

EAST COLFAX AVENUE BUS RAPID TRANSIT (BRT) PROJECT TECHNICAL MEMORANDUM

For Section 4(f) Resources

Prepared for:

City and County of Denver and Regional Transportation District

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Acronyms

ACHP	Advisory Council on Historic Preservation
APE	Area of Potential Effect
BRT	Bus Rapid Transit
CCD	City and County of Denver
CDOT	Colorado Department of Transportation
CE	Categorical Exclusion
CFR	Code of Federal Regulations
COA	City of Aurora
DRCOG	Denver Regional Council of Governments
DUS	Denver Union Station
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
I	Interstate
LRT	Light rail transit
LWCF	Land and Water Conservation Fund
MOA	Memorandum of Agreement
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NPS	National Park Service
NRHP	National Register of Historic Places
OAHP	Office of Archaeology and Historic Preservation
OTIS	Online Transportation Information System
OWJ	Official with Jurisdiction
ROW	Right-of-Way
RTD	Regional Transportation District
SHPO	State Historic Preservation Officer
TCE	temporary construction easement
TSP	Transit Signal Priority
US	United States
USDOT	US Department of Transportation

1. Project Description

The Federal Transit Administration (FTA) in coordination with the City and County of Denver (CCD) and the Regional Transportation District (RTD) are performing a National Environmental Policy Act (NEPA) evaluation for a Bus Rapid Transit (BRT) system that would serve East Colfax Avenue between downtown Denver and the RTD R Line light rail transit (LRT) Colfax Station at Interstate 225 (I-225) in Aurora (Project). The Project qualifies as a Categorical Exclusion (CE) per the FTA, which is the lead federal agency for this undertaking. The City of Aurora (COA), Colorado Department of Transportation (CDOT) and the Denver Regional Council of Governments (DRCOG) are active Project participants along with numerous public and private stakeholders. The CCD and the RTD implemented a robust stakeholder involvement program as a part of the Project and will continue to work with the stakeholders as design advances, funding is obtained, and construction is initiated.

The Project has completed preliminary design for BRT operations, including the identification of routing and station locations. The East Colfax Avenue BRT would run on existing, heavily traveled bus routes and would serve downtown Denver at the western end of the corridor, communities and businesses along East Colfax Avenue, and the Anschutz Medical Campus at I-225 and East Colfax Avenue in the east. Specifically, the 9.9-mile-long Project would include:

- Reliable BRT service (combined Route 15/15L) operating 24 hours per day, 7 days per week. This would include three service patterns all serving Denver Union Station (DUS) and three patterns that diverge at the eastern project terminus in the COA (including bus turnarounds at the RTD R Line LRT Colfax Station, Tower Road, and the R Line Aurora Metro Center Station). Two patterns would occur with 15-minute headways and one pattern with a 10-minute headway to provide a composite 4.3-minute BRT headway from DUS to the RTD R Line LRT Colfax Station. Connection between Civic Center Station and the Decatur/Federal Station is also provided via Route 16 (Figure 1).

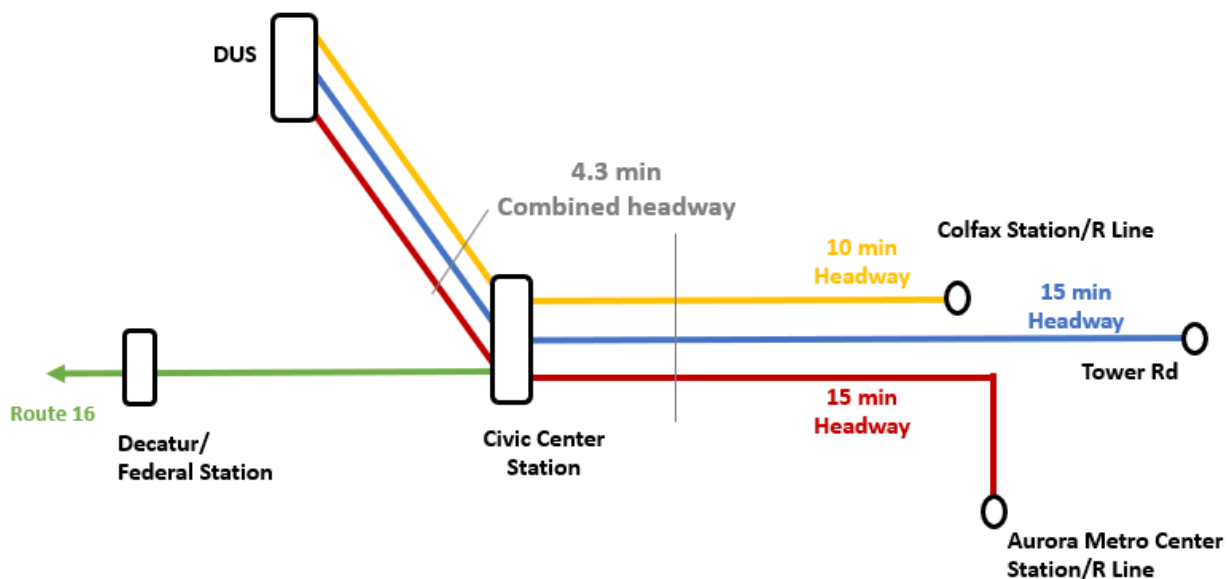


Figure 1. BRT Service Routing and Travel Headways

- Curbside-running alignment in existing 15th Street and 17th Street on-street bus lanes between DUS and Civic Center (East Colfax Avenue/Broadway), – 1.4 miles.

- Center-running alignment in dedicated bus-only lanes between Civic Center (East Colfax Avenue/Broadway) and East Colfax Avenue/Yosemite Street – 5.5 miles.
- Curbside-running alignment in mixed-flow traffic through COA between East Colfax Avenue/Yosemite Street and the existing RTD R Line LRT Colfax Station at I-225 – 3.0 miles.
- Branded service, stations, and vehicles.
- Thirty-five (35) station locations with an average spacing of 0.32 miles.
- Enhanced station amenities including level boarding platforms, high-quality shelters, off-board fare collection, lighting, security features, real-time system traveler information, protection from traffic and weather, and public art opportunities.
- The COA has contributed funding for upgraded station improvements at certain locations between Yosemite Street and I-225 along East Colfax Avenue. At East Colfax Avenue and Havana Street, a station design similar to those planned in the center-running alignment section in Denver, but with a curbside alignment, would be located at the corner of East Colfax Avenue and Havana Street. In addition, level boarding platforms are planned at the intersections of East Colfax Avenue and Peoria Street, Moline Street, and the RTD R Line Colfax Station. The level boarding platforms would be constructed where the existing 15L shelters are currently located at these three locations, and the 15L shelters would be attached on top of each new platform.
- Dual northbound left-turn lanes on Colorado Boulevard at the intersections of East 13th Avenue and East 17th Avenue to improve traffic operations and travel times within the project area. An approximately 5-foot southbound travel lane shift would be required for the turn lane improvements. These improvements consist of widening the roadway at the intersection by 10 feet. The added lane width would be accomplished by removal of the existing 5-foot median and shifting the existing curb line 5 feet to the west at both intersections. Station locations and proposed features are highlighted in Table 1 and Figure 2 below.

Table 1. Proposed Station Features

Station	Stop Location	Full Signature BRT Station	Level Boarding Platforms	Existing Enhanced 15L Shelter to Remain	New Relocated Enhanced 15L Shelter	Branding and BRT Amenities
Denver Union Station (DUS)	Curbside					✓
Lawrence /16 th	Curbside					✓
California/15 th	Curbside					✓
Tremont/15 th	Curbside					✓
Lawrence /17 th	Curbside					✓
Champa/17 th	Curbside					✓
Welton/17 th	Curbside					✓
Civic Center Station/Broadway	Curbside			✓		✓
Pennsylvania	Center	✓	✓			✓
Downing	Center	✓	✓			✓
Franklin/Park	Center	✓	✓			✓

Station	Stop Location	Full Signature BRT Station	Level Boarding Platforms	Existing Enhanced 15L Shelter to Remain	New Relocated Enhanced 15L Shelter	Branding and BRT Amenities
Josephine/York	Center	✓	✓			✓
Fillmore	Center	✓	✓			✓
Madison	Center	✓	✓			✓
Colorado	Center	✓	✓			✓
Cherry	Center	✓	✓			✓
Elm	Center	✓	✓			✓
Hudson	Center	✓	✓			✓
Krameria	Center	✓	✓			✓
Monaco	Center	✓	✓			✓
Quebec	Center	✓	✓			✓
Syracuse	Center	✓	✓			✓
Uinta	Center	✓	✓			✓
Yosemite	Curbside			✓		✓
Chester	Curbside				✓	✓
Dayton	Curbside			✓		✓
Florence	Curbside				✓	✓
Havana	Curbside	✓	✓			✓
Kingston	Curbside				✓	✓
Moline	Curbside		✓	✓		✓
Peoria	Curbside		✓	✓		✓
Scranton	Curbside			✓	✓	✓
Children's Way	Curbside			✓		✓
Wheeling / Fitzsimons (VA)	Curbside				✓	✓
Colfax Station / R Line LRT	Curbside		✓		✓	✓

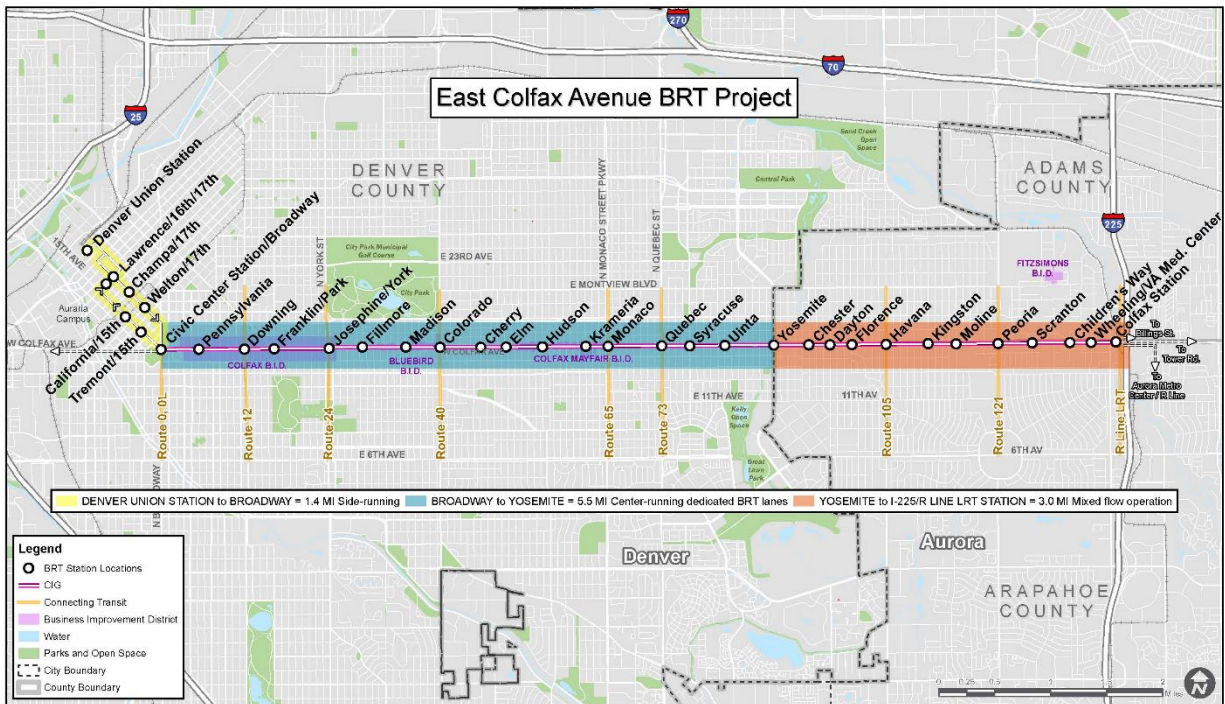


Figure 2. Project Area and Station Locations

1.1 PURPOSE OF THE PROJECT

The purpose of the Project is to provide additional person-trip capacity to meet growing travel demand with a high-quality, high-capacity, cost-effective, reliable, and safe transit solution serving the East Colfax Avenue corridor. This new service would provide a faster, more reliable, and more comfortable passenger experience compared with existing bus service, and thereby attract additional transit ridership. The Project would improve local and regional accessibility, mobility, safety, transit travel times and reliability, and passenger facilities in the most heavily used transit corridor in the Denver region.

1.2 NEED FOR THE PROJECT

The need for the Project is demonstrated by increasing transit travel demand in the corridor. The Project would aid the growth of transit ridership in the corridor by providing a comfortable, more frequent, and more reliable service for transit patrons, to a variety of destinations along the corridor. The Project also supports the City's Vision Zero initiative, making travel safer for pedestrians, cyclists, motorists and transit riders. The Project would also support future investment along the East Colfax Avenue corridor, while continuing to provide an affordable travel option to help reduce household transportation costs. Seven needs have been identified and outlined for the Project:

- Serve the Growing Travel Demand
- Provide Improved Mobility
- Provide Equity and Affordability
- Improve Safety
- Provide Improved Access to Major Destinations

- Align Mobility Improvements with Land Use, Neighborhood and Economic Plans
- Improve Placemaking

2. Introduction to Analysis

This Section 4(f) Evaluation is prepared for the Project and complies with Section 4(f) of the US Department of Transportation (USDOT) Act of 1966 (49 USC 303), hereinafter referred to as “Section 4(f),” and its implementing regulations codified at 23 CFR Part 774.

2.1 SUMMARY OF RESULTS

The results of the Section 4(f) investigation for the Project are as follows:

- Parks and Recreational Areas
 - No permanent or temporary Section 4(f) uses
 - No constructive uses
- Wildlife and/or Waterfowl Refuges
 - None present within the project area
- Historic Properties
 - One *de minimis* impact of an NRHP eligible historic property (5DV.55356), which includes permanent acquisition of 274 square feet, (0.006 ac) within an existing hardscaped area along Colorado Boulevard and 13th Avenue due to curb line shift and sidewalk reconstruction.
 - Adoption of FHWA’s *de minimis* finding for curb ramps at Grant Street and East Colfax Avenue
 - No constructive uses from minor visual effects

2.2 REGULATORY ENVIRONMENT

Section 4(f) of the USDOT Act of 1966 Overview

Section 4(f) is a federal law that protects publicly owned parks, recreation areas, wildlife and/or waterfowl refuges, as well as significant historic properties, whether publicly or privately owned, from use in transportation projects unless there is no feasible and prudent alternative to meet the Project purpose and need. Codified in 49 U.S.C. §303 and 23 U.S.C. §138, Section 4(f) applies only to the USDOT and is implemented by FTA through 23 Code of Federal Regulations (CFR) 774.

Section 4(f) of the US Department of Transportation (USDOT) Act of 1966 (49 USC 303) is a distinct statute from NEPA with its own regulations and requirements. NEPA requires a project to comply with other federal laws such as Section 4(f) and requires FTA to consider Section 4(f) impacts of a project prior to making a final determination under NEPA.

In addition to the Section 4(f) statute and regulations, this evaluation applies additional guidance from Federal Highway Administration (FHWA) titled, Technical Advisory T6640.8A (FHWA 1987b) and the revised FHWA Section 4(f) Policy Paper (FHWA 2012), which FTA formally adopted.

FTA cannot approve a transportation project that uses a Section 4(f) property, as defined in 23 CFR 774.17, unless FTA determines that:

- There is no feasible and prudent avoidance alternative, as defined in 23 CFR 774.17, to the use of land from the Section 4(f) property, and the action includes all possible planning, as defined in 23 CFR 774.14, to minimize harm to the property resulting from such use (23 CFR 774.3(a)); or
- The use of the Section 4(f) property, including any measure(s) to minimize harm (such as any avoidance, minimization, mitigation, or enhancement measures) committed to by the applicant would have a *de minimis* impact, as defined in 23 CFR 774.17, on the property (23 CFR 774.3(b)).

Definition of Section 4(f) Uses

After identifying a Section 4(f) property, FTA determines whether and to what extent the Project would use the property. The type of Section 4(f) use is then determined according to the Section 4(f) use definitions below.

Permanent Use—Pursuant to 23 CFR 774.17, a permanent use occurs when land from a Section 4(f) property is permanently incorporated into a transportation project. This may occur as a result of partial or full acquisition of the Section 4(f) property, permanent easements or temporary easements that exceed regulatory limits.

A determination of a permanent use *de minimis* impact can be made only if the project will not adversely affect the features, attributes or activities that make the Section 4(f) property significant. The specific requirements for a *de minimis* impact determination are different for historic properties and for public parklands, recreational areas, and wildlife and waterfowl refuges. Per Section 4(f) regulations, evaluation of avoidance alternatives and selection of an alternative having the least overall harm are not required if a *de minimis* impact determination is made. For parks, recreation, and wildlife refuge sites, the official with jurisdiction (OWJ) must agree with the *de minimis* impact finding. For historic properties, the OWJ will be notified of the intent to make a *de minimis* finding.

If the OWJ does not agree with a *de minimis* impact determination, an analysis of avoidance alternatives must be conducted. If the analysis concludes that there is no feasible and prudent alternative to use of the Section 4(f) property, FTA may only approve the alternative that causes the least overall harm. A least overall harm analysis is conducted to determine which alternative may proceed. A *de minimis* impact determination is inappropriate where a project results in a constructive use (23 CFR 774.3(b) and 23 CFR 774.17). Below is further detail on *de minimis* impact:

- Historic Properties - As defined in 23 CFR 774.5 and 774.17, a *de minimis* impact determination is made for an historic site if FTA makes a determination of “No Adverse Effect” or “No Historic Properties Affected” through consultation under Section 106 of the NHPA, and the SHPO concurs with that Section 106 determination.
- Parks, Recreation Areas and Refuges - A *de minimis* impact on a public parkland, recreational area, and/or wildlife and waterfowl refuge is defined as that which does not “adversely affect the features, attributes or activities qualifying the property for protection under Section 4(f)” as defined in 23 CFR 774.17. This determination can be made only with the concurrence of the (OWJ) and can be made only after an opportunity for public review and comment on the preliminary determination. Public review and comment are being sought for the preliminary determinations in this Section 4(f) Evaluation.

Constructive Use—As defined in 23 CFR 774.15(a), a constructive use occurs when a transportation project does not incorporate land from a Section 4(f) property, but the project’s proximity impacts are so severe that

the protected activities, features, or attributes that qualify a property for protection under Section 4(f) are substantially impaired. The assessment of the potential for proximity effects of the proposed project is used by FTA to determine whether a constructive use of properties protected by Section 4(f) would occur.

Temporary Use—A temporary use occurs during construction of a project when Section 4(f) property is temporarily incorporated into a transportation project. A temporary use can only occur during construction and cannot have permanent adverse physical impacts or interfere (temporarily or permanently) with the activities, features, or attributes of the protected property.

3. Affected Environment

3.1 METHODOLOGY

The Section 4(f) evaluation included the following steps:

Identification of Section 4(f) properties:

- For parks, recreation areas and wildlife refuges, FTA, CCD and RTD reviewed existing mapping, conducted field investigations/site reconnaissance, searched property records and consulted with the Officials with Jurisdiction to identify the properties protected by Section 4(f) within the Project area or APE. Further information regarding parks and recreation areas is included in the Parks and Recreation Technical Memorandum.
- For Historic properties, Historic properties were identified as part of FTA's consultation under Section 106 of the National Historic Preservation Act. As defined by Section 4(f), historic properties that are listed on the National Register of Historic Places (NRHP) or have been determined to be eligible for listing on the NRHP. Further information regarding historic properties is included in the Cultural and Paleontological Resources Technical Memorandum.

Assessment of Impacts to each Section 4(f) property:

- Based on engineering design, right-of-way information and boundaries of section 4(f) resources, evaluated whether the project will result in either permanent or temporary incorporation of land from Section 4(f) properties.
- Evaluated the potential for constructive use on 4(f) properties where no physical use of the Section 4(f) property is present.

Use finding for each Section 4(f) property:

- Based on Section 4(f) regulatory context, and knowing the assessment of impacts to 4(f) properties, evaluated the use of the protected properties. Use findings can be documented via a *de minimis* impact determination, programmatic Section 4(f) evaluation or Individual Section 4(f) evaluation.

4. Identification and Assessment of Use of Section 4(f) Properties

This section presents the properties that are protected by Section 4(f) and then, for each affected property, describes the Project impact on the property, and proposes the Project use of the property as defined by

Section 4(f). The FTA makes the final determination of use under Section 4(f). This section is organized to present the properties from west to east in the Project area or Area of Potential Effects (APE).

4.1 IDENTIFICATION OF SECTION 4(F) PROPERTIES

FTA, CCD and RTD reviewed existing mapping, conducted field investigations/site reconnaissance, searched property records and consulted with the OWJ's to identify the properties protected by Section 4(f) within the Project area or APE.

4.1.1 PARKS, RECREATIONAL AREAS, AND WILDLIFE AND/OR WATERFOWL REFUGES

A total of 14 parks and recreational areas exist within the Project area (Aurora, 2021; CPW, 2019; CPW, 2023; CDOT, 2023; CCD, 2019; CCD, 2023; DRCOG, 2021) (Table 2 and Appendix A). None of the 14 facilities were acquired or developed with Land and Water Conservation Funds (LWCF); No National Wildlife Refuges or State Wildlife Areas are located within the Project area. Further information regarding parks and recreation areas is included in the Parks and Recreational Technical Memorandum.

Table 2. Parks and Recreational Areas Located within the Project Area

Resource ID #	Resource Name	Resource Facilities	Access	Location	Ownership
1	Skyline Park	Sidewalks, hardscape park, greenspace	Automobile/ Bicycle/ Pedestrian	Along the northwest side of Arapahoe Street between East 15 th Street and East 18 th Street	CCD
2	Unnamed pedestrian paths	Paved areas	Automobile/ Bicycle/ Pedestrian	Along the Cleveland Place alignment between East 14 th Street and East 15 th Street, southeast of the Wellington Webb Municipal Building and northwest of East Colfax Avenue	CCD
3	Civic Center Park	Voorhies Memorial, Greek Amphitheater, benches, fountain, flower beds, public art	Automobile/ Bicycle/ Pedestrian	Between Bannock Street and North Broadway; between Colfax Avenue and 14 th Street	CCD
4	Liberty Park/Lincoln Memorial Park	Monument/memorial, grassy area, flower beds	Automobile/ Bicycle/ Pedestrian	Between North Broadway and Grant Street	CCD

Resource ID #	Resource Name	Resource Facilities	Access	Location	Ownership
5	Pioneer Monument Park/Fountain	Monument/memorial, fountain, benches	Automobile/Bicycle/Pedestrian	Between North Broadway and Cheyenne Place just north of East Colfax Avenue	CCD
6	Unnamed pedestrian paths and parks	Sidewalks, grassy areas	Automobile/Bicycle/Pedestrian	Along Park Avenue West, north of East Colfax Avenue	CCD
7	Carla Madison Recreation Center	Recreation Center, slackline park, dog park	Automobile/Bicycle/Pedestrian	East of Josephine Street along City Park Esplanade, north of East Colfax Avenue	CCD
8	Denver East High School Sports Fields	Sports fields, grassy areas	Automobile/Bicycle/Pedestrian	North of East Colfax Avenue between Josephine Street and Detroit Street	CCD
9	City Park and Trails Within	Benches, drinking fountain, picnic area, playground, flower beds, walking/jogging path, lakes, sports fields, tennis court, horseshoe pits, museum, and zoo.	Automobile/Bicycle/Pedestrian	Northwest corner of Colorado Boulevard and East 17 th Avenue	CCD
10	Unnamed Park land along Westerly Creek	Grassy Area along Westerly Creek	Automobile/Bicycle/Pedestrian	East of East Colfax Avenue/East 16 th Avenue Alley, south of East 16 th Avenue, just east of Yosemite Street	COA
11	Fletcher Plaza	Outdoor public plaza	Automobile/Bicycle/Pedestrian	Between Emporia Street and Elmira Street, south of East Colfax Avenue	COA

Resource ID #	Resource Name	Resource Facilities	Access	Location	Ownership
12	General's Park	Picnic tables, playground, trails, restrooms, parking area	Automobile/ Bicycle/ Pedestrian	Northeast corner of East Colfax Avenue and Peoria Street	COA
13	Unnamed Park land	Grassy area	Automobile /Bicycle/ Pedestrian	Between East 14 th Avenue and 14 th Place, roughly between Ursula Street and Victor Street	COA
14	Toll Gate Creek	Open space along Toll Gate Creek	Automobile/ Bicycle/ Pedestrian	Along Toll Gate Creek east of Richthofen Circle/Fitzsimons Parkway and west of I-225, north and south of East Colfax Avenue	COA

4.1.2 HISTORIC PROPERTIES

As defined by Section 4(f) regulations, historic properties are properties that are listed on the National Register of Historic Places (NRHP) or have been determined to be eligible for listing on the NRHP. Historic properties were identified as part of FTA's consultation under Section 106 of the National Historic Preservation Act (hereinafter referred to as Section 106). Further information regarding historic properties is included in the Cultural and Paleontological Resources Technical Memorandum.

A total of 426 historic properties were identified and evaluated within the APE. including three segments of East Colfax Avenue (not previously surveyed), and six individual properties along Colorado Boulevard at the intersections of 13th and 17th Avenues. The evaluation of historic and potentially historic properties was completed between Civic Center Station at East Colfax Avenue/ Broadway in Denver to the RTD R-Line LRT Colfax Station at I-225 in Aurora. All parcels adjacent to East Colfax Avenue containing buildings or structures constructed in 1976 or before were included.

The density and character of the APE yielded many previously identified resources, including 23 Officially NRHP Eligible and NRHP Listed, National, and/or Local Historic Landmarks properties. Properties with an official determination of Eligible that is less than 10 years old were not re-evaluated for NRHP eligibility. Within the APE, there are approximately 400 treat-as-eligible properties (See Appendix C of the Cultural and Paleontological Resources Technical Memorandum). Three previously un-surveyed segments of East Colfax Avenue/US 40 (5DV.10474.1; 5AM.1883; 5AH.2914.2) were individually evaluated as part of this Project.

The Project was evaluated for archaeological resources within the APE through a review of the COMPASS database and no previously documented archaeological sites were identified within the APE. Due to the highly disturbed nature of the APE, the probability of encountering new prehistoric archaeology is low. Therefore, no archaeological resources for consideration under Section 4(f) are present.

The results of research, data collection, and determinations of eligibility are included with the Cultural and Paleontological Resources Technical Memorandum. Of the properties determined to be eligible for the NRHP, only one resource, listed below, requires right-of-way from its parcel to construct the Project.

- 1285 North Colorado Boulevard (5DV.55356) – determined Eligible (SHPO letter dated 11/20/2023)

The property (consisting of 1265, 1275, and 1285 North Colorado Boulevard) consists of three separate two-story, rectangular-shaped condominium buildings that were constructed in 1964. The buildings represent the Neo-Mansard style of architecture. The resource is not directly associated with a significant event or developmental trend related to state or national history. Therefore, the resource is not significant under NRHP Criterion A. Research into the history of the property did not yield connections between the resource and the productive lives of significant individuals in the history of the United States, Colorado, or the Denver area. The resource is not significant under NRHP Criterion B. SHPO stated that this resource is significant under NHRP Criterion C in correspondence dated 11/20/2023. The property is a modest example of Neo-Mansard style of residential architecture featuring a concrete foundation; exterior envelope clad with brick and stone masonry; a mansard roof; overhanging eaves; recessed windows within the mansard roof; car ports; and hipped roof overhangs. The property is functional with moderate decorative adornments including stone masonry exterior walls; iron staircases; bay windows; and recessed windows. The property is unlikely to reveal information important to history or prehistory and is therefore not eligible under NRHP Criterion D.

Streetcar Lines: Streetcar lines were historically present on East Colfax Avenue within the APE. When the Denver Streetcar system was discontinued in 1951, the tracks were paved over in-situ and may still exist within the pavement of East Colfax Avenue within the APE. The streetcar lines are assumed to be NRHP Eligible. Ancillary equipment and small structures serving the streetcar lines were typically removed.

Sandstone Curbs: Small fragments of late 19th century sandstone curbs are extant at several locations along East Colfax Avenue and where East Colfax Avenue intersects local north-south streets, such as at Gilpin Street. Extant sandstone curbs in the APE are intermittent, in fair to poor condition, and maintain no tangible connection to their historic context.

Terra cotta Nameplates: 15 terra cotta nameplates depicting street names have been located and are shown in Appendix D of the Cultural and Paleontological Resources Technical Memorandum.

Brick Lined Storm Sewers: Along East Colfax Avenue, a historic brick-lined storm sewer still exists between Jackson Street and Colorado Boulevard. The brick-lined sewers were previously determined eligible for listing in the NRHP.

4.2 PROJECT IMPACTS TO PARKS AND RECREATIONAL AREAS AND ASSESSMENT OF USE UNDER SECTION 4(F)

This section assesses the potential for the Project to impact parks and recreational areas that are protected by Section 4(f).

4.2.1 PERMANENT OR TEMPORARY INCORPORATION OF LAND FROM PARKS AND RECREATIONAL AREAS

As indicated in Table 1, the Project would not permanently or temporarily incorporate land from any of the parks and recreational areas because they are outside the proposed ROW acquisition area.

4.2.2 POTENTIAL FOR TEMPORARY OCCUPANCY OF PARKS AND RECREATIONAL AREAS

The Project does not result in a temporary use of any park or recreational area. Therefore, the Project does not result in a temporary occupancy of any park or recreational area.

4.2.3 POTENTIAL FOR CONSTRUCTIVE USE OF PARKS AND RECREATIONAL AREAS

The Project was evaluated for the potential to have a constructive use of park and recreational areas. In accordance with the requirements of Section 4(f), only those parks or recreational areas that have no potential for a permanent or temporary incorporation of land for the Project were considered. As described in Section 3.2, a constructive use occurs when the proximity impacts of a project are significant enough to substantially diminish the activities, features, or attributes of a park or recreational area. Proximity effects could include noise, visual change, restriction of access, or vibration.

Operational Noise and Vibration. Ambient noise levels at all 14 of the parks and recreation areas within the Project area are dominated by existing motor vehicle traffic noise along East Colfax Avenue and adjoining streets within the urbanized areas of the City of Denver and City of Aurora. The noise analysis for the Project determined that the proposed service patterns and center-aligned BRT lane construction would not result in noise impacts. The vibration analysis determined the realignment of buses from the existing curb-running service to the interior BRT lanes would most likely decrease potential vibration impacts. Project noise levels and vibration are predicted to be below the FTA impact criteria. As a result, no noise or vibration impacts are predicted at any of the adjacent parks or recreational areas within the Project area. For these reasons, Project operations would not cause a constructive use due to operational noise or vibration.

Construction Noise and Vibration. Project construction activity has the potential to temporarily increase noise and vibration levels at the 14 parks and recreational areas. To address this potential effect, CCD would minimize or control noise and vibration generation to the extent practicable with Best Management Practices (BMPs). Specifically, the contractor will be required by contract to utilize the noise and vibration control measures prescribed by CCD in the Project construction plans to avoid or minimize to the greatest extent feasible temporarily elevated noise and vibration levels outside the Project construction limits. By applying these BMPs, Project construction activity would not cause a constructive use due to noise and vibration.

Operational Visual change. East Colfax Avenue near the 14 parks and recreational areas operates as a transit corridor adjoined by a mix of multi-unit residential, commercial, office, civic, institutional and entertainment uses. Views along East Colfax Avenue include buildings abutting the sidewalk, numerous commercial establishments, multi-family homes, vacant lots, surface parking lots, and transportation infrastructure including overhead signals, and other utilities. The Project maintains compatibility with the visual character of this urbanized transportation corridor and would not degrade the existing visual/aesthetic character or quality of the Project area, its surroundings, and/or recognized viewsheds. Because the Project would use the existing transportation corridor, the Project would not substantially change the visual environment at the parks and recreational areas and would not cause substantial impairment of the esthetic features or attributes of the parks and recreational areas. As a result, Project operations would not cause a constructive use due to visual change at the 14 parks and recreational areas.

Project Construction Visual Change. Project construction activity has the potential to temporarily cause visual impacts at the parks and recreational areas related to construction of BRT facilities and construction equipment operations in the roadway ROW. However, because construction activity would be temporary in

duration, visual impacts during Project construction would not substantially impair the esthetic features or attributes of the parks and recreational areas. For this reason, Project construction would not cause a constructive use due to visual change at the parks and recreational areas.

Restriction of access – Project Operations. The Project would not permanently restrict access to parks and recreational areas. Project operations would not cause a constructive use due to restriction of access to the 14 parks or recreational areas.

Restriction of Access – Project Construction. The crosswalks at several side streets near the Carla Madison Recreation Center would be restriped during construction activities. This would result in a temporary impact with an overall benefit for patrons due to better visibility of the crosswalk feature and enhanced multimodal access to the recreation center. There are no other impacts related to restriction of access during construction. Access to the recreation center and other parks and recreational areas would remain open during construction. By maintaining access to the Carla Madison Recreation Center during Project construction, the Project would not substantially diminish the utility of the Recreation Center. For this reason, Project construction would not cause a constructive use of Carla Madison Recreation Center due to restriction of access.

4.3 PROJECT IMPACTS TO HISTORIC PROPERTIES AND ASSESSMENT OF USE UNDER SECTION 4(F)

This section assesses the potential for the Project to impact historic properties that are protected by Section 4(f). Historic properties were identified and evaluated in the context of Section 106 of the National Historic Preservation Act (NHPA). This section summarizes those findings and provides an assessment under the requirements of Section 4(f).

4.3.1 PERMANENT OR TEMPORARY INCORPORATION OF LAND FROM HISTORIC PROPERTIES

As indicated in Section 4.1.2, the Project would incorporate a portion of the land from one eligible historic property, identified as 1285 North Colorado Boulevard (5DV.55365). Note that proposed property acquisitions for the Project are preliminary and subject to change as the Project design advances and coordination with affected property owners occurs. The need for property acquisitions to accommodate the Project will be avoided or minimized to the extent reasonably feasible.

Resource 5DV.55365

The Project would require permanent acquisition of a portion of the 5DV.55356 Property (274 square feet, 0.006 ac) within an existing hardscaped area along Colorado Boulevard and 13th Avenue. The ROW is required due to curb line shift and sidewalk reconstruction. The Project would also result in a 557 square feet (0.01 ac) temporary construction easement (TCE). (Figure 3). The land to be acquired is entirely within a hardscaped area and would not physically impact the building, parking or any landscaped features.

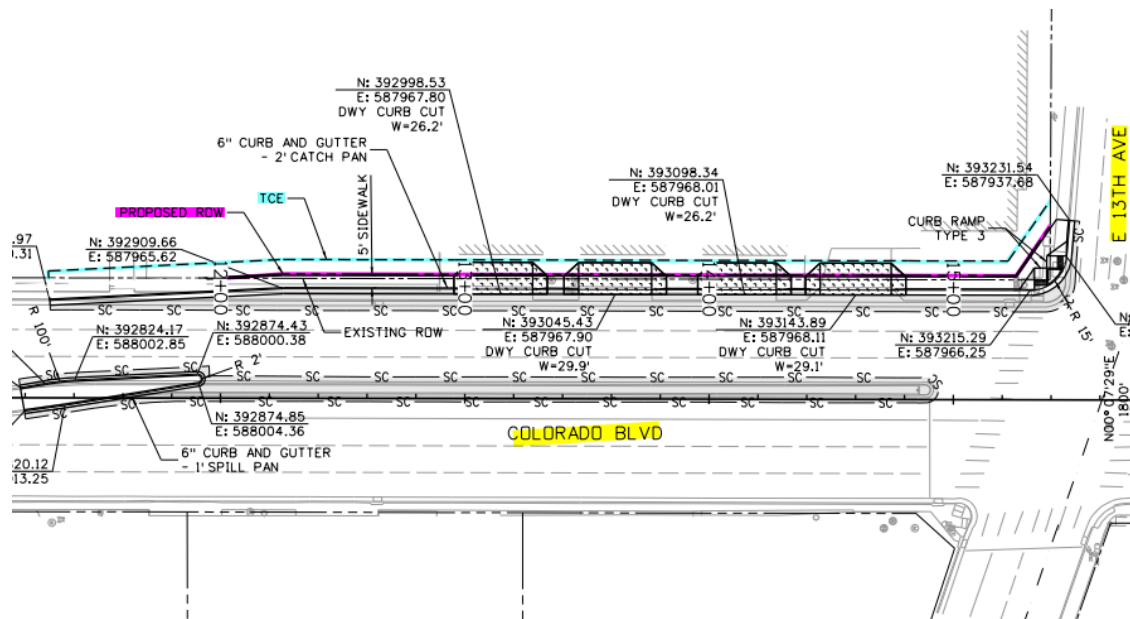


Figure 3. Proposed Acquisitions at 5DV.55356

The finding of effect to this property under Section 106 of the NHPA is no adverse effect (SHPO concurrence 12/14/2023) because the Project would not substantially alter or remove the property and would not change the character of the property's use, physical features, or setting that make it historically significant.

Under Section 4(f), the Project would permanently incorporate a portion of land from the 5DV.55356 property for transportation use. FTA made a finding of *de minimis* use under Section 4(f) in light of the Section 106 finding of no adverse effect. and because it meets the definition of *de minimis* under Section 4(f). Notification to SHPO regarding the *de minimis* finding was provided by FTA on 4/11/2024.

Discussion of Potential Section 4(f) Uses to other Historic Properties within the APE

No permanent or temporary incorporation of land from any of the remaining historic properties within the APE would occur as a result of the Project.

Historic Archaeology Resources: The brick-lined storm sewer, sandstone curbs, terra cotta name plates and streetcar lines are present with the APE and are collectively considered to be historic archaeology resources. These resources are commonly encountered in Denver and have been well studied.

A historic brick-lined storm sewer is likely present between Jackson Street and Colorado Boulevard within the APE. Section 106 consultation conducted for this project has acknowledged the likely presence of the brick-lined storm sewer system but has not identified a Section 106 determination of effect as the presence or absence of the resource within the APE is unconfirmed. Therefore, no Section 4f finding can be made for this resource at this time. A Memorandum of Agreement (MOA) between FTA, ACHP, and SHPO, executed on April 5, 2024 and found in Appendix F of the Cultural and Paleontological Resource Technical Memorandum, was developed to address the procedures if features of the brick-lined storm sewer system are found during construction. The MOA acknowledges such a discovery may result in a Section 106 finding of adverse effect, though this determination has not currently been made. In the event the project discovers features of the

brick-lined storm sewer system, follows the procedures within the MOA, and results in a determination of Section 106 adverse effect, FTA may apply the Section 4(f) exception for archaeological resources important chiefly for their informational value with limited value for preservation in place (23 CFR 774.13(b)).

Additionally, sandstone curbs and 15 terra cotta nameplates are intermittently located at intersections along East Colfax Avenue. Currently, Section 106 consultation on this resource does not anticipate interaction with the resource and therefore results in no use under Section 4(f). As part of a separate FHWA Highway Safety and Security (HSIP) project performed within the Project APE, CDOT prepared a Section 4(f) *De Minimis* Use Form for the proposed ADA-compliant curb ramps along East Colfax Avenue at Broadway, Lincoln, and Grant Streets. Under the MOA, the components of the HSIP project at Grant Street were subsequently added to the current Project. FTA has adopted FHWA's *de minimis* findings associated with the curb ramps at Grant Street.

Streetcar lines were historically present in East Colfax Avenue but have since been removed or paved over. Remaining streetcar tracks, ties, underlayment, and associated components within the roadway are assumed to be NRHP Eligible. The removal of streetcar tracks is not anticipated at this time; however, tracks may be encountered during construction. Provided tracks or other discovered appurtenances remain in place upon discovery and are re-buried when construction in the area of the discovery is complete, concurrence with a Section 106 determination of no adverse effect was received from SHPO on May 25, 2022. The above referenced MOA between FTA, ACHP, and SHPO addresses procedures if features of streetcar tracks or features are found during construction. The MOA acknowledges such a discovery may result in a Section 106 finding of adverse effect, though this determination has not currently been made. In the event the project discovers features of the streetcar system, follows the procedures within the MOA, and results in a determination of Section 106 adverse effect, FTA may apply the Section 4(f) exception for archaeological resources important chiefly for their informational value with limited value for preservation in place (23 CFR 774.13(b)).

Station Design: Based on coordination with SHPO and consulting parties as documented in the Cultural and Paleontological Resources Technical Memorandum, the Project will have an Adverse Effect on eligible and listed historic properties due to visual effects associated with the construction of the proposed Project. The potential for visual effects resulting from implementation of proposed station kiosks, canopies, enhanced shelters, and signage within 100 feet of an eligible, listed, or treat-as-eligible resource were evaluated. No temporary or permanent right-of-way would be required from these resources. Station design concepts under consideration for the center-running Denver segment preserve important views through the APE by emphasizing visual permeability through the use of clear paneling for informational signs and structural elements of the station.

The side-running Aurora section includes a signature BRT station (similar to the proposed Denver Stations), at the intersection of Havana Street and East Colfax Avenue, and enhanced stops, including level boarding and 15L shelters at the intersections of East Colfax Avenue and Peoria Street, Moline Street, and the RTD R Line LRT Colfax Station. Enhanced shelters in the Aurora segment are consistent with existing curbside stops throughout the APE.

4.3.2 POTENTIAL FOR CONSTRUCTIVE USE OF HISTORIC PROPERTIES

FTA consultation with SHPO, ACHP and other consulting parties has resulted in a finding of adverse effect for properties that are listed, determined eligible, and treated as eligible as a result of the construction of the proposed BRT stations on the basis of visual effects. The proposed Project will introduce a new visual

element consisting of canopies at the proposed BRT stations along East Colfax Avenue. FTA made the finding of adverse effect in a letter dated October 26, 2023. SHPO concurred with this finding on November 20, 2023.

No permanent or temporary incorporation of land associated with these properties would take place. As a result, an assessment of the potential for a constructive use was undertaken for Section 4(f) properties where no permanent or temporary incorporation of land would occur. Under 23 CFR 774.15, constructive use only occurs when the activities, features or attributes that qualify the property for protection under Section 4(f) are substantially impaired. Substantial impairment only occurs when the protected activities, features, or attributes of the property are substantially diminished. As noted above, the adverse effect to the historic properties is based on visual effects. Per 23 CFR 774.15(e)(2), constructive use can occur based on the substantial impairment of aesthetic features or attributes of a property. The project introduces new visual elements which may partially obstruct the view of some buildings at certain angles, although the proposed visual elements do not eliminate primary views of the architectural resources.

The improvements would not obstruct or obscure all views of any architectural resource. As such, while the proposed visual elements do introduce new vertical elements, they are also visually permeable from various angles. Additionally, while the new visual elements result in changes to the setting of these resources, the subject properties have not been demonstrated to derive their historic value in substantial part due to their setting. The Project overall and the new visual elements associated with the BRT Stations in the center running alignment do not substantially diminish the integrity of the properties' historic features due to the intermittent dispersed nature of the improvements and the visually permeable design of the canopies. For these reasons, the Project would not substantially impair the activities, features, or attributes that qualify each of the properties for protection under Section 4(f). Therefore, no constructive use would occur.

5. Agency Coordination

FTA, in coordination with RTD and CCD, first initiated the Section 106 consultation process in February 2021, providing the initial APE and methodology for Determination of Eligibility and Finding of Effects for consideration by SHPO. For the purposes of Section 4(f) only relevant coordination has been included in this technical memorandum and included in Appendix A.

1. April 26, 2022 – FTA Letter to SHPO on Modified APE, DOE and FOE
 - a. Requested SHPO concurrence regarding modified APE, DOE and FOE
2. May 25, 2022 – Response Letter from SHPO
 - a. Concurrence regarding APE, DOE and FOE
 - b. Acknowledgment of use of a *de minimis* finding to comply with Section 4(f) and noted that FTA may also use the *transportation facilities exemption* for the three identified segments of Colfax Avenue.
3. August 29, 2022 – De Minimis Use Clearance for HSIP Project
 - a. FHWA concurrence regarding *de minimis* findings for curb ramps at the northwest corner of Grant Street and East Colfax Avenue. Includes concurrence from SHPO regarding the curb ramps.
4. December 1, 2023 – FTA Letter to SHPO
 - a. Requested SHPO concurrence of finding of no adverse effects to 1285 North Colorado Boulevard (5DV.55356).
5. December 14, 2023 – SHPO Response Letter to FTA
 - a. Concurrence regarding no adverse effects to 5DV.55356, and acknowledgement of adverse effect for larger undertaking.
6. April 2024 – Draft MOA from FTA to SHPO
7. April 11, 2024 – FTA Notification to SHPO
 - a. Notification of *de minimis* finding for 1285 North Colorado Boulevard (5DV.55356)