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Mack H. Shumate, Jr.
Senior General Attorney, Law Department

238626

June 12, 2015

ENTERED
Office of Proceedings
June 12, 2015
Part of
Public Record

VIA E-FILE

The Honorable Cynthia T. Brown
Chief, Section of Administration
Surface Transportation Board
395 E. Street, S.W., Room #100
Washington, DC 20423-0001

RE: Proposed Abandonment of UP's Freight Operating Easement and Discontinuance of Service on the portion of the Boulder Industrial Lead from Milepost 0.70 near Commerce City to Milepost 9.27 near Eastlake, a total distance of 8.57 miles all in Adams County, Colorado; STB Docket No. AB-33 (Sub-No. 323X)

Dear Ms. Brown:

Attached for filing in the above-referenced docket is the Combined Environmental and Historic Report prepared pursuant to 49 C.F.R. §1105.7 and §1105.8, with a Certificate of Service, and a transmittal letter pursuant to 49 C.F.R. §1105.11.

Union Pacific anticipates filing a Petition for Exemption to Abandon the Line in this matter on or after July 2, 2015.

Yours very truly,



Mack H. Shumate, Jr.

2015_06_12 STB-EHR Filing Cover Ltr.doc



**BEFORE THE
SURFACE TRANSPORTATION BOARD**

**Docket No. AB-33 (Sub-No. 323X)
UNION PACIFIC RAILROAD COMPANY
-- ABANDONMENT EXEMPTION --
IN ADAMS COUNTY, CO
(BOULDER INDUSTRIAL LEAD)**

Combined Environmental and Historic Report

UNION PACIFIC RAILROAD COMPANY
Mack H. Shumate, Jr.
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101 North Wacker Drive, #1920
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mackshumate@up.com

Dated: June 12, 2015
Filed: June 12, 2015

BEFORE THE
SURFACE TRANSPORTATION BOARD

Docket No. AB-33 (Sub-No. 323X)
UNION PACIFIC RAILROAD COMPANY
-- ABANDONMENT EXEMPTION --
IN ADAMS COUNTY, CO
(BOULDER INDUSTRIAL LEAD)

Combined Environmental and Historic Report

Union Pacific Railroad Company ("UP") submits this Combined Environmental and Historic Report ("CEHR") pursuant to 49 C.F.R. §1105.7(e) and 49 C.F.R. §1105.8(d), respectively, for an exempt abandonment of UP's freight operating easement in the portion of the Boulder Industrial Lead from Milepost 0.70 near Commerce City to Milepost 9.27 near Eastlake, a total distance of 8.57 miles in Adams, County, Colorado (the "Line"). Since the Line is owned by the Regional Transit District (RTD) and UP's interest in the Line is a freight easement only, UP will not be conducting any salvage activities in connection with this abandonment. RTD will be converting the Line to public transit use, and has completed an Environmental Impact Statement in connection with that project (see **Attachment No. 4**). The Line traverses U.S. Postal Service Zip Codes 80022, 80640, 80229, 80233, and 80241. UP anticipates that it will file a Petition for Exemption to abandon the Line on or after May 22, 2015.

A map of the Line (**Attachment No. 1**), UP's letter to federal, state and local government agencies (**Attachment No. 2**), and RTD's Environmental Impact Statement are attached to this CEHR and are hereby made a part hereof. Only one response has been received thus far to UP's letters concerning this proposed abandonment. The

National Geodetic Survey has determined that 2 geodetic survey marks maybe located in the area. In that no salvage activities will take place, the marks will not be disturbed.

(See **Attachment No. 3**)

ENVIRONMENTAL REPORT
49 C.F.R. §1105.7(e)

(1) Proposed action and alternatives. Describe the proposed action, including commodities transported, the planned disposition (if any) of any rail line and other structures that may be involved, and any possible changes in current operations or maintenance practices. Also describe any reasonable alternatives to the proposed action. Include a readable, detailed map and drawings clearly delineating the project.

Response: The proposed action involves an exempt abandonment of UP's retained freight operating easement in the Line which is a portion of the Boulder Industrial Lead. The entire Boulder Industrial Lead, right-of-way, trackage, spurs and structures, including all bridges, was sold by UP to RTD in June of 2009. RTD assumed no common carrier obligation with regard to the Line through its purchase. UP retained a common carrier freight operating easement over the entire Line. The Line proposed for abandonment extends from Milepost 0.70 near Commerce City to the end of the Line at Milepost 9.27 near Eastlake, a total distance of 8.57 miles in Adams County, Colorado. A map of the Line is attached hereto as **Attachment No. 1**.

The Line was built in 1909 by the Union Pacific Railroad Company. The Line is constructed primarily with second-hand 100-pound second-hand jointed rail put down in 1942.

After consummation by UP of the proposed abandonment of the Line, RTD will continue to be the owner of the entire Boulder Industrial Lead, including all right-of-way, trackage, spurs, and structures, including all bridges.

In that the Boulder Industrial Lead is owned by RTD, the right-of-way covered by

UP's freight operating easement on the Line proposed for abandonment is not suitable for other public purposes, including conservation, energy transmission, or recreation (hiking/biking/trail use). Whether or not the Line is suited for roads or highways will be under the RTD's control and determination.

Any relevant documentation in UP's possession concerning UP's ownership interest in the freight operating easement on the Line will be made available promptly to those requesting it.

After the proposed abandonment, UP will continue to provide Rail service from the Greeley Subdivision which connects with the remaining portion of the Boulder Industrial Lead at MP 0.0. Rail service is also available from the BNSF's Brush Subdivision at Commerce City which is also near UP's MP 0.0 on the Boulder Industrial Lead, as well as from various Short Lines and industrial tracks in the greater Denver area.

The area is well served by various highways and local roads. The Line is on a north to south alignment with Interstate-25 lying parallel to the Line about 2 miles to the West, and Interstate-76 crossing the Line near MP 1.5, and with eight other major thoroughfares crossing the Line at various points.

The last remaining shipper on the Line signed a transload agreement with RTD, and switched to truck for its freight transportation needs as of January 31, 2015, removing the need for continued rail service. There is no overhead traffic or passenger service on the Line. No complaint regarding cessation of service has been filed, is pending, or has been ruled upon in favor of a complainant during the past two years.

(2) Transportation System. Describe the effects of the proposed action on regional or local transportation systems and patterns. Estimate the amount of traffic (passenger

or freight) that will be diverted to other transportation systems or modes as a result of the proposed action.

Response: Given that no rail traffic uses the Line, the proposed abandonment will have no impact on area transportation systems and patterns.

(3) Land Use.

- (i) Based on consultation with local and/or regional planning agencies and/or a review of the official planning documents prepared by such agencies, state whether the proposed action is consistent with existing land use plans. Describe any inconsistencies.
- (ii) Based on consultation with the U.S. Soil Conservation Service, state the effect of the proposed action on any prime agricultural land.
- (iii) If the action affects land or water uses within a designated coastal zone, include the coastal zone information required by 49 C.F.R. §1105.9.
- (iv) If the proposed action is an abandonment, state whether or not the right-of-way is suitable for alternative public use under 49 U.S.C. §10905 and explain why.

Response:

- (i) In that no salvage of the Boulder Industrial Lead nor any structures or bridges thereon is contemplated, UP is unaware of any adverse effects on local and existing land use plans. RTD's plans for the upgrading of certain bridges are covered in the Environmental Impact Statement for that project. The Boulder County Administrator for Boulder County, Colorado has been contacted. To date, UP has not received a response.
- (ii) The Natural Resources Conservation Service ("NRCS") has been contacted. To date, UP has not received a response.
- (iii) Not Applicable.
- (iv) The right-of-way proposed for abandonment is not suitable under current

planned use by the RTD for other purposes, including conservation, energy transmission, or recreation.

(4) Energy.

- (i) Describe the effect of the proposed action on transportation of energy resources.
- (ii) Describe the effect of the proposed action on recyclable commodities.
- (iii) State whether the proposed action will result in an increase or decrease in overall energy efficiency and explain why.
- (iv) If the proposed action will cause diversions from rail to motor carriage of more than:
 - (A) 1,000 rail carloads a year, or
 - (B) an average of 50 rail carloads per mile per year for any part of the affected line, quantify the resulting net change in energy consumption and show the data and methodology used to arrive at the figure given.

Response:

- (i) There are no effects on the transportation of energy resources.
- (ii) There are no recyclable commodities moved over the Line.
- (iii) There will be no change in energy consumption resulting from the proposed action.
- (iv)(A)(B) UP does not anticipate that there will be any rail-to-motor diversion.

(5) Air.

- (i) If the proposed action will result in either:
 - (A) an increase in rail traffic of at least 100% (measured in gross ton miles annually) or an increase of at least eight trains a day on any segment of rail line affected by the proposal, or
 - (B) an increase in rail yard activity of at least 100% (measured by carload activity), or

- (C) an average increase in truck traffic of more than 10% of the average daily traffic or 50 vehicles a day on any affected road segment, quantify the anticipated effect on air emissions. For a proposal under 49 U.S.C. §10901 (or §10505) to construct a new line or reinstitute service over a previously abandoned line, only the eight train a day provision in subsection (5)(i)(A) will apply.

Response: UP does not anticipate any such effects.

(5) Air.

- (ii) If the proposed action affects a class 1 or nonattainment area under the Clean Air Act, and will result in either:
 - (A) an increase in rail traffic of at least 50% (measured in gross ton miles annually) or an increase of at least three trains a day on any segment of rail line, or
 - (B) an increase in rail yard activity of at least 20% (measured by carload activity), or
 - (C) an average increase in truck traffic of more than 10% of the average daily traffic or 50 vehicles a day on a given road segment, then state whether any expected increased emissions are within the parameters established by the State Implementation Plan. However, for a rail construction under 49 U.S.C. §10901 (or 49 U.S.C. §10505), or a case involving the reinstatement of service over a previously abandoned line, only the three train a day threshold in this item shall apply.

Response: There will be no increase in rail traffic, rail yard activity, or truck traffic as a result of the proposed action, except for utilization of a portion of the Line in conjunction with tourist train operations by or on behalf of the RTD.

(5) Air.

- (iii) If transportation of ozone depleting materials (such as nitrogen oxide and Freon) is contemplated, identify: the materials and quantity; the frequency of service; safety practices (including any speed restrictions); the applicant's safety record (to the extent available) on derailments, accidents and spills; contingency plans to deal with accidental spills; and the likelihood of an accidental release of ozone depleting materials in the event of a collision or derailment.

Response: The proposed action will not affect the transportation of ozone depleting materials.

(6) Noise. If any of the thresholds identified in item (5)(i) of this section are surpassed, state whether the proposed action will cause:

- (i) an incremental increase in noise levels of three decibels Ldn or more, or
- (ii) an increase to a noise level of 65 decibels Ldn or greater. If so, identify sensitive receptors (e.g., schools, libraries, hospitals, residences, retirement communities, and nursing homes) in the project area and quantify the noise increase for these receptors if the thresholds are surpassed.

Response: Not applicable.

(7) Safety.

- (i) Describe any effects of the proposed action on public health and safety (including vehicle delay time at railroad grade crossings).
- (ii) If hazardous materials are expected to be transported, identify: the materials and quantity; the frequency of service; whether chemicals are being transported that, if mixed, could react to form more hazardous compounds; safety practices (including any speed restrictions); the applicant's safety record (to the extent available) on derailments, accidents and hazardous spills; the contingency plans to deal with accidental spills; and the likelihood of an accidental release of hazardous materials.
- (iii) If there are any known hazardous waste sites or sites where there have been known hazardous materials spills on the right-of-way, identify the location of those sites and the types of hazardous materials involved.

Response:

- (i) The proposed action will have no detrimental effects on public health and safety.
- (ii) The proposed action will not affect the transportation of hazardous materials.
- (iii) There are no known hazardous materials waste sites or sites where

known hazardous material spills have occurred on or along the subject
Line.

(8) Biological resources.

- (i) Based on consultation with the U.S. Fish and Wildlife Service, state whether the proposed action is likely to adversely affect endangered or threatened species or areas designated as a critical habitat, and if so, describe the effects.
- (ii) State whether wildlife sanctuaries or refuges, National or State parks or forests will be affected, and describe any effects.

Response:

- (i) The U.S. Fish and Wildlife Service has been contacted. To date, UP has not received a response.
- (ii) The National Park Service has been contacted. To date, UP has not received a response.

(9) Water.

- (i) Based on consultation with State water quality officials, state whether the proposed action is consistent with applicable Federal, State or local water quality standards. Describe any inconsistencies.
- (ii) Based on consultation with the U.S. Army Corps of Engineers, state whether permits under Section 404 of the Clean Water Act (33 U.S.C. §1344) are required for the proposed action and whether any designated wetlands or 100-year flood plains will be affected. Describe the effects.
- (iii) State whether permits under Section 402 of the Clean Water Act (33 U.S.C. §1342) are required for the proposed action. (Applicants should contact the U.S. Environmental Protection Agency or the state environmental protection or equivalent agency if they are unsure whether such permits are required.)

Response:

- (i) The U. S. Environmental Protection Agency Regional Office and the Colorado Environmental Protection Agency have been contacted. To

date, UP has not received a response.

- (ii) The U. S. Army Corps of Engineers has been contacted. To date, UP has not received a response.
- (iii) UP does not anticipate that there will be any requirement for Section 402 permits.

(10) Proposed Mitigation. Describe any actions that are proposed to mitigate adverse environmental impacts, indicating why the proposed mitigation is appropriate.

Response: There are no known adverse environmental impacts.

HISTORIC REPORT
49 C.F.R. §1105.8(d)

(1) A U.S.G.S. topographic map (or an alternate map drawn to scale and sufficiently detailed to show buildings and other structures in the vicinity of the proposed action) showing the location of the proposed action, and the locations and approximate dimensions of railroad structures that are 50 years old or older and are part of the proposed action:

Response: See **Attachment No. 1.**

(2) A written description of the right-of-way (including approximate widths to the extent known), and the topography and urban and/or rural characteristics of the surrounding area:

Response: UP only has a freight operating easement on the Line. The right-of-way, track, spurs and structures, including all bridges, was sold to RTD in June of 2009.

(3) Good quality photographs (actual photographic prints, not photocopies) of railroad structures on the property that are 50 years old or older and of the immediately surrounding area:

Response: Original photographs of twelve (12) bridges 50 years old or older were sent to the Colorado Archeology and Historic Preservation Office (“SHPO”) by letter, a copy of which without photographs is attached hereto as **Attachment No. 2** (the “SHPO Letter”). In the Environmental Impact Statement produced by RTD, a copy of which is

attached hereto as **Attachment No. 4** and hereby made a part hereof, the SHPO determined that since the project include abandonment of freight operations by UP on the Line but leave all features (tracks, spurs, bridges, culverts, etc.) in place for possible future reuse by RTD, the abandonment will have no adverse effect on historic resources.

(4) The date(s) of construction of the structure(s), and the date(s) and extent of any major alterations to the extent such information is known:

Response: The bridges and their dates of construction are listed on the map, **Attachment No. 1**, and in the SHPO Letter, **Attachment No. 2**.

(5) A brief narrative history of carrier operations in the area, and an explanation of what, if any, changes are contemplated as a result of the proposed action:

Response: See the preceding pages for a brief history and description of carrier operations.

(6) A brief summary of documents in the carrier's possession, such as engineering drawings, that might be useful in documenting a structure that is found to be historic:

Response: UP bridge drawings maintained by UP's structures department are available for review if deemed necessary.

(7) An opinion (based on readily available information in the UP's possession) as to whether the site and/or structures meet the criteria for listing on the National Register of Historic Places (36 C.F.R. §60.4), and whether there is a likelihood of archeological resources or any other previously unknown historic properties in the project area, and the basis for these opinions (including any consultations with the State Historic Preservation Office, local historical societies or universities):

Response: While UP is of the opinion that there are no historic sites or structures on the Line and that any archeological sites within the scope of the right-of-way would have previously been disturbed during construction and maintenance of the Line, the Environmental Impact Statement from January 2011 indicates that the Boulder

Industrial Lead is eligible for listing on the National Register of Historic Places. (See **Attachment No. 4.**) However, in that the Line is owned by RTD and will not be salvaged, the SHPO in the same letter (see **Attachment No. 4**) determined that the abandonment will have no adverse effect on historic resources.

(8) A description (based on readily available information in the railroad's possession) of any known prior subsurface ground disturbance or fill, environmental conditions (naturally occurring or manmade) that might affect the archeological recovery of resources (such as swampy conditions or the presence of toxic wastes), and the surrounding terrain.

Response: UP does not have any such readily available information.

(9) Within 30 days of receipt of the historic report, the State Historic Preservation Officer may request the following additional information regarding specified non-railroad owned properties or groups of properties immediately adjacent to the railroad right-of-way. Photographs of specified properties that can be readily seen from the railroad right-of-way (or other public rights-of-way adjacent to the property) and a written description of any previously discovered archeological sites, identifying the locations and type of the site (i.e., prehistoric or native American):

Response: Not applicable.

Dated this 12th day of June, 2015.

Respectfully submitted,



UNION PACIFIC RAILROAD COMPANY
Mack H. Shumate, Jr.
Senior General Attorney
101 North Wacker Drive, #1920
Chicago, Illinois 60606
Tel: 312-777-2055
Fax: 877-213-4433
mackshumate@up.com

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a copy of the foregoing Combined Environmental and Historic Report in Docket No. AB-33 (Sub-No. 323X) for the Boulder Industrial Lead in Adams, Weld and Boulder Counties, Colorado was served by First Class U.S. Mail, postage prepaid, on the 12th day of June, 2015, on the following parties:

State Clearinghouse (or alternate):
Governor's Office of Budget and Planning
200 East Colfax, Room 111
Denver, CO 80203

Colorado Public Utilities Commission:
Colorado Public Utilities Commission
1580 Logan Street
Office Level 2
Denver, CO 80203

State Environmental Protection Agency:
Colorado Department of Public Health
and Environment
4300 Cherry Creek Drive South
Denver, CO 80246

Colorado State Historical Association:
Office of Archaeology and Historic
Preservation
1200 Broadway
Denver, CO 80203

**State Coastal Zone Management Agency
(if applicable):**
Not applicable

**Communications and Outreach Branch,
NOAA, N/NGS12:**
National Geodetic Survey
SS MC 3 #9202
1315 East West Hwy
Silver Springs, MD 20910

National Park Service (Regional Office):
National Park Service
12795 Alameda Parkway
Denver, CO 80225

**U.S. National Resources Conservation
Services:**
U.S. National Resources Conservation
Services
Denver Federal Center
Building 56, Room 2604
P.O. Box 25426
Denver, CO 80225

**Environmental Protection Agency
(Regional Office):**
U.S. Environmental Protection Agency
Region VIII
999 – 18th Street, Suite 500
Denver, CO 80202-2466

U.S. Fish and Wildlife:
U.S. Fish and Wildlife Service
P.O. Box 25486, DFC
Denver, CO 80221

U.S. Army Corps of Engineers:
U.S. Army Corps of Engineers
9307 South Wadsworth Blvd.
Littleton, CO 80128

Head of Each County:
Adams County Commissioners
4430 South Adams
County Parkway
Brighton, CO 80601

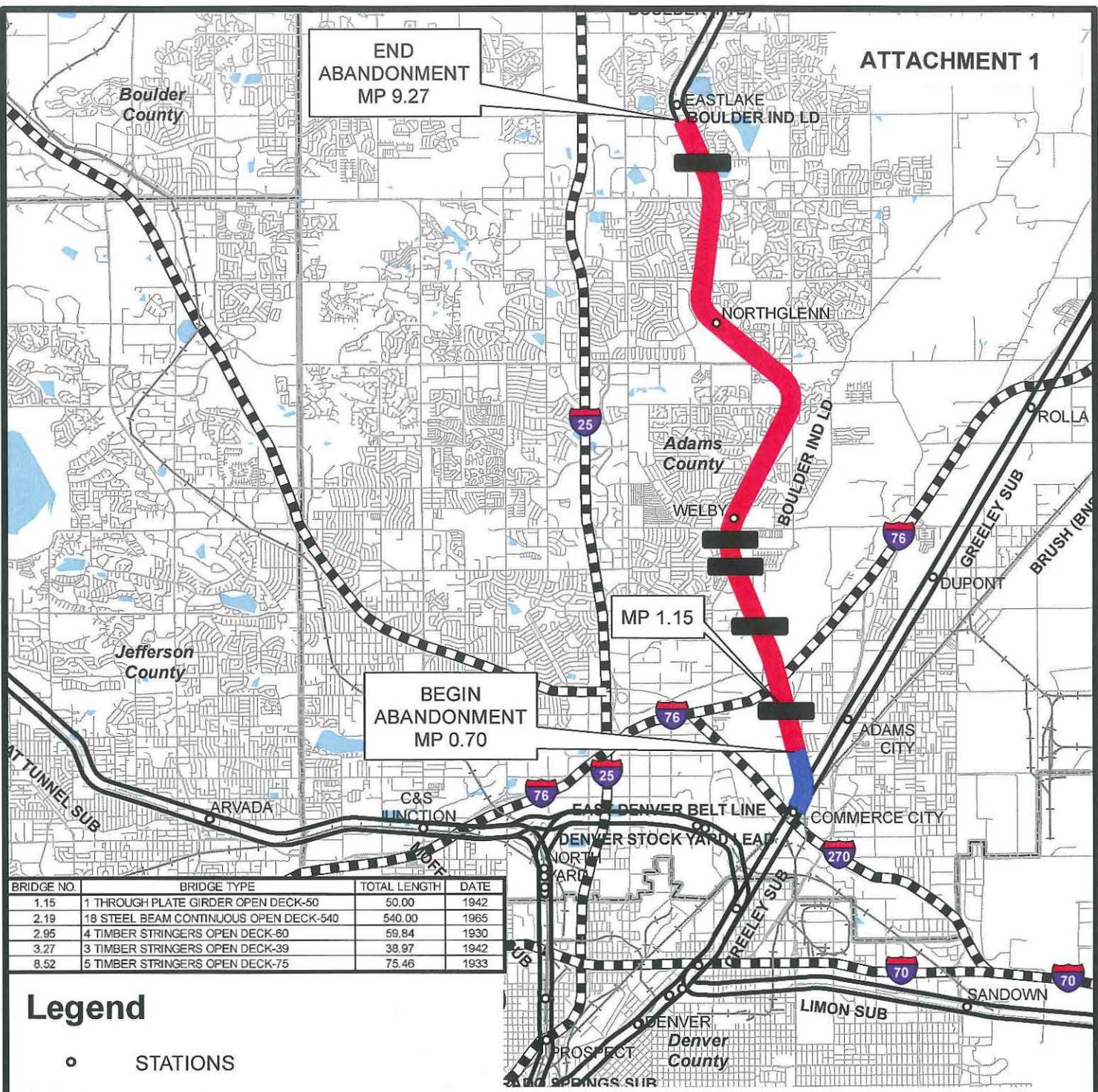
Boulder County Commissioners
1325 Pearl Street
Boulder, CO 80302

Weld County Commissioners
915 – 10th Avenue
Greeley, CO 80631

Dated this 12th day of June, 2015.



Mack H. Shumate, Jr.



END
ABANDONMENT
MP 9.27

BEGIN
ABANDONMENT
MP 0.70

MP 1.15

BRIDGE NO.	BRIDGE TYPE	TOTAL LENGTH	DATE
1.15	1 THROUGH PLATE GIRDER OPEN DECK-50	50.00	1942
2.19	18 STEEL BEAM CONTINUOUS OPEN DECK-540	540.00	1965
2.95	4 TIMBER STRINGERS OPEN DECK-60	59.84	1930
3.27	3 TIMBER STRINGERS OPEN DECK-39	38.97	1942
8.52	5 TIMBER STRINGERS OPEN DECK-75	75.46	1933

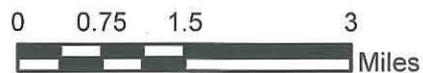
Legend

- STATIONS
- 50 + YEAR OLD STRUCTURES
- RETAINED EASEMENT
- ▬ OTHER UPRR LINES
- UP EASEMENT TO BE ABANDONED
- OTHER RAILROADS
- ▬ PRINCIPAL HIGHWAYS
- OTHER ROADS

BOULDER INDUSTRIAL LEAD

UNION PACIFIC RAILROAD CO.
MP 0.70 TO MP 9.27
8.57 MILES IN ADAMS COUNTY COLORADO

**UNION PACIFIC RAILROAD CO.
BOULDER INDUSTRIAL LEAD
COLORADO
INCLUDING STRUCTURES**





May 8, 2015

State Clearinghouse (or alternate):

Colorado Public Utilities Commission
1560 Broadway, Suite 250
Denver, CO 80202

State Environmental Protection Agency:

Colorado Department of Environmental Quality
200 W. 14th Ave., 3rd Floor
Denver, CO 80204

**State Coastal Zone Management Agency
(if applicable):**

Not applicable.

Head of County (Planning):

Adams County Planning & Development
4430 S. Adams County Pkwy.
1st Floor, Suite W2000A
Brighton, CO 80601

**Environmental Protection Agency
(regional office):**

U.S. Environmental Protection Agency
Region 8
1595 Wynkoop Street
Denver, CO 80202-1129

U.S. Fish and Wildlife:

U.S. Fish and Wildlife Service
Mountain-Prairie Region (Region 6)
P.O. Box 25486, DFC
Denver, CO 80225-0486

U.S. Army Corps of Engineers:

U.S. Army Corps of Engineers
Omaha District
9307 S. Wadsworth, Blvd.
Littleton, CO 80128

National Park Service:

National Park Service
Intermountain Regional Office
12795 Alameda Parkway
Denver, CO 80225

**USDA Natural Resources Conservation
Service:**

Natural Resources Conservation Service
Brighton Service Center
57 W. Bromley Lane
Brighton, CO 80601-3025

National Geodetic Survey:

National Geodetic Survey
Frank Maida, Chief Spatial Reference System
Division
NOAA N/NGS23
1315 E-W Highway
Silver Spring, MD 20910-3282

State Historic Preservation Office:

Colorado Preservation
1420 Ogden Street, Suite 104
Denver, CO 80218

Re: Proposed Abandonment of UP's Freight Operating Easement and Discontinuance of Service on the portion of the Boulder Industrial Lead from Milepost 0.70 near Commerce City to Milepost 9.27 near Eastlake, a total distance of 8.57 miles all in Adams County, Colorado;
STB Docket No. AB-33 (Sub-No. 323X)

To Whom It May Concern:

Union Pacific Railroad Company ("UP") plans to request authority from the Surface Transportation Board (STB) for UP to abandon its freight operating easement, and discontinue service, on that portion of the Boulder Industrial Lead from Milepost 0.70 near Commerce City to Milepost 9.27 near Eastlake, a total distance of 8.57 miles all in Adams County, Colorado. UP will continue its current operation utilizing its freight operating easement on that portion of the Boulder Industrial Lead from Milepost 0.20 to Milepost 0.70, both near Commerce City. An attached map shows the abandonment and discontinuance in red and the continuing operation in blue.



Pursuant to the STB's regulations at 49 C.F.R. Part 1152, and the environmental regulations at 40 C.F. R. Part 1105.7, this is to request your assistance in identifying any potential effects of this action as indicated in the paragraphs below. Because the proposed action is for the discontinuance of service and abandonment of a freight operating easement only, all track and structure will remain in place. We do not anticipate any adverse environmental impacts. However, if you identify any adverse environmental impacts, describe any actions that are proposed in order to mitigate the environmental impacts. Please provide us with a written response that can be included in an Environmental Report, which will be sent to the STB.

LOCAL AND/OR REGIONAL PLANNING AGENCIES. State whether the proposed action is consistent with existing land use plans. Please describe any inconsistencies.

U.S. SOIL CONSERVATION SERVICE. State the effect of the proposed action on any prime agricultural land.

U.S. FISH AND WILDLIFE SERVICE (And State Game and Parks Commission, If Addressed). State (1) whether the proposed action is likely to adversely affect endangered or threatened species or areas designated as a critical habitat, and if so, describe the effects, and (2) whether wildlife sanctuaries or refuges, National or State parks or forests will be affected, and describe any effects.

STATE WATER QUALITY OFFICIALS. State whether the proposed action is consistent with applicable Federal, State or Local water quality standards. Please describe any inconsistencies.

U.S. ARMY CORPS OF ENGINEERS. State (1) whether permits under Section 404 of the Clean Water Act (33 U.S. C. § 1344) are required for the proposed action and (2) whether any designated wetlands or 100-year flood plains will be affected. Please describe the effects.

U.S. ENVIRONMENTAL PROTECTION AGENCY AND STATE ENVIRONMENTAL PROTECTION (OR EQUIVALENT AGENCY). (1) Identify any potential effects on the surrounding area, (2) identify the location of hazardous waste sites and known hazardous material spills on the right-of-way and list the types of hazardous materials involved, and (3) state whether permits under Section 402 of the Clean Water Act (33 U.S.C. § 1342) are required for the proposed action.

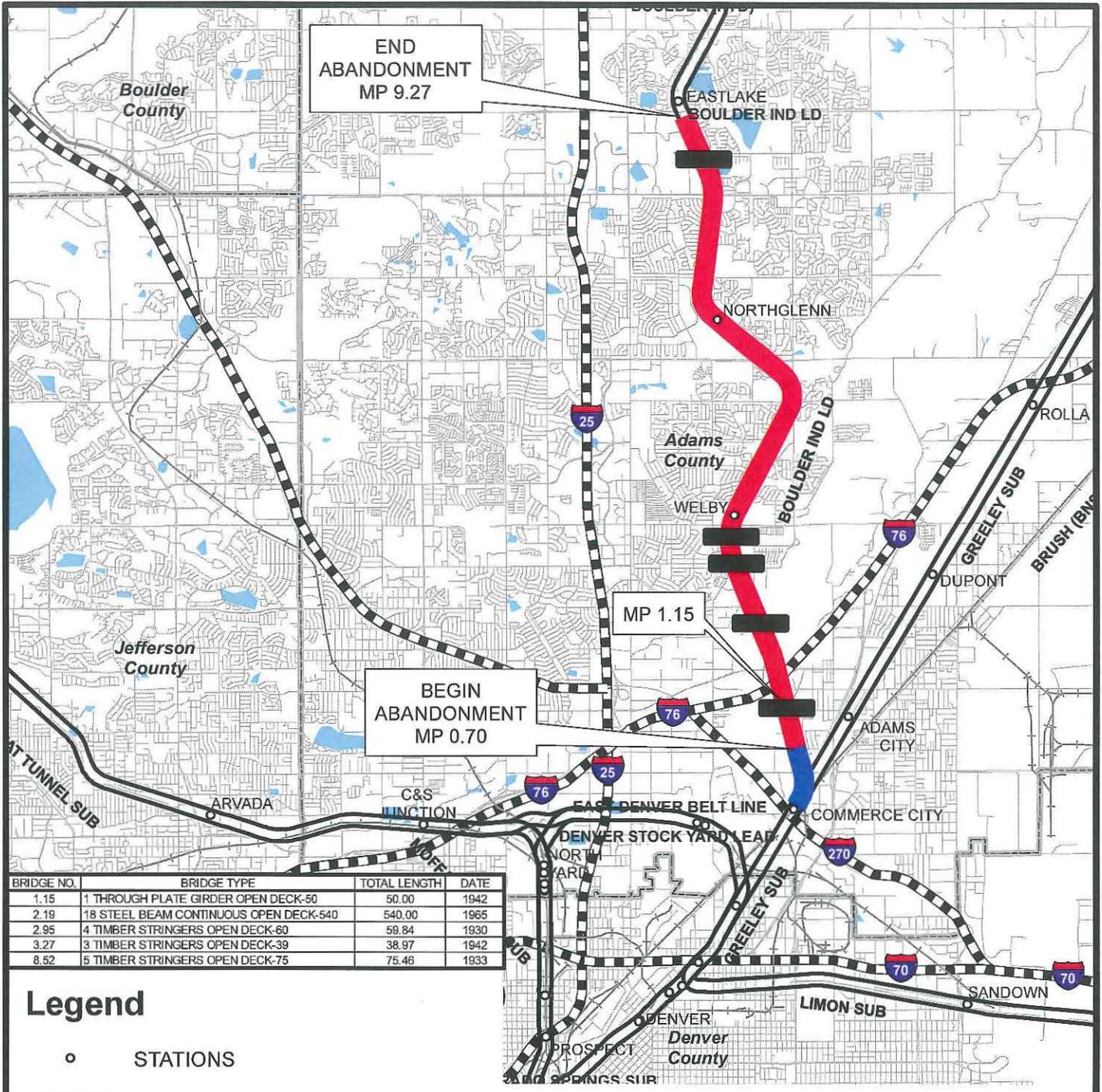
Thank you for your assistance. Please send your reply to the undersigned.

Sincerely,



Sarah J. Rief
Legal Assistant - Law Department
Union Pacific Railroad Company
1400 Douglas Street, MS 1580
Omaha, Nebraska 68179
Phone: (402) 544-0438
Email: sjrief@up.com

Attachment



END
ABANDONMENT
MP 9.27

BEGIN
ABANDONMENT
MP 0.70

MP 1.15

BRIDGE NO.	BRIDGE TYPE	TOTAL LENGTH	DATE
1.15	1 THROUGH PLATE GIRDER OPEN DECK-50	50.00	1942
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Legend

- STATIONS
- 50 + YEAR OLD STRUCTURES
- RETAINED EASEMENT
- ▬ OTHER UPRR LINES
- UP EASEMENT TO BE ABANDONED
- +—+— OTHER RAILROADS
- ▬ PRINCIPAL HIGHWAYS
- OTHER ROADS

BOULDER INDUSTRIAL LEAD

UNION PACIFIC RAILROAD CO.
MP 0.70 TO MP 9.27
8.57 MILES IN ADAMS COUNTY COLORADO

**UNION PACIFIC RAILROAD CO.
BOULDER INDUSTRIAL LEAD
COLORADO
INCLUDING STRUCTURES**





Fw: NGS Response, STB Docket AB-33 (SUB NO. 323X)
SARAH J. RIEF to: Olin H. Dirks, Mack H. Shumate

06/10/2015 09:30 AM

FYI

Sarah J. Rief

Legal Assistant - Law Department
Union Pacific Railroad Company
1400 Douglas Street - Stop 1580
Omaha, NE 68179
Office: 402-544-0438 Email: sjrief@up.com

----- Forwarded by SARAH J. RIEF/UPC on 06/10/2015 09:30 AM -----

From: Simon Monroe <simon.monroe@noaa.gov>
To: sjrief@up.com
Cc: Surface Transportation Board <sea@stb.dot.gov>, Pamela Fromhertz <Pamela.Fromhertz@noaa.gov>, Lucy Hall <Lucy.Hall@noaa.gov>, Simon Monroe <Simon.Monroe@noaa.gov>
Date: 06/09/2015 02:43 PM
Subject: NGS Response, STB Docket AB-33 (SUB NO. 323X)

Thank you for sharing your railroad abandonment environmental report for EASTLAKE, Adams County, COLORADO.

Approximately 02 geodetic survey marks may be located in the area described. These marks may or may not be disturbed.

If marks will be disturbed by the abandonment, [THE RAILROAD] shall consult with the National Geodetic Survey (NGS) at least 90 days prior to beginning salvage activities that will disturb, or destroy any geodetic station

marks are described on the attached file. Additional advice is provided at

<http://geodesy.noaa.gov/marks/railroads/>

|----|-----| -
-|-----|-----|-----|----|-----

|....|KK1403|. 1|88/ADJUSTED|N395305.04...|W1045730.96...|B...|G|K 411

|....|KK1402|. 1|88/ADJUSTED|N395305.....|W1045650.....|B...|N|X 411



3.4 ARCHAEOLOGICAL, HISTORIC, AND PALEONTOLOGICAL RESOURCES

3.4.1 Archaeological Resources (Prehistoric and Historic)

3.4.1.1 Introduction to Analysis

This section describes archaeological resources in the North Metro corridor Area of Potential Effects (APE) and the effects that the No Action Alternative and Preferred Alternative would have on these resources. According to 36 *Code of Federal Regulations* (CFR) 800.16(d), the APE is “the geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties, if such properties exist. The APE is influenced by the scale and nature of the undertaking and may be different for different kinds of effects caused by the undertaking.”

Summary of Results

Of the 49 archaeological sites that were documented within the APE of the FEIS, 21 are eligible for inclusion in the National Register of Historic Places (NRHP) and 11 would be impacted directly. No indirect impacts to archaeological sites are anticipated. See Appendix D, Cultural Resources Information, for the Cultural Resource Atlas.

The overwhelming majority of the documented sites are historic in age and cultural affiliation and related to the following socioeconomic themes: transportation (railroad mainline, spurs, bridges, culverts, artifacts, and roads), irrigation (ditches, canals, siphons, and reservoirs), and ranching/farming (structural foundations and artifact scatters). The single documented prehistoric site is an open camp with artifacts (lithic and groundstone) and features.

The Preferred Alternative results in an Adverse Effect at two resources that are historic railroad stops (Quimby Railroad Stop and Eastlake Railroad Stop). No Adverse Effects occur at eight other resources, including rail lines and railroad features (BNSF Railway and Union Pacific [UP] Railroad Dent Branch, UP Borrow-pit), agricultural ditches (Clear Creek Ditch/Lower Clear Creek Canal, Signal Ditch, and German Ditch), a historic marker, and historic Brighton Boulevard.

Relevant Law

Because Federal Transit Administration (FTA) may provide some funding for the project, it is considered a federal undertaking. As such, Section 106 of the National Historic Preservation Act (NHPA) (Public Law 89-665, 15 October 1966; 16 *United States Code* 470 *et seq.*, as amended through 2006) requires FTA to take into account the effects of the undertaking upon historic properties in the APE. Historic properties are defined at 36 CFR 800.16(l)(1) as “any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places [NRHP].” The criteria for NRHP eligibility are set forth at 36 CFR 60.4:

The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and

- (a) *that are associated with events that have made a significant contribution to the broad patterns of our history; or*
- (b) *that are associated with the lives of persons significant in our past; or*
- (c) *that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or*
- (d) *that have yielded, or may be likely to yield, information important in prehistory or history.*

For the North Metro Corridor Environmental Impact Statement, the requirements of Section 106 of the NHPA are coordinated with the National Environmental Policy Act of 1969 (NEPA) process and the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users milestone process. On 7 November 2006, in accordance with 36 CFR 800.8, FTA notified the Advisory Council on Historic Preservation (ACHP) that the NEPA process would be used for the purposes of Section 106, in lieu of the procedures set forth in Section 800.3-800.6.

Subsequently, due to schedule changes, and after consulting with the State Historic Preservation Officer (SHPO) and consulting parties, FTA notified ACHP that the NEPA process would not be used for the Section 106 process. On 12 March 2010, ACHP responded, acknowledging that the North Metro Corridor Project would follow the procedures in 36 CFR 800.3-800.6 for Section 106.

Coordination and Consultation

FTA, in cooperation with the Regional Transportation District (RTD), requested that the following agencies be accorded consulting parties status for the Section 106 process:

- ACHP
- National Trust for Historic Preservation
- The Colorado Historical Society (CHS) (SHPO)
- Colorado Preservation, Inc.
- Brighton Historic Preservation Commission
- Broomfield Historic Landmarks Board
- Denver Landmark Preservation Commission
- Northglenn Historic Preservation Commission
- Historic Denver
- Adams County
- Commerce City
- City and County of Denver (CCD)
- City of Northglenn
- City of Thornton
- Tribal Governments (see list on page 3.4-5)

Meetings for the Section 106 consulting parties were held on 15 November 2006, 8 May 2007, 29 October 2007, 17 December 2008, 29 April 2009, 14 September 2009, 15 January 2010, 26 February 2010, and 18 November 2010. The topics covered in these workshops included the Section 106 consultation process, issues scoping, project purpose and need, alternatives development and screening (for alignment and station options), survey methodology and information, APE definition, determination of eligibility, resource impacts, finding of effects, and mitigation. Additional meetings with SHPO will occur through Spring of 2011 to finalize the Memorandum of Agreement on mitigation for resources with an Adverse Effect. A summary of the Section 106 consulting party meetings is presented in Table 3.4-1; and Appendix F, Agency Correspondence, contains more detailed information on coordination.

TABLE 3.4-1. NORTH METRO SECTION 106 COORDINATION PROCESS

Step	Purpose	Schedule
Request to Be Consulting Party	<ul style="list-style-type: none"> • Contacted consulting parties by mail to notify them of the project and invite them to participate in the Section 106 coordination process. 	Completed: 7 November 2006
Consulting Parties Meeting No. 1	<ul style="list-style-type: none"> • Issues scoping. • Reviewed consultation process. • Reviewed Purpose and Need. • Reviewed Level 1 alternatives and screening. • Reviewed alignment alternatives for Level 2. 	Completed: 15 November 2006
Consulting Parties Meeting No. 2	<ul style="list-style-type: none"> • Reviewed Level 2 and 3 alignment alternatives and screening. • Reviewed station locations. 	Completed: 8 May 2007
SHPO Meeting	<ul style="list-style-type: none"> • Discussed the methodology for the initial APE. 	Completed: 15 October 2007
Consulting Parties Meeting No. 3	<ul style="list-style-type: none"> • Discussed results of Level 3 screening. • Discussed the initial APE. • Discussed survey methodology. • Discussed alternatives to be included in DEIS. 	Completed: 29 October 2007
SHPO Meeting	<ul style="list-style-type: none"> • Discussed the methodology for refining the APE to include areas of indirect impact. • Reviewed the updated APE. 	Completed: 16 July 2008
Consulting Parties Meeting No. 4	<ul style="list-style-type: none"> • Discussed revised alternatives to be included in DEIS. • Identified the APE. • Discussed initial survey findings for Determination of Eligibility. 	Completed: 17 December 2008
Consulting Parties Meeting No. 5	<ul style="list-style-type: none"> • Discussed effects and avoidance, minimization, or mitigation. • Discussed evaluation and preferred components of Build Alternative. • Discussed updated APE for new DUS access to the 38th Street segment. 	Completed: 29 April 2009
Consulting Parties Meeting No. 6	<ul style="list-style-type: none"> • Discussed updated APE for the new alignment, A-3. • Discussed initial survey findings for Determination of Eligibility for Alignment A-3. • Initial evaluation for preferred components of Build Alternative. 	Completed: 14 September 2009

TABLE 3.4-1. NORTH METRO SECTION 106 COORDINATION PROCESS

Step	Purpose	Schedule
DEIS Consulting Parties Review	<ul style="list-style-type: none"> Reviewed APE. Reviewed Determination of Eligibility. Reviewed Finding of Effects for Alternatives A-3, B-2, B-3, and B-4. 	Completed: 15 January 2010
Consulting Parties Meeting No. 7	<ul style="list-style-type: none"> Discussed selection of the Preferred Alternative, including the selection of Alignment B-2, and made refinements to the Preferred Alternative. Discussed updated APE based on changes to the direct and indirect impact area resulting from refined design, stations, and mitigation for the Preferred Alternative. Discussed status of additional survey for archaeological and historic properties within the updated APE. Discussed opting out of using the NEPA process for Section 106 purposes. 	Completed: 26 February 2010
Consulting Parties Meeting No. 8	<ul style="list-style-type: none"> Discussed updated APE based on changes to the direct and indirect impact area resulting from refined design, stations, and mitigations for the Preferred Alternative. Reviewed Finding of Effects for Preferred Alternative. 	Completed: 18 November 2010
FEIS/ROD	<ul style="list-style-type: none"> Consult with SHPO/ACHP on MOA. Include MOA in ROD. 	Future Action: Spring 2011 (ROD)

Source: North Metro Corridor Project Team, 2010.

Notes:

- | | |
|--|--|
| ACHP = Advisory Council on Historic Preservation | MOA = Memorandum of Agreement |
| APE = Area of Potential Effects | NEPA = National Environmental Policy Act of 1969 |
| DEIS = Draft Environmental Impact Statement | No. = number |
| DUS = Denver Union Station | ROD = Record of Decision |
| FEIS = Final Environmental Impact Statement | SHPO = State Historic Preservation Officer |

Section 101(d)(6)(B) of the NHPA requires that federal agencies consult with any Indian tribe that attaches religious and cultural significance to historic properties that may be affected by the project. This requirement applies regardless of the location of the historic property, and the identified tribes shall be consulting parties. Federal agencies must provide tribes with a reasonable opportunity to identify their concerns about historic properties; advise on the identification and evaluation of historic properties, including those of traditional religious and cultural importance; articulate their views on the undertaking's effects on such properties; and participate in the resolution of adverse effects (36 CFR 800.2[c][2][ii][a]). Consultation with an Indian tribe recognizes the unique government-to-government relationship between the federal government and Indian tribes and should be conducted in a manner sensitive to the concerns and needs of the Indian tribe (36 CFR 800.2[c][2][ii][b]). Federal agencies must be sensitive to the fact that historic properties of religious and/or cultural significance to one or more tribes may be located on ancestral, aboriginal, or ceded lands beyond modern reservation boundaries (36 CFR 800.2[c][2][ii][d]).

On 7 November 2006, the FTA sent a letter to each of the following tribes:

- Comanche Nation of Oklahoma
- Cheyenne and Arapaho Tribes of Oklahoma
- Cheyenne River Sioux Tribe
- Apache Tribe of Oklahoma
- Crow Creek Sioux Tribe
- Kiowa Tribe of Oklahoma
- Northern Arapaho Tribe
- Northern Cheyenne Tribe
- Oglala Sioux Tribe
- Pawnee Nation of Oklahoma
- Rosebud Sioux Tribe
- Standing Rock Sioux Tribe

In this letter, the FTA expressed its desire to initiate formal consultation with each tribe, under the provisions of Section 106. The FTA invited each tribe to identify traditional cultural and religious sites, evaluate the significance of these sites, and indicate how this project might affect them. Should the project impact historic properties of religious or cultural significance to tribes, those tribes were invited to participate in deciding how best to avoid, minimize, or mitigate such impacts.

The Apache Tribe of Oklahoma responded to the FTA letter on 28 November 2006, indicating their desire to become a consulting party. They acknowledged that the project lies within their aboriginal territory. To date, none of the other tribes have responded.

3.4.1.2 Affected Environment

Archaeology is the systematic study of past human life and culture by the recovery and examination of the objects those people made, used, or modified (Joukowsky 1980). Material manifestations of past human activity include the following:

- Scatters of prehistoric and historic artifacts that vary in size and density
- Temporary use locations with a few features and low artifact frequency
- Habitation locales with many features and a complex assemblage of artifacts
- Landscape features of traditional cultural significance

The station footprints were intensively investigated for archaeological resources by one to three archaeologists walking multiple parallel transects, spaced 30 meters (100 feet) apart across the project study area. As they walked, the archaeologists carefully inspected the ground surface for evidence of past, patterned human activity, 30 years or older in the CCD (i.e., activity prior to 1978) or 40 years or older in Adams County (i.e., activity prior to 1968). When such evidence was encountered, the area was quickly reconnoitered to determine if the item was an isolated find, which is defined as a single artifact; or a site, which consists of two or more artifacts in close proximity (10 meters [30 feet] or less), cultural features, and/or standing structures. Each isolated find was described on the CHS, Office of Archaeology and Historic Preservation (OAHP) Isolated Find Form, its location was determined using global positioning system (GPS)

equipment and plotted on a project map, and it was photographed with archival quality black-and-white film or in digital format. Each site was described on the CHS OAHP Management Data Form, and the Prehistoric, Historic, Archaeological, or Linear Component Forms, depending on its apparent function; its location was ascertained using GPS equipment; and the site was photographed using archival quality black-and-white film and in digital format. The eligibility of each isolated find and site for listing in the NRHP was evaluated in the field.

Attributes of the sites are examined in regional environmental and cultural contexts to clarify patterns of prehistoric and historic use and assist in the evaluation of NRHP eligibility. The consulting parties, including SHPO, were consulted on the Determination of Eligibility for the NRHP for historic sites within the APE. SHPO concurred with the Determination on their Eligibility (see Appendix F, Agency Coordination). Table 3.4-2 describes all of the NRHP-eligible archaeological resources in project study area (APE), and Figures 3.4-1 through 3.4-3 illustrate the locations of these resources.

Slightly more than half of the archaeological resources are irrigation features (ditches, canals, reservoirs, and siphons). The remaining sites consist of railroad segments and related features (e.g., Eastlake), historic artifact scatters and features, roads or road segments, an historic marker, a utility line, and one prehistoric site. Approximately one-third of the sites date to the late nineteenth century, while the remaining sites date from the 1900s through the 1960s.

TABLE 3.4-2. SUMMARY OF NRHP ELIGIBLE ARCHAEOLOGICAL RESOURCES IN THE AREA OF POTENTIAL EFFECTS

Smithsonian Number	Temporary Site Number	Location (Township, Range, Section) or Address	Figure Number	Description	Integrity	Cultural Affiliation	Date	Size (ac)	NRHP Eligibility (Criterion)
5AM80.1	Re-Eval-1	2S, 68W, 25	3.4-2	Clear Creek Ditch.	Good	Historic	ca. 1880s	0.05	Eligible (a)
5AM80.7	NM-?-1 and NM-6	2S, 68W, 25	3.4-2	Clear Creek Ditch (with 1925 to 1930 railroad bridge).	Good	Historic	ca. 1880s	0.05	Eligible (a)
5AM464.15	NMC-5	3S, 68W, 13	3.4-1	Burlington and Colorado, Burlington and Missouri, Chicago Burlington and Quincy (Burlington Northern) Railroad.	Fair	Historic	1881 to Present	1.4	Eligible (a)
5AM464.16	None	3S, 68W, 12, 13	3.4-1	BNSF Railway.	Good	Historic	1881 to Present	0.56	Eligible (a)
5AM465.9	NM-1	3S, 68W, 1	3.4-1	Burlington Ditch (O'Brian Canal) (with 1941 railroad bridge).	Good	Historic	1885	7.9	Eligible (a)
5AM471.4	NM-36	1S, 68W, 12	3.4-3	German Ditch.	Good	Historic	ca. 1880s	4.6	Eligible (a)
5AM472.1	Re-Eval-5	1S, 68W, 12	3.4-3	UP Railroad Dent Branch ¹ (at Darlow).	Poor	Historic	Unknown	0.2	Eligible (a)
5AM472.17	R.R.-Main	3S, 68W, 1, 12, 13, 3S, 67W, 6, 7, 36, 2S, 68W, 1, 2, 11, 12, 13, 24, 25, 36; 1S, 68W, 1, 12, 13, 24, 25, 26, 35, 36	3.4-1, 3.4-2, and 3.4-3	UP Railroad Dent Branch Mainline ¹ (includes grade, 16-inch culverts, 6 timber pile bridges, and 2 spurs).	Good	Historic	1910 to 1990s	37	Eligible (a)
5AM473.1	NM-29	1S, 68W, 26	3.4-3	Signal Ditch.	Good	Historic	1909	0.02	Eligible (a)
5AM2410.1	None	Brighton Boulevard in Adams County	3.4-1	Brighton Boulevard.	Fair	Historic	1915 to 1930	4.7	Eligible (a)
5AM2111	NM-ID-3 and NM-15	2S, 68W, 13	3.4-2	Quimby Railroad Stop (feature and artifact concentration).	Fair	Historic	ca. 1900 to 1950s	2.3	Eligible (a, d)
5AM2114	NM-28	1S, 68W, 35	3.4-2, 3.4-3	Eastlake Railroad Stop.	Fair	Historic	ca. 1900 to 1950s	15.1	Eligible (a, d)

TABLE 3.4-2. SUMMARY OF NRHP ELIGIBLE ARCHAEOLOGICAL RESOURCES IN THE AREA OF POTENTIAL EFFECTS

Smithsonian Number	Temporary Site Number	Location (Township, Range, Section) or Address	Figure Number	Description	Integrity	Cultural Affiliation	Date	Size (ac)	NRHP Eligibility (Criterion)
5AM2115	NM-ID-6	Confidential Location	None (Confidential Location)	Prehistoric Camp.	Fair	Prehistoric	Unknown	0.44	Eligible (d)
5AM2083.2 and 5AM2083.3	None	3S, 68W, 13	3.4-1	Chicago, Rock Island, and Pacific Belt Line.	Good	Historic	1905 to Present	1.37	Eligible (a)
5AM2402	TT-1	1S, 68W, 1	3.4-3	UP Railroad Borrow-pit.	Good	Historic	1909 to 1951	15.6	Eligible (d)
5DV6247.1	None	3S, 68W, 23	3.4-1	Burlington and Colorado, Burlington and Missouri, Chicago Burlington, and Quincy (Burlington Northern) Railroad.	Good	Historic	1881 to present	0.3	Eligible (a)
5DV6247.2	None	3S, 68W, 22, 23, 27	3.4-1	Burlington and Colorado, Burlington and Missouri, Chicago Burlington, and Quincy (Burlington Northern) Railroad.	Good	Historic	1881 to present	3.9	Eligible (a)
5DV6247.3	None	3S, 68W, 13, 14, 23	3.4-1	Burlington and Colorado, Burlington and Missouri, Chicago Burlington, and Quincy (Burlington Northern) Railroad.	Good	Historic	1881 to present	5.2	Eligible (a)
5DV6247.6	None	3S, 68W, 27	3.4-1	Burlington and Colorado, Burlington and Missouri, Chicago Burlington, and Quincy (Burlington Northern) Railroad.	Good	Historic	1881 to present	6.8	Eligible (a)
5DV10616	None	Corner of Brighton Boulevard and York Street	3.4-1	Historic Marker for Platte River Trail.	Good	Historic	1932	Trace	Eligible (a)
5DV10617.1	None	Brighton Boulevard in Denver County	3.4-1	Brighton Boulevard.	Fair	Historic	1915 to 1930	4.7	Eligible (a)

North Metro Corridor

TABLE 3.4-2. SUMMARY OF NRHP ELIGIBLE ARCHAEOLOGICAL RESOURCES IN THE AREA OF POTENTIAL EFFECTS

Smithsonian Number	Temporary Site Number	Location (Township, Range, Section) or Address	Figure Number	Description	Integrity	Cultural Affiliation	Date	Size (ac)	NRHP Eligibility (Criterion)
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Source: North Metro Corridor Project Team, 2010.

Criteria:

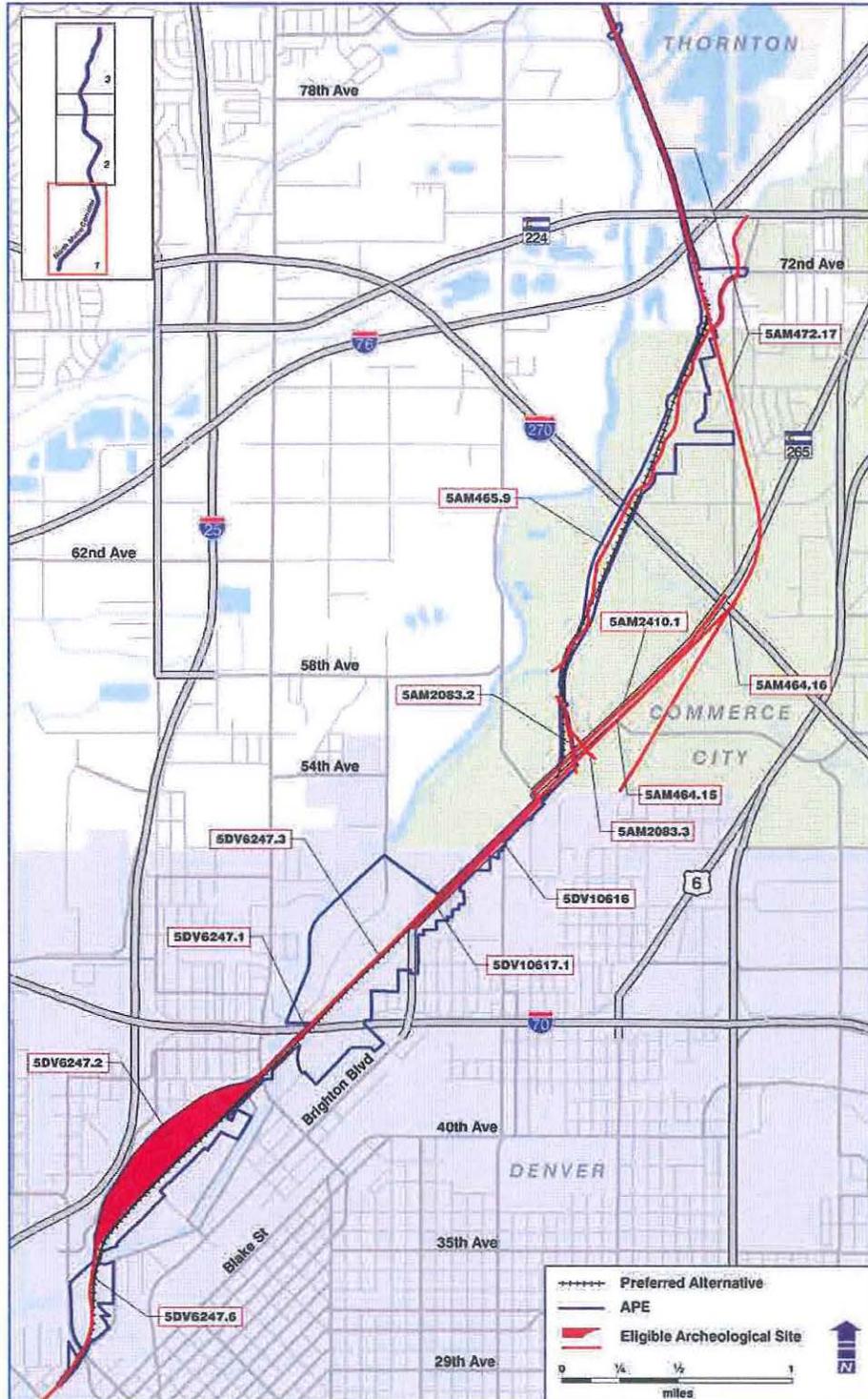
- (a) associated with significant historic events
- (d) likely to yield important archaeological information

Notes:

¹Although this resource was recorded with the name "UP Railroad Dent Branch," the rail line is commonly referred to as the UP Boulder Branch.

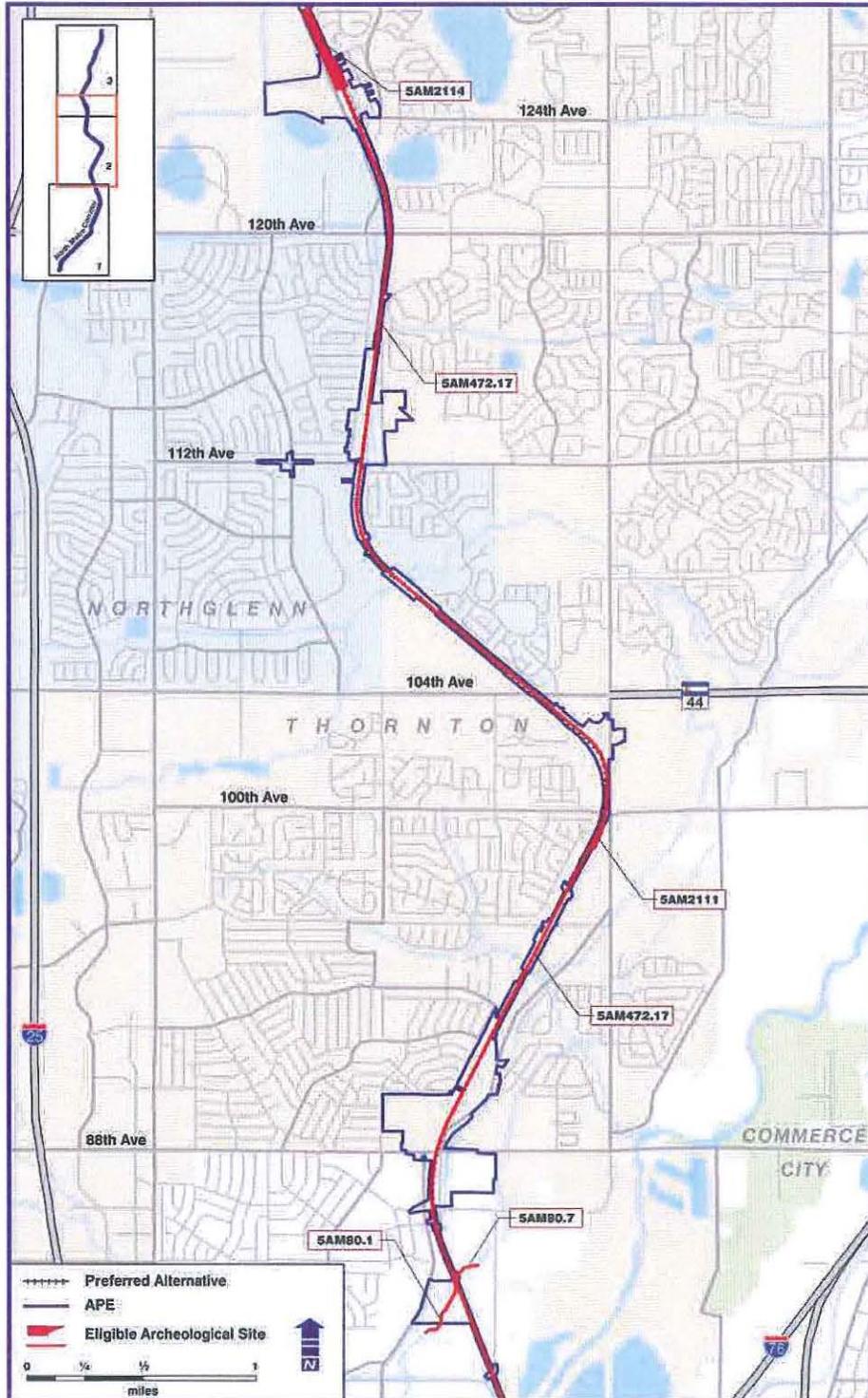
- ac = acre
- ca. = circa
- NRHP = National Register of Historic Places
- S = south
- UP = Union Pacific
- W = west

FIGURE 3.4-1. ELIGIBLE ARCHAEOLOGICAL RESOURCES (MAP 1 OF 3)



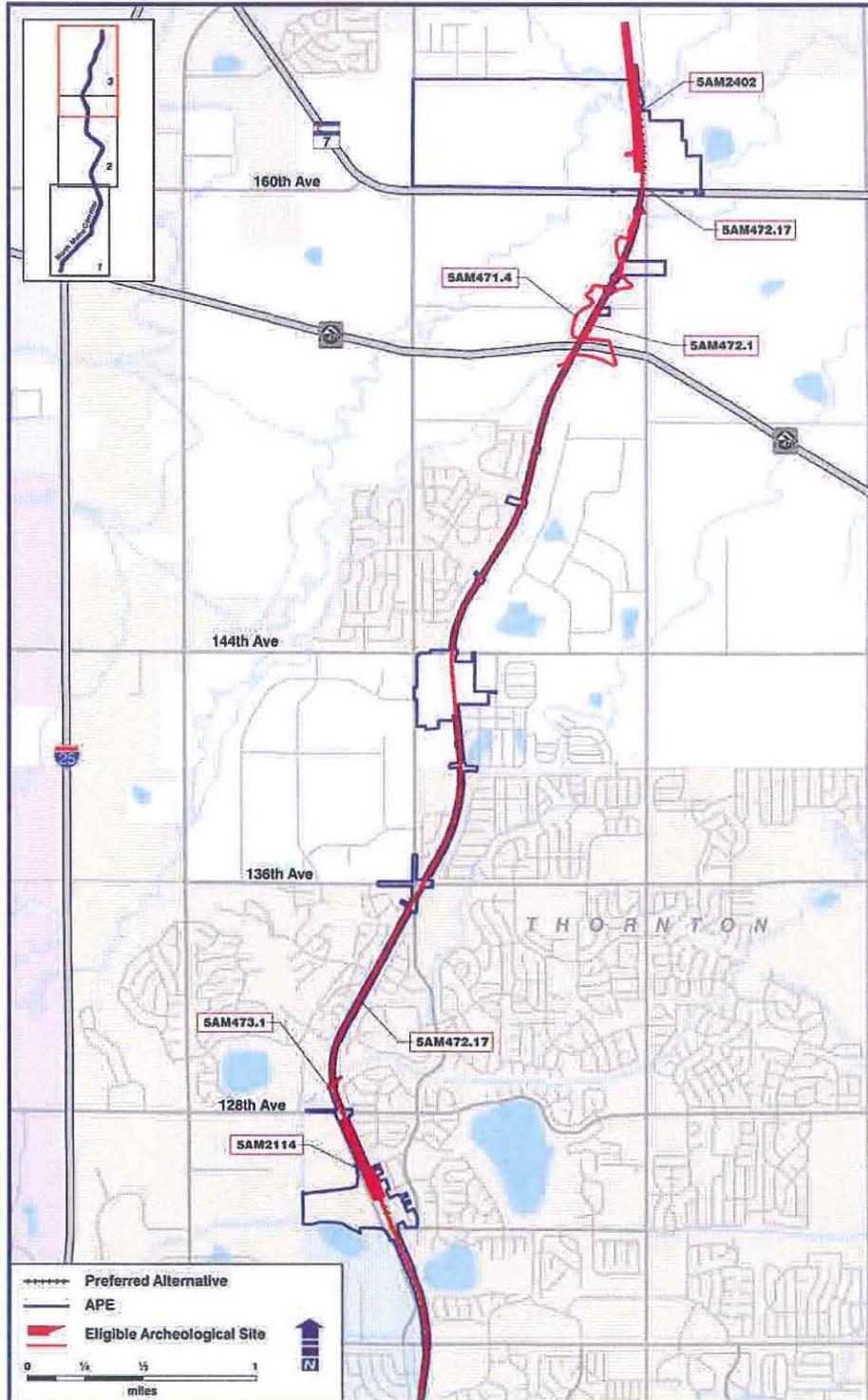
Source: North Metro Corridor Project Team, 2010.

FIGURE 3.4-2. ELIGIBLE ARCHAEOLOGICAL RESOURCES (MAP 2 OF 3)



Source: North Metro Corridor Project Team, 2010.

FIGURE 3.4-3. ELIGIBLE ARCHAEOLOGICAL RESOURCES (MAP 3 OF 3)



Source: North Metro Corridor Project Team, 2010.

Area of Potential Effects

The Southern Section of the project study area, from Denver Union Station (DUS) to 84th Avenue, has been distinguished by mixed residential and industrial use since the early twentieth century. From that point north to the project terminus, the landscape has been dominated until the last few decades by ranching and farming, with the exception of railroad towns and sidings such as Eastlake, Quimby, and Darlow. Beginning in the 1940s and continuing until the present, the farm/ranch lands and small communities were absorbed into the fast-growing communities of Commerce City, Thornton, and Northglenn. As far north as E-470, the area is characterized by residential neighborhoods and commercial establishments. The extreme northern end of the project study area still reflects the traditional ranching and farming heritage, but that too is changing.

The APE for the archaeological resources consists of the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties (36 CFR 800.16[d]) (see Appendix D, Cultural Resources Information, for the Cultural Resource Atlas). In general, beginning at DUS, the Preferred Alternative traverses northeasterly adjacent to the BNSF Brush Subdivision right-of-way (ROW). Portions of the alignment would be constructed adjacent to the eastern edge of the BNSF ROW, with two locations encroaching into BNSF ROW. For the portion of the alignment adjacent to the BNSF ROW, the direct impact area western boundary is defined as the BNSF ROW, and the eastern boundary is defined as toe of slope for project improvements. The Preferred Alternative would avoid the Sand Creek Junction. Just south of the existing York Street underpass of the BNSF, the Preferred Alternative would climb over the BNSF Mainline on structure to cross over multiple railroad spurs through an industrial area on property owned by Suncor Energy (U.S.A.) Inc. It would then continue on structure adjacent to the O'Brian Canal and Metro Wastewater property before passing over Sand Creek and I-270. The Preferred Alternative would start to share ROW with freight operations at the south side of the 72nd Avenue Station. From this location north, the direct impact area includes the toe of slope for project improvements or the width of a bridge structure. The direct impact area for the stations is the station footprint. The direct impact area also includes the toe of slope for mitigation measures such as improvements to roadways, trails, and drainage. A 15-foot buffer has been added to these areas to account for the current level of design and potential construction and maintenance impacts.

Because this corridor has been significantly altered and disturbed over the last century by the activities of the UP Railroad and BNSF Railway and their predecessors, an intensive pedestrian inventory within the rail corridors was considered to be unnecessary. Affected railroad segments that had previously been recorded were reevaluated, while previously unrecorded segments were visited and recorded. Any non-railroad features (e.g., ditches and canals) that intersect the railroad ROWs were newly recorded or reevaluated. The Preferred Alternative was intensively investigated for archaeological, historic, and paleontological resources.

Indirect impacts such as visual, noise, vibration, and access were also considered and resulted in a slight refinement of the APE. Four types of potential visual impacts on cultural resources were considered: increased number of trains, catenary poles and overhead wires (the electric multiple unit [EMU] vehicles), new stations, and structures such as overpasses and noise walls. Two categories of noise impacts on cultural resources, based on FTA criteria as described in Section 3.8, Noise and Vibration, were considered: severe and upper moderate (top 50% of moderate impacts). In those indirect impact areas with severe or upper moderate noise impacts, and where background research indicated that the parcel is historic (i.e., 30 years or

older in the CCD and 40 years or older in Adams County), the APE was refined to include those parcels. Vibration impacts have been substantially diminished due to the nature of the underlying substrate and project design and thus did not influence the APE. There were no cultural resources impacted by changes in access, and therefore access relocations did not influence the APE.

3.4.1.3 Impact Evaluation

This evaluation includes analysis of potential effects on archaeological resources for the Preferred Alternative and station locations with EMU vehicle technology. The EMU impacts are described below in Results.

Methodology

The ACHP developed regulations (36 CFR 800) that guide federal agencies on how to assess effects of their undertakings on historic properties and mitigate those effects, if necessary. As defined in the Section 106 regulations, an effect is "an alteration to the characteristics of a historic property qualifying it for inclusion or eligibility for the National Register of Historic Places" (36 CFR 800.16). Effects to archaeological resources are categorized as follows:

- **No Historic Properties Affected:** Either no historic properties are present, or historic properties are present but no effects of any kind, neither harmful nor beneficial to those characteristics that qualify the property for inclusion in the NRHP, are present.
- **No Adverse Effect:** An effect is present, but the effect is not harmful to those characteristics that qualify the property for inclusion in the NRHP.
- **Adverse Effect:** An effect is present, and that effect diminishes the qualities of significance that qualify the property for inclusion in the NRHP.

Effects to historic properties may be direct, indirect, or cumulative. Direct effects include, but may not be limited to, the physical destruction or modification of all or part of a resource. Indirect effects can include a variety of factors, such as the introduction of or an increase in noise and visual intrusions that alter the qualities that make a site eligible for the NRHP. Cumulative effects result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of the agency or organization that undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time. For this analysis, activities include development in the Denver metropolitan area between 1950 and 2035.

The current condition, location, and setting of all cultural resources, as well as the nature of the planned activities, within the APE were assessed to determine the likely impact of project activities and actions on those qualities. For linear resources (e.g., ditches, roads, or railroad grades), the project effects are based on an evaluation of the segment within the project APE in the context of the entire linear feature that constitutes the historic property. The effects determination applies to the entire eligible linear resource. In instances where multiple segments of the same linear resource would be impacted, the effect to the entire resource would be based on an assessment of the combined effects to the segments.

SHPO concurrence for NRHP eligibility and finding of effects, along with consulting parties correspondence, are included in the DEIS and FEIS Appendix F, Agency Correspondence.

Results

No Action Alternative

The UP Dent Branch Mainline (5AM472) could have direct or temporary impacts due to the road widening projects along 128th Avenue, 144th Avenue, and 160th Avenue. Widening of 128th Avenue from I-25 to York Street would include an at-grade crossing of this resource. This would likely require replacement of existing rails and ties but is not anticipated to impact the railroad grade and therefore, would likely result in No Adverse Effect. Impacts associated with the widening of 144th Avenue from Washington Street to Colorado Boulevard would have similar impacts and would also likely result in No Adverse Effect to this resource. The addition of through lanes to 160th Avenue (SH 7) from East 164th Avenue to US 85 would affect the existing railroad bridge that spans this roadway.

Preferred Alternative

Table 3.4-3 presents a summary of anticipated direct and indirect impacts for archaeological resources from the proposed alignment and station options as well as the finding of effects. Only those resources that are eligible for inclusion in the NRHP are included. Indirect impacts such as visual, noise, and vibration are unlikely to affect archaeological resources because the North Metro corridor follows an existing railroad ROW, along which trains have traveled for more than a century.

Direct and Indirect Impacts

The anticipated impacts to archaeological resources within the APE are described below and are grouped according to the following categories: No Historic Properties Affected, No Adverse Effect, and Adverse Effect.

Measures to avoid or minimize impacts also are described for each resource. In addition, unanticipated impacts may occur, if archaeological resources are encountered during the construction phase of this project. If archaeological resources are found, construction activities will stop until a qualified archaeologist can evaluate the resource and SHPO is consulted.



TABLE 3.4-3. DIRECT AND INDIRECT IMPACTS SUMMARY — ARCHAEOLOGICAL RESOURCES

Alternative		Archaeological Resources	Direct Impacts	Indirect Impacts	Finding of Effect
NO ACTION ALTERNATIVE <i>SOUTHERN SECTION AND NORTHERN SECTION</i>		UP Dent Branch Mainline ¹ (5AM472)	Road widening projects at 128 th Avenue and 144 th Avenue would include at-grade crossings that may require replacement of rails and ties but would not impact railroad grade (5AM472.17).	None	No Adverse Effect
PREFERRED ALTERNATIVE					
<i>SOUTHERN SECTION — DUS Access to 84th Avenue</i>					
Alignment	Smithsonian Number (Segment Number)				
	5AM80 (5AM80.1 and 5AM80.7)	Clear Creek Ditch (Lower Clear Creek Canal)	The existing UP Railroad bridge would be replaced with three box culverts and used for the commuter rail. The ditch would not be realigned, but drainage improvements would be made and the east/west banks of the crossing would be graded.	None	No Adverse Effect
	5AM464 (5AM464.15 and 5AM464.16) 5DV6247 (5DV6247.1, 5DV6247.2, 5DV6247.3, and 5DV6247.6)	BNSF Railway	5AM464.15 and 5AM464.16 - In Adams County, would parallel the BNSF Railway outside the BNSF ROW and would span the BNSF ROW north of the Brighton Boulevard/York Street intersection. 5DV6247.1 (no impact) 5DV6247.2 (no impact) 5DV6247.3 - In Denver, two small slivers of BNSF ROW, but not tracks, would be impacted (see station numbers 263+00-267+00 and 274+00 -280+00 on design plans in Appendix C). 5DV6247.6 - At the 23 rd Street Yard, BNSF will relocate the tracks to improve their operations and accommodate North Metro prior to the building of North Metro.	None	No Adverse Effect ²
	5AM465 (5AM465.9)	Burlington Ditch (O'Brian Canal)	The ditch would be crossed three times with bridge structures. The ditch would not be realigned, but a section of the ditch would be lined to narrow the width and match the existing lined ditch south of that section.	None	No Adverse Effect

TABLE 3.4-3. DIRECT AND INDIRECT IMPACTS SUMMARY — ARCHAEOLOGICAL RESOURCES

Alternative		Archaeological Resources	Direct Impacts	Indirect Impacts	Finding of Effect
Alignment (continued)	Smithsonian Number (Segment Number)				
	5AM472 (5AM472.17)	UP Railroad Dent Branch Mainline ¹	See Northern Section – this resource is in both the Northern Section and the Southern Section.	See Northern Section	See Northern Section
	5AM2083 (5AM2083.2 and 5AM2083.3)	UP Railroad and Chicago, Rock Island, and Pacific Belt Line	None. Alignment does not cross segment 5AM2083.3 and a new bridge would span segment 5AM2083.2.	None	No Historic Properties Affected
	5DV10616 (NA)	Historic Marker	Marker would be removed and relocated to another nearby location.	None	No Adverse Effect
	5AM2410 (5AM2410.1) 5DV10617 (5DV10617.1)	Brighton Boulevard	Brighton Boulevard (5AM2410.1 and 5DV10617.1) north of York Street would be realigned approximately 10 feet east of its current alignment for about 2,000 feet.	None	No Adverse Effect
NORTHERN SECTION — 84th Avenue to 162nd Avenue Area					
Alignment	Smithsonian Number (Segment Number)				
	5AM471 (5AM471.4)	German Ditch	The alignment would cross the ditch (5AM471.4) at five locations. The first (most southern) crosses the ditch twice via an existing bridge structure that also crosses over E-470. This structure would not be replaced. The third crossing would require the replacement of an existing culvert (the replacement would be longer for floodplain purposes). The fourth and fifth crossings are being recommended for culvert replacements as well, including replacing a siphon at the fifth crossing. The ditch alignment would not change at any of these crossing locations.	None	No Adverse Effect

TABLE 3.4-3. DIRECT AND INDIRECT IMPACTS SUMMARY — ARCHAEOLOGICAL RESOURCES

Alternative		Archaeological Resources	Direct Impacts	Indirect Impacts	Finding of Effect
Alignment (continued)	Smithsonian Number (Segment Number)				
	5AM472 (5AM472.17)	UP Railroad Dent Branch Mainline ¹	The existing grade (5AM472.17) would mostly remain intact. However, there would be a few sections widened to accommodate a passing track. Some trestles and other features may be replaced. Track would be removed for new overpasses at 104 th Avenue and 120 th Avenue. The alignment would be shifted slightly in six areas to improve operations, but these realignments would not alter the historic character of the railroad corridor. Ten features along this resource would be impacted. Replacement of ballast for existing track (5AM472.1) would directly impact the site of the Darlow siding. Power poles required for the Preferred Alternative with EMU technology would directly impact Darlow, but impacts would be minimized by designing the pole placement to be on the east side of the alignment and construction access would be from the east side of the alignment. A tail track would be provided on the existing railroad north of SH 7/162 nd Avenue Station.	None	No Adverse Effect
	5AM473 (5AM473.1)	Signal Ditch	The existing siphon (5AM473.1) would be replaced and a new headwall and trash rack would be constructed.	None	No Adverse Effect
	5AM2111 (NA)	Quimby Railroad Stop	New power poles required for EMU technology and fencing would impact the site. One of the artifact concentrations within this site would be impacted. Sub-surface features and artifacts that have not been identified could be impacted.	None	Adverse Effect
	5AM2114 (NA)	Eastlake Railroad Stop	The addition of new track and new power poles for EMU would occur within the existing UP Railroad ROW and would directly impact the site. The proposed walkways across the alignment connecting the station parking area and 1 st Street would directly impact the site. Sub-surface features and artifacts that have not been identified could be impacted.	None	Adverse Effect
5AM2115 (NA)	Prehistoric Camp	None.	None	None	No Historic Properties Affected

North Metro Corridor

TABLE 3.4-3. DIRECT AND INDIRECT IMPACTS SUMMARY — ARCHAEOLOGICAL RESOURCES

Alternative		Archaeological Resources	Direct Impacts	Indirect Impacts	Finding of Effect
Alignment (continued)	Smithsonian Number (Segment Number)				
	5AM2402 (NA)	UP Railroad Borrow-pit	The tail track and platform proposed at the SH 7/ 162 nd Avenue Station would impact the borrow-pit at this site. However, a retaining wall would be constructed to avoid substantial encroachment into the borrow-pit. Construction activities would only intrude slightly into the borrow-pit to build the retaining wall. The impacts associated with the alignment are not anticipated to be harmful to the characteristics that qualify this resource for inclusion in the NRHP.	None	No Adverse Effect

Source: North Metro Corridor Project Team, 2010.

Notes:

¹Although this resource was recorded with the name "UP Railroad Dent Branch," the rail line is commonly referred to as the UP Boulder Branch.

²FTA recommendation on finding of effect; SHPO is currently reviewing.

Shaded cells indicate an impacted parcel.

- DUS = Denver Union Station
- EMU = electric multiple unit
- NA = not applicable
- ROW = right-of-way
- UP = Union Pacific

No Historic Properties Affected

The UP Railroad and Chicago, Rock Island and Pacific Belt Lines – 5AM2083 (Including 5AM2083.2 and 5AM2083.3)
The UP Railroad and Chicago, Rock Island and Pacific Belt Lines are eligible for inclusion in the NRHP under Criterion A because they are associated with the continued expansion of freight and passenger rail in the Denver metropolitan area. The Preferred Alternative would span 5AM2083.2 on a new bridge and does not cross 5AM2083.3. As a result, No Historic Properties are Affected.

Prehistoric Open Camp – 5AM2115

The site, which is eligible for inclusion in the NRHP under Criterion D, was likely used as a campsite or a food processing site as evidenced by the presence of animal bone and charcoal. The SH 7/162nd Avenue Station for the Preferred Alternative would not affect this site and would result in No Historic Properties Affected.

No Adverse Effect

BNSF Railway in Denver and Adams County – 5AM464 and 5DV6247 (Including 5AM464.15, 5AM464.16, 5DV6247.1, 5DV6247.2, 5DV6247.3, and 5DV6247.6)

The BNSF Railway is considered eligible for listing in the NRHP under Criterion A because of its association with the expansion of the railroad in the northern Rockies and the development of agricultural communities in the area. In the Southern Section, the Preferred Alternative would parallel the existing BNSF ROW to south of Sand Creek Junction and then span on bridge the ROW north of the existing Brighton Boulevard/York Street intersection (5AM464.15). Two small slivers of ROW (approximately 400 feet and 600 feet long) would be impacted at 5DV6247.3, but the tracks are not being relocated in these sections. In addition, the BNSF Railway is relocating tracks within the 23rd Street Yard (5DV6247.6) to improve its operations and provide an easement for the Preferred Alternative, which will impact a sliver of ROW approximately 2,200 feet. No impacts are anticipated at 5DV6247.1, 5DV6247.2, 5DV6247.6, 5AM464.15, or 5AM464.16. SHPO is currently reviewing FTA's finding of effect for this site.

Clear Creek Ditch – 5AM80 (Including 5AM80.1 and 5AM80.7)

The Clear Creek Ditch (Lower Clear Creek Canal) is eligible for inclusion in the NRHP under Criterion A because it is associated with the development and expansion of irrigation works in the north Denver metropolitan area and out on the northeastern plains. The existing railroad bridge would be removed and replaced with three new concrete box culverts. The ditch would not be realigned, but the east/west banks of the crossing would be graded. These impacts would not diminish those characteristics that make the property eligible for the NRHP and, therefore, a finding of No Adverse Effect has been made.

Burlington Ditch (O'Brian Canal) – 5AM465 (Including 5AM465.9)

The resource is eligible for inclusion in the NRHP under Criterion A for its association with the development and expansion of irrigation works into northeast Colorado, and with the creation of Barr Lake and the accompanying town of Barr City. The Preferred Alternative would cross the ditch three times with bridge structures. A section of the ditch would be lined to narrow the width and match the existing lined ditch south of this section, but this impact would not be harmful to those characteristics that qualify the resource for inclusion in the NRHP and, therefore, would constitute No Adverse Effect.

Historic Marker (5DV10616)

The monument for the Platte River Trail is eligible for inclusion in the NRHP under Criterion A because of its association with the early incarnation of the CHS and its historic marker program. Under the Preferred Alternative, the marker would be removed and relocated to a nearby location. The precise location of the marker is not significant as it is not located directly on the historic trail it describes. This impact is not anticipated to be harmful to those characteristics that qualify the resource for inclusion in the NRHP, and therefore, would constitute No Adverse Effect.

Brighton Boulevard – 5AM2410 and 5DV10617 (Including 5AM2410.1 and 5DV10617.1)

Brighton Boulevard is eligible for inclusion in the NRHP under Criterion A because of its association with the development of north Denver's post World War II commercial and industrial areas, and because of its function as a major transportation artery from Denver to the town of Brighton. North of the National Western Historic District (5DV10050), the Preferred Alternative parallels the existing Brighton Boulevard (SH 265) for approximately 0.75 mile. Between the BNSF and Brighton Boulevard ROWs, south of York Street, approximately 2,000 feet of Brighton Boulevard would be relocated 10 feet east of the current alignment. The road has been substantially altered (paved and widened) since its original construction but retains its historic aspect of location. The proposed relocation would not substantially alter the historic character of this resource, and therefore, would constitute No Adverse Effect.

UP Railroad Dent Branch Mainline – 5AM472 (Including 5AM472.17 and 5AM472.1)

The resource, which is commonly referred to as the UP Boulder Branch, is eligible for inclusion in the NRHP under Criterion A because of its association with the expansion of the railroad in northern Colorado, and the development of beet growing communities and expansion of the coal mining industry in the area.

In the Southern Section, under the Preferred Alternative, the existing grade would mostly remain intact. However, there would be a few sections modified to accommodate a passing track. Some trestles and other features may be replaced. An existing steel bridge over the South Platte River would be repainted and an emergency walkway added to it. In addition, four caissons will be built downstream and adjacent to this bridge to carry the catenary poles for the overhead electrification system. One existing timber bridge would be replaced with a concrete box culvert. Two existing culverts would be extended.

In the Northern Section, under the Preferred Alternative, the majority of the alignment would be single track and in line with the existing track alignment. There are three areas where a second, passing track would be added: a new track west of the existing railroad tracks from north of Thornton Parkway to just north of 104th Avenue; a new track east of the existing railroad tracks from south of 124th Avenue to just south of York Street; and a new track east of the existing track just north of 160th Avenue (SH 7) to just south of the Big Dry Creek crossing. Track would be removed and the vertical grade altered at two locations for new grade-separated crossings at 104th Avenue and 120th Avenue. A tail track would be provided on the existing railroad tracks north of the SH 7/162nd Avenue Station for layover trains before reversing their trip. Ten features along this resource, as described below, would be impacted, but the existing grade would remain intact. Two existing timber bridges would be replaced with concrete box culverts. Two existing culverts would be extended and three culverts would be replaced. One culvert would be removed and relocated. Two corrugated metal pipes (CMP) would be replaced with concrete culverts. The existing wing walls, trash rack and a siphon would be replaced at one location. The alignment would be shifted slightly in six areas to help improve operations. All of

the realignments occur within the existing ROW. At the site of the Darlow siding (5AM472.1), ballast for the existing track would be replaced, directly impacting the site. The power poles for the catenary system of the EMU vehicle technology would not impact the site as they would be placed on the east side of the alignment at this location. Construction access at this location would be specified to occur from the east side of the alignment to avoid impacting the Darlow site.

These impacts are not anticipated to be harmful to the historic character of the rail alignment and, therefore, would constitute No Adverse Effect.

Signal Ditch – 5AM473 (Including 5AM473.1)

The resource is eligible for inclusion in the NRHP under Criterion A for its association with the development and expansion of irrigation works, and beet farming, in northeast Colorado. The BNSF/UP Boulder Branch Alignment would cross the ditch once. The existing siphon would be replaced and a new headwall and trash rack would be constructed. These impacts are not anticipated to be harmful to those characteristics that qualify the resource for inclusion in the NRHP, and therefore, would constitute No Adverse Effect.

German Ditch – 5AM471 (Including 5AM471.4)

The site, which is eligible for inclusion in the NRHP under Criterion A, is associated with the development and expansion of agriculture and irrigation works in the north Denver metropolitan area. The alignment crosses the ditch at five locations. The first location (most southern) crosses the ditch twice via an existing bridge structure that also crosses over E-470. This structure would not be replaced. The third crossing would require the replacement of an existing culvert (the replacement would be longer for floodplain purposes). The fourth and fifth crossings are being recommended for culvert replacements as well, including a siphon at the fifth crossing. The ditch alignment would not change at any of these locations. These impacts are not anticipated to be harmful to those characteristics that qualify the resource for inclusion in the NRHP, and therefore, would constitute No Adverse Effect.

UP Railroad Borrow-pit (5AM2402)

This site is a large, rectangular, flat-bottomed pit that lies immediately west of the alignment. The pit was excavated sometime between 1909 and 1951 to build the adjacent berm for the UP Railroad, which is approximately 50 feet high in this area. This borrow-pit is eligible for inclusion in the NRHP under Criterion D because it provides useful information on historic railroad engineering practices.

As part of the Preferred Alternative, the tail track and platform proposed at the SH 7/ 162nd Avenue Station would impact the borrow-pit at this site. However, a retaining wall would be constructed to avoid substantial encroachment into the borrow-pit. Construction activities would only intrude slightly into the borrow-pit to build the retaining wall. The impacts associated with the alignment are not anticipated to be harmful to the characteristics that qualify this resource for inclusion in the NRHP and, therefore, this would constitute No Adverse Effect.

Adverse Effect

Quimby Railroad Stop (5AM2111)

This resource, which is eligible for inclusion in the NRHP under Criteria A and D, includes three concentrations of artifacts dating from the 1930s to 1950s and a sub-surface concrete vault. The vault and one of the artifact concentrations are on the east side of the tracks located inside of the existing UP Railroad ROW and another artifact concentration abuts the UP Railroad ROW. Additional sub-surface features and artifacts may also be present at this site.

The alignment for the Preferred Alternative would parallel the western boundary of this site. The alignment follows the existing UP Railroad track and would be shifted slightly west of its current alignment near 100th Avenue. A new track west of the re-aligned track would be added within the existing UP Railroad ROW. Under the Preferred Alternative, the area along the east side of the existing tracks would be regraded to provide adequate drainage of the ballast and sub-ballast. Additionally, two existing culverts would be replaced with larger culverts and fencing would be added along the alignment. These improvements would directly impact the site. No noise walls are proposed at this location.

The impacts associated with the Preferred Alternative would impact one of the artifact concentrations within this site and could impact features and artifact concentrations that have not been identified, which would result in an Adverse Effect to this resource. The location of the Quimby Railroad Stop is shown in Figure 3.4-4.