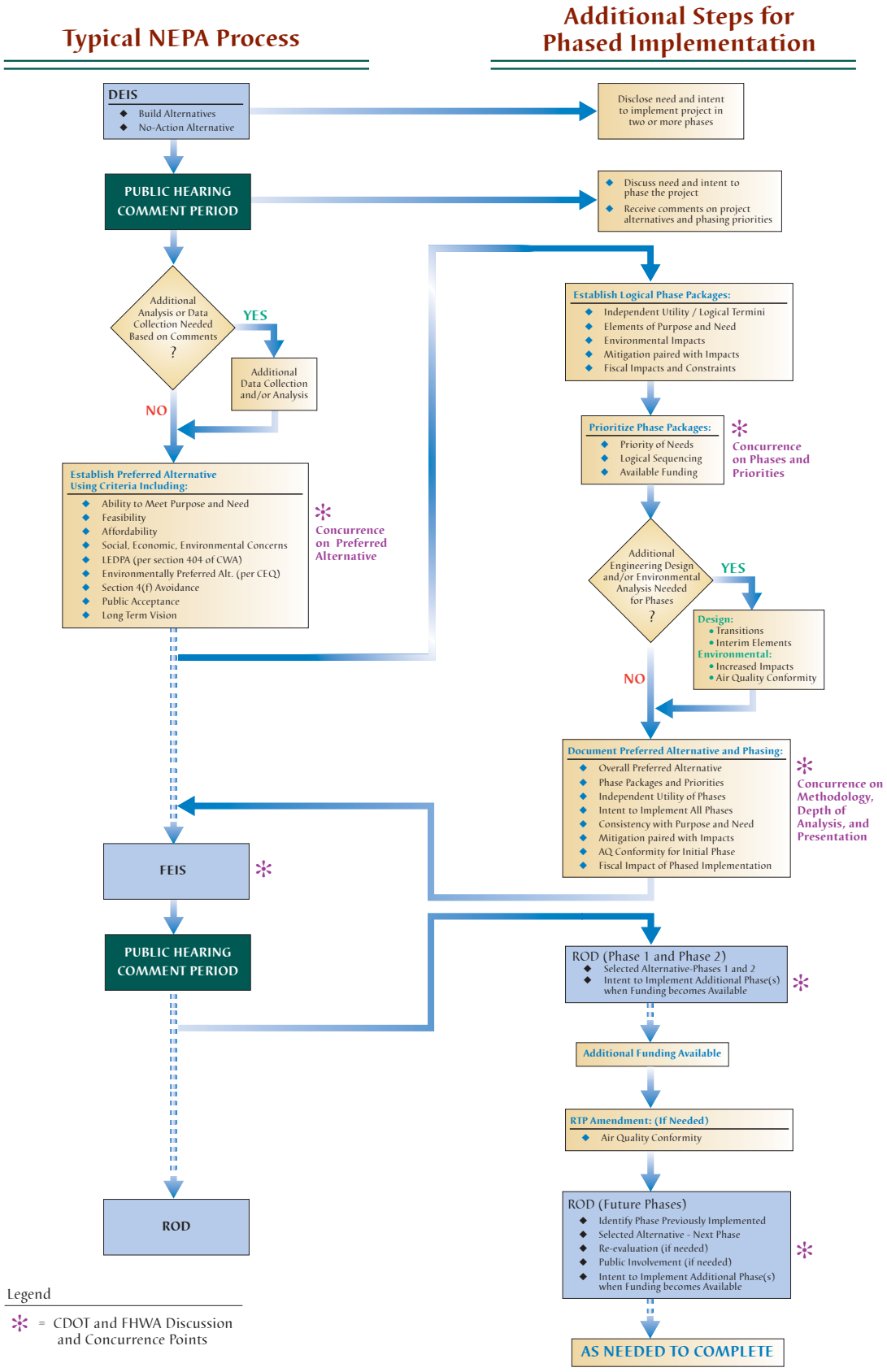
As discussed in the Final EIS, the Preferred Alternative balances transportation improvements with social and environmental considerations. As presented in the Final EIS, FHWA and CDOT have concluded that the Preferred Alternative:

- meets the project purpose and need
- is feasible to build
- does not restrict consideration of alternatives for other reasonably foreseeable transportation improvements
- meets the long-term vision
- meets the needs or objectives of social, economic and environmental concerns
- is the Environmentally Preferable Alternative in accordance with CEQ
- is the Least Environmentally Damaging Practicable Alternative in accordance with Clean Water Act Guidelines [404(b)(1)]
- best avoids and/or minimizes harm to Section 4(f) properties
- has general public acceptance

2.4 Phased Project Implementation

Funding limitations prevent the approval of the entire Preferred Alternative. These funding limitations also make it difficult to predict the timing of future phases; therefore, measures are being taken to ensure the independent utility of approved phases. Additionally, it must be demonstrated that air quality conformity will not be jeopardized, and any mitigation measures needed in response to project impacts must be implemented with the phase in which the impacts occur, rather than deferred to a later phase. These considerations do not typically apply to a project that is approved with a single decision document (such as a single ROD).

Phased implementation is typically detailed during final design. However, the requirements of fiscal constraint must be satisfied for FHWA to approve a ROD. Because the fiscally-constrained RTP does not contain the entire Preferred Alternative for the Valley Highway project, FHWA and CDOT determined that it was appropriate to identify a phased project implementation process within the NEPA process, as shown in **Figure 2-3.** With this approach, additional detail was provided regarding phasing, as an enhancement to the typical NEPA process.



Phased Implementation Process

As presented in **Figure 2-3**, FHWA and CDOT have identified a set of criteria to be used as guidelines in establishing logical project phases including:

- **Independent utility/logical termini** – each phase should have independent utility and logical termini to the extent that the phase provides a functional transportation system even in the absence of other phases
- **Elements of purpose and need** – each phase should contribute to meeting the purpose and need for the entire project
- **Environmental impacts** – individual phases should avoid the introduction of substantial additional environmental impacts that cannot be mitigated
- **Mitigation paired with impacts** – each phase should include appropriate mitigation measures to match the environmental impacts of that phase
- **Fiscal constraint** – any phase selected in a ROD must meet the requirements of fiscal constraint, demonstrated by inclusion in the RTP
- **Air quality conformity** – any phase selected in a ROD must meet the requirements of air quality conformity, as established by inclusion in a conforming RTP or TIP

Of these criteria, the first two are considered key in establishing meaningful project phases that work toward meeting the overall corridor needs. A series of logical phases has been established by FHWA and CDOT based on a balance of the criteria listed above. In addition to these criteria, logical sequencing of phases in terms of constructability and operation has been considered and a general priority of needs has been applied, with system reliability and safety as the top priority, followed by lane continuity on I-25. The logic phases and priorities are shown in **Table 2-2**.

As shown in **Table 2-2**, four future phases (Phases 3-6) have been identified that are not being selected in this ROD. The order of these future phases is indicative of the order of priority at this time. However, it should be noted that priorities for these future phases may change, especially with regard to how phases may fit with future funding amounts. In addition, actions to improve safety (for example, replacement of guard rails, barriers, or repairs on bridges) could occur separately from this effort and will be funded at that time by safety funds and/or other funding sources.

Table 2-2 Project Phases and Priorities

Phase	Phase Package Description Elements Included	Sequencing Restrictions	Probable Cost	Comments
Phases Selected for Implementation in this ROD				
1 Most critical on I-25	**I-25 / Santa Fe Interchange with Lane Continuity through Alameda** • Reconstruction of I-25/ Santa Fe Interchange • Construction of flyover ramp from NB Santa Fe Drive to NB I-25 • Replacement of Alameda Avenue bridge over I-25 • Reconstruction of I-25 under Alameda with associated sump and drainage improvements	None	$81M $3M ROW $84M	NB and SB structures at Santa Fe both rated as structurally deficient with sufficiency ratings of 20.2 and 22.8, respectively. A sufficiency rating of 50 or greater is considered acceptable. Continuous auxiliary lanes on I-25 (US 85 lane balance) will not be fully addressed until I-25 Mainline Widening (Phase 3) is completed.
1 Most critical on US6	**US 6 / Federal Bridge and Ramps, excluding Braided Ramp and West Side US 6 / Federal Ramps** • Closure of Bryant Street Interchange to US 6 • Replacement of Federal Blvd. bridge over US 6 • Reconfiguration/reconstruction of ramps • Reconfiguration of Barnum East Park	None	$20M $3M ROW $23M	
2 Most critical on I-25	**I-25/ Alameda Interchange and Alameda Bridge over South Platte** • Alameda widening from Lipan St. to Santa Fe Drive • Replacement of Alameda Avenue bridge over the South Platte River • Construction of Lipan Street and closure of Platte River Drive north of Alameda Avenue • Widening of Lipan St. south of Alameda Avenue • Replacement of Alameda Avenue ramps to I-25	Must follow or be concurrent with **I-25 / Santa Fe Interchange**	$18M $5M ROW $23M	
Phases not Selected in this ROD - to be Implemented when Funding Becomes Available				
3	**I-25 Mainline Widening From Alameda to US 6** • Relocation of CML railroad to allow widening of I-25 • Reconstruction of I-25 north of Alameda Avenue to full section with shoulders	Must follow or be concurrent with **I-25/ Alameda Interchange**	$28M $8M ROW $36M	Railroad relocation sequencing and logistics requires further detailed evaluation.
4	**Santa Fe/ Kalamath CML Grade Separation** • Construction of road underpasses taking Santa Fe Drive and Kalamath Street under the CML • Construction of pedestrian/ bicycle bridge over Santa Fe Drive, Kalamath Street, CML, I-25 and the South Platte River along Bayaud Avenue alignment	Must follow **I-25/ Alameda Interchange.** Must follow or be concurrent with **I-25 Mainline widening from Alameda to US 6**	$22M $7M Ped.Br. $ 7M ROW $36M	
5	**US 6 from Federal to I-25 with Braided Ramp** • Reconstruction of US 6 from Federal Blvd. to I-25 • Replacement of US 6 bridge over the S. Platte River • Construction of braided ramp from Federal Blvd. to EB US 6 • Construction of EB US 6 to Federal Blvd. off ramp • Construction of Federal Blvd. to WB US 6 on ramp	Must follow **US 6/ Federal Bridge and Ramps excl. Braided Ramp**	$75M $2M ROW $77M	
6	**I-25/ Broadway Interchange** • Reconfiguration/reconstruction of I-25/Broadway interchange	None	$13M $2M ROW $15M	

CML = Consolidated Main Line railroad; ROW = right-of-way cost; NB, SB, EB, WB = northbound, etc.; M = million

2.5 Selected Alternative – Phases 1 and 2 of the Preferred Alternative

Section 1.3 of this ROD described the Selected Alternative, which includes Phases 1 and 2 of the Preferred Alternative, and the reasons for its selection. This section describes the following for the Selected Alternative:

- overall project objectives that will be addressed
- traffic and safety operations conditions that will exist following implementation
- environmental consequences and mitigation measures that will be implemented with Phases 1 and 2

2.5.1 Purpose and Need Objectives Addressed by the Selected Alternative

Table 2-3 highlights the overall project objectives, as presented in the Final EIS, and identifies the benefits that will be provided by Phases 1 and 2, relative to the overall project objectives.

Table 2-3 Project Purpose and Need Objectives Addressed by Phases 1 and 2

Need Category	Overall Project Objective	Benefits to be Provided by Phases 1 and 2
Lane Continuity and Balance	Provide lane continuity and balance on I-25 between the existing and planned roadway sections to the north and south of the project	Provides lane continuity on I-25, creating a continuous 8-lane facility through the study area
Transportation Demand and Operations	Optimize highway system operations as measured in reduced vehicle hours of delay , reduced hours of congestion, and improved levels of service	Provides improved highway system operation on I-25, as presented in detail below
Inter-modal Relationships and Bicycle/Pedestrian Mobility	Preserve existing or provide improved facilities for automobile, bus, and pedestrian connections. Upgrade bicycle/pedestrian facilities within and across the project corridor to provide improved access to the South Platte River Trail, safer facilities at intersections, complete missing links in the bicycle/pedestrian systems, and provide better linkages between transportation modes	Addition of a sidewalk along a portion of Santa Fe Drive south of Alameda and along portions of Alameda Avenue will enhance pedestrian and bicycle mobility Replacement of bridge structures over the South Platte River Trail will result in increased clearance for the trail under the bridges Improved pedestrian facilities in the vicinity of the US 6 / Federal Boulevard interchange Improved pedestrian facilities in the vicinity of the I-25/ Alameda Avenue interchange
Safety	Increase safety and decrease the likelihood of accidents within the project corridor by improving the geometric design of the roadway	Decrease in likelihood of accidents on I-25 due to elimination of left-side on ramps onto I-25 from Santa Fe Drive and reduced congestion Decrease in likelihood of accidents with Alameda Avenue improvements Decrease in likelihood of accidents on US 6 corridor due to closure of Bryant Street partial interchange and reconfiguration of the US 6 /Federal Boulevard interchange
Roadway Deficiencies	Address existing roadway deficiencies, and replace aging structures to provide for improved operation of and reduced maintenance costs for the roadway facilities	Replacement of structurally deficient bridges at the I-25/ Santa Fe Drive interchange Replacement of aging, deficient bridges carrying Alameda Avenue over I-25 and the South Platte River
Consolidated Main Line Crossing	Reduce system disruptions, and improve safety conditions related to the current at-grade crossing	Not addressed in this phase – included in Phase 4

2.5.2 Phase 1 and Phase 2 Traffic Operations and Safety

Figure 2-4 and **Figure 2-5** depict year 2025 intersection and freeway levels of service expected with implementation Phases 1 and 2 for I-25 and US 6, respectively. These results may be compared with Final EIS Figures 3-6 through 3-13 and accompanying text in the Final EIS Chapter 3 *Transportation Analysis* to illustrate the operational performance of Phase 1 and Phase 2 relative to the No Action Alternative and the Preferred Alternative. Based on these measures, the operational performance of Phase 1 and Phase 2 is described below by freeway and surface street locations.

Freeway Operations
The primary freeway improvement associated with Phase 1 and Phase 2 is the completion of eight continuous travel lanes on I-25 through the study area, satisfying one of the fundamental project needs of providing lane continuity through the study area. The following specific operational benefits will result from this addition:

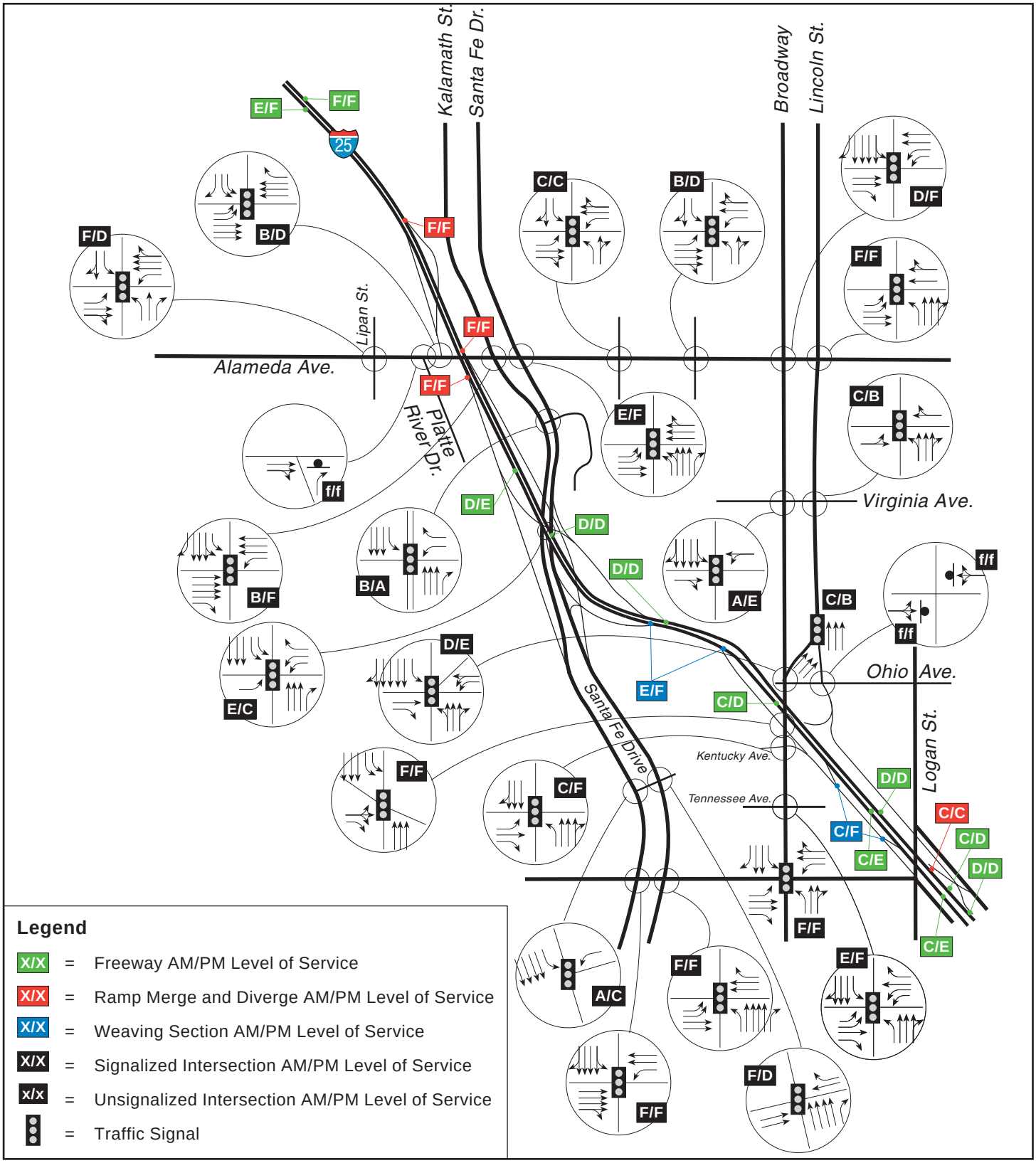
- The additional northbound travel lane between the Broadway and Alameda Avenue interchanges will improve mainline I-25 operations to level-of-service (LOS) D, compared to LOS F with the No Action Alternative.
- The additional southbound travel lane between the Alameda Avenue and Santa Fe Drive interchanges will improve the No Action LOS F condition to LOS D during the AM (morning) peak hour and LOS E during the PM (afternoon/evening) peak hour.

With implementation of Phase 1 and Phase 2, the approximately 2,600 to 2,800 (peak hour) northbound Santa Fe Drive vehicles bound for northbound I-25 will be accommodated with a two-lane flyover ramp and will enter I-25 at a merge section. The following specific operational benefits will result from this addition:

- Based on Highway Capacity Manual guidelines, this enhancement will provide sufficient ramp capacity for this high-demand movement, while the current (and No Action Alternative) single-lane ramp does not provide adequate capacity.
- The northbound Santa Fe Drive on ramp to I-25 currently feeds a continuous I-25 through lane. With implementation of Phase 1 and Phase 2, this lane addition will be replaced with a ramp merge section connecting northbound Santa Fe with the improved four-lane section of northbound I-25. This merge section is anticipated to operate at LOS F during peak hours, primarily due to significant traffic congestion downstream of the ramp merge, where four mainline travel lanes will accommodate flows of up to 2,400 vehicles per hour per lane in 2025. The fifth northbound (auxiliary) lane that is part of Phase 3 will address this congestion, improving peak hour mainline and merge operations from LOS F to LOS E.

Phase 1 and Phase 2 will improve northbound I-25 operations by eliminating the existing access to northbound I-25 at the Santa Fe Drive/Alameda Avenue on ramp located south of Alameda Avenue. Under the No Action Alternative, this merge section will operate at LOS F.

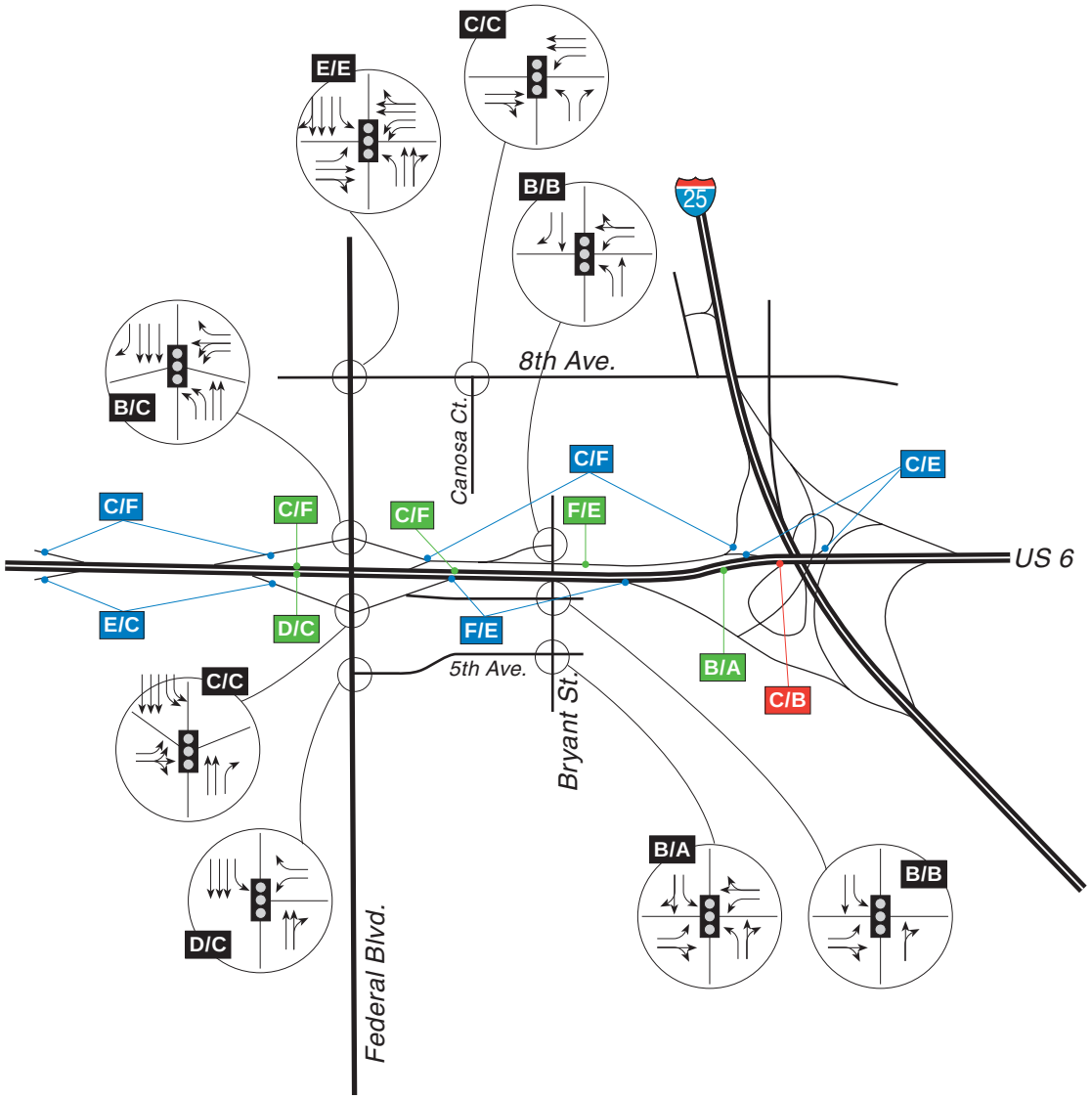
In the No Action Alternative, the short eastbound US 6 weaving section between the Federal Boulevard / 5th Avenue on ramp and Bryant Street off ramp operates at LOS F during the AM peak hour. Similarly, the westbound US 6 collector-distributor road weaving section between the southbound I-25 on ramp and the Bryant Street off ramp operates at LOS F during the PM peak hour. Phase 1 and Phase 2 will improve freeway operations by removing these weaving sections.



Phase I and Phase 2
2025 AM/PM Peak Hour Levels of Service and Lane Geometry
Logan Street to Alameda Avenue

North

Figure 2-4



Legend

X/X	=	Freeway AM/PM Level of Service
X/X	=	Ramp Merge and Diverge AM/PM Level of Service
X/X	=	Weaving Section AM/PM Level of Service
X/X	=	Intersection AM/PM Level of Service
	=	Traffic Signal

Phase I
2025 AM/PM Peak Hour Levels of Service and Lane Geometry US 6

North

Surface Street Operations

Phase 1 and Phase 2 include construction of the Alameda Avenue ramps to and from I-25 north and associated changes along Alameda Avenue. The northbound I-25 on ramp connection from the west offset single-point interchange intersection will replace the existing on ramps located immediately north and south of Alameda Avenue. The proposed new ramp connection will create a need for eastbound left turn lanes along Alameda Avenue serving traffic from the west seeking to reach northbound I-25. The vehicle storage length associated with these lanes will necessitate the closure of Platte River Drive north of Alameda Avenue and conversion of the currently signalized Platte River Drive/Alameda Avenue intersection to a right-in/right-out access south of Alameda Avenue.

Implementation of Phase 1 and Phase 2 will complete improvements along Alameda Avenue within the Preferred Alternative, shifting traffic patterns and adding and increasing particular turning movements while reducing or eliminating others. The effect of these anticipated changes on Alameda Avenue intersection levels of service is shown in **Table 2-4**. The introduction of the northbound on ramp directly from Alameda Avenue will reduce volumes through the Santa Fe Drive/Alameda Avenue and Kalamath Street/Alameda Avenue intersections, reducing congestion and delay at those locations.

Table 2-4 Signalized Intersection Levels of Service

Intersection	AM and PM Peak Hour Level of Service[1] (Average Delay per Vehicle in Seconds)			
	No Action Alternative		Phase 1 and Phase 2	
	AM	PM	AM	PM
Santa Fe Drive/ Alameda Avenue	F (97)	F (135)	E (55)	F (92)
Kalamath Street / Alameda Avenue	D (39)	F (154)	B (18)	F (91)
Alameda Avenue / I-25 Ramp(s)	C (28)	D (36)	B (14)	D (36)
Alameda Avenue / Platte River Drive	F (101)	E (63)	Converted to a non-signalized right-in/right-out intersection[2]	
Alameda Avenue / Lipan Street	D (37)	B (12)	F (93)[3]	D (43)[3]

[1] Level of Service (LOS) is an assessment of traffic flow for a road or intersection. LOS is measured on a scale from A to F, with LOS A representing essentially uninterrupted traffic flow and LOS F representing excessive congestion and delay.
[2] Change in traffic control would eliminate delay for Alameda Avenue movements at this location.
[3] While individual intersection operations degrade, overall Alameda corridor delay is reduced.

As shown in **Table 2-4,** surface street operations would generally improve over the No Action Alternative with Phases 1 and 2. At the major intersections of Alameda Avenue with the I-25 ramps, Kalamath Street and Santa Fe Drive, construction of Phase 1 and Phase 2 would reduce peak hour delay by approximately 37 percent relative to the No Action Alternative and intersection LOS would improve. The installation of the new Alameda Avenue on ramp to northbound I-25 would eliminate the current on ramp to northbound I-25 (located at Maple Street), substantially reducing delay at the Maple Street intersection with Kalamath Street.

The existing Alameda Avenue intersections with collector roadways (Lipan Street, Platte River Drive) west of I-25 will also be reconfigured with construction of Phase 1 and Phase 2. Closure of Platte River Drive north of Alameda Avenue will eliminate a signalized intersection along Alameda Avenue, thereby reducing total delay at these intersections. While a net operational benefit would

be realized west of I-25, additional traffic at the Alameda Avenue/Lipan Street intersection (due to closure of Platte River Drive) will increase delay at this intersection. The LOS results shown in Table 2-4 incorporate a northbound Lipan Street approach widened to accommodate exclusive left turn, through, and right turn lanes.

System-level simulation of traffic conditions in the Alameda Avenue corridor indicates that there will be a reduction of approximately 37 percent in delay as a result of implementation of Phase 1 and Phase 2 (compared to the No Action Alternative).

Summary
The primary operational improvement on I-25 associated with Phase 1 and Phase 2 will be the completion of a continuous eight travel lanes through the study area. Phase 1 will improve freeway operations along US 6 by removing a short eastbound weaving section. Phase 1 and Phase 2 would also improve surface street intersection operations compared to the No Action Alternative. Surface street operations in the Federal Boulevard/US 6 area will be similar to the Preferred Alternative.

Traffic Safety
Implementation of the Preferred Alternative is estimated to result in an overall accident reduction of 12,290 to 13,090 accidents over a 20-year period, compared to the No Action Alternative. The traffic safety improvements associated with Phase 1 and Phase 2 include the following:

- Phase 1 and Phase 2 will reconstruct the I-25/Santa Fe Drive interchange, eliminating commercial access from the northbound I-25 off ramp. This reconstruction will also improve merging and weaving conditions for the northbound I-25 to northbound Santa Fe Drive movement
- In the US 6 area, relegation of the Federal / 5th intersection to local access only and elimination of the direct eastbound ramp from US 6 to Bryant Street will provide a significant portion of the 1,550 to 1,750 accident reduction estimated for the Preferred Alternative in the US 6 area
- Phase 1 and Phase 2 will improve traffic safety along Alameda Avenue primarily through addressing visibility and intersection operational problems that contribute to broadside accidents. The elimination of the traffic signal at Platte River Drive/Alameda Avenue will also improve safety. It is estimated that the 20-year expected accident reduction associated with Phase 2 will be in the range of 60 to 90 total accidents

2.6 Environmentally Preferred Alternative

Based on the analysis presented in the Draft EIS and Final EIS, the Preferred Alternative is the Least Environmentally Damaging Alternative that meets the purpose and need for the project.

The Selected Alternative is a portion of the Preferred Alternative and is the environmentally preferred alternative for the portion of the project that it addresses.

3.0 CLARIFICATIONS TO THE FINAL EIS

This section provides clarifications to the Final EIS. These clarifications are relatively minor and do not affect the selection of the Preferred Alternative or Phase 1 and 2 of the Preferred Alternative, which constitute the Selected Alternative. The clarifications are provided in response to agency comments regarding the Final EIS, as referenced below. Clarifications relevant to Section 4(f) properties are discussed in **Section 4.0** of this ROD.

3.1 Section 106 Consultation Process

In a comment (see **Appendix B** – Comment #2) on the Final EIS, the Colorado Historical Society (CHS) / State Historic Preservation Officer (SHPO) noted that consultation with the SHPO, under Section 106 of the National Historic Preservation Act, was only conducted for the Preferred Alternative and not for the other alternative analyzed. FHWA and CDOT acknowledge that this is correct.

At this time, FHWA and CDOT have selected Phases 1 and 2 for implementation, which are part of the Preferred Alternative, and intend to work toward implementation of the Preferred Alternative in its entirety as funding becomes available. As described in the Final EIS, no historic properties will be affected by the Preferred Alternative. Therefore, consultation on the other alternatives is not required. This is also true for Phases 1 and 2, which are part of the Preferred Alternative. Other alternatives are not being considered further; therefore, Section 106 consultation is not required for them.

The timing of implementation of Phases 3 through 6 is currently uncertain. It is possible that additional properties may become eligible for the National Register of Historic Places (NRHP) before these future phases are implemented. Therefore, this issue will be reevaluated prior to approval of any future phases.

3.2 Relationship between Valley Highway EIS and Broadway NEPA Study

In a comment (see **Appendix B** – Comment #3C-4) on the Final EIS, the City and County of Denver requested clarification regarding the relationship between the Valley Highway EIS and the City's Broadway NEPA Study. Per this comment, the following text replaces Section 2.5.3 on page 2-64 of the Final EIS:

Gates / Cherokee Transportation Alternatives Considered and Status
(Final EIS Section 2.5.3 - clarified)

The City and County of Denver, CDOT, FHWA, and the Regional Transportation District (RTD) have coordinated efforts to define the impacts to and modifications of the local transportation network associated with the combined redevelopment of the Gates site. It appears likely that the local surface street system will be modified in some fashion to address these impacts, but a preferred alternative has not yet emerged. Discussions have included widening of Broadway, and extension of the one-way-pair of Broadway and Lincoln Street either on the current alignment or by realignment to an Acoma Street alignment.

The City and County of Denver is proceeding with analysis to define a plan of action to address these concerns. The Valley Highway EIS has taken the following actions to incorporate the redevelopment and to provide flexibility as further detail is developed:

- Develop a traffic model that recognizes the land use changes
- Evaluate the impacts of the development on I-25 and associated interchange ramp connections at Broadway and Santa Fe Drive
- Develop alternatives at the interchanges with Broadway and Santa Fe Drive that offer the greatest flexibility for modification as the local surface street system and access modifications are implemented
- Avoid direct impacts to the properties in order to preserve options

FHWA, CDOT, and City and County of Denver have reached an agreement, in principal, that allows the I-25 Valley Highway EIS to proceed consistent with its purpose and need but does not preclude opportunities for changes to the local surface street system and associated interchange reconfigurations as development plans advance. The understanding includes:

- CDOT will continue with the I-25 Valley Highway EIS with its current purpose and need
- CDOT will work with City and County of Denver to make the EIS and any future work in the area flexible and not preclude any major options in the I-25/Broadway area
- The Broadway interchange alternative carried forth in this EIS will be configured to operate at future no action levels or better
- CDOT will support future City and County of Denver efforts to enhance Broadway transportation after more specific plans are adopted by the City and County of Denver and Colorado Department of Public Health and Environment

In 2005, the City and County of Denver began a NEPA study to examine alternatives for transportation improvements along Broadway in this area. This study is looking at alternatives to improve north-south travel along the Broadway corridor between Arizona Avenue and Exposition Avenue. As part of their process, the City and County of Denver study may look at additional options for the I-25/Broadway interchange that could be consistent with the I-25 Valley Highway Final EIS purpose and need while also being more compatible with local improvements that may be identified for Broadway through that study.

3.3 Federal Boulevard Clarifications

In a comment (see **Appendix B** – Comment #3C-13) the City and County of Denver pointed out an error in the depiction of the Federal Boulevard and 5th Avenue intersection on Final EIS Figure 2-80. In this figure, a traffic signal is not shown at this intersection. However, this depiction is incorrect as a traffic signal would be located at this intersection in the Preferred Alternative and the Selected Alternative. Other Final EIS figures and the Concept Plan for the Preferred Alternative, which is a technical document supporting the Final EIS, depict this intersection correctly with a signal. This is also shown on **Figure 1-5** of this ROD.

In discussions with CDOT after publication of the Final EIS, City and County of Denver staff requested clarification regarding the median island on Federal Boulevard at its intersection with 7th Avenue. As shown in the Concept Plan for the Preferred Alternative and on **Figure 1-5** of this ROD,

the median island will extend to the north of 7th Avenue, thus restricting this intersection to right-in/ right-out traffic movement to and from 7th Avenue.

3.4 Transportation Management

In a comment (see **Appendix B** – Comment #7A) on the Final EIS, DRCOG requested that transportation management strategies and actions that are part of the Preferred Alternative be specifically identified and committed to in this ROD. Accordingly, FHWA and CDOT have identified the following transportation management elements that they intend to implement these as part of the Preferred Alternative. These elements were discussed in the Final EIS, but have been tabulated below in detail in **Table 3.1** for clarity. Appropriate elements from this overall list have been included in the Selected Alternative, as noted in the table.

Table 3-1 Transportation Management Elements

Transportation Management Category	Specific Elements	Implementation
Improved bicycle / pedestrian crossing of I-25	Construct the Bayaud Avenue crossing included in Denver's Bicycle Master Plan	This crossing is included in Phase 4 of the Preferred Alternative
	Improved bike/pedestrian accommodations on Alameda Avenue	Eight-foot attached sidewalks on the north and south sides of Alameda Avenue, Americans with Disabilities Act (ADA) compliant crossings, and upgraded traffic signal pedestrian actuation, are included in Phase 2 of the Preferred Alternative and in the Selected Alternative
Improved bicycle / pedestrian access to transit facilities	Improve access between the West Washington Park neighborhood and the Broadway Transit Station	Enhanced pedestrian/bike routing along Ohio Avenue using the traffic signal at the intersection of the northbound off ramp with Lincoln Street are included in Phase 6 of the Preferred Alternative
Spot intersection improvements at intersections that are directly related to I-25 and US 6 corridor improvements	Improvements to I-25/Broadway, I-25/ Santa Fe Drive, I-25/Alameda Avenue, US 6/Bryant Street, and US 6/Federal Boulevard ramp terminal intersections; and at Alameda Avenue/Santa Fe Drive, Alameda Avenue/Kalamath Street, Alameda Avenue/Platte River Drive, and Alameda Avenue/Lipan Street intersections	Intersection improvements are included in each phase of the Preferred Alternative
Maintenance of efficient bus access to the Broadway Transit Station	Maintain full-movement bus access at the Broadway/Kentucky Avenue intersection	Full-movement bus access at Broadway/Kentucky Avenue is maintained with the Phase 6 I-25/ Broadway interchange improvements
Intelligent transportation system (ITS) measures	Freeways – I-25 and US 6 ITS measures, including network surveillance, ramp metering, traffic information dissemination, and incident management measures	Implement with each phase of the Preferred Alternative, in conjunction with regional ITS programs
	Arterial streets – including signal system improvements, network surveillance, traffic information dissemination, and railroad grade crossing improvements	Implement with each phase of the Preferred Alternative in conjunction with Denver, DRCOG and CDOT programs
Travel demand management measures during project construction	Variable message sign (VMS) use for incident management, supplementary VMS displaying alternate routing and transit station parking availability, and community outreach promoting the use of transit alternatives	Specific strategies will be considered during final design and will be tailored to schedules and needs for each phase of the Preferred Alternative.

ITS = intelligent transportation system

3.5 Regional Air Quality Emissions

In a comment (see **Appendix B** - comment #7E) on the Final EIS, DRCOG noted that regional emissions for the current amended version of the 2030 RTP are less than or equal to the preliminary emissions reported in the Final EIS (**Table 4.20-6** in the Final EIS). For information purposes, the updated regional emissions values from the current version of the 2030 RTP are shown in **Table 3-2**.

Table 3-2 Regional Conformity Emissions Results (Final EIS Table 4.20-6 - updated)

Pollutant	2030 RTP (tons per day)	
	Emissions	Budget
Carbon monoxide	1204	1520
Particulate matter less than 10 microns (PM_{10})	48	51
Nitrogen oxides (PM_{10})	27	101
Volatile organics (Ozone)	41	119
Nitrogen oxides (Ozone)	32	134

3.6 Migratory Bird Mitigation Measures

In a comment (see **Appendix B** – Comment #9) on the Final EIS, the US Department of Interior (DOI) requested some clarification in the mitigation measures related to migratory birds. The following text replaces Section 4.12.3.2 in the Final EIS.

Wildlife Mitigation Measures (Final EIS Section 4.12.3.2 – Revised)

There would be no impacts to threatened or endangered species under any of the system alternatives, including the Preferred Alternative. Since the majority of the impacts to wildlife habitats would be low quality grasslands, the Preferred Alternative would result in only minor disturbance to wildlife. Strategies to maintain wildlife corridors will be further considered during final design, and could include constructing sound/visual barriers (including earthen berms) or vegetation screens.

To avoid a disturbance or "take" of a migratory bird nest, any trees or man-made structures, such as bridges or highway overpasses, which would be removed during the nesting season, will be surveyed for the presence of active bird nests. If no active nests are observed, the trees or bridges can be removed. However, should removal occur during nesting season, every effort will be made to prevent the nesting of birds, such as swallows, leading up to the demolition of existing structures.

No permit from the US Department of Interior Fish and Wildlife Service (USFWS) is required for removal of inactive nests. The USFWS generally will not permit the removal of an active nest unless justifiable to protect human health and safety. If active nests are present, habitat-disturbing activities, such as tree or bridge removal, grading, scraping, grubbing, etc, will be conducted during the non-breeding season (August 15 through March 31). Surveys for active nests will be conducted prior to construction or other habitat-disturbing activities. Where practicable, construction of bridges over the South Platte River will be conducted during the non-breeding season (August through March) to avoid impacts to birds, spawning fish and spawn beds.

4.0 SECTION 4(F) PROPERTIES

Section 4(f) of the US Department of Transportation Act of 1966 (49 US Code [USC] Section 303 and 23 USC Section 138) mandates that the Secretary of Transportation shall not approve any transportation project requiring the use of publicly owned parks, recreation areas, wildlife and waterfowl refuges, or significant historic sites, regardless of ownership, unless:

- there is no prudent and feasible alternative to using that land, and
- the program or project includes all possible planning to minimize harm to the public park, recreation area, wildlife or waterfowl refuge, or significant historic site, resulting from that use

A Final Section 4(f) Evaluation was included in the Final EIS issued by FHWA and CDOT in November 2006. The Final Section 4(f) Evaluation analyzed possible avoidance alternatives and presented measures to minimize harm for each Section 4(f) use. The Preferred Alternative is described in **Sections 1.1** and **2.3** of this ROD. The Selected Alternative is a portion of the Preferred Alternative and is described in **Sections 1.3** and **2.5** of this ROD.

As described in the Final Section 4(f) Evaluation, three parks (i.e.; Barnum, Barnum East, and Barnum North Parks) are subject to Section 4(f) use with implementation of the Preferred Alternative. These facilities are all owned by the City and County of Denver. With the Selected Alternative, all three of these parks would be subject to Section 4(f) use. However, only a portion of the Preferred Alternative Section 4(f) use of Barnum North Park would occur with the Selected Alternative, with the remainder occurring in a later project phase. The Final Section 4(f) Evaluation documents that there are no prudent and feasible alternatives that meet the purpose and need of the project and avoid the use of these parks. The Final Section 4(f) Evaluation also described minimization of harm for each Section 4(f) use under the Preferred Alternative. The Preferred Alternative (and the Selected Alternative) avoids Section 4(f) use of any historic properties.

The DOI received a copy of the Draft EIS for review and deferred comments on the Draft Section 4(f) Evaluation until a Preferred Alternative was identified. The DOI received a copy of the Final EIS for review, which identified the Preferred Alternative and contained the Final Section 4(f) Evaluation. The DOI submitted comments regarding the Final EIS on December 14, 2006 (See **Appendix B**), and no comments regarding the Final Section 4(f) Evaluation were provided.

In comments on the Final EIS, the City and County of Denver raised some issues regarding the details of the mitigation to be implemented for impacts to Barnum East and Barnum North Parks (see **Appendix B** – letter from City and County of Denver). In response, FHWA and CDOT participated in further discussions with Denver resulting in a clarification of impacts and mitigation requirements (See additional correspondence between CDOT and the City and County of Denver included in **Appendix A**). The results of these discussions did not affect the finding made by FHWA in the Final Section 4(f) Evaluation, but rather serve to clarify the basis for a continued cooperative effort by CDOT and Denver to implement the measures identified to minimize harm to the parks.

The discussions between CDOT, FHWA and the City and County of Denver resulted in the clarification of the impacts and mitigation for Barnum North and Barnum East Parks as follows:

- ***Barnum North Park:*** A total of 0.42 acres of Barnum North Park will be converted to transportation use, and CDOT will pay just compensation to the City and County of Denver for this land. This compares with 0.05 acres stated in the Final EIS, with the change being the result of an agreed adjustment to the southern boundary of the park. CDOT will relocate approximately 525 linear feet of trail and replace fencing, turf and irrigation system in the vicinity of the trail. This compares with approximately 300 linear feet of trail relocation stated in the Final EIS, with the change being the result of a shift in the alignment of the trail at the request of the City and County of Denver.
- ***Barnum East Park:*** A total of 2.1 acres of Barnum East Park will be converted to transportation use, and CDOT will pay just compensation to the City and County of Denver for this land. This compares with 1.54 acres stated in the Final EIS, with the change being the result of an agreed adjustment to the boundary of the park. CDOT will acquire an approximately 0.5 acre strip of land on the east side of the park and deed this land to the City and County of Denver, as identified in the Final EIS. CDOT will reconstruct Barnum East Park, with in kind replacement of facilities to current Denver standards. This commitment to in kind replacement is a change from the specific concept identified in the Final EIS. CDOT will provide reasonable compensation to the City and County of Denver to cover costs that may be associated with replacement fields during the time that Barnum East Park is closed for construction. This clarifies the reference to replacement field cost made in the Final EIS.

These clarifications have been incorporated into the mitigation described below.

In addition to these Section 4(f) property impacts and mitigation measures described above, CDOT will acquire an approximately 1.3 acre strip of currently vacant land south of 5th Avenue and east of Federal Boulevard from the City and County of Denver and will pay just compensation for this land. CDOT will evaluate the final disposition of this land through the normal CDOT right-of-way process and procedures.

CDOT will work with City and County of Denver to prepare and enter into an intergovernmental agreement (IGA) at an appropriate time in the future. The IGA will establish details of the above mitigation, the working relationship between CDOT and City and County of Denver, and the method to resolve any differences. The IGA will include:

- Details and design review process for trail relocation in Barnum North Park
- Details and design review process for reconstruction of Barnum East Park
- Replacement field considerations
- Compensation issues
- Construction responsibilities and coordination

The South Platte River Trail runs along the west side of the South Platte River, from the southern project limits to approximately 1st Avenue, where it crosses a bridge to the east side of the river. From this point to the northern project limits, the South Platte River Trail follows the east bank of the South Platte River. The trail serves dual purposes as a City and County of Denver maintenance access road and as a heavily used public bike and pedestrian trail. Under the Preferred Alternative, a stretch of the trail that closely parallels I-25 would experience temporary construction impacts, but would ultimately be improved by the project. This trail segment extends from a point between 3rd and 4th Avenues, southward to a point between Ellsworth Avenue and 1st Avenue, where the trail

crosses the South Platte River, and a temporary detour during construction would be needed.

Temporary construction impacts to the South Platte River Trail would also occur at US 6 and Alameda Avenue, where the existing bridges would be replaced, as well as at the crossing of a realigned southbound Santa Fe Drive. During bridge construction, the trail would be subject to temporary detour. The raising of bridge profiles would result in improvement of the trial. Neither acquisitions nor other permanent impacts are anticipated, nor should use of the trail be substantially impaired as a result of increased noise, visual, or access impacts. The temporary construction impacts to the South Platte River Trail would not constitute a use within the meaning of Section 4(f).

Impacts to parks by the Preferred Alternative are shown in **Figure 4-1**. Impacts are described for each of the park and recreation resources below.

4.1 Barnum Park Description and Impacts

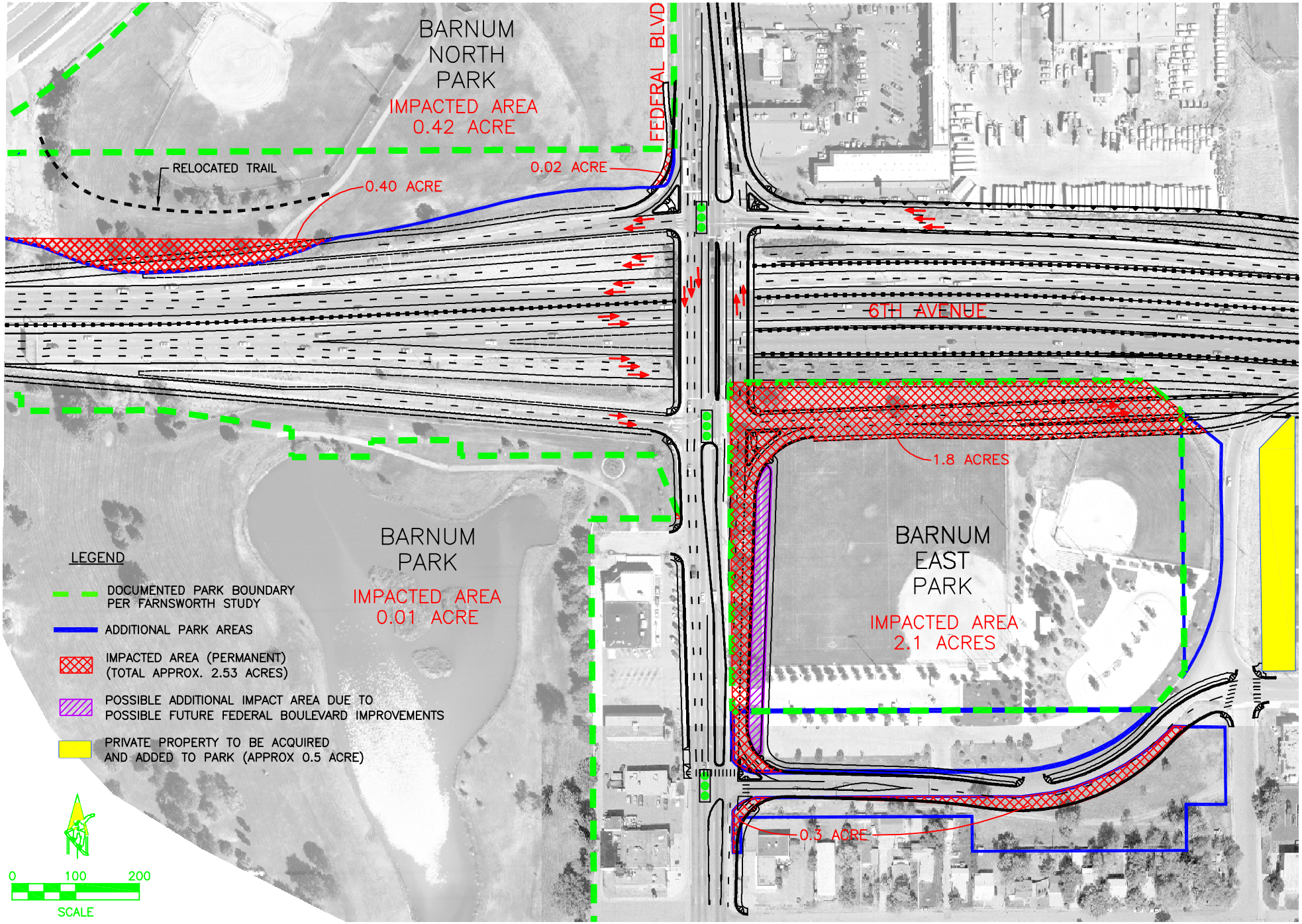
4.1.1 Description of Resource

Barnum Park (also known as Barnum South Park) is located on the southwest side of the US 6 and Federal Boulevard interchange, within the Southwest Denver Park District. The irregularly shaped parcel extends approximately between US 6 on the north and 3rd Avenue on the south, and between Federal Boulevard on the east and Julian Street on the west. This 35.6-acre park contains a small man-made lake (Barnum Park Lake) and provides facilities for a wide variety of recreational activities, including fishing, swimming, basketball, soccer, tennis, picnicking, and walking. Recreational trails in Barnum Park approach within 60 feet of the US 6 ramp in the southwest quadrant and 75 feet of Federal Boulevard.

According to information provided by Colorado State Parks, Section 6(f) improvements were made at Barnum Park between 1965 and 1967 under Land and Water Conservation Project # 05-00106. The improvements included installation of 150 feet of 8-foot by 12-foot culvert, earth fill, landscaping, and sprinkler system expansion. These improvements were confined to the southeastern portion of the park, which is outside of the project area.

4.1.2 Preferred Alternative and Selected Alternative Impacts

Widening of Federal Boulevard under the Preferred Alternative and the Selected Alternative would require the acquisition and direct use of a 0.01 acre piece of land from Barnum Park's northeast corner. This minor right-of-way acquisition would not affect existing use of Barnum Park. Barnum Park's 6(f) improvements would not be impacted by the Preferred Alternative. Temporary construction impacts associated with replacement of the Federal Boulevard Bridge over US 6 may occur, including damage to landscaping.



Barnum Park Impacts - Preferred Alternative

Figure 4-1

4.2 Barnum East Park Description and Impacts

4.2.1 Description of Resource

Barnum East Park is located southeast of the intersection of US 6 and Federal Boulevard. This rectangular, 11.8-acre park is situated in the Southwest Denver Park District. Barnum East Park is bounded on the north by US 6, on the south by the on ramp from Federal Boulevard to eastbound US 6, on the west by Federal Boulevard, and on the east by Decatur Street. Barnum East Park provides facilities for baseball and soccer and is equipped with lights for night games. Barnum East Park's ball fields are situated relatively close to the existing roadways; as close as 60 feet east of Federal Boulevard and as close as 40 feet south of US 6. No Section 6(f) improvements have been made to the park.

4.2.2 Preferred Alternative and Selected Alternative Impacts

With the Preferred Alternative and Selected Alternative substantial encroachment/direct use would occur along the northern and western edges of Barnum East Park due to proposed widening of Federal Boulevard to accommodate turning lanes on the bridge over US 6, as well as a new roadway/ramp from Federal Boulevard to eastbound US 6 or Bryant Street. Approximately 2.1 acres of park land would be acquired for new right-of-way, and would cut across the ball fields, impairing their use and necessitating redesign and reconstruction of some or all park facilities. A range of mitigation measures have been developed and are included in the Selected Alternative to address these impacts. These are described below in **Section 4.4** *Minimization of Harm*. Temporary construction impacts associated with replacement of the Federal Boulevard bridge over US 6 may occur, including damage to landscaping.

4.3 Barnum North Park Description and Impacts

4.3.1 Description of Resource

Barnum North Park is located northwest of the intersection of US 6 and Federal Boulevard. This 13.6-acre park is situated within the Northwest Denver Park District. This roughly triangular parcel is bounded by Federal Boulevard on the east, US 6 on the south, and the 8th Avenue bypass/ramp to westbound US 6 on the northwest. Landscaped CDOT-owned land extends from the western edge of the park to Knox Court. Barnum North Park provides facilities for soccer and softball and is equipped with lights for night softball games. The ball fields in Barnum North Park are located quite a distance away from existing roadways – approximately 400 feet west of Federal Boulevard and 130 feet north of the US 6 westbound on ramp.

According to information provided by Colorado State Parks, Section 6(f) improvements were made at Barnum North Park in 1973 and 1976. The 1973 project (Land and Water Conservation Project # 08-00363), included design and construction of an archery range shooting pad, a hiking/biking trail, and a parking lot. These improvements encompassed a large area of the park. Additional improvements were made in 1976 (Land and Water Conservation Project # 08-00514) and included construction of two ball fields with fencing, backstops, and a sprinkler system, as well as restrooms and a combination storage/press box building in the central area of the park. Certain 6(f) improvements made in 1973 have been modified or are no longer in use, including the archery range, southwest parking lot, and practice ball field located in the southern part of Barnum North Park.

A portion of one of the 1973 6(f) improvements, the hiking/biking trail, would require relocation under the Preferred Alternative, as shown in **Figures 4-1**. The trail was originally constructed to provide access to the archery range that has been removed. The portion of the trail to be relocated is contained mostly within the US 6 right-of-way (not within the park boundary) and currently serves primarily as a maintenance trail for park staff. Following relocation, the trail will serve an equivalent function. CDOT has consulted with the City and County of Denver regarding impacts to this trail (as well as other impacts to the parks), and they have indicated that minor changes in this area can be accommodated if the overall park function is maintained. Based on the above, the realignment of the trail near the southern boundary does not represent a land conversion under the provisions of Section 6(f). FHWA and CDOT will continue consultations with the City and County of Denver during final design to establish realignment details and ensure that park function is maintained.

4.3.2 Preferred Alternative and Selected Alternative Impacts

Under the Preferred Alternative a narrow (10-feet (ft) wide, 0.02 acre) strip of land along the east edge of Barnum North Park would be required for new right-of-way to accommodate a redesigned westbound on ramp to US 6 from Federal Boulevard and an additional 0.40 acre area would be required on the south side of the park. Although this is a direct use under Section 4(f), no impacts would occur to existing recreational facilities or uses. The 0.02 acre use along the east edge of the park would occur with implementation of the Selected Alternative. Temporary construction impacts associated with replacement of the Federal Boulevard bridge over US 6 as part of the Selected Alternative may occur, including damage to landscaping.

The 0.40 acre use along the south side of the park would not occur with the Selected Alternative, but would occur in a later phase of the Preferred Alternative. The existing park maintenance access road which extends beyond the park boundary would also require relocation during this future phase.

4.4 Minimization of Harm to Barnum, Barnum East, and Barnum North Parks

When no prudent and feasible avoidance alternative exists, Section 4(f) requires that harm to protected resources be minimized. Through the process of selection and refinement of the Preferred Alternative, FHWA and CDOT have worked with the City and County of Denver to identify appropriate measures to minimize harm. These have been included in the Selected Alternative and the Preferred Alternative, as described below.

Specific harm minimization measures included in the Selected Alternative and the Preferred Alternative for Barnum, Barnum East, and Barnum North Parks include the following:

- Under the Selected Alternative and the Preferred Alternative, spacing between intersections on Federal Boulevard at the ramp terminals was kept to a minimum in order to keep as compact an interchange as possible.
- Under the Selected Alternative and the Preferred Alternative, Federal Boulevard widening was pushed to the east, north of US 6 to avoid Barnum North Park.
- The Selected Alternative and the Preferred Alternative would impact recreational use of Barnum East Park by removing land from existing sports ball fields. Appropriate mitigation will include fair financial compensation for right-of-way acquisition, as well as in kind replacement of facilities to current City and County of Denver standards. **Table 4-1** outlines the in kind replacement. An intergovernmental agreement will be entered into by CDOT and the City and County of Denver detail these elements and the implementation process. Any damage to park

landscaping or facilities caused by bridge construction would be repaired.

- Providing additional new park land along the east edge of the park by vacating the existing on ramp and acquiring a strip of land from an adjacent property owner. The addition of this new park land will result in a net reduction in park functional area of only 0.3 acre.
- Arrangements will be made by the City and County of Denver to provide alternative play locations from permitted field users during seasons that will be disrupted by construction. CDOT will provide reasonable compensation to the City and County of Denver to cover costs associated with this effort.

Table 4-1 Elements of Barnum East Park Reconstruction

Measure	Current Amenities	In Kind Replacement
Adult Baseball Field	• 148,500 sf baseball field • Backstop and surrounding chain link fence • Bleachers: 3 • Benches: 2 • Press box/storage cabinet • Score Board	• 148,500 sf baseball field • Backstop and surrounding chain link fence • Bleachers: 3 • Benches: 2 • Press box/storage cabinet • Score Board
Youth Baseball Field	• 53,250 sf baseball field • Backstop and surrounding chain link fence • Bleachers: 1 large structure, set into slope • Benches: 2 • Press Box/storage cabinet	• 59,000 sf baseball field • Backstop and surrounding chain link fence • Bleachers: 1 large structure, set into slope • Benches: 2 • Press box/storage cabinet
Parking	Parking Area 1 – Adult Field • 92 regular spaces, 3 handicap Parking Area 2 – Youth Field • 71 regular spaces, 2 handicap	• A single contiguous parking lot with 163 parking spaces; appropriate ADA spaces will be provided to meet current requirements
Landscape	• 80 Deciduous trees • 16 Evergreen trees • 130,000 sf of irrigated lawn	• 80 Deciduous trees • 16 Evergreen trees • 130,000 sf of irrigated lawn
Lighting	• Double Hockey Puck: 4 • Single Hockey Puck: 2 • Night lighting for Adult Field: 8 • Night lighting for Youth Field: 6	• Double Hockey Puck: 4 • Single Hockey Puck: 2 • Night lighting for Adult Field: 8 • Night lighting for Youth Field: 6
Park Structures	• Restroom (for men and women)	• Restroom (for men and women)
Miscellaneous	• Barrel trash cans: approx. 12 • Vehicular gates: 3 sets • Concrete sidewalks near parking • Concrete internal paths • Trash enclosures: 2 • Trash dumpsters: 3 • Bollards: 2 • Utility Boxes: 2	• Barrel trash cans: approx. 12 • Vehicular gates: 3 sets • Concrete sidewalks near parking • Concrete internal paths • Trash enclosures: 2 • Trash dumpsters: 3 • Bollards: 2 • Utility Boxes: 2

sf = square feet

4.5 Coordination

Coordination has been conducted with agencies having jurisdiction or regulatory oversight of Section 4(f) properties. The Final EIS documents that coordination was completed prior to the Final EIS publication.

Coordination efforts to date have included:

- Consultation with the Colorado SHPO to determine the area of potential effects and survey methodology for cultural resources
- Completion of a cultural resource inventory for review by the Colorado SHPO, City and County of Denver's Community Development and Planning Department, and the Denver Landmarks Commission
- Effects determination and consultation for historic sites under Section 106
- A meeting with City and County of Denver Parks and Recreation Department staff, February 5, 2003. This meeting was held to inform the Parks and Recreation Department about the project, and to obtain information to aid in the identification of all public parks and recreation facilities that could be impacted by the project.
- A meeting with Colorado State Parks staff, concerning parks with 6(f) improvements, May 6, 2003. During this meeting, information was obtained about 6(f) improvements to specific parks as well as the process for mitigating impacts to parks with 6(f) improvements.
- Detailed investigation of park boundaries, by the Farnsworth Group, including consultation with the City and County of Denver's Parks and Recreation Department, 2003 to 2004
- A series of meetings and working sessions with the City and County of Denver after issue of the Draft EIS to develop the Barnum East Park concept and minimization of harm measures incorporated into the preferred alternative.
- A meeting with representatives of Barnum East Park permit holders (i.e.; organized sport leagues) on October 25, 2006
- Continued coordination with the City and County of Denver following the Final EIS comment period, to resolve issues raised by the City and County of Denver in their comment letter (see **Appendix A** for correspondence)

5.0 MEASURES TO MINIMIZE HARM FROM THE SELECTED ALTERNATIVE

Appropriate measures to minimize environmental harm from the Selected Alternative have been adopted. Mitigation measures adopted to minimize harm to the environment are discussed in detail in **Chapters 4** and **7** of the Final EIS, as amended by this ROD. A summary of mitigation measures for the Selected Alternative (Phases 1 and 2 from the Final EIS) is presented in **Table 5-1.**

Table 5-1 Phases 1 and 2 Environmental Consequences, Mitigation, and Monitoring

Resource	Consequences of Phases 1 and 2	Mitigation Measures and Monitoring
Socio-Economics and Community	• Displacement of businesses • Improved safety; replacement/improvement of deteriorating facilities • Pedestrian and bicycle improvements • Reduced cut-through traffic due to reduction in congestion • Implementation of the project in phases will introduce uncertainty with regard to timing of property acquisition for future phases	• Continue discussions with local communities during design and implementation to minimize disruptions. Continue consideration of environmental justice through final design, and implementation. • Continue coordination with City and County of Denver.
Right-of-Way and Displacements	• Displacement of 11 businesses; full purchase of eight properties; partial purchase and access modification to 20 properties	• Conform to the requirements set forth in the Uniform Relocation Assistance and Real Property Acquisitions Policies Act of 1970, as amended, which contains specific requirements that govern the manner in which a government entity acquires property for public use. • Prepare a relocation analysis and provide relocation advisory service.
Parks and Recreation	• Requires use of small parts of Barnum (0.01 acres) and Barnum North (0.42 acre) parks, and a substantial portion of Barnum East (2.1 acres) park	• Reconstruction/reconfiguration of Barnum East Park, with addition of replacement park land, to maintain park function and provide upgraded facilities.
Aesthetics and Urban Design	• Improvements to highway landscapes, retaining walls, lighting, signage, slope and ditch paving, and concrete barriers • Increased visibility of northbound I-25 on ramp from northbound Santa Fe Drive	• Use conceptual “kit of parts” in design of aesthetic elements and treatments. A “kit of parts” was developed during the EIS process and is described in the Final EIS and accompanying Aesthetics and Urban Design Report. • Continue coordination with other agencies through final design and implementation
Air Quality	• Improved air quality due to improved traffic flow • Meets air quality conformity requirements • Temporary increase in air emissions during construction	• Maintain construction equipment in good working order, minimize excessive idling of inactive equipment or vehicles, and consider using higher-grade fuel • Implement a dust control plan and locate stationary equipment as far from sensitive receivers as possible
Noise and Vibration	• Within the Phase 1 and 2 area, noise levels warranted evaluation of abatement measures for Vanderbilt Park, Vanderbilt Park East, Habitat Park, and Barnum East Park • Within Phase 1 and 2 area, noise levels warranted evaluation of abatement measures for seven commercial properties	• Noise abatement evaluation results show that noise barriers or other noise abatement measures are not feasible and/or reasonable for noise abatement at these parks and commercial properties • During preparation of final design, consider elements to reduce “nuisance noise” experienced near the highway
Historic and Archaeological Preservation	• No impacts are expected	• If historic or archaeological materials are encountered or unearthed during construction, work will be halted immediately in the vicinity of the find, and the CDOT archaeologist or cultural resource staff, and the SHPO, will be notified promptly

Table 5-1 Phases 1 and 2 Environmental Consequences, Mitigation, and Monitoring (continued)

Resource	Consequences of Phases 1 and 2	Mitigation Measures and Monitoring
Paleontology	• Denver Formation fossils may be encountered during construction	• CDOT paleontologist to examine final design plans to determine the extent of impact to the Denver Formation, and the scope, if any, of monitoring required
Water Quality and Water Resources	• Short-term increase in sediment from construction • Increase in impervious drainage area • Consolidation of stormwater runoff with fewer outfalls to the South Platte River • Improved quality of stormwater discharge due to construction of water quality ponds and best management practice (BMP) stormwater facilities	• Use construction BMPs to reduce temporary impacts • On-site project area runoff will be controlled through water quality ponds or other BMPs to settle and improve water quality runoff releasing to the South Platte River • Reduction of the overall number of outfalls into the South Platte River and installation of energy dissipaters, such as riprap, at outfalls to reduce erosion potential • Use pump stations to remove runoff at underpasses on grade separations and use water quality ponds to settle sediment and improve water quality releasing into the South Platte River
Floodplains	• Temporary impacts during replacement of southbound Santa Fe Drive and Alameda Avenue bridges over the South Platte River • Encroachment into floodplain from southbound I-25 off ramp to Santa Fe Drive	• Design bridges to minimize the impact on floodplains of piers, abutments, and roadways, to the extent practicable • Restore bridge construction areas • Install storm sewer improvements to reduce flooding on I-25 under Alameda Avenue • Provide adequate floodplain width in areas of floodplain encroachment for overall “no rise” in floodplain
Wetlands, Waters of the US and Open Water	• 0.221 acre of jurisdictional and 0.020 acre of non-jurisdictional wetlands impacted	• Mitigate jurisdictional and non-jurisdictional wetlands on a 1:1 basis • Minimize culvert lengths and use construction BMPs to reduce impacts • Use construction BMPs to reduce temporary impacts; and use water quality BMPs to minimize indirect impacts
Vegetation and Wildlife	• Removal of vegetation during construction • Potential introduction of noxious weeds into areas disturbed by construction • Short-term disturbance of wildlife and aquatic habitat during construction • Improvements to Santa Fe Drive bridge will move traffic away from wildlife habitat along the South Platte and will improve wildlife travel corridor by increased horizontal and vertical clearance of bridges	• Revegetate construction areas using CDOT –approved native seed mix. If construction occurs outside of appropriate seeding windows, slopes will be temporarily protected from erosion using mulch and mulch tackifier • Replace trees greater than 2 inches in diameter on a 1:1 basis. Existing shrubs removed during construction in the South Platte River riparian area will be replaced with native species to their pre-construction aerial coverage • Impacted landscape areas (irrigated or otherwise) shall be enhanced and incorporated into final design to ensure the existing landscape does not become fragmented • Target noxious weed populations by preparing and implementing an Integrated Weed Management Plan • Conduct habitat disturbing activities, such as tree removal, grading, scraping, grubbing, etc., during the non-breeding season unless the area has been verified by a qualified biologist that no active nests are present

Table 5-1 Phases 1 and 2 Environmental Consequences, Mitigation, and Monitoring (continued)

Resource	Consequences of Phase 1 and 2	Mitigation Measures and Monitoring
Hazardous Waste	• Several properties identified with potential or recognized environmental conditions to be acquired for right-of-way • Excavations may encounter contaminated groundwater, soil, and fill material, and in some locations methane • Santa Fe, Alameda Avenue, US 6, and railroad bridges may be coated with lead-based paint.	• Conduct individual, site-specific initial site assessments of properties and coordinate with OPS and CDPHE, as necessary, before acquiring right-of-way • Conduct a preliminary site investigation before final design to identify soil and groundwater contamination that may affect feasibility evaluation and final design • Prepare a materials handling plan and a health and safety plan, which includes asbestos-containing material, as required by Section 250.03 of the CDOT Standard Specifications for Road and Bridge Construction • Conduct an asbestos, heavy metals based paint survey of bridges, and miscellaneous material survey prior to demolition of any structures
Soils and Geology	• Expansive soils and unsuitable fill material may be encountered	• Consider potential for expansive soils and unsuitable fill during final design
Energy	• Increase in energy use due to construction. • Decrease in fuel use due to decreased traffic congestion	• Consider energy conservation measures during final design
Construction	• Short-term fugitive dust emissions, construction noise, increase in sediment, traffic delays, visual impacts, and utility impacts during construction	• Identify construction mitigation measures during final design and construction planning, with consideration of the possible mitigation measures identified by the Citizens Working Group (See Table 4.18-1 in Chapter 4 of Final EIS)

The mitigation and monitoring measures identified above for Phases 1 and 2 will be carried forward and refined during final design, construction planning, and implementation.

6.0 MONITORING/ENFORCEMENT PROGRAM

Both FHWA and CDOT will monitor this project to ensure that mitigation measures contained in the ROD (and subsequent permits) are implemented. Copies of this ROD will be provided to responsible public agencies and CDOT project personnel. Commitments within this document will be implemented through the inclusion of these measures in the construction plans for the project. CDOT will maintain information on the implementation to inform the public and/or interested commenting agencies, upon request, of the progress in carrying out the adopted mitigation measures.

The decision-making process will continue during final design. As the design process continues, more detailed design decisions and more specific commitments will be made to minimize both environmental impacts and impacts to adjacent property owners. In coordination with local agencies, the public involvement process will include a public outreach program.

CDOT will continue to coordinate with the City and County of Denver, RTD, DRCOG, CDPHE, Public Utilities Commission (PUC), and US Army Corps of Engineers (USACE) throughout the design and construction phases.

Permits required for the project will be coordinated with the appropriate jurisdiction and obtained prior to construction. Required permits and approvals for Phase 1 and Phase 2 are likely to include those shown in **Table 6-1.** Additional permits may be required in concert with activities such as:

- Erosion control/grading
- Utility access, relocation, or surveying
- Construction, slope, and utility easements
- Access and authorizations

Additional permits and/or approvals may be needed for future phases; a comprehensive list is included in Section 4.19 the Final EIS.

Table 6-1 Summary of Permits and Approvals for Phases 1 and 2

Agency	Regulated Activity	Permit/Approval
US Army Corps of Engineers	Impacts to jurisdictional wetlands and Waters of the US	Clean Water Act Section 404 Permit
Federal Emergency Management Agency	Floodplain encroachment	Conditional Letter of Map Revision; Letter of Map Revision
Colorado Department of Public Health and Environment – Water Quality Control Division	Municipal separate storm sewer system (MS4) Phase I and II Areas – New Development and Redevelopment Programs	Follow the requirements of the City and County of Denver and CDOT MS4 discharge permits
Colorado Department of Public Health and Environment – Water Quality Control Division	Required to assess the quality of stormwater runoff during construction	CDPHE Colorado Discharge Permit System (CDPS) stormwater permit associated with construction activity

Table 6-1 Summary of Permits and Approvals for Phases 1 and 2 (continued)

Agency	Regulated Activity	Permit/Approval
Colorado Department of Public Health and Environment – Water Quality Control Division	Dewatering of construction areas	Clean Water Act Section 402 Construction Dewatering Permit, or Individual Construction Dewatering Permit if contaminated groundwater is expected to be encountered
Colorado Department of Public Health and Environment – Hazardous Materials and Waste Management Division	Classification of construction waste material and transportation of solid wastes generated	May require facility approval
Colorado Department of Public Health and Environment – Hazardous Materials and Waste Management Division	Generation of contaminated materials during construction	Coordination and approval for handling and management plan
Colorado Department of Public Health and Environment – Hazardous Materials and Waste Management Division	Generation of hazardous waste	Notification as Resource Conservation and Recovery Act (RCRA) hazardous waste generator
Colorado Department of Health and Environment – Air Pollution Control Division	Emissions from portable units, such as rock crushers, generators, asphalt plants, and cement plants, used during construction	Stationary Source Air Quality Permit
Colorado Department of Public Health and Environment – Air Pollution Control Division	Asbestos abatement and bridge and building demolition	Asbestos Abatement Permit Demolition Permit
Colorado Department of Public Health and Environment – Air Pollution Control Division	Fugitive dust emissions due to construction activities and bridge demolition	Fugitive Dust Permit Bridge Demolition Permit
Colorado Department of Transportation	Generation of contaminated materials during construction	Development of Materials Handling Plan with approval by the Regional Planning and Environmental Manager
Colorado Division of Wildlife	Impacts to stream banks, stream channels, and riparian areas	Senate Bill 40 Certification
City and County of Denver	Occupancy of right-of-way	Street Occupancy Permit
City and County of Denver	Construction of structures	Construction Permit
City and County of Denver	Traffic control during construction	Construction Access Permits Traffic Control Plan
City and County of Denver	Noise generation during construction	Noise Variance
City and County of Denver	Generation of contaminated materials during construction	Coordination and approval for handling and management plan
City and County of Denver	Discharge of wastewater generated during construction activities to the treatment works (if needed)	Wastewater Discharge Permit
City and County of Denver	Design and construction associated with City-maintained streets, parks, and sewers	Design and construction plan review
City and County of Denver Wastewater Management Division	Discharge of groundwater to a City storm sewer	Discharge Permit
City and County of Denver Parks and Recreation Department	Work in dedicated parks including the South Platte River Greenway and Trail	Occupancy Permit
City and County of Denver City Forester	Tree removal	Coordination and approval

7.0 COMMENTS ON FINAL EIS

The Notice of Availability for the Final EIS was published in the Federal Register on November 17, 2006, with a comment due date of December 18, 2006. Comments were received from nine agencies and 16 members of the public during this period and at the public hearing that was held at the Drury Gymnasium (375 S. Zuni Street, Denver) on November 30, 2006. A total of 41 people signed in at the public hearing. Documentation related to the public hearing is presented in **Appendix C**.

All comments received have been reviewed and responded to (see **Appendix D**). None of the comments received required a change to the assessment of impacts, alternatives or mitigation as presented in the Final EIS and this ROD. FHWA has considered all comments received on the Final EIS in reaching the decisions documented in this ROD.

8.0 CONCLUSION

Based on the information contained in the I-25 Valley Highway Final EIS and Section 4(f) Evaluation, and this ROD, I conclude that the decision reached on the Valley Highway project is in the best overall public interest, uses all practicable means to restore and enhance the quality of the human environment and avoids or minimizes any possible adverse effects. Based on the considerations identified in the Section 4(f) Evaluation, I also conclude that there are no feasible and prudent alternatives to the use of Section 4(f) protected lands and that the proposed action includes all possible planning to minimize harm to the identified Section 4(f) properties resulting from such use.

David A. Nicol, P.E.
Division Administrator, Colorado Division
Federal Highway Administration

July 5, 2007
Date

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