

3.15 HISTORIC PRESERVATION

3.15.1 Affected Environment

3.15.1.1 REGULATORY COMPLIANCE

Legislation at the state and federal levels requires that governmental agencies assess the impacts of proposed projects on historic and archaeological resources before undertaking a project. The federal legislation that protects historic and archaeological resources includes Section 106 (36 CFR Part 800) of the National Historic Preservation Act of 1966 (NHPA as amended) and Section 4(f) (49 USC 303, Sec. 771.135) of the U.S. Department of Transportation Act.

Section 106 of the NHPA requires that federal agencies or other agencies undertaking federal actions consider the effects of their undertakings on historic properties. A historic property is defined as any prehistoric or historic site, district, structure, building, object or archaeological resource included on or eligible for the National Register of Historic Places (NRHP). In order to qualify for the NRHP, a property or resource possesses sufficient integrity of location, design, setting, materials, workmanship, feeling, and association, and meet one or more of the following eligibility criteria:

Criterion A: The property is associated with events that have made a significant contribution to the broad pattern of our history.

Criterion B: The property is associated with the lives of persons significant in our past.

Criterion C: The property embodies the distinctive characteristics of a type, period, or method of construction; or represents the work of a master; or possesses high artistic values; or represents a significant and distinguishable entity whose components may lack individual distinction.

Criterion D: The property has yielded or may be likely to yield information important in history or prehistory.

The Section 106 process (36 CFR 800.4) includes steps to: 1) identify consulting parties, 2) define an Area of Potential Effect (APE), 3) identify and evaluate historic properties, 4) assess the impacts of an undertaking on the historic properties, and 5) consult with appropriate agencies for techniques to avoid, minimize, or mitigate any adverse effects. The process for complying with the state legislation (State Register Act Article 80.1, Register of Historic Properties) is similar.

For the North I-25 Draft EIS, the Colorado Department of Transportation (CDOT) and the Federal Highway Administration (FHWA) have formally arranged with the State Historic Preservation Officer (SHPO) to substitute the project's National Environmental Policy Act's (NEPA) documents (Draft and Final EIS) in lieu of separate correspondence, in order to

What's in Section 3.15?

3.15 Historic Preservation

- 3.15.1 Affected Environment
 - 3.15.1.1 Regulatory Compliance
 - 3.15.1.2 Historical Resources
 - 3.15.1.3 Archaeological Resources
- 3.15.2 Environmental Consequences
 - 3.15.2.1 Consequences of the Alternatives
 - 3.15.2.2 Package A and B Highway Components
 - 3.15.2.3 Package A Transit Components
 - 3.15.2.4 Package B Transit Components
- 3.15.3 Mitigation Measures
 - 3.15.3.1 No-Action Alternative
 - 3.15.3.2 Package A
 - 3.15.3.3 Package B
- 3.15.4 Native American Consultation

1 accomplish the Section 106 consultation process. The document substitution process is
2 intended to reduce the time and complexity of the review process involving the SHPO and
3 other Section 106 consulting parties, by providing detailed information about project impacts
4 associated with the various alternatives in the Draft EIS rather than in letters with attached
5 graphics.

6 For the North I-25 Draft EIS, the Section 106 consultation step involving determinations of
7 NRHP-eligibility for all historic and archaeological resources was accomplished by the
8 traditional method of submitting survey reports and site forms to the SHPO and other Section
9 106 consulting parties. Once this step was completed, all questions and comments were
10 satisfactorily addressed, and all NRHP-eligible and NHRP-listed sites had been identified,
11 CDOT and FHWA described, depicted, and made determinations of effect for these sites in the
12 Draft EIS, arranged by project alternative. All Section 106 consulting parties would then review
13 and have the opportunity to comment upon the determinations of effect and recommended
14 mitigation measures as presented in the Draft EIS. Following the effects review process, the
15 resulting final determinations of effect and mitigation measures will be incorporated into the
16 Final EIS, and any mitigation commitments will be memorialized in a Memorandum of
17 Agreement (MOA) to be signed by CDOT, FHWA, the SHPO and other appropriate parties.

18 CDOT sent out letters to all certified local governments in the regional study area as well as a
19 few other agencies and entities with interest in historic preservation officially inviting them to
20 participate as consulting parties in the Section 106 process for this project. Letters were sent
21 to the cities and communities of Berthoud, Brighton, Broomfield, Fort Collins, Fort Lupton,
22 Greeley, Longmont, Loveland, Northglenn, and Timnath. They were also sent to Boulder
23 County, Colorado Preservation, Inc., and the National Trust for Historic Preservation.
24 Responses were received from the following entities agreeing to participate as consulting
25 parties:

- 26 ▶ City of Greeley Historic Preservation Office
- 27 ▶ City of Fort Lupton Historic Preservation Board
- 28 ▶ City of Longmont Historic Preservation Commission

3.15.1.2 HISTORICAL RESOURCES

Historical Resource Surveys

Historical resources were evaluated within the APE. The APE for this project was discussed at several meetings in early 2006 and further evaluated during a field trip with staff from SHPO and CDOT on June 15, 2006. The boundaries of the APE were agreed to by the SHPO in a letter dated March 12, 2007 (see **Appendix B**). Specific APE boundaries have been defined for the three proposed transportation improvements under evaluation—the North I-25 corridor including queue jumps along US Highway (US) 34 associated with the bus rapid transit, a commuter rail corridor, and a commuter bus route along US 85. The APE boundaries for each specific corridor are described in detail under each of the corridor descriptions that follow.

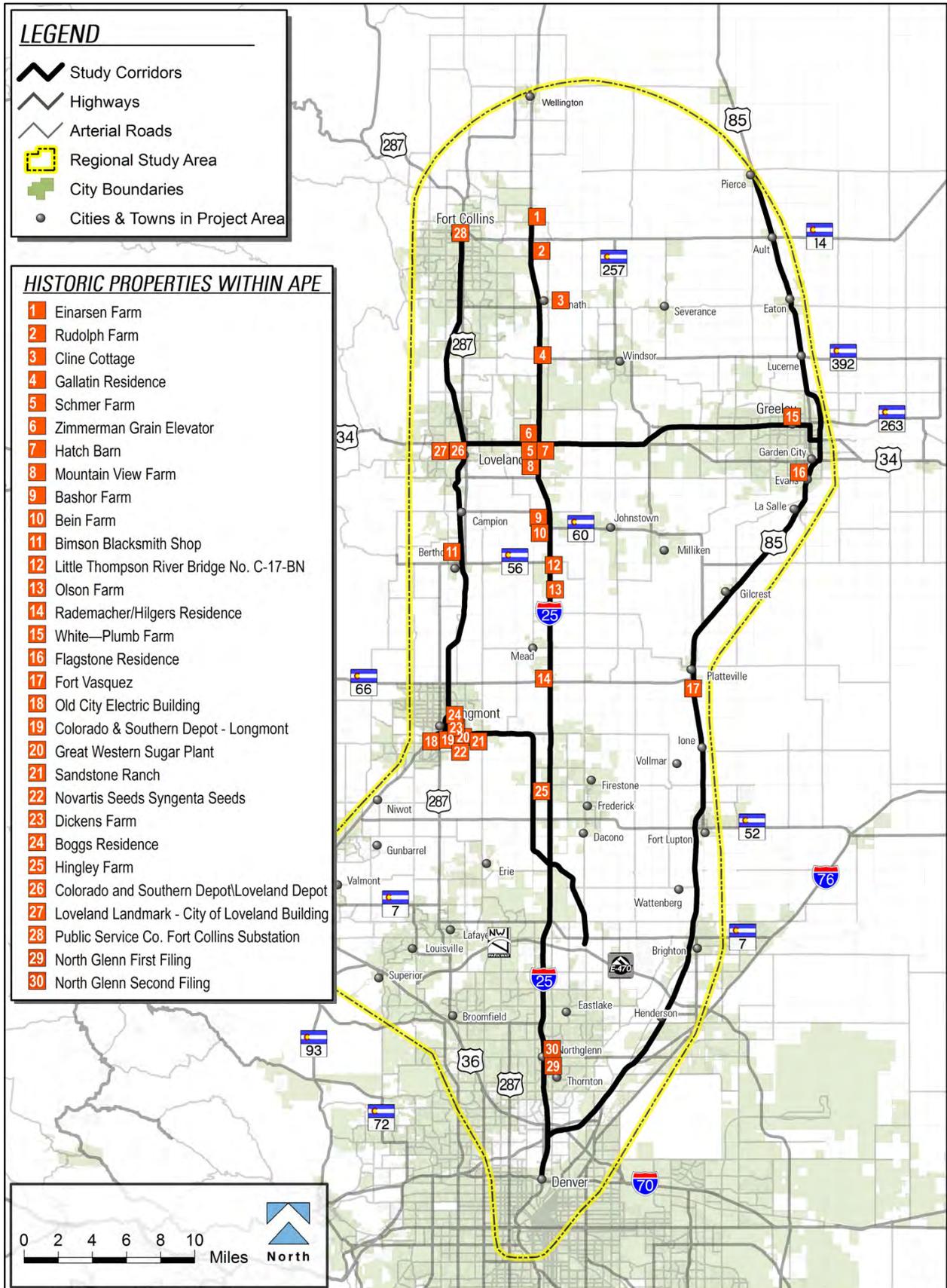
Activities undertaken to identify historical resources in the APE included a file search at the Colorado Historical Society, a review of NRHP and State Register of Historic Properties (SRHP) listings, a review of any local landmark listings, a review of previous historical resource assessments in the general area, and field surveys of the APE.

North I-25 Corridor

The APE for the North I-25 corridor includes an area encompassing the maximum area of disturbance for this project, which is generally the existing right-of-way plus portions of adjacent properties.

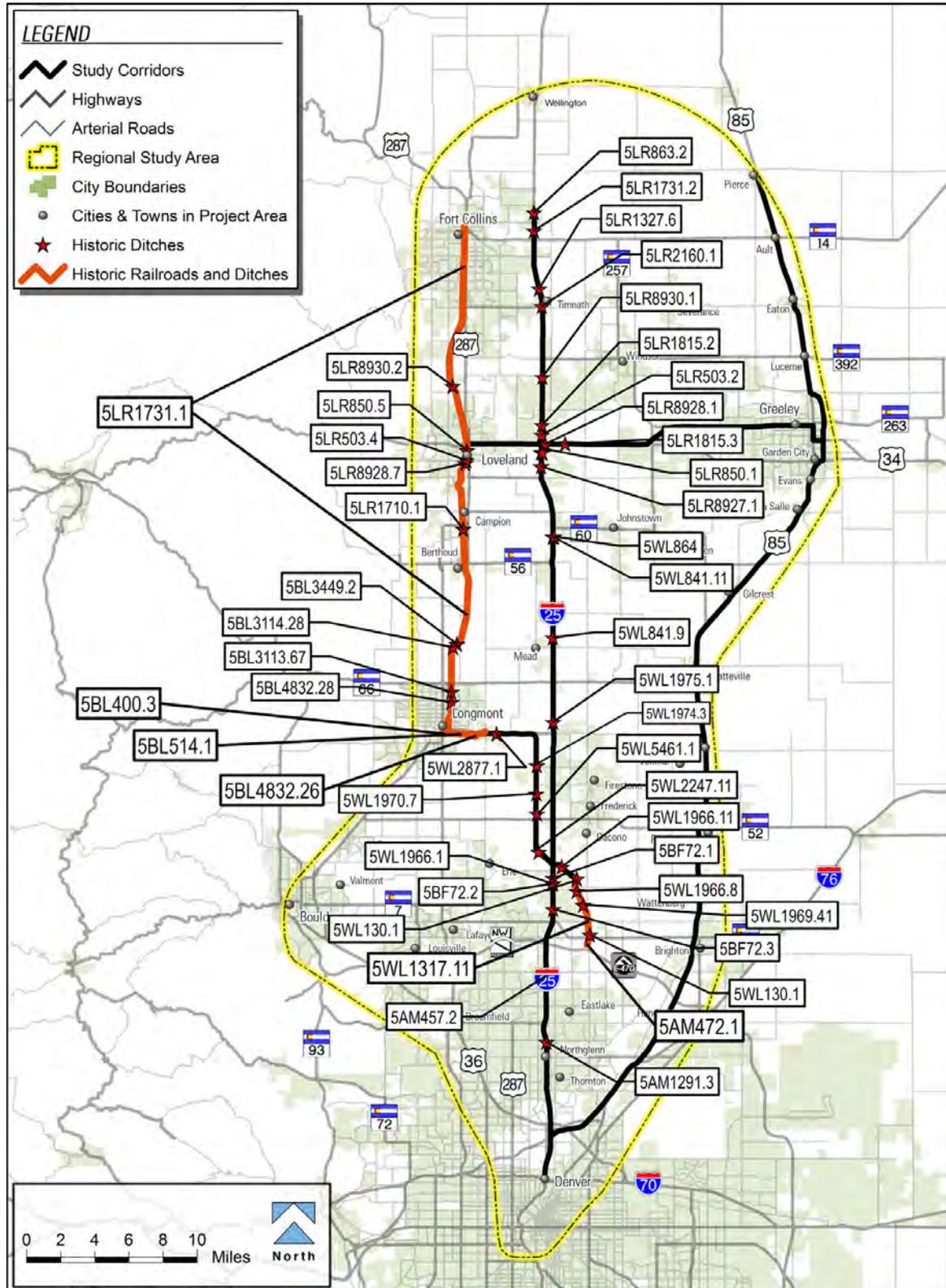
Intensive-level surveys of the historical resources were conducted within the APE. A total of 116 historical resources were surveyed or re-evaluated in this corridor. Linear sites (e.g., railroads, irrigation ditches) are evaluated as segments that are either supporting or non-supporting segments of an entire NRHP-eligible linear resource. Those historical resources eligible for the NRHP are listed in **Figure 3.15-1** and **Figure 3.15-2** by location from north to south.

1 **Figure 3.15-1 Non-Linear Historical Resources within the Area of Potential Effect**



1 Figure 3.15-2 Linear Historical Resources within the Area of Potential Effect

2



Historical Resources

From all the historical resources that were surveyed for this project or that had previously been surveyed, 91 were determined eligible for or already listed on the NRHP. These include 49 resources surveyed on the I-25 corridor, 40 resources surveyed on the commuter rail corridor, and two resources on US 85. This total includes seven resources that have already been listed on the NRHP (see **Table 3.15-1**).

A total of 27 individual historic ditches and canals, made up of 44 linear segments, are located within the APE. The 18 railroad segments comprise linear portions of five railroad lines and one railroad siding within the APE.

Table 3.15-1 NRHP Listed^a or Eligible Historical Resources and Linear Historical Resource Segments Within the APE Tabulated from North to South by Corridor

Site #	Address	Name
I-25 Highway Corridor		
5LR.8932.1	T8N/R68W, SW1/4 Sec. 15	Larimer County Ditch
5LR.11396	1320 Northeast Frontage Road	Einarsen Farm
5LR.863.2	T7N/R68W, NE¼ Sec. 4	Larimer and Weld Canal
5LR.1731.2	T7N/R68W, EC Sec. 9	Colorado & Southern Railroad
5LR.11393	1028–1100 Southeast Frontage Road	Rudolph Farm
5LR.11409.1	T7N/R68W, SE¼ Sec. 16	Cache La Poudre Reservoir Inlet
5LR.995.4	T7N/R68W, SE¼ Sec. 16	Lake Canal Ditch
5LR.11391	4434 E. County Road 40	Gallatin Residence
5LR.1327.6	T7N/R68W, SW¼ Sec. 27	Colorado & Southern Railroad
5LR.2160.1	T7N/R68W, S½ Sec. 34	Boxelder Ditch
5LR.11390	E. County Road 38—just east of the Cache La Poudre River	Cline Cottage
5LR.8930.1	T6N/R68W, N½ Sec. 27	Louden Ditch
5LR.1815.2	T5N/R68W, SE¼ Sec. 3	Union Pacific Railroad Fort Collins Branch
5LR.503.2	T5N/R68W, S½ Sec. 10	Loveland and Greeley Canal
5LR.8928.2	T5N/R68W, NW¼ Sec. 15	Farmers' Ditch (Farmers Irrigation Ditch)
5LR.8928.1	T5N/R68W, N½ Sec. 14-15	Farmers' Ditch
5LR.1815.3	T5N/R68W, SE¼ Sec. 11	Union Pacific Railroad Fort Collins Branch
5LR.11209	5464 E. Highway 34	Schmer Farm
5LR.850.1	T5N/R68W, C Sec. 15	Great Western Railway
5LR.11408		Zimmerman Grain Elevators
5LR.11382	640 Southeast Frontage Road	Hatch Farm
5LR.8927.1	T5N/R68W, N½ Sec. 22	Hillsboro Ditch
5LR.11242 ^a	5331 SH 402	Mountain View Farms
5WL.5204	3807 CR 48	Bashor Farm
5WL.5203	3766 CR 48	Bein Farm
5WL.3149.1	T4N/R68W, N1/2 Sec. 10	Handy/Home Supply Ditch Confluence
5WL.864	T4N/68W, WC Sec. 11	Great Western Railway Buda Siding
5WL.841.11	T4N/R68W, EC Sec. 10	Great Western Railway
5WL.2985 ^a	E. I-25 Frontage Road at Little Thompson River	Little Thompson River Bridge No. C-17-BN

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Table 3.15-1 NRHP Listed or Eligible Historical Resources and Linear Historical Resource Segments Within the APE Tabulated from North to South by Corridor (cont'd)

Site #	Address	Name
5WL.5198	17820 E. I-25 Frontage Road	Olson Farm
5WL.1978	3865 Highway 66	Rademacher/Hilgers Residence
5WL841.9	T3N/R68W, EC Sec. 10	Great Western Railway
5WL1975.1	T2N/R68W, NW¼ Sec. 2	Last Chance Ditch
5WL.1974.1	T2N/R68W, SW¼ Sec. 3	Rural Ditch
5WL.3146.1	T2N/R68W, NW¼ Sec. 14	Flume Ditch
5WL.1970.1	T2N/R68W, SE¼ Sec. 27	Lower Boulder Ditch
5WL1966.1	T1N/R68W, SE¼ Sec. 22	Bull Canal/Standley Ditch
5BF72.1	T1N/R68W, NW¼ Sec. 23	Bull Canal/Standley Ditch
5BF72.2	T1N/R68W, SW¼ Sec. 23	Bull Canal/Standley Ditch
5BF72.3	T1N/R68W, NE¼ Sec. 34	Bull Canal/Standley Ditch
5BF.76.2	T1S/R68W, NE¼ Sec. 3	Bull Canal
5AM.457.3	T1S/R68W, NE¼ Sec. 3	Bull Canal
5AM.457.8	T1S/R68W, NE¼ Sec. 15	Bull Canal
5AM457.2	T1S/R68W, N½ Sec. 22	Bull Canal
5AM.457.4	T1S/R68W, NW¼ Sec. 27	Bull Canal
5AM1291.3	T2S/R68W, N½ Sec. 10	Farmers Highline Canal/Nivers Canal
5WL.322 ^a	955 39th Avenue, Greeley	White—Plumb Farm
5AM.2074	Southeast corner I-25 and 112th Avenue	North Glenn Second Filing
5AM.2073	Northeast corner I-25 and 104 th Avenue	North Glenn First Filing
Commuter Rail Corridor		
5LR.1731.1	Larimer/Boulder County line north to Cherry Street in Fort Collins (eclipses 5LR1731.4, 5LR1731.7, and 5LR9888.1)	Colorado Central, Colorado & Southern/Burlington Northern & Santa Fe Railroad
5LR.11330 ^b	128 Prospect St., Fort Collins	Public Service Company of Colorado — Fort Collins Substation
5LR.10819.2	T7N/R69W, N½ Sec. 26	Larimer County Canal No. 2
5LR.10681.1	T6N/R69W, NE¼ Sec. 2	New Mercer Ditch
5LR.8930.2	T6N/R69W, SW¼ Sec. 26	Louden Ditch
5LR.850.5		Great Western Railroad
5LR.488 ^a	405-409 Railroad Ave., Loveland	Colorado and Southern Railway Depot / Loveland Depot
5LR.503.4	T5N/R69W, SW¼ Sec. 13	Loveland & Greeley Canal
5LR.1729.2	T5N/R69W, SE¼ Sec. 23	Big Thompson Ditch
5LR.1731.11	T5N/R69W, NW¼ Sec. 24	Colorado Central/Colorado & Southern/Burlington Northern & Santa Fe, Business Spur
5LR.8928.7	T5N/R69W, NW¼ Sec. 24	Farmers' Ditch
5LR.1710.1	T4N/R69W, SE¼ Sec. 2	Handy Ditch
5BL.400.3	Larimer/Boulder County line south to Longmont	Colorado Central/Colorado & Southern Railroad/BN&SFRR
5BL.3449.2	T3N/R69W, SE¼ Sec. 11	Supply Ditch
5BL.3114.28	T3N/R69W, SE¼ Sec. 11	Highland Ditch
5BL.3113.67	T3N/R69W, NE¼ Sec. 27	Rough & Ready Ditch
5BL.4832.28	T3N/R69W, NE¼ Sec. 34	Oligarchy Ditch
5BL.10636 ^b	122 8 th Ave., Longmont	Boggs Residence
5BL.1245	103 Main Street, Longmont	Old City Electric Building
5BL.1244	100 Main Street, Longmont	Colorado & Southern /BNSF Depot
5BL.514.1	T2N/R69W, S1/2 Sec. 2	Great Western Railway

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Table 3.15-1 NRHP Listed or Eligible Historical Resources and Linear Historical Resource Segments Within the APE Tabulated from North to South by Corridor (cont'd)

Site #	Address	Name
5BL.513	11939 to 11801 Sugarmill Road, Longmont	Great Western Sugar Plant
5BL.7606	1020 Sugar Mill Road	Novartis Seeds/Syngenta Seeds
5BL.4832.26	T2N/R69W, N1/2 Sec. 12	Oligarchy Ditch
5WL.5278	545 SH 119	William H. Dickens Farm
5WL.2877.2	T2N/R68W, NW1/4 Sec. 7	Union Reservoir Outlet Ditch/Coffin Spring Gulch Ditch
5WL.712 ^a	T2N/R68W, NE1/4 Sec. 7	Sandstone Ranch
5WL.5461.1	T2N/R68W, NW1/4 Sec. 27	Boulder and Weld County Ditch
5WL.5263	7523 WCR 7	Hingley Farm
5WL.1970.7	T2N/R68W, W1/2 Sec. 27	Lower Boulder Ditch
5WL.2247.11	T1N/R68W, SW 1/4 Sec. 10	Community Ditch
5WL.1974.3	2N,R68W,SW ¼ Sec.15	Rural Ditch
5WL.1966.11	T1N/R68W, S1/2 Sec. 14	Bull Ditch segment of the Bull Canal/Standley Ditch
5WL.1317.11	T1N/R68W, NW1/4 Sec. 24	UPRR—Dent Branch
5WL.1969.41		Denver Pacific/Kansas Pacific/UPRR—Denver & Boulder Valley Branch
5WL.1966.8	T1N/R68W, NW1/4 Sec. 25	Bull Ditch segment of the Bull Canal/Standley Ditch
5WL.1969.1	T1N/R68W, SE¼ Sec. 15	Union Pacific Railroad, Denver & Boulder Valley Branch
5BF.130.1		Denver Pacific/Kansas Pacific/UPRR—Denver & Boulder Valley Branch
5AM.472.1	UPRR Segment within Adams County	UPRR—Dent Branch
5LR.530 ^a	228 Museum Avenue, Berthoud	Bimson Blacksmith Shop/Little Thompson
US 85 Corridor Queue Jumps		
5WL.5296	3611 Idaho Street, Evans	Flagstone Residence—Goetzel
5WL.568 ^a	13412 US 85	Fort Vasquez

^a Resources listed on the NRHP.

^b SHPO concurrence pending.

2 **Commuter Rail Corridor**

3 The commuter rail corridor extends along the existing Burlington Northern Santa Fe (BNSF)
 4 railroad tracks from Fort Collins to Longmont. This includes a double-tracked commuter rail
 5 line using the existing BNSF railroad track plus one new track. From Longmont, a new double-
 6 tracked commuter rail line connects this point to the North Metro end-of-line station in
 7 Thornton. The new alignment trends eastward along SH 119 until WCR 7, and then continues
 8 on the west side of WCR 7 in a southward direction for about seven miles until it intersects
 9 with the existing abandoned UPRR tracks near Erie. Intensive surveys were conducted of the
 10 historical resources within the APE. A total of 76 resources were surveyed or re-evaluated in
 11 this corridor, of which 40 have been determined eligible for the NRHP. These include two
 12 former power plants, two railroad depots, one sugar factory, one former blacksmith shop, one
 13 former ranch, one business, two farms, one residence, 10 railroad segments, and 19 ditch
 14 segments. These historic properties are listed in **Table 3.15-1**

Queue Jumps Along US Highway 34 and US 85

The queue jump improvements occur along two highways—US 85 from Platteville through Evans associated with the commuter bus and US 34 from State Highway (SH) 257 to US 85 for the bus rapid transit. A queue jump consists of a modification to an existing signal light to allow buses to proceed through an intersection ahead of regular traffic on a separately timed green light. A short right-turn/bus-only lane is striped onto the existing outside lane of the highway to facilitate this bus movement.

Surveys were conducted of the properties within the APE. A total of seven historical resources were surveyed or re-evaluated in these corridors, two of which are already listed on the NRHP. These historic properties are also listed in **Table 3.15-1**.

Stations and Maintenance Facilities

This project also includes potential sites for the locations of stations and maintenance facilities. The specific boundaries of these stations and maintenance facilities were provided. Most of the stations are on vacant land and no buildings would be affected. In cases where there are buildings older than 40 years on or adjacent to the station site, the historical buildings were surveyed and evaluated for NRHP eligibility.

A total of six historical resources were surveyed on or adjacent to the station locations, two of which have been determined NRHP-eligible. There were no structures on any of the proposed maintenance facility sites. These historic properties are listed in **Table 3.15-1**.

3.15.1.3 ARCHAEOLOGICAL RESOURCES

North I-25 Corridor

This evaluation was conducted in accordance with the requirements of 36 CFR 800.4. Where right-of-entry was granted, an intensive pedestrian survey was conducted for all parcels within the APE. The North I-25 corridor surveys resulted in the recordation of 26 archaeological resources, including 22 isolated finds (IFs) and four sites. Isolated finds are, by definition, not eligible for the NRHP. Sites identified as potentially NRHP-eligible, which require further data to assess their NRHP-eligibility, are listed in **Table 3.15-2**.

Table 3.15-2 Potentially NRHP-Eligible (untested) Archaeological Resources Identified within the North I-25 APE Listed from North to South

Site #	Description	Evaluation
5LR11435	Site (M)—Lithic Scatter and Trash Scatter	Potentially Eligible
5LR11436	Site (P)—Open Lithic Scatter	Potentially Eligible
5WL5320	Site (P)—Open Lithic Scatter	Potentially Eligible
5AM1928	Site (P)—Open Lithic Scatter	Potentially Eligible

Prehistoric = P, Historic = H, Multi-component = M

Two of these potentially NRHP-eligible (untested) archaeological sites—site 5WL.5320 under both Packages A and B, and site 5AM.1928 under Package B—could be subject to direct impacts due to their proximity to the construction zones defined for each of the build packages. However, installation of retaining walls has been employed to avoid any impacts to these sites. All untested or “Needs Data” sites have been avoided, and therefore no further Section 106 actions are necessary.

1 *Commuter Rail Corridor*

2 Intensive pedestrian surveys of the length of the BNSF railroad track were conducted within
3 the current right-of-way from Fort Collins to Longmont. From Longmont to FasTracks North
4 Metro, an intensive pedestrian survey was conducted within the APE (300-foot wide corridor)
5 wherever right-of-entry was granted. The surveys of the commuter rail corridor identified
6 16 non-eligible archaeological resources consisting of 5 IFs and 11 sites.

7 *Queue Jumps Along US 85 and US 34*

8 Where right-of-entry, was granted a pedestrian survey was conducted within the APE.
9 Surveys of the properties within the APE yielded no prehistoric or historic archaeological
10 resources. All of the proposed impact areas are heavily disturbed by the current highway right-
11 of-way.

12 *Station Site Alternatives for Commuter Bus, Commuter Rail and Bus Rapid Transit (BRT)*

13 Where right-of-entry was granted, the station site alternatives for commuter bus, rail, and BRT
14 were subjected to intensive pedestrian surveys. No prehistoric or historic archaeological
15 resources were identified.

16 *Operation and Maintenance Facilities*

17 No right-of-entry was granted for proposed locations of operation and maintenance facilities.
18 No archaeological surveys were conducted.

19 *Results of Archaeological Resource Surveys*

20 From all the archaeological resources that were surveyed for this project or that had previously
21 been surveyed, only four have been determined to have potential to yield information
22 important to prehistory. However, further subsurface testing is needed in order to evaluate the
23 information contained by these sites and to make definitive evaluations of NRHP-eligibility.
24 Test excavations at the sites will not be conducted under the auspices of this project since
25 there will be no direct effects to any of these localities. Lands within the APE for which right-of-
26 entry was not granted will be surveyed for archaeological resources at the time of final design
27 and prior to construction.

28 **3.15.2 Environmental Consequences**

29 Cultural resource impacts were assessed for each of the project alternatives. The range of
30 impacts may be direct or indirect and short-term or long-term. Direct impacts include the
31 removal or modification of historic properties. Indirect impacts result from the project but are
32 generally further removed in distance or may affect the setting for a historic property. Indirect
33 impacts include visual, auditory, and atmospheric changes in the vicinity of an historic property
34 that affect the qualities that make the property or resource historic. For historic resources,
35 most impacts would be long-term, but there can also be temporary impacts associated with
36 construction of the transportation improvements.

37 The Advisory Council on Historic Preservation (ACHP) has developed regulations (36 CFR
38 800) to assist federal agencies in evaluating and mitigating the impacts of their undertakings
39 on historic properties. Historic properties on or eligible for the NRHP are affected when the
40 characteristics of a historic property are altered. The categories of impacts to historic

resources are: No Historic Properties Affected, No Adverse Effect and Adverse Effect as defined in 36 CFR 800.5.

As part of the process, the SHPO and consulting parties review the Section 106 determinations of eligibility and effects made by FHWA and the Federal Transit Administration (FTA). For the North I-25 Draft EIS, review of the effects determinations is being done as a part of this Draft EIS. If the Finding of Effect is that historic properties are adversely affected, then a Memorandum of Agreement (MOA) will be prepared. The MOA would set forth measures to mitigate the adverse effects and would be agreed upon by the project sponsor (FHWA, FTA, CDOT) SHPO and ACHP. Mitigation actions may include such measures as detailed archival recordation of adversely affected historic properties or development of historic interpretive signage.

3.15.2.1 CONSEQUENCES OF THE ALTERNATIVES

This section describes the consequences of the No-Action Alternative and Packages A and B with regard to historic properties (NRHP-eligible or listed historical and archaeological sites). This discussion provides a basis for comparison of the alternatives.

For Packages A and B, consequences are discussed by component to allow for the possibility that the Preferred Alternative may include components from each of these packages. Mitigation measures to address adverse impacts of the alternatives on this resource are discussed in **Section 3.15.3**.

All of the build options would entail short-term effects associated with construction of either package. Short term effects include dust from construction, noise and vibration associated with the construction, increases in roadway congestion and changes in the way people commute around the area.

3.15.2.2 NO-ACTION ALTERNATIVE

The No-Action Alternative would generally not affect historic properties. There would still be increasing traffic and congestion in this corridor. The present trend of conversion of many of the remaining historical farmsteads into residential, industrial and commercial development would also continue.

3.15.2.3 PACKAGE A AND B HIGHWAY COMPONENTS

Direct and indirect effects to eligible historic properties, including supporting segments of NRHP-eligible linear resources, related to each highway component are described in this section. Some linear resources would be affected by both highway and transit components. In these cases, direct and indirect effects of both highway and transit components are described in this section to facilitate presentation of the effects on the resource as a whole.

SH 1 TO SH 14

5LR.8932.1 (Larimer County Ditch)

Resource Description: The Larimer County Ditch crosses I-25 approximately 900 feet north of Larimer County Road (CR) 56, south of the town of Wellington. The open ditch crosses underneath I-25 and the east frontage road inside two concrete culverts. The earthen ditch segment is approximately 20 feet wide with grassy levees, and traverses rural terrain.

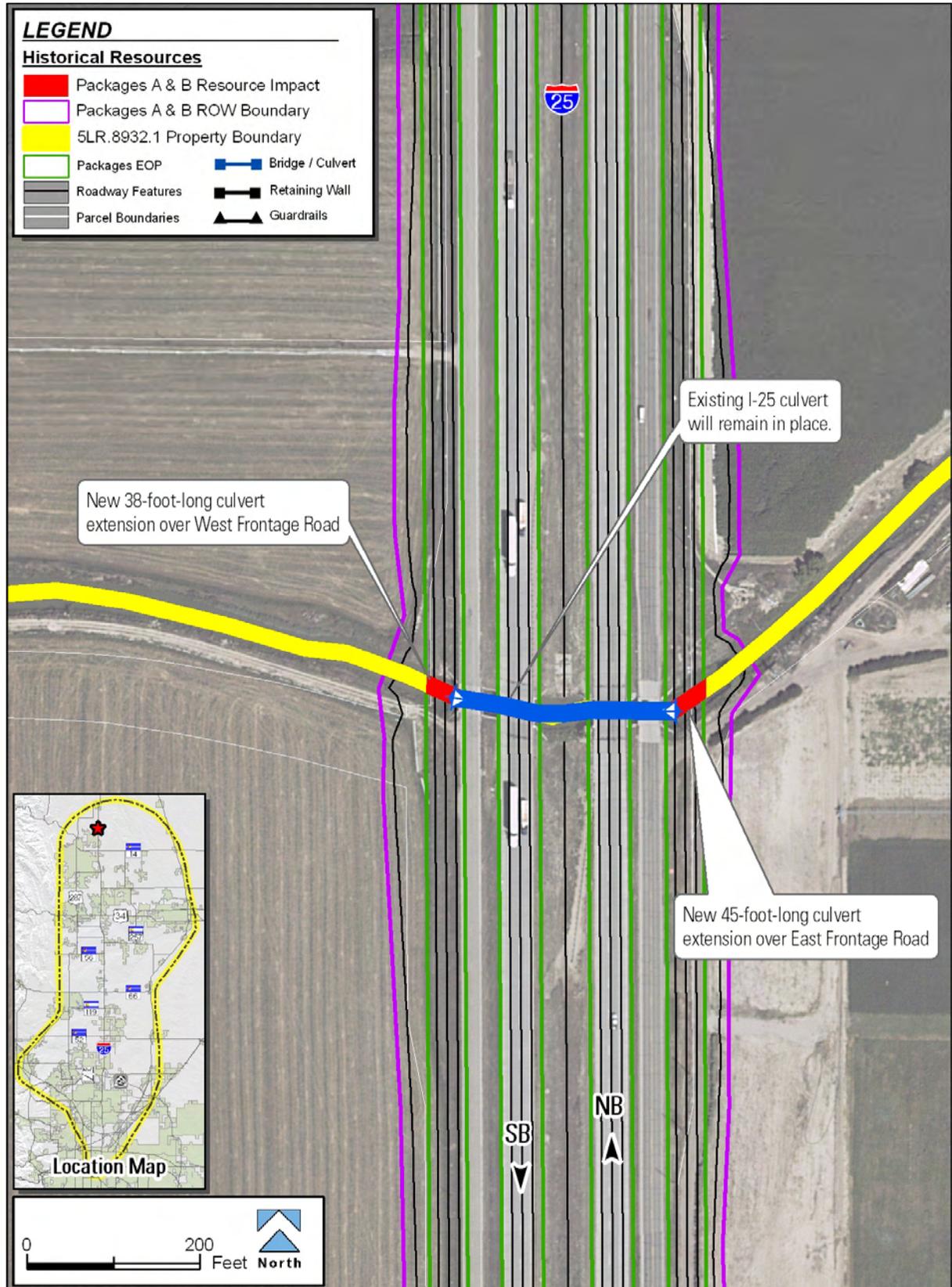
1 **Eligibility Determination:** In 2001 the Larimer County Ditch (5LR.8932) was determined to
2 be eligible for NRHP. Segment 5LR.8932.1 does not support the eligibility of the greater ditch
3 resource due to past modifications to its structure at the culvert crossings underneath I-25 and
4 the existing east frontage road.

5 **Effects Determination—Package A:** Package A improvements include a wider frontage road
6 along the existing alignment parallel to the southbound I-25 mainline, requiring a 38 foot long
7 culvert extension to the west side of the existing 35 foot long culvert. A new 40 foot wide
8 frontage road will be built parallel to the east side of the northbound I-25 mainline, requiring a
9 new concrete box culvert (CBC) crossing of the ditch at that location. The new culvert would
10 place 45 feet of open ditch within a concrete culvert. The length of open ditch placed inside
11 new culvert extensions would total 83 feet. There would be no mainline I-25 improvements in
12 this area (see **Figure 3.15-3**).

13 Because the qualities that make the entire resource NRHP-eligible have already been
14 compromised by modifications associated with construction of I-25 and the frontage road and
15 Package A improvements are minor in relative extent, FHWA, FTA and CDOT therefore has
16 determined that Package A would result in *no adverse effect* to the Larimer County Ditch.

17 **Effects Determination—Package B:** Package B improvements include the same impacts as
18 Package A. Because the qualities that make the entire resource NRHP-eligible have already
19 been compromised by modifications associated with construction of the I-25 and frontage road
20 and Package B improvements are minor in relative extent, FHWA, FTA AND CDOT therefore
21 has determined that Package B would result in *no adverse effect* to the Larimer County Ditch
22 (see **Figure 3.15-3**).

1 Figure 3.15-3 5LR.8932.1 (Larimer County Ditch) – Packages A and B



1 **5LR.11396 (Einarsen Farm)**

2 **Resource Description:** The historic Einarsen Farm (5LR.11396) is located in the project APE
3 on the east side of I-25 at 1320 Northeast Frontage Road. The farm, which was established in
4 1890, contains an intact barn and hipped roof cottage-style farmhouse.

5 **Eligibility Determination:** Based on its association with 19th century Larimer County agriculture
6 and the good integrity of the farm structures built during the period of significance (1880s-1940s),
7 this farm has been determined to be eligible for listing on the NRHP under Criteria A and C.

8 **Effect Determination—Package A:** In this location, the existing configuration of two general
9 purpose lanes in each direction would be maintained, although the northbound and
10 southbound roadways and the east frontage road would be widened to improve shoulders.
11 Under Package A, a narrow sliver of land extending north from East Vine Drive would be
12 permanently incorporated into the transportation right-of-way. This acquired right-of-way would
13 allow construction of wider roadway shoulders and would permanently bury open farmland
14 along the southwestern edge of this historic farm property under fill slopes associated with the
15 wider frontage road. This strip of land measures approximately 1,600 feet in length, and 50
16 feet at its widest extent near the East Vine Drive intersection tapering to 0 feet wide at the
17 northernmost point near the ranch access road. The impacted area is along the edge of a
18 cultivated field and contains 1.76 acres and constitutes less than
19 1 percent of the total area of the 220 acres within the historic boundary. No historical buildings
20 are near the proposed improvements (see **Figure 3.15-4**).

21 The historical farm setting was permanently altered in the 1960s by initial construction of I-25
22 and introduction of the highway and associated traffic noise. Currently, the farmhouse is
23 located 80 feet from the east edge of the existing frontage road. With the Package A
24 improvements, the farmhouse would be 70 feet away from the east edge of the frontage road.
25 Noise levels associated with increased Package A traffic levels on I-25 and frontage road
26 would result in a two decibel increase over existing conditions. This noise increase is barely
27 perceptible. The changes to the local terrain are minimal and there are no highway features
28 introduced by the proposed improvements that would indirectly affect the historic farm or visual
29 context of the farm. Changes in noise and physical setting and atmosphere are not expected
30 to diminish the function, character, feel, or attributes that render the farm or farm buildings and
31 farmhouse NRHP-eligible.

32 A temporary construction easement could be necessary along the western edge of the
33 property for haul roads, construction access, and staging areas to facilitate roadway widening
34 and slope building. No permanent impacts would be anticipated from this use of the farmland
35 property, and no farm structures would be affected. Construction related noise generated by
36 construction equipment and trucks would be temporary in nature, and would not permanently
37 affect the atmosphere of the farm setting. Thus indirect effects caused by temporary
38 construction activities would occur, but would not be expected to significantly diminish the
39 function, character, or attributes that render the farm, farm structures and farmhouse NRHP-
40 eligible.

41 Due to the small amount of farmland directly impacted, its proximity to the existing non-
42 historic frontage road, and the fact that no historic farm buildings are located in this vicinity,
43 FHWA, FTA and CDOT have determined that Package A would result in *no adverse effect*
44 to the Einarsen Farm.

1 **5LR.11396 (Einarsen Farm)**

2 **Resource Description:** The historic Einarsen Farm (5LR.11396) is located in the project APE
3 on the east side of I-25 at 1320 Northeast Frontage Road. The farm, which was established in
4 1890, contains an intact barn and hipped roof cottage-style farmhouse.

5 **Eligibility Determination:** Based on its association with 19th century Larimer County agriculture
6 and the good integrity of the farm structures built during the period of significance (1880s-1940s),
7 this farm has been determined to be eligible for listing on the NRHP under Criteria A and C.

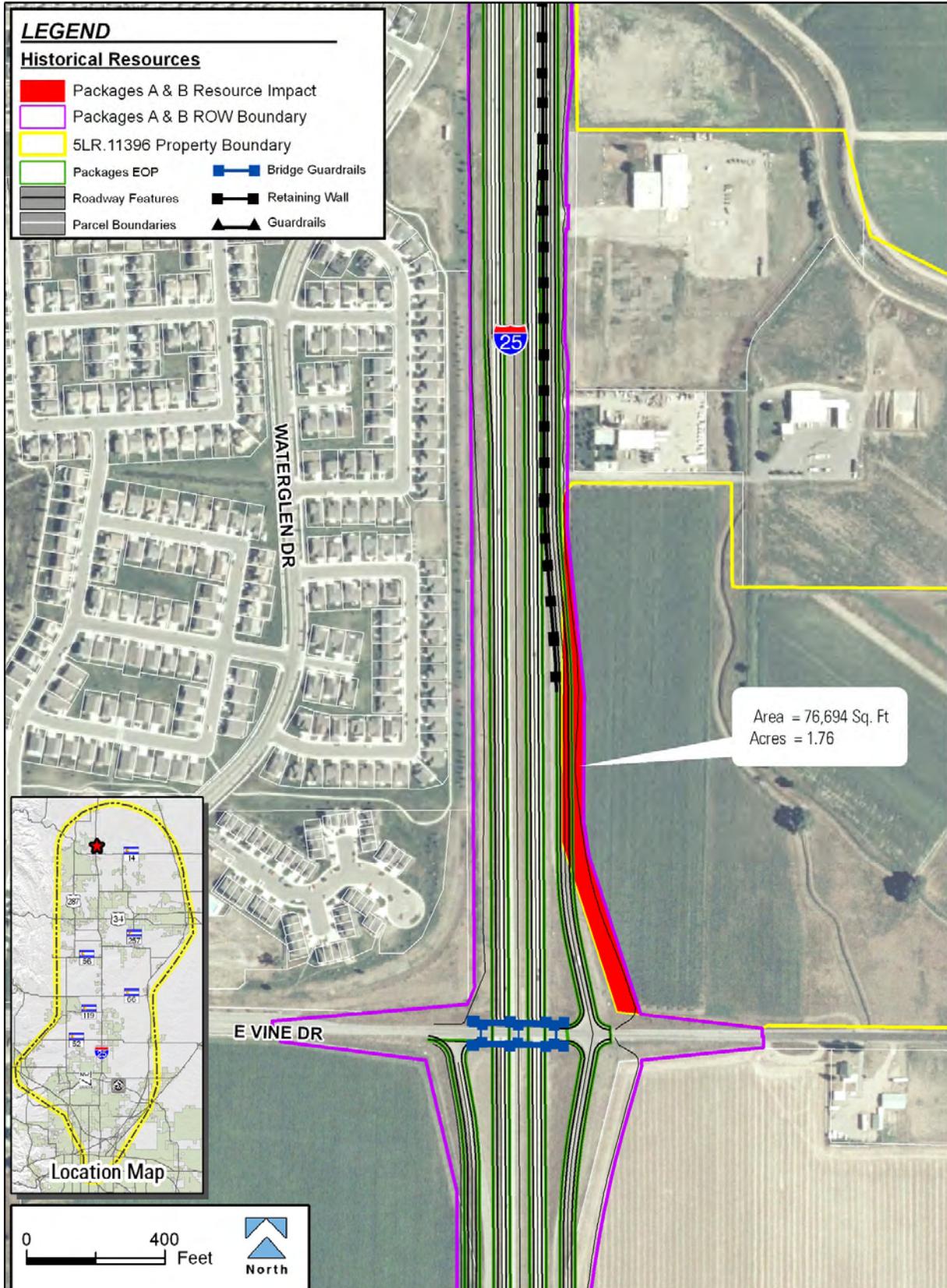
8 **Effect Determination—Package A:** In this location, the existing configuration of two general
9 purpose lanes in each direction would be maintained, although the northbound and
10 southbound roadways and the east frontage road would be widened to improve shoulders.
11 Under Package A, a narrow sliver of land extending north from East Vine Drive would be
12 permanently incorporated into the transportation right-of-way. This acquired right-of-way would
13 allow construction of wider roadway shoulders and would permanently bury open farmland
14 along the southwestern edge of this historic farm property under fill slopes associated with the
15 wider frontage road. This strip of land measures approximately 1,600 feet in length, and 50
16 feet at its widest extent near the East Vine Drive intersection tapering to 0 feet wide at the
17 northernmost point near the ranch access road. The impacted area is along the edge of a
18 cultivated field and contains 1.76 acres and constitutes less than
19 1 percent of the total area of the 220 acres within the historic boundary. No historical buildings
20 are near the proposed improvements (see **Figure 3.15-4**).

21 The historical farm setting was permanently altered in the 1960s by initial construction of I-25
22 and introduction of the highway and associated traffic noise. Currently, the farmhouse is
23 located 80 feet from the east edge of the existing frontage road. With the Package A
24 improvements, the farmhouse would be 70 feet away from the east edge of the frontage road.
25 Noise levels associated with increased Package A traffic levels on I-25 and frontage road
26 would result in a two decibel increase over existing conditions. This noise increase is barely
27 perceptible. The changes to the local terrain are minimal and there are no highway features
28 introduced by the proposed improvements that would indirectly affect the historic farm or visual
29 context of the farm. Changes in noise and physical setting and atmosphere are not expected
30 to diminish the function, character, feel, or attributes that render the farm or farm buildings and
31 farmhouse NRHP-eligible.

32 A temporary construction easement could be necessary along the western edge of the
33 property for haul roads, construction access, and staging areas to facilitate roadway widening
34 and slope building. No permanent impacts would be anticipated from this use of the farmland
35 property, and no farm structures would be affected. Construction related noise generated by
36 construction equipment and trucks would be temporary in nature, and would not permanently
37 affect the atmosphere of the farm setting. Thus indirect effects caused by temporary
38 construction activities would occur, but would not be expected to significantly diminish the
39 function, character, or attributes that render the farm, farm structures and farmhouse NRHP-
40 eligible.

41 Due to the small amount of farmland directly impacted, its proximity to the existing non-
42 historic frontage road, and the fact that no historic farm buildings are located in this vicinity,
43 FHWA, FTA and CDOT have determined that Package A would result in *no adverse effect*
44 to the Einarsen Farm.

1 Figure 3.15-4 5LR.11396 (Einarsen Farm) – Packages A and B



2

1 **5LR.863.2 (Larimer and Weld Canal)**

2 **Resource Description:** This segment of the Larimer and Weld Canal generally runs
3 perpendicular to I-25 and crosses both the highway and the frontage road. The canal was
4 originally built between 1878 and 1881. The canal is approximately 30 feet in width. The
5 portion of the canal that crosses under the highway was altered when the highway was
6 constructed in the 1960s. The entire canal is approximately 45 miles long. The segment in the
7 project APE (5LR.863.2) is 3,782 feet long. The levees along both banks of the canal are
8 grassy and in many areas lined with coarse stone riprap. The surrounding area includes
9 agricultural and residential development.

10 **Eligibility Determination:** The entire canal is eligible for the NRHP under Criterion A for its
11 important association with the development of water rights and agriculture in Larimer and
12 Weld Counties. The segment (5LR.863.2) within the project APE retains sufficient integrity of
13 location, setting, feeling, and use to support the eligibility of the entire linear resource.

14 **Effect Determination—Package A:** Currently, 3 bridges span the canal, carrying multiple
15 lanes of northbound and southbound I-25, and the east frontage road. Each of these
16 roadways would be widened to add wider shoulders and new acceleration and deceleration
17 lanes associated with the Mountain Vista Drive interchange ramps. To accommodate the
18 proposed improvements under Package A, the existing northbound 48-foot long, rolled I-
19 beam composite bridge improvements over the canal would be widened by 25 feet from its
20 current 38-foot width. The existing southbound bridge is identical to the northbound bridge
21 and would be widened by 20 feet. The existing east frontage road bridge is a 48-foot long, 24-
22 foot wide concrete slab and girder bridge over the canal. It would be widened by 12 feet. All
23 highway and frontage road widening would be supported on top of the new bridge structures.
24 New bridge piers and abutments used to support the widened bridge deck would be placed
25 outside the historic boundary of the canal and would therefore not result in direct impacts (see
26 **Figure 3.15-5**).

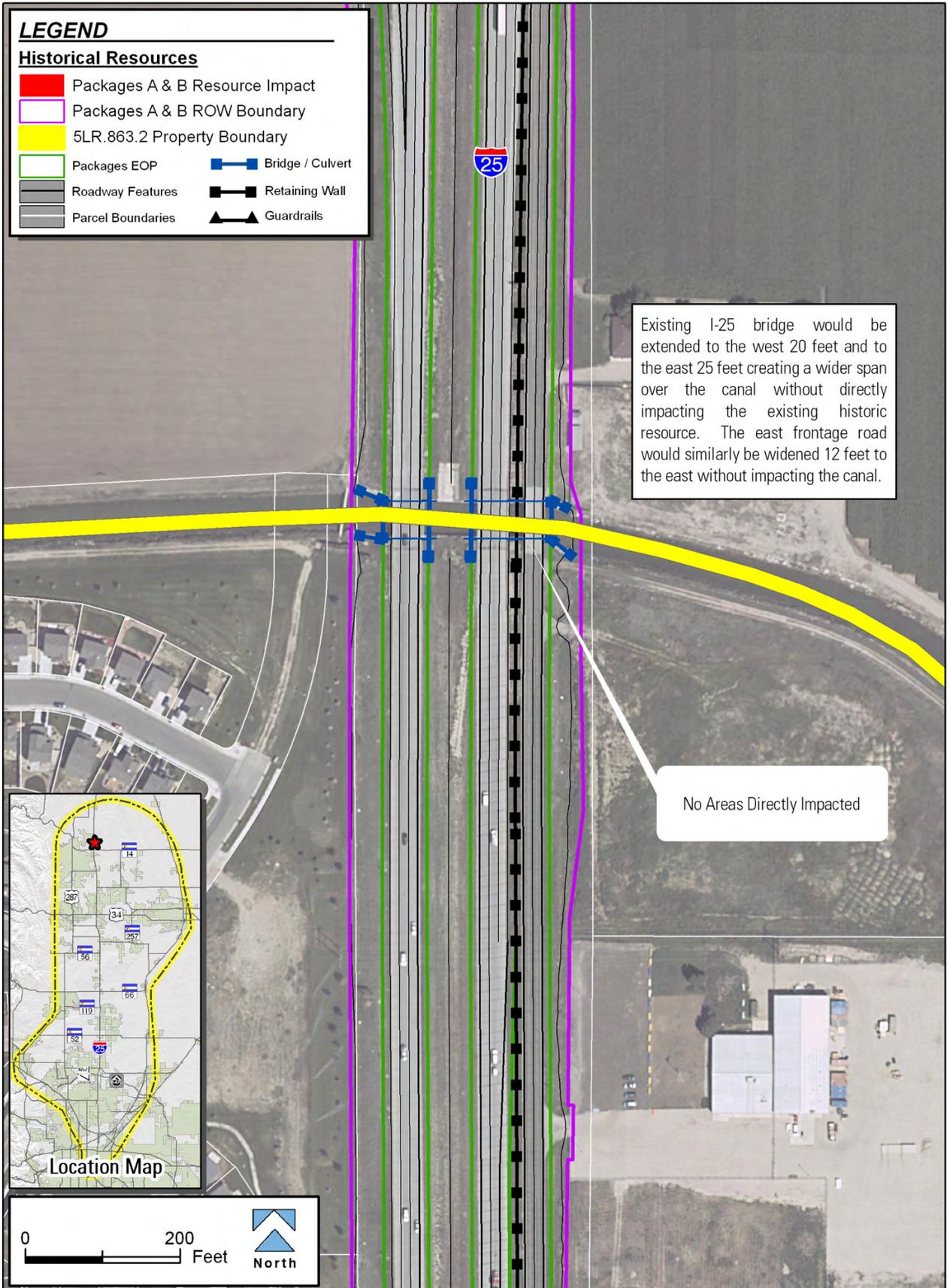
27 The widened bridges would increase the amount of open canal located underneath the bridge
28 deck. This increased overhead cover due to increased bridge deck area would be an indirect
29 effect to the historic setting of the canal, however; this would not alter the qualities that render
30 this ditch segment NRHP-eligible.

31 Installation of the new bridge piers and deck structures would likely require a temporary use
32 within the boundary of the historic property for equipment access and minor construction
33 activities. The canal would remain operational and irrigation water would be protected from all
34 encroachment by construction. All disturbances caused by construction equipment or
35 construction activities would be temporary in nature and affected areas would be restored to
36 their original condition and appearance.

37 No direct impacts to the resource would occur as a result of these improvements. Indirect
38 effects to the canal would not diminish the function, alignment, attributes, or setting that
39 render the canal NRHP-eligible. FHWA, FTA and CDOT therefore have determined that
40 Package A would result in *no adverse effect* to the Larimer and Weld Canal.

41 **Effect Determination—Package B:** Impacts are identical to Package A. FHWA, FTA and
42 CDOT have determined that Package B would also result in *no adverse effect* to the Larimer
43 and Weld Canal (see **Figure 3.15-5**).

1 Figure 3.15-5 5LR.863.2 (Larimer and Weld Canal) – Packages A and B
2



1 **5LR.1731, 5LR.1327, 5BL.400 (Colorado & Southern Railroad)**

2 **Resource Description:** Multiple segments of the Colorado & Southern (C&S) Railroad in
3 Larimer and Boulder counties are located within the APE of the potential highway package
4 improvements. Several different site numbers have been assigned to this rail line, but they all
5 refer to the same overall resource (see **Figure 3.15-6**).

6 The northernmost railroad segment affected by highway improvements is segment
7 5LR.1731.2, an 836 foot-long segment of the historic C&S Black Hollow Branch that runs
8 eastward from Black Hollow Junction, which is located northeast of the Downtown Fort Collins
9 Airpark, to Black Hollow in Weld County. It was built in 1906 by the Colorado Railroad
10 Company, a subsidiary of C&S and then absorbed by C&S in 1930. The C&S was dissolved
11 in 1981 and the tracks taken over by Burlington Northern, which in 1995 became the BNSF.
12 The total length of the C&S Black Hollow Branch is 9 miles. The I-25 alignment crosses the
13 C&S alignment just northwest of the SH 14 interchange. The bridges that carry I-25 over the
14 railroad were built during construction of I-25 in the 1960s.

15 The second affected segment (5LR.1327.6) is a 1,661 foot-long railroad segment originally
16 built in 1882 as part of the Greeley, Salt Lake, & Pacific Railroad. In 1899, the rail line became
17 part of the C&S. The segment is part of an approximately 13 mile-long link that extends
18 diagonally from Fort Collins to Greeley. I-25 crosses this segment of the C&S alignment just
19 south of the SH 14 interchange. The bridge that carries the highway over the railroad was built
20 during construction of I-25 in the 1960s.

21 The third segment of the C&S line (5LR1731.11) in the APE is also known as the Colorado
22 Central(CC)/C&S/BNSF Business Spur. The spur is a commercial access spur line running
23 north from the mainline BNSF RR just south of West 1st Street in Loveland. This disused spur
24 is 262 feet long, retains rail and ties, and includes a wooden trestle bridge
25 (5LR.1731.11.mm6028) over the Farmers Irrigation Ditch (5LR8928.7). The bridge is in a
26 deteriorated state.

27 The Larimer County segment 5LR.1731.1 and the Boulder County segment 5BL.400.3
28 represent the southernmost Colorado Central/Colorado & Southern Railroad/Burlington
29 Northern & Santa Fe Railroad segments in the APE. Segment 5LR.1731.1 runs 7.8 miles
30 south from the Larimer County line to South Pratt Parkway in Longmont. These segments
31 were built in 1877 and have been in constant service for 130 years. The CC/C&S/BNSF runs
32 23.4 miles generally south from Cherry Street in Fort Collins to the Boulder County line. The
33 entire CC/C&S/BNSF rail line in Boulder County is 33.8 miles long.

34 **Eligibility Determination:** The entire C&S railroad (5LR.1731, 5LR.1327, 5BL.400) is eligible
35 under NRHP Criterion A for its association with the development of railway transportation.
36 Railway transportation was critically important to the settlement and economic development of
37 Colorado. Segments 5LR.1731.2, 5LR.327.6 and 5LR.1731.1 of the railway retain integrity of
38 the original location, design, and function, and collectively support the eligibility of the entire
39 linear resource. The integrity of segment 5LR1731.11 has been heavily modified and due to
40 this loss of integrity no longer supports the eligibility of the entire railroad.

1 **Effect Determination:**

2 In order to determine the effect to the entire linear resource, impacts to each of the segments
3 passing through the project APE were assessed. These impact assessments are presented
4 below, followed by a determination of effect to the entire C&S Railroad in Larimer and Boulder
5 counties.

6 **Impacts to segment 5LR.1731.2—Package A:** I-25 is currently carried over this historic
7 railroad by two parallel, 125 foot-long, 38-foot wide welded girder composite bridges for the
8 northbound and southbound traffic lanes. The existing bridges result in a combined 76 feet of
9 overhead railroad coverage. The existing east and west frontage roads are provided with at-
10 grade railroad crossings. Package A in this location consists of a transition area from three
11 general purpose lanes in each direction on the south to two general purpose lanes in each
12 direction on the north. The northbound I-25 roadway would be widened to the east of the
13 existing roadway edge, while the southbound roadway would be widened to the west of the
14 existing roadway edge. Wider bridge structures would replace the existing bridges to
15 accommodate the larger roadway template. These new bridges would each be 79 feet long
16 and 63 feet wide, constructed as pre-stressed concrete girder type structures. Due to their
17 wider dimensions, an additional 50 feet of railroad would be covered by the two new highway
18 bridges. The frontage roads would remain in their current locations and would be maintained in
19 their existing at-grade railroad crossing configurations (see **Figure 3.15-7**).

20 The alignment and operation of the railroad would not be changed. The entire widened I-25
21 roadway would continue to be carried over the historic railway on top of the new bridge
22 structures. The new bridges would be supported by piers placed outside the historic rail
23 corridor boundary (railroad right-of-way) resulting in no direct impacts to the historic railway.

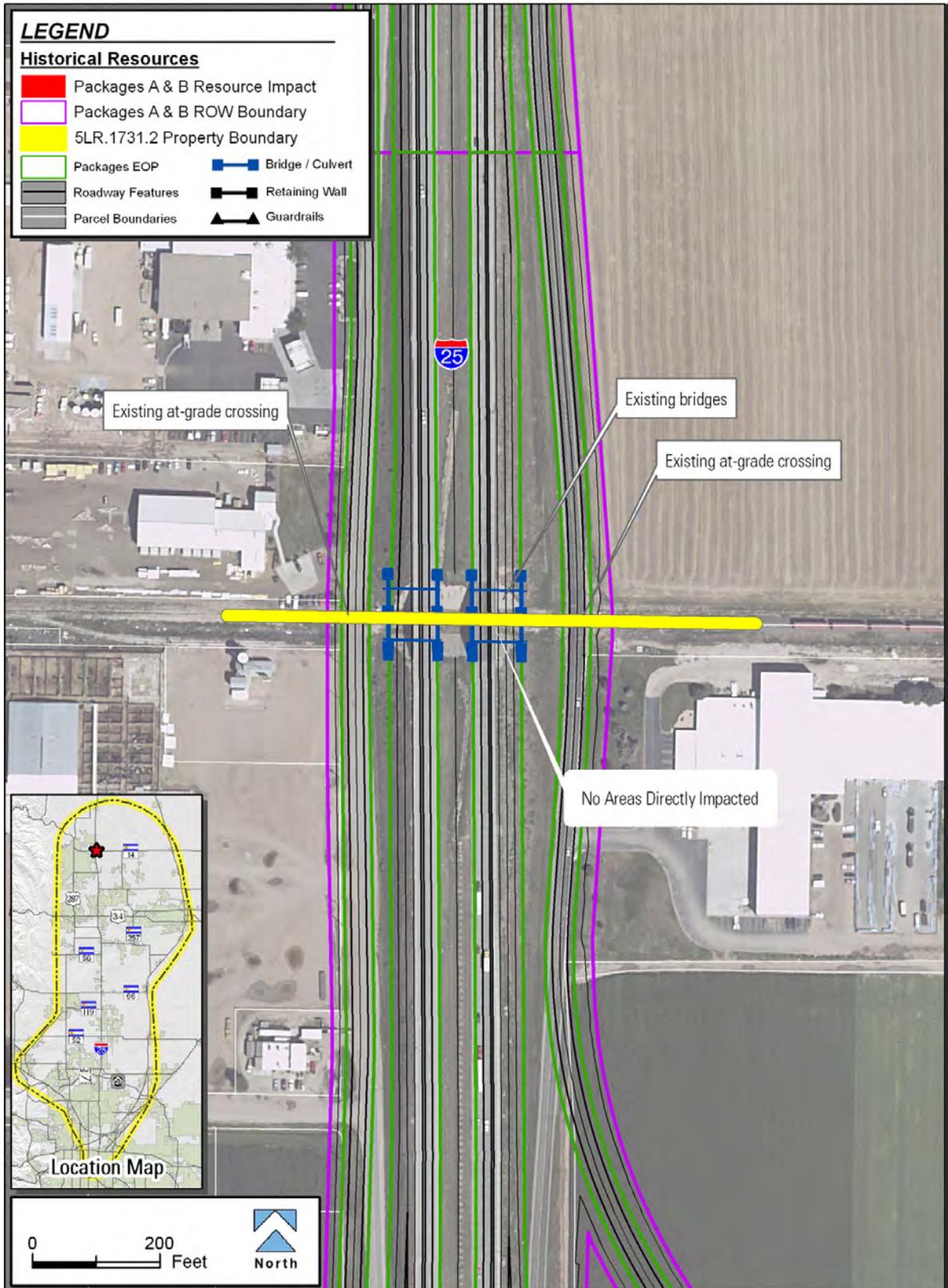
24 Installation of the new bridge piers and deck structures would likely require a temporary
25 construction easement on the historic property for equipment access and minor construction
26 activities. The railway would remain operational and would be protected from all encroachment
27 by construction. All disturbances caused by construction equipment or construction activities
28 would be temporary in nature and affected areas would be restored to their original condition
29 and appearance.

30 The widened bridges would increase the amount of railway located underneath the bridge
31 deck by 50 feet. This increased overhead cover due to a wider bridge deck would be an
32 indirect effect to the historic setting of the railway; however, this minor impact would not
33 diminish the qualities that render this railway segment NRHP-eligible.

34 No direct impacts would occur. The proposed transportation improvements associated with
35 Package A would not substantially diminish or alter characteristics that render the property
36 eligible for the NRHP.

1
2
3

Figure 3.15-7 5LR.1731.2 (Colorado & Southern Railroad, Black Hollow Branch) – Packages A and B



1 **Impacts to segment 5LR.1731.2—Package B:** The changes associated with Package B at
2 this location are similar in character to those associated with Package A. In the vicinity of the
3 historic railroad, Package B consists of a transition area from two general purpose lanes plus a
4 buffer-separated managed lane in each direction to a section containing only two general
5 purpose lanes in each direction. The northbound roadway would be widened to the east of the
6 existing roadway edge, while the southbound roadway would be widened to the west of the
7 existing roadway edge. Wider northbound and southbound bridge structures would be required
8 to accommodate the larger roadway template. These new bridges would each be 79 feet long
9 and 63 feet wide, constructed as pre-stressed concrete girder type structures. The frontage
10 roads would remain in their current locations and at-grade crossings would be maintained in
11 their current configurations (see **Figure 3.15-7**).

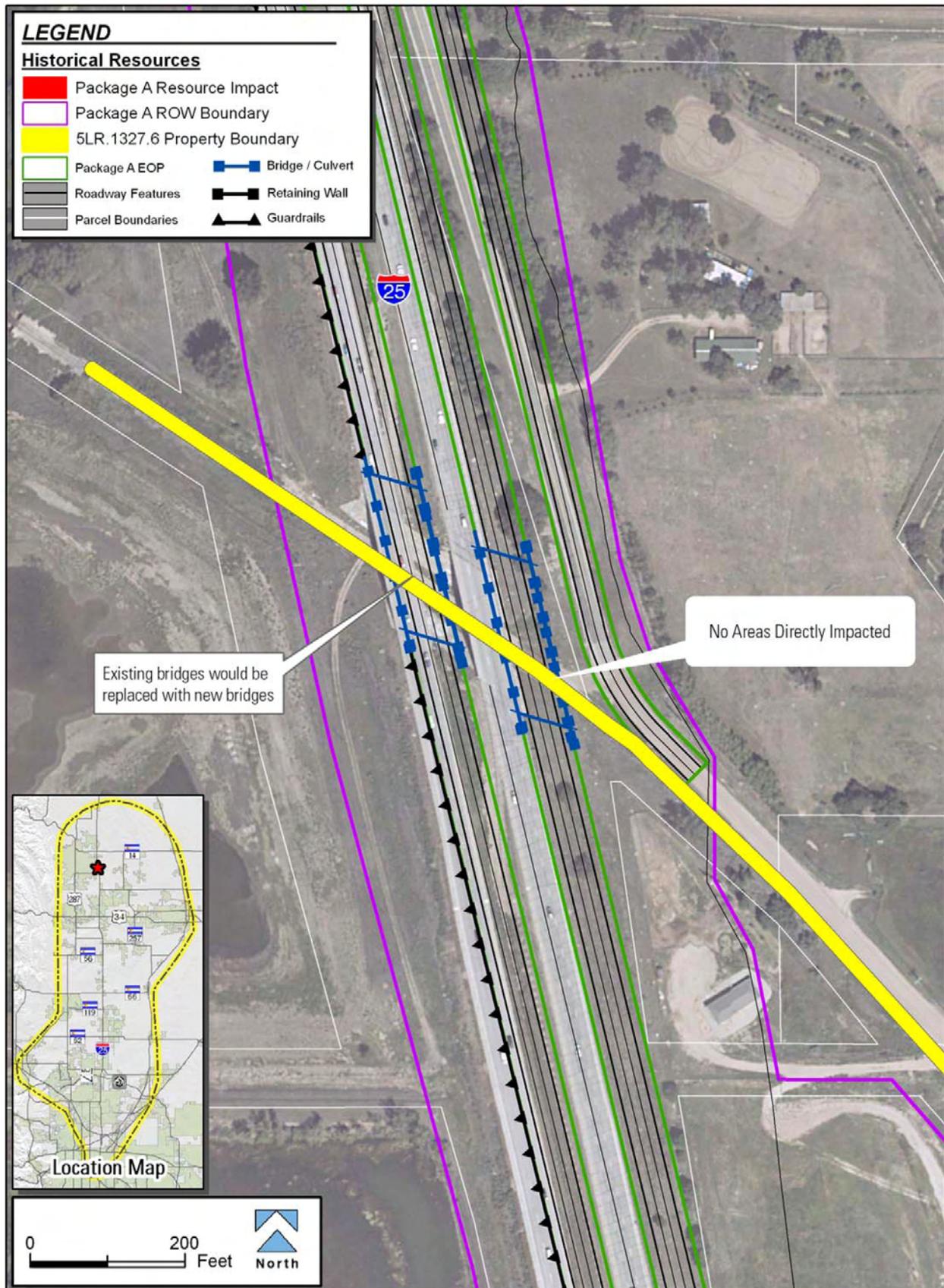
12 The alignment and operation of the railroad would not be changed. The entire widened I-25
13 roadway would continue to be carried over the historic railway on top of the new bridge
14 structures. The new bridges would be supported by piers placed outside the historic rail
15 corridor boundary (railroad right-of-way) resulting in no direct impacts to the historic railway.

16 The widened bridges would increase the amount of railway located underneath the bridge
17 deck. This increased overhead cover due to a wider bridge deck would be an indirect effect to
18 the historic setting of the railway; but would not alter the property's historic function or
19 alignment, nor diminish the character or attributes that render the railway NRHP-eligible.
20 Construction access across the railway property may be required for installation of new bridge
21 piers. This temporary direct impact would not diminish qualities that render the railway NRHP-
22 eligible.

23 The proposed transportation improvements associated with Package B would not substantially
24 diminish or alter characteristics that render the property eligible for the NRHP.

25 **Impacts to Segment 5LR.1327.6 – Package A:** Presently, I-25 is bridged over the historic
26 rail line via two 172-foot long, 3-span welded girder and concrete bridges for northbound (B-
27 17-BC) and southbound lanes (B-17-BD). The existing northbound bridge is 44 feet wide and
28 the existing southbound bridge is 38 feet wide. Under Package A, the I-25 template would be
29 widened approximately 60 feet on the east side of the existing highway to provide space for
30 the overall expansion of the highway footprint to accommodate three general purpose lanes in
31 each direction. The expanded I-25 section would require replacement of the old bridges with
32 new, larger bridge structures to span the rail line. The southbound bridge (B-17-BD) would be
33 demolished and replaced in approximately the same position. Bridge structure B-17-BC would
34 be demolished and the new northbound bridge would be constructed approximately 30 feet
35 east of that location. The northbound bridge would be 208 feet long and 63 feet wide, and the
36 southbound bridge would be 218 feet long and 63 feet wide. The alignment and operation of
37 the railroad would not be changed, and the new bridge piers would be placed outside the
38 historic rail corridor boundary. The frontage road would be widened approximately 12 feet to
39 improve paved shoulder width. Where the frontage road crosses the railway, no changes to
40 the road width or alignment are planned. Package A would result in no direct impacts to this
41 resource (see **Figure 3.15-8**).

1 Figure 3.15-8 5LR.1327.6 (Colorado & Southern Railroad) – Package A
2



1 The larger bridges would increase the amount of railway located underneath the bridge deck
2 by approximately 44 feet. This increased overhead cover would constitute an indirect effect to
3 the historic setting of the railway, however; because the existing setting includes the modern
4 highway and bridge spans, Package A improvements would not substantially impair the
5 function, alignment, character, or other attributes that render the railway NRHP-eligible.

6 Installation of the new bridge piers and decking structures would likely require a temporary
7 construction easement on a small portion of the historic property for equipment access and
8 minor construction activities. The railway would remain operational and would be protected
9 from all encroachment by construction. All disturbances caused by construction equipment or
10 construction activities would be temporary in nature and any affected areas would be restored
11 to their original condition and appearance.

12 No direct impact to the resource would occur as a result of these improvements. Indirect
13 effects to the railway would not substantially diminish the function, alignment, attributes, or
14 setting that contribute to the historic integrity and render the canal NRHP-eligible.

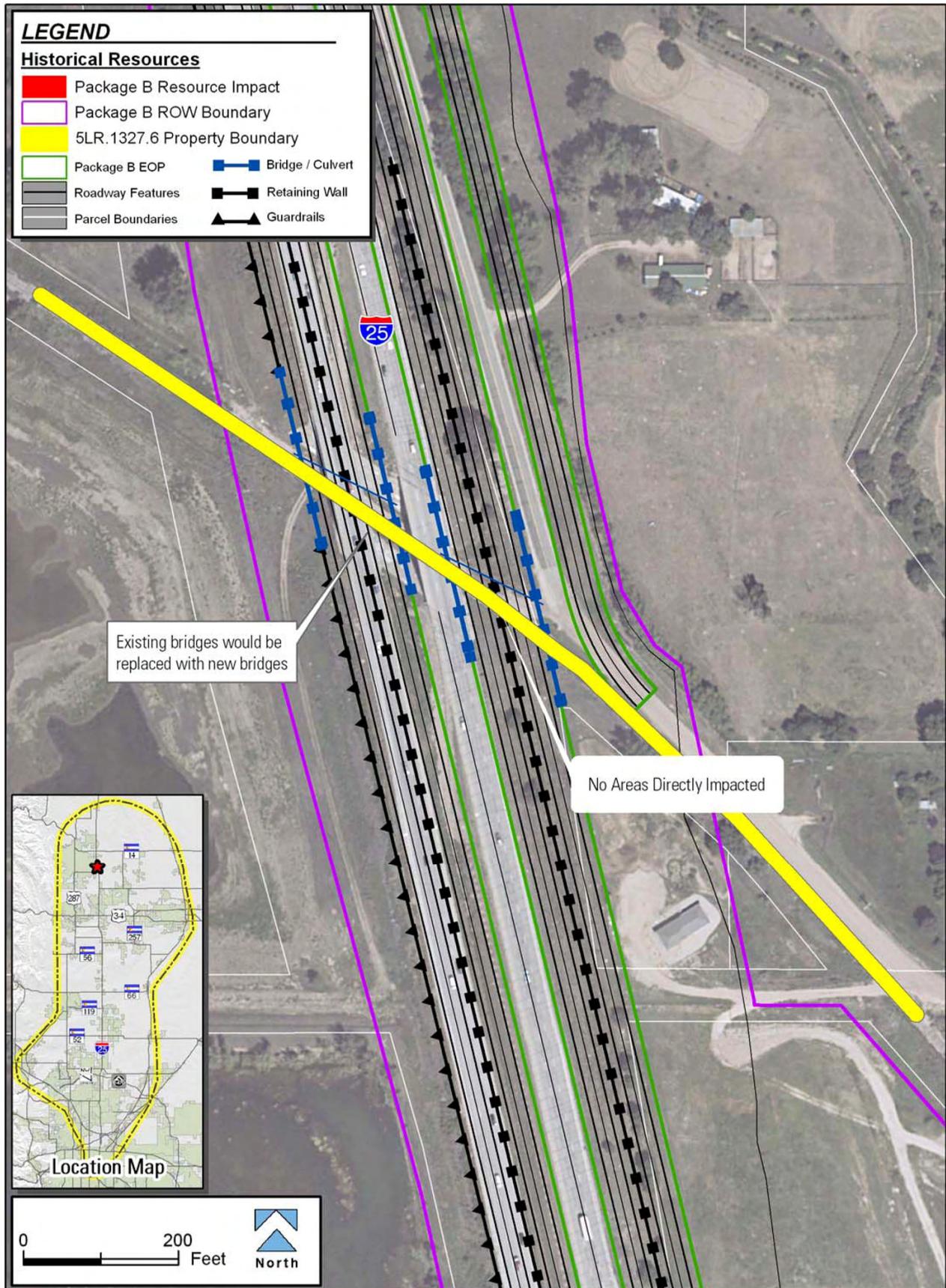
15 **Impacts to segment 5LR.1327.6—Package B:** Under Package B, the I-25 template would
16 be widened nearly 100 feet to the east and approximately 12 feet to the west to accommodate
17 an 8-lane highway template made up of two general purpose lanes and two barrier-separated
18 managed lanes in each direction. The existing bridges spanning the historic rail line would be
19 replaced by new, longer bridge structures to carry 4-lanes in each direction. The northbound
20 bridge would be 201 feet long, and the southbound bridge would be 183 feet long. Although
21 the dimensions of the Package B bridge replacements and highway widening are larger, the
22 effect to the railroad is the same as described under Package A. The alignment and operation
23 of the railroad would not be changed, and the new bridge piers would be placed outside the
24 historic rail corridor. No direct impacts would occur to the resource (see **Figure 3.15-9**).

25 The larger bridges would increase the amount of railway located underneath the bridge deck
26 by approximately 80 feet. This increased overhead cover would constitute an indirect effect to
27 the historic setting of the railway, however; because the existing setting includes the modern
28 highway and bridge spans, Package B improvements would not substantially impair the
29 function, alignment, character, or attributes that render the railway NRHP-eligible.

30 Installation of the new bridge piers and decking structures would likely require temporary use
31 of a small portion of the historic property for equipment access and minor construction
32 activities. The railway would remain operational and would be protected from all encroachment
33 by construction. All disturbances caused by construction equipment or construction activities
34 would be temporary in nature and affected areas would be restored to their original condition
35 and appearance.

36 The proposed transportation improvements associated with Package B would not substantially
37 diminish or alter characteristics that render the property eligible for the NRHP.

1 Figure 3.15-9 5LR.1327.6 (Colorado & Southern Railroad) – Package B
2

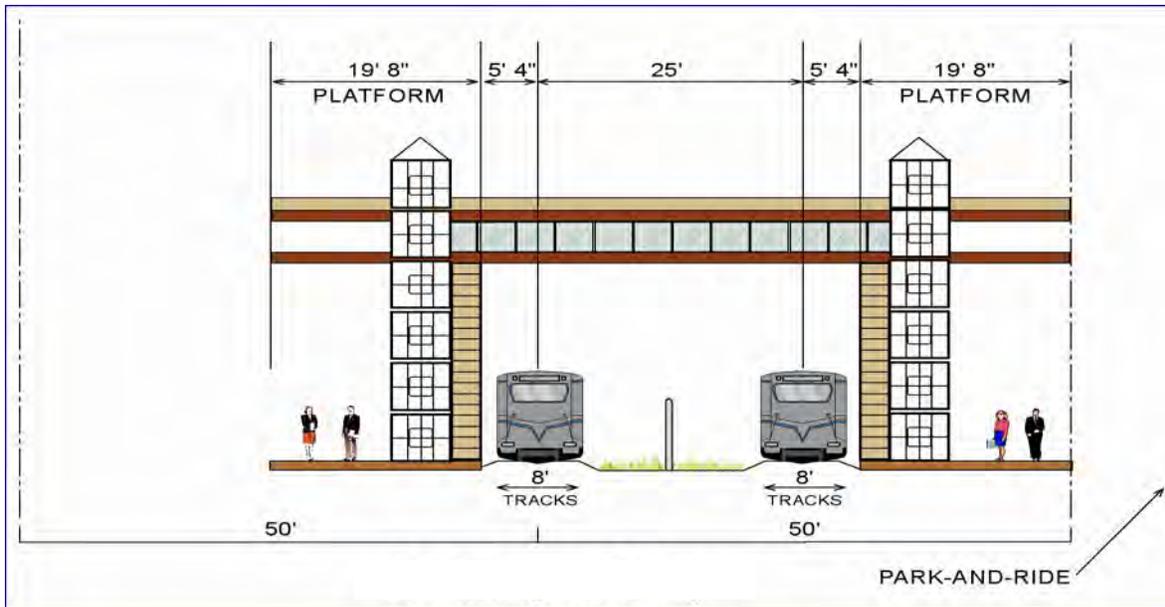


1 **Impacts to segment 5LR.1731.1—Package A:** Commuter rail transit stations would be
2 developed at five locations along this historic rail line in the cities of Fort Collins and Loveland.
3 These stations would include new station platforms of concrete flatwork at track level,
4 American with Disabilities (ADA) compliant high-blocks (short raised platforms for wheelchair
5 access to trains), various minor station amenities (trash cans, benches, etc), and pedestrian
6 overpasses/underpasses (see **Figure 3.15-10**).
7

8 **Figure 3.15-10 Typical Commuter Rail Station Design and Cross Section**



9



1 The historic resource is comprised of the ballast, bed and track. In all of the station locations
2 the existing rail line would remain in its current (historic) alignment, and thus no direct impacts
3 would occur.

4 Wooden and iron/steel pedestrian train crossing bridges were common elements of major
5 railroad stations of the early Front Range railways. Pedestrian bridges and ADA components,
6 building layout, and parking facilities proposed under Package A would, however, introduce a
7 modern design element into the historic setting. Modern station infrastructure would be
8 considered an indirect effect to the historic setting of the railway; however, it is not expected to
9 substantially harm the function, alignment, character, or other attributes that render the railway
10 NRHP-eligible. Because there is no direct impact associated with this property, a figure is not
11 provided.

12 **Impacts Segment 5LR.1731.1 — Package A:** The Package A commuter rail would be located
13 east of the existing spur line and would not directly or indirectly affect the switching or track of
14 the spur. There would be no change in the current configuration of the railroad spur or trestle
15 bridge crossing due to commuter rail improvements in Package A. Because there is no direct
16 impact associated with this property, a figure is not provided.

17 **Impacts to segment 5BL.400.3 — Package A:** Commuter rail facilities would be developed at
18 several locations along this historic rail line in the Longmont vicinity. In all cases the existing rail
19 line would remain in its current, historic alignment. No direct impacts to the historic railroad
20 ballast, bed and track would occur. The installation of an adjacent set of tracks supporting the
21 new commuter rail line would indirectly affect the historic setting of the historic railroad line, but
22 would not substantially harm the function, alignment, character, or other attributes that render
23 the railroad NRHP-eligible. Because there is no direct impact associated with this property, a
24 figure is not provided.

25 **Summary Effect Determination:**

26 **Package A:** No direct impacts would occur at any segment locality. Temporary construction
27 impacts and indirect effects due to expanded overhead coverage by the highway bridges at
28 localities along the corridor would affect two segments of the railroad (5LR.1731.2 and
29 5LR.1327.6). Commuter rail stations and new track along the transportation corridor would
30 contribute to new, but visually compatible rail infrastructural elements to the historic setting of
31 two other segments (5LR.1731.1 and 5LBL.400.3). Taking all of these indirect impacts at
32 specific localities into account, the proposed transportation improvements associated with
33 Package A would not substantially diminish or alter characteristics that render the entire linear
34 resource eligible for the NRHP. FHWA, FTA and CDOT therefore have determined that the
35 Package A transit improvements would result in a *no adverse effect* with respect to the entire
36 linear resource (the C&S Railroad in Larimer and Boulder counties/ 5LR.1731, 5LR.1327, and
37 5BL.400).

38 **Package B:** No direct impacts would occur at any segment locality. Temporary construction
39 impacts and indirect effects due to expanded overhead coverage by the highway bridges at
40 localities along the corridor would affect two segments of the railroad, 5LR.1731.2 and
41 5LR.1327.6). Taking these indirect impacts into account, the proposed transportation
42 improvements associated with Package B would not substantially diminish or alter characteristics
43 that render the property eligible for the NRHP. FHWA, FTA and CDOT therefore have
44 determined that the Package B transit improvements would result in *no adverse effect* with
45 respect to the entire linear resource (the C&S Railroad in Larimer and Boulder counties/
46 5LR.1731, 5LR.1327, and 5BL.400).

1 SH 14 to SH 60

2 **5LR.11393 (Rudolph Farm)**

3 **Resource Description:** The Rudolph Farm is located at 1028-1100 Southeast Frontage
4 Road on the east side of I-25, a short distance south of the existing SH 14 interchange. The
5 property is associated with the Rudolph family who acquired this land in 1915. The homestead
6 contains an intact historic farm house constructed in 1923, and several agricultural
7 outbuildings.

8 **Eligibility Determination:** The Rudolph Farm contains well-preserved examples of
9 agricultural architecture in Larimer County, and retains its historic agricultural setting. The farm
10 structures were built during the period of significance for agriculture in Larimer County (1880s-
11 1940s), and exhibit very good integrity. The property is therefore eligible for the NRHP under
12 Criterion C.

13 **Effect Determination – Package A:** Currently, the closest farm building is located
14 approximately 57 feet from the edge of the frontage road and 103 feet from the edge of I-25.
15 Under Package A, I-25 would be widened to accommodate three general purpose lanes in
16 each direction for a total of six traffic lanes.

17 Package A roadway modifications would cause the frontage road to be replaced by new I-25
18 highway lanes. To maintain the existing I-25 elevation in this area, the new highway lanes
19 would be slightly elevated from the frontage road elevation. The resulting fill slope needed to
20 elevate this portion of the roadway would extend 28.5 feet away from the edge of the roadway
21 into the western edge of the historic property boundary. Of this encroachment, only a 2.5-foot
22 wide strip, 1247 feet long, would actually involve property owned by Rudolph Farm. The
23 remainder is existing CDOT right-of-way. The closest farm building would be approximately 70
24 feet from the edge of I-25. The fill slope would result in a re-grading of the existing terrain with
25 no change in ownership or farm use. The directly impacted 2.5-foot (0.14 acre) strip of
26 Rudolph Farm land would remain available for use by the farm in the future (see **Figure**
27 **3.15-11**).

28 The east frontage road, which currently provides access to the historic farmhouse from SH 14
29 on the north, and from Prospect Street on the south, would be removed. Under Package A,
30 primary access to the Rudolph Farm property would be provided from the north end of the
31 property, connecting an existing unpaved curvilinear driveway from an unpaved east-west
32 farm road directly to SH 14. This new connecting road leading to the existing entry at the north
33 end of the Rudolph Farm would result in direct impacts from conversion of approximately 0.13
34 acre of farm land (including part of the original farm road) to re-orient the northern access
35 driveway.

36 The total direct impacts would constitute 0.27 acre, which is less than one percent of the
37 111.42-acre farm.

38 The changes proposed under Package A should not alter the visual or auditory setting
39 substantially. Moving I-25 33 feet closer to the farm buildings would result in a one to two
40 decibel noise increase, but continuous background traffic noise from I-25 is already present
41 and noise levels would not increase perceptibility. The historic setting of the Rudolph Farm
42 was altered by construction of I-25 and the frontage road in the 1960s. The changes resulting
43 from Package A including removal of the existing non-historic frontage road and expanding the
44 I-25 pavement along the farm's west side are not expected to diminish the qualities that render
45 the farm historic.

1 Removal of the east frontage road, widening of the I-25 mainline, creation of a new connection
2 to the farm's existing north side driveway, and temporary construction impacts along the farm's
3 west edge would not diminish or alter architectural or setting characteristics that render the
4 property eligible for the NRHP. FHWA, FTA and CDOT therefore have determined that
5 Package A would result in *no adverse effect* to the resource.

6 **Effect Determination – Package B:** Under Package B, I-25 would be widened, changing it
7 from the existing configuration of two northbound and two southbound traffic lanes, to a new
8 section containing a total of eight lanes: two managed lanes plus two general purpose lanes in
9 each direction. Although more lanes would be constructed, they would fit within the existing
10 CDOT right-of-way. I-25 widening would eliminate the existing frontage road located along the
11 east side of I-25. The closest farm building would be 57 feet from the edge of the new I-25
12 lanes.

13 Impacts under Package B would be roughly similar in nature and extent to Package A, with the
14 exception that a wider, 36-foot wide strip of land would experience direct temporary impacts
15 along the farm property's west edge. Of this strip of land, the eastern 10 feet width or 0.27
16 acres is actually within the legal farm parcel boundary and the remaining 26 feet between the
17 legal boundary and the frontage road edge is CDOT right-of-way, all located inside the historic
18 farm boundary. This new fill slope would produce direct impacts to approximately 0.27 acre of
19 the historic farm property. The fill slope would result in a re-grading of the existing terrain with
20 no change in ownership or farm use. The directly impacted strip of Rudolph Farm land would
21 remain available for use by the farm in the future (see **Figure 3.15-12**).

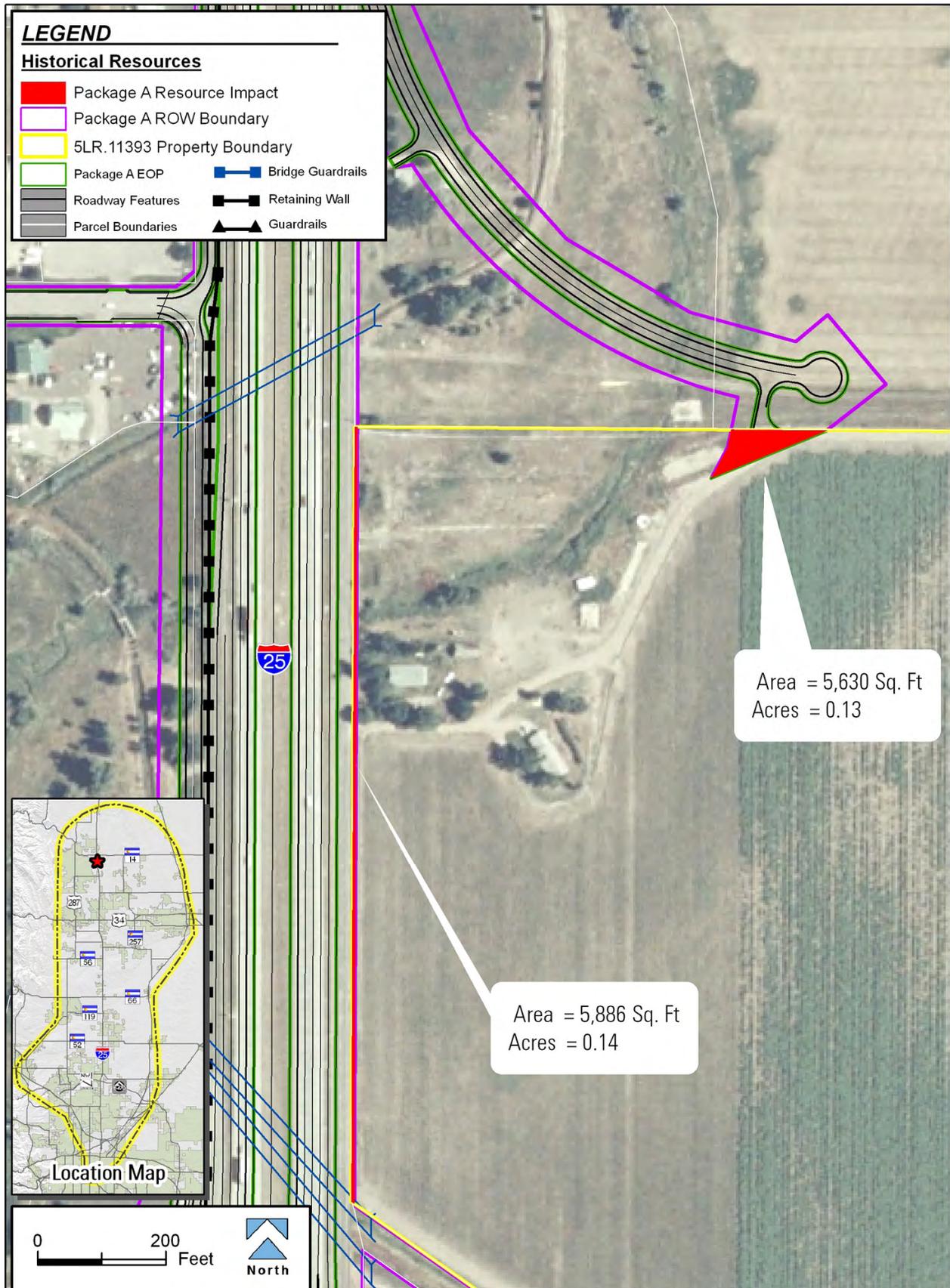
22 As was the case under Package A, an additional 0.13 acre of land including part of the existing
23 north driveway would be subject to direct impacts, in order to construct a new access from the
24 interchange to the farm driveway (see **Figure 3.15-12**).

25 The total direct impacts would be 0.40 acre, which is slightly greater than the area directly
26 impacted under Package A but still comprises less than one percent of the 111.42-acre farm.

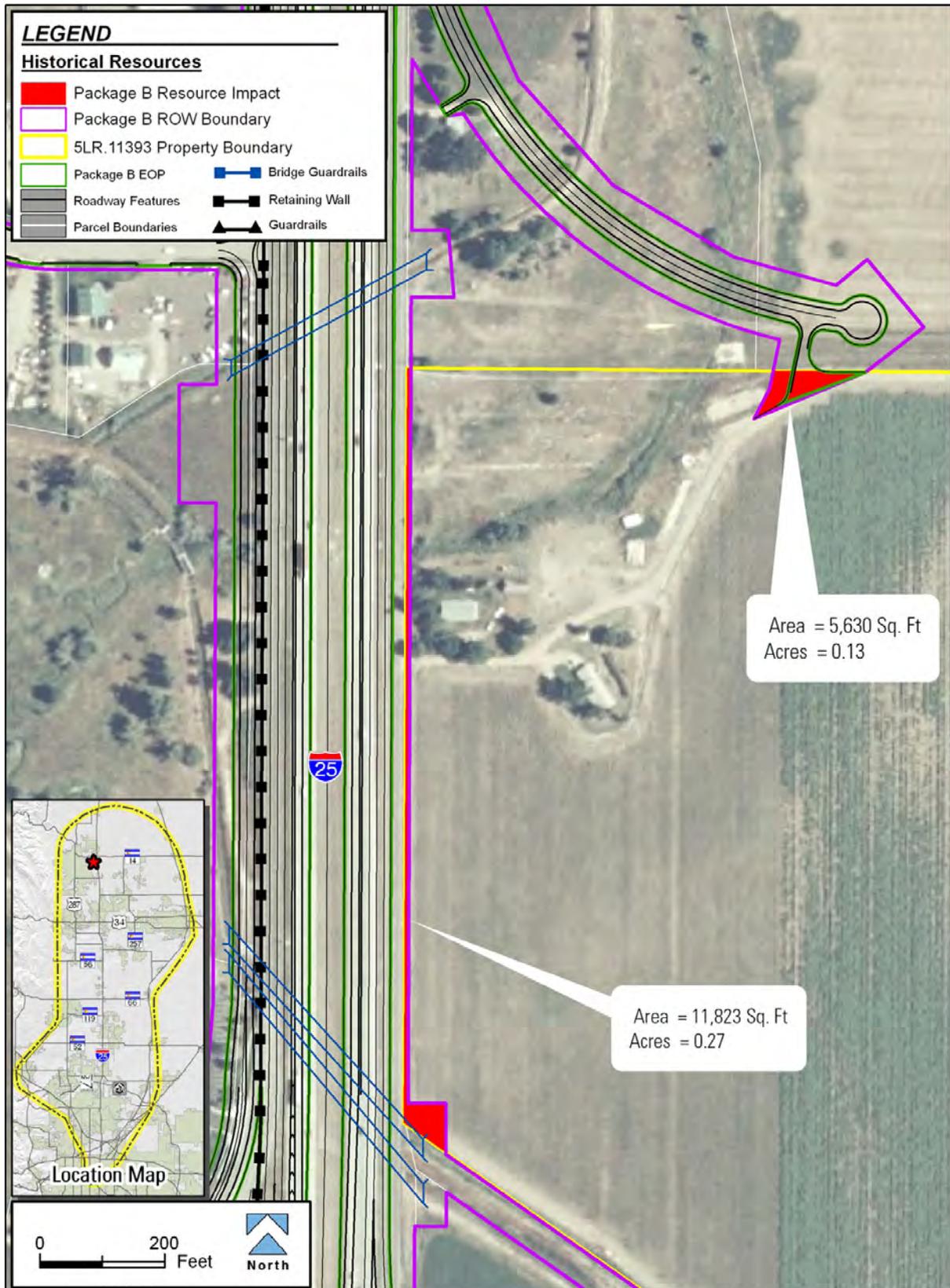
27 The changes proposed under Package B should not alter the visual or auditory setting
28 substantially. Moving I-25 46 feet closer to the farm buildings would result in a one to two
29 decibel noise increase, but continuous background noise from I-25 is already present. The
30 changes resulting from Package B including removal of the existing non-historic frontage road
31 and expanding the I-25 pavement along the farm's west side are not expected to diminish the
32 qualities that render the farm NRHP-eligible.

33 The direct impacts caused by proposed transportation improvements and indirect effects from
34 temporary construction impacts associated with Package B would not substantially diminish or
35 alter architectural or setting characteristics that render the property eligible for the NRHP.
36 FHWA, FTA and CDOT therefore have determined that Package B would result in *no adverse*
37 *effect* to the resource.

1 Figure 3.15-11 5LR.11393 (Rudolph Farm) – Package A



1 Figure 3.15-12 5LR.11393 (Rudolph Farm) – Package B



1 **5LR.11409.1 (Cache la Poudre Reservoir Inlet):**

2 **Resource Description:** The entire inlet ditch was built as part of a larger irrigation system
3 developed in 1892. The ditch is 10 miles long ending at Cache la Poudre Reservoir. The ditch
4 crosses I-25 approximately 1,400 feet north of Prospect Rd. The ditch crosses I-25 at a drop
5 box running east under I-25, and continues southeast terminating at a point where the ditch
6 parallels Prospect Rd. This well maintained segment is 3,750 feet long, 36 feet wide, and 10
7 feet deep. The ditch segment is concrete lined and contains a modern drop box, control house
8 and complex system of gated box culverts that are interactive with Lake Canal. The ditch
9 traverses cultivated fields, and is sporadically lined with riparian habitat of shrubs, willows and
10 cottonwoods.

11 **Eligibility Determination:** The entire feature (5LR.11409) is eligible under A and C, but this
12 segment (5LR.11409.1) is non-supporting. The Cache la Poudre Reservoir Inlet is eligible
13 under A for its associated with period of intensive development of successful agriculture. The
14 inlet ditch is significant as part of engineered water storage and delivery system associated
15 with corporate irrigation projects in Colorado prior to the sugar beet industry. This segment is
16 non-supporting due to modifications including piping under I-25 and other improvements.

17 **Effects Determination—Package A:** Package A would require an extended culvert at STA
18 4050. A 75 foot long extension of double CBC farther east of the existing culvert outflow and
19 a 10 foot long extension west of the intake at the same double CBC would be needed to carry
20 the widening of west frontage road shoulders and the widened Prospect Road interchange
21 northbound I-25 on-ramp (see **Figure 3.15-13**).

22 Because the qualities that make the entire resource NRHP-eligible have already been
23 compromised by modifications associated with construction of the I-25 ramps and frontage
24 road and Package A improvements are minor in relative extent, FHWA, FTA and CDOT,
25 therefore, have determined that Package A would result in *no adverse effect* to the Cache la
26 Poudre Reservoir Inlet.

27 **Effects Determination—Package B:** Package B would require an extended culvert at STA
28 4050. A 75 foot long extension of double CBC farther east of the existing culvert outflow and
29 a 10 foot long extension west of the intake at the same double CBC would be needed to carry
30 the widening of west frontage road shoulders and the widened Prospect Road interchange
31 northbound I-25 on-ramp (see **Figure 3.15-13**).

32 Because the qualities that make the entire resource NRHP-eligible have already been
33 compromised by modifications associated with construction of the I-25 ramps and frontage
34 road and Package B improvements are minor in relative extent, FHWA, FTA and CDOT
35 therefore, have determined that Package B would result in *no adverse effect* to the Cache la
36 Poudre Reservoir Inlet.

1 **5LR.995.4 (Lake Canal)**
2

3 **Resource Description:** The canal crosses the I-25 corridor south of SH 14. The segment is
4 unlined, 4,116 feet long, 20 feet wide, and 10 feet deep. It spans Boxelder Creek via an
5 elevated flume and parallels the west side of I-25 for 654 feet before intersecting the Cache la
6 Poudre Inlet (5LR.11409.1), passing over it through a gated concrete flume. A short distance
7 farther south, the canal passes under I-25 in a concrete culvert, its waters mingled with the
8 Cache la Poudre Reservoir Inlet (5LR.11409.1).
9

10 **Eligibility Determination:** The entire ditch (5LR.995) was assessed as ineligible in 1983.
11 This segment is non-supporting due to modifications including piping under I-25 and other
12 improvements.
13

14 **Effects Determination—Package A:** Impacts to the Lake Canal are the same as the Cache
15 la Poudre Reservoir Inlet. Package A would require an extended culvert, 75 foot long east
16 extension of double CBC and a 10 foot long extension west at the same double CBC intake
17 resulting in a total new culvert length of 460 feet (see **Figure 3.15-13**).
18

19 **Effects Determination—Package B:** Impacts to the Lake Canal are the same as the Cache
20 la Poudre Reservoir Inlet. Package B would require an extended culvert, 75 foot long east
21 extension of double CBC and a 10 foot long extension west at the same double CBC intake
22 resulting in a total new culvert length of 460 feet (see **Figure 3.15-13**).

1 Figure 3.15-13 5LR.11409.1 (Cache la Poudre Reservoir Inlet) and 5LR.995.4 (Lake
2 Canal) – Packages A and B

