

Part 1

Base Information

1. Project Title	US 287 / 120th Ave. Multimodal and Safety Study			
2. Project <i>Start/End</i> points or Geographic Area <i>Provide a map with submittal, as appropriate</i>	Alter Street, west of US 287 loop ramps to Lowell Blvd (Broomfield County boundary)			
3. Project Sponsor (<i>entity that will construct/ complete and be financially responsible for the project</i>)	City & County of Broomfield (project applicant) Colorado Dept of Transportation R1 (project lead)			
4. Project Contact Person, Title, Phone Number, and Email	Sarah Grant, Transportation Manager City & County of Broomfield 303-438-6385 SGrant@broomfield.org			
5. Does this project touch CDOT Right-of-Way, involve a CDOT roadway, access RTD property, or request RTD involvement to operate service?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If yes, provide applicable concurrence documentation with submittal</i>			
6. What planning document(s) identifies this project?	<input checked="" type="checkbox"/> DRCOG 2040 Fiscally Constrained Regional Transportation Plan (2040 FC RTP)			
	<input checked="" type="checkbox"/> Local plan:	Broomfield Transportation Plan (page 46) https://www.broomfield.org/DocumentCenter/View/14606/Transportation-Plan-071216?bidId=		
	<input checked="" type="checkbox"/> Other(s):	2014 Northwest Area Mobility Study (page 41) http://www.rtd-fastracks.com/nams_1 https://www.dropbox.com/s/1uj1mt3z1h80ya4/Final%20Report%20508%5B1%5D.pdf?dl=0		
<i>Provide link to document/s and referenced page number if possible, or provide documentation with submittal</i>				
7. Identify the project's key elements. <table border="0" style="width: 100%;"> <tr> <td style="vertical-align: top; width: 50%;"> <input type="checkbox"/> Rapid Transit Capacity (2040 FC RTP) <input checked="" type="checkbox"/> Transit Other: <input checked="" type="checkbox"/> Bicycle Facility <input checked="" type="checkbox"/> Pedestrian Facility <input checked="" type="checkbox"/> Safety Improvements <input type="checkbox"/> Roadway Capacity or Managed Lanes (2040 FC RTP) <input checked="" type="checkbox"/> Roadway Operational </td> <td style="vertical-align: top; width: 50%;"> Grade Separation <input type="checkbox"/> Roadway <input type="checkbox"/> Railway <input type="checkbox"/> Bicycle <input type="checkbox"/> Pedestrian <input type="checkbox"/> Roadway Pavement Reconstruction/Rehab <input type="checkbox"/> Bridge Replace/Reconstruct/Rehab <input checked="" type="checkbox"/> Study <input type="checkbox"/> Design <input checked="" type="checkbox"/> Transportation Technology Components <input type="checkbox"/> Other: </td> </tr> </table>			<input type="checkbox"/> Rapid Transit Capacity (2040 FC RTP) <input checked="" type="checkbox"/> Transit Other: <input checked="" type="checkbox"/> Bicycle Facility <input checked="" type="checkbox"/> Pedestrian Facility <input checked="" type="checkbox"/> Safety Improvements <input type="checkbox"/> Roadway Capacity or Managed Lanes (2040 FC RTP) <input checked="" type="checkbox"/> Roadway Operational	Grade Separation <input type="checkbox"/> Roadway <input type="checkbox"/> Railway <input type="checkbox"/> Bicycle <input type="checkbox"/> Pedestrian <input type="checkbox"/> Roadway Pavement Reconstruction/Rehab <input type="checkbox"/> Bridge Replace/Reconstruct/Rehab <input checked="" type="checkbox"/> Study <input type="checkbox"/> Design <input checked="" type="checkbox"/> Transportation Technology Components <input type="checkbox"/> Other:
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8. **Problem Statement** What specific Metro Vision-related subregional problem/issue will the transportation project address?

MV 4: The subregional transportation system is well-connected and serves all modes of travel

MV 5: The transportation system is safe reliable and well-maintained

MV 13 All residents have access to a range of transportation, employment, commerce, housing, educational, cultural, and recreational opportunities.

9. Define the **scope** and **specific elements** of the project.

Objectives:

- Safety & Capacity Analysis
- Technology / Signal Enhancement
- ped /bike / bus stop operations & access
- Multimodal transit access & enhancement evaluation (120th NAMS BRT corridor)
- Identify opportunities & challenges
- Cost estimates for segments and intersections

Scope elements

- Traffic & Multimodal Capacity and Safety Evaluation
- ROW/Utility identification
- Concept layouts for capacity, safety & multimodal enhancements - pedestrians, bicycles, transit access/operations and vehicular (may progress to preliminary design if funding permits)
- Identify projects & preliminary cost estimates for safety, capacity, technology & multimodal improvements for future funding opportunities

10. What is the status of the proposed project?

Due to the recent completion of the 120th Avenue Connection to Wadsworth Blvd & SH 128 there is a need to study and develop concepts to improve the US 287/ 120th Ave corridor from US 287 loop ramps to Lowell Blvd through Broomfield. The Project will seek to understand the impact of changing traffic patterns, multimodal capacity & safety. There also remain significant gaps in infrastructure for pedestrians and bicycles along the urbanized corridor that need to be addressed.

Additionally, the corridor is identified as a potential Bus Rapid Transit (BRT) corridor in the 2014 Northwest Area Mobility Study (NAMS) should also look at options for providing enhanced transit facilities that increase the reliability of transit service operations. The corridor is identified in the RTD BRT Study as a candidate corridor. The 120th Ave. is identified as a candidate corridor for BRT service in the RTD BRT district-wide study that is in progress. Staff has been told that the candidate corridor will remain on the map as potential corridors for further study and investment.

The need to improve multimodal access, safety and technology of this important subregional commercial corridor will increase when the N-Line rail station opens at 124th/Eastlake, providing a vital connection between the rail station and US 36 & Broomfield, two regional transit stations.

11. Would a smaller DRCOG-allocated funding amount than requested be acceptable, while maintaining the original intent of the project?

Yes No

If yes, define smaller meaningful limits, size, service level, phases, or scopes, along with the cost for each.

A smaller amount of funding is not desirable, but could be considered with concurrence of CDOT staff.

A. Project Financial Information and Funding Request

1. Total Project Cost		\$600,000
2. Total amount of DRCOG Subregional Share Funding Request	\$480,000	80% of total project cost
3. Outside Funding Partners (other than DRCOG Subregional Share funds) List each funding partner and contribution amount.	\$\$ Contribution Amount	% of Contribution to Overall Total Project Cost
CDOT R1	\$60,000	10%
City & County of Broomfield	\$60,000	10%
	\$	0%
	\$	0%
	\$	0%
	\$	0%
Total amount of funding provided by other funding partners (private, local, state, Regional, or federal)	\$120,000	

Funding Breakdown (year by year)*	*The proposed funding plan is not guaranteed if the project is selected for funding. While DRCOG will do everything it can to accommodate the applicants' request, final funding will be assigned at DRCOG's discretion within fiscal constraint. Funding amounts must be provided in year of expenditure dollars using an inflation factor of 3% per year from 2019.				
	FY 2020	FY 2021	FY 2022	FY 2023	Total
Federal Funds	\$	\$240,000	\$240,000	\$	\$480,000
State Funds	\$	\$30,000	\$30,000	\$	\$60,000
Local Funds	\$	\$30,000	\$30,000	\$	\$60,000
Total Funding	\$0	\$300,000	\$300,000	\$0	\$600,000
4. Phase to be Initiated Choose from Design, ENV, ROW, CON, Study, Service, Equip. Purchase, Other	Choose an item	Study	Other	Choose an item	

5. By checking this box, the applicant's Chief Elected Official (Mayor or County Commission Chair) or City/County Manager for local governments or Agency Director or equivalent for others, has certified it allows this project request to be submitted for DRCOG-allocated funding and will follow all DRCOG policies and state and federal regulations when completing this project, if funded.



Part 2 Evaluation Criteria, Questions, and Scoring

A. Subregional significance of proposed project

WEIGHT **40%**

Provide **qualitative and quantitative** (derived from Part 3 of the application) responses to the following questions on the subregional significance of the proposed project.

1. Why is this project important to your subregion? What is the impact on the greater Broomfield community? The US 287 /120th Ave. corridor is identified in the 2014 RTD Northwest Area Mobility Study (NAMS) as a candidate corridor for future bus rapid transit. Currently, the RTD BRT District-wide study (in progress) has also identified 120th Ave as a candidate corridor for BRT.

Broomfield also has invested efforts and sought partnership funding for the 120th Ave Connection. Due to this new capacity and connectivity improvements, it is necessary to evaluate overall multimodal capacity needs as traffic behaviors shift.

The corridor is currently served by local route 120 weekdays with late evening service until 10:30. Currently, staff is advocating for weekend service, due to the many employment and retail destinations on the corridor. The recent Broomfield Pedestrian and Bicycle Assessment identified 120th Avenue as a key corridor to evaluate and improve pedestrian and bicycle access along and across this high-stress corridor that is not comfortable to access by active transportation modes. There are facility gaps for pedestrians, cyclists and people access to bus stops along the corridor.

The 120th Ave corridor is a key commercial corridor with access to US 36, I-25, US 36 Broomfield Station BRT, Wagon Road Road Park N Ride regional transit center, and future N-Line rail connection in Thornton.

2. Does the proposed project cross and/or benefit multiple **municipalities**? If yes, which ones and how? Though this project will not cross into other municipal boundaries, primarily due to other priorities for the communities at this time, the corridor crosses into Adams County communities of Westminster and Thornton.

The segments of the road to be studied will not extend into the communities at this time, the staff of the cities have communicated that it will likely be a future priority and there is the support from corridor neighbors to begin the project in Broomfield at the staff level.

3. Does the proposed project cross and/or benefit another **subregion(s)**? If yes, which ones and how?

The project could impact Adams County subregion as commuters travel between the two subregions with improved multimodal access, capacity and safety.

4. How will the proposed project address the specific transportation problem described in the **Problem Statement** (as submitted in Part 1, #8)?

MV 4: The subregional transportation system is well-connected and serves all modes of travel

The project will take a multimodal approach to safety and capacity, including motorists, people accessing transit, bicycling and walking, of all ages and including persons with a disability or low-mobility. The Project aims to understand what improvements need to be made to complete multimodal connectivity, as well as enhance transit service operations.

MV 5: The transportation system is safe, reliable and well-maintained

The corridor will see a 23% increase of travel on the this segment of the corridor by 2040. The Project aims to understand future conditions and multimodal capacity. The Corridor at Sheridan is currently at Vehicle to Capacity (V/C) of .95, which means the highway is currently operating near its capacity. The project aims to understand how to improve travel reliability along the corridor for all modes of transportation.

MV 13 All residents have access to a range of transportation, employment, commerce, housing, educational, cultural, and recreational opportunities.

Improving multimodal access and mobility along an urbanized highway that is a part of the DRCOG Regional Transportation Network increases the accessibility of a wide range of transportation options (driving, transit, cycling and walking), employment, commercial, housing, educational and recreational opportunities.

The US 287 and the 120th Avenue corridor connects Broomfield, Westminster, Thornton, Northglenn, and Henderson to US 36, I-25 and US 85 to a wide range of destinations that support a wide range of activities.

In the Broomfield portion there are approximately 45,000 residents and 24,200 jobs. There are over 4,000 seniors, 6,700 children, 1,000 low-income households, 1,500 individuals with disability, 580 individual with limited English proficiency, and 25 health facilities along this corridor.

Improving multimodal access for all ages and abilities, increase opportunities available for all populations.

5. One foundation of a sustainable and resilient economy is physical infrastructure and transportation. How will the completed project allow people and businesses to thrive and prosper?

The completed project will enhance mobility options and the overall reliability of the corridor. Continually investing in the subregion's infrastructure supports a globally connected economy and offers opportunities to share and contribute to sustained regional prosperity.

In addition, the US 287 /120th Ave Corridor will be critical to the connectivity of the US 36 Bus Rapid Transit at Broomfield Station to the future N- rail line, expanding the region's access to mobility options. Preparing for multimodal investments in subregional corridors like US 287/ 120th Ave increases the Broomfield subregions residents and employees mobility throughout the Denver Metro region.

6. How will connectivity to different travel modes be improved by the proposed project?

The project will plan for complete streets facilities along US 287/120th Ave. to complete sidewalk gaps and off-street bikeway facilities for all ages and abilities.

Project will evaluate and identify improvements to bus stops and enhance transit operations (bus on shoulder operations, queue jumps) and related technology enhancements.

The planning for the future of the corridor provides improved connectivity, mobility and access to:

> Big Dry Creek Trail just east of the project extent

> US 36 Bikeway

> US 36/ Broomfield Station Mobility Hub with access to local routes, FlexRide & regional transit service to Denver, Westminster, Superior, Louisville, Boulder and to Longmont

> Wagon Road Park N Ride regional transit station near I-25

> Future N-Line station located just east of I-25 near the corridor (124th/Eastlake)

7. Describe funding and/or project partnerships (*other subregions, regional agencies, municipalities, private, etc.*) established in association with this project.

US 287/ 120th Ave corridor is identified as a BRT candidate corridor in the Northwest Area Mobility Study (NAMS). The study was partnership with RTD and US 36 corridor communities: Boulder County, City of Boulder, City & County of Broomfield, City of Lafayette, City of Louisville, Town of Superior and Town of Erie.

Communities of the US 36 Mayors and Commissioners (noted above) are committed to implementation of NAMS to improve regional multimodal mobility and accessibility.

B. DRCOG Board-approved Metro Vision TIP Focus Areas

WEIGHT **30%**

Provide **qualitative and quantitative** (derived from Part 3 of the application) responses to the following questions on how the proposed project addresses the three DRCOG Board-approved Focus Areas (in bold).

1. Describe how the project will **improve mobility infrastructure and services for vulnerable populations (including improved transportation access to health services)**.

Improving multimodal access and mobility along an urbanized highway that is a part of the DRCOG Regional Transportation Network increases the accessibility of a wide range of transportation options (driving, transit, cycling and walking), employment, commercial, housing, educational, recreational and health service opportunities. Along this corridor, there are 25 identified health facilities. Improving access to US 36 & Broomfield station, Wagon Road Park N Ride and future N-Rail line will further increase options to the regional multimodal network growing opportunity of access.

The US 287 and the 120th Avenue corridor connects Broomfield, Westminster, Thornton, Northglenn, and Henderson to US 36, I-25 and US 85 to a wide range of destinations that support a wide range of activities. In the Broomfield portion, there are approximately 45,000 residents and 24,200 jobs. There are over 4,000 seniors, 6,700 children, 1,000 low-income households, 1,500 individuals with a disability, 580 individual with limited English proficiency, and 25 health facilities along this corridor. Improving multimodal access for all ages and abilities, increases opportunities available for all populations.

2. Describe how the project will **increase reliability of existing multimodal transportation network**.

The corridor will see a 23% increase of travel on this segment of the corridor by 2040 (estimated AADT of 36,000 to 44,280 according to CDOT OTIS data).

The Project aims to understand future conditions and multimodal capacity. The corridor at Sheridan is currently at Vehicle to Capacity (V/C) of .95, which means the highway is now operating near its capacity. The project aims to understand how to improve travel reliability along the corridor and to optimize all modes of transportation to be as productive as possible.

Existing transit service becomes delayed during peak hour, commuters cannot rely on the bus when it is stuck in the same traffic as vehicles, most occupied by one person. Delay and decreased reliability detracts ridership and decreases the region's multimodal potential. Optimizing transit movements through the corridor increase the multimodal capacity of our existing network.

Currently, there are significant portions of the corridor that lack any pedestrian or bicycle access. There are also many segments that have substandard widths and ramps that are not ADA compliant. Many transit stops need to be improved to pedestrian access to/from the stop or at the boarding areas.

Connectivity for active transportation modes increases reliability of the network, knowing that users can count on a safe facility to complete their trip. Another component of the project is to identify appropriate technology improvements that will improve reliability and optimize capacity for all modes.

3. Describe how the project will **improve transportation safety and security**.

The CDOT Collision Book cites 166 collisions on this segment of the corridor in 2012, 15 resulting in injury. With collision rates as 5.4 in one segment.

City & County of Broomfield has recorded 506 collisions from 2013- 2018, including 54 injuries and 1 fatality. Eight collisions involved a person on a bicycle and one involved a person walking.

The project will work to identify safety risks for all modes of transportation and mitigate with appropriate improvements. For example, making plans to complete sidewalks and multiuse paths along the corridor will provide a safe place for people to bicycle and walk is a crucial first step to reduce risk for vulnerable road users.

Reducing injury and fatalities is crucial aspect of the Project as a part of planning for a safe multimodal corridor for all road users. The project should identify safety issues and risks and minimize as much as possible.

<https://www.codot.gov/library/traffic/safety-crash-data/accident-rates-books-coding/crash-rate-books-accident-rates-books/accident-rates-book-2012>

C. Consistency & Contributions to Transportation-focused Metro Vision Objectives

WEIGHT **20%**

Provide **qualitative and quantitative** responses (derived from Part 3 of the application) to the following items on how the proposed project contributes to Transportation-focused Objectives (in bold) in the adopted Metro Vision plan. Refer to the expanded Metro Vision Objective by clicking on links.

[MV objective 2](#)

Contain urban development in locations designated for urban growth and services.

1. Will this project help focus and facilitate future growth in locations where urban-level infrastructure already exists or areas where plans for infrastructure and service expansion are in place?

Yes No

Describe, including supporting quantitative analysis

It is challenging to determine how this project will focus and facilitate future growth. though, Broomfield recognizes the importance of 120th Ave. as multimodal corridor and potential for transit as identified in NAMS. Broomfield is making plans to improve its Civic Center in the northeast quadrant of 120th and Main with residential and commercial uses to support neighborhoods and civic related activity near the Library, HHS, Workforce, Police/Courts and civic offices.

Improving multimodal access will optimize capacity as Broomfield is planning the corridor's first redevelopment and infill project. The Project will help support future growth and an increase density and intensification of uses.

[MV objective 3](#)

Increase housing and employment in urban centers.

2. Will this project help establish a network of clear and direct multimodal connections within and between urban centers, or other key destinations?

Yes No

Describe, including supporting quantitative analysis

The project will support multimodal connectivity between the Original Broomfield Urban Center and the West 120th Ave. Activity Center located along 120th Ave, west of I-25 in Westminster.

Key destinations along the project area include the City & County of Broomfield civic offices, police/courts, library, community center, HHS/Workforce. In addition there is a post office, North Metro Fire District offices and wide variety of commercial/employment as well as residential communities.

[MV objective 4](#)

Improve or expand the region’s multimodal transportation system, services, and connections.

3. Will this project help increase mobility choices within and beyond your subregion for people, goods, or services?

Yes No

Describe, including supporting quantitative analysis

The Project prepares the corridor for multimodal improvements and enhancements that improve the capacity of multimodal regional roadway system (highway is identified in the DRCOG Regional Transportation Network).

The completed project will improve pedestrian and bicycle connectivity, access and improve intermodal connections within the corridor and beyond to the regional network to US 36 and I-25 and intermodal hubs.

Improvements will set the corridor up for success when the N-Line station open to increase service operations of local route 120 and future potential Bus Rapid Transit operations.

[MV objective 6a](#)

Improve air quality and reduce greenhouse gas emissions.

4. Will this project help reduce ground-level ozone, greenhouse gas emissions, carbon monoxide, particulate matter, or other air pollutants?

Yes No

Describe, including supporting quantitative analysis

Improvements aim to reduce delay and optimize all modes of transportation. More transit by transit will result in a reduction of emissions. Reducing delay will also reduce idling by motor vehicles and heavy duty trucks.

The EPA cites that better transportation planning for passengers and freight reduce emissions and fuel use. Providing options to drive less, by walking, cycling or taking transit and reducing idling.

The 2009 National Household Travel Survey identified that Americans drive 10 billion miles a year that are trips one mile or less. The EPA estimates that the average passenger vehicle emits about 4.6 metric tons of carbon dioxide per year (assuming 11,500 miles). If just 5% of those miles or approximately 1.5 miles a day could be converted to a walking or cycling trip 230,000 metric tons per year could be saved per vehicle.

Source: <https://www.epa.gov/greenvehicles/greenhouse-gas-emissions-typical-passenger-vehicle>

<https://www.epa.gov/transportation-air-pollution-and-climate-change>

[MV objective 7b](#)

Connect people to natural resource or recreational areas.

5. Will this project help complete missing links in the regional trail and greenways network or improve other multimodal connections that increase accessibility to our region’s open space assets?

Yes No

Describe, including supporting quantitative analysis

Connectivity to the Dry Creek Trail will be improved, which is just east of the Broomfield boundaries and run under 120th Ave.

Connectivity to collector routes to US 36 Bikeway will be improved to connect with the future Industrial Lane Bikeway to US 36 Bikeway and Flatiron Station as well as Commerce Street access to US 36 Broomfield Station and ped bridge to US 36 Bikeway.

[MV objective 10](#)

Increase access to amenities that support healthy, active choices.

6. Will this project expand opportunities for residents to lead healthy and active lifestyles?

Yes No

Describe, including supporting quantitative analysis

Yes. Improving and completing gaps in the active transportation network support the option to choose active transportation modes for utilitarian trips or recreation.

There are approximately 11,600' of missing sidewalk/sidepath and approximately 4,000' of substandard sidepath facilities to accommodate bicycles along US 287 /120th Ave in the Broomfield subregion. Lack of facilities along a high volume and speed corridor limits access for active transportation modes and enable intermodal trips by transit.

[MV objective 13](#)

Improve access to opportunity.

7. Will this project help reduce critical health, education, income, and opportunity disparities by promoting reliable transportation connections to key destinations and other amenities?

Yes No

Describe, including supporting quantitative analysis

Access will be improved by all users, especially vulnerable populations that cannot drive or do not have access to a vehicle. The corridor connects a wide range of destinations that support a wide range of activities.

In the Broomfield portion, there are approximately 45,000 residents and 24,200 jobs. There are over 4,000 seniors, 6,700 children, 1,000 low-income households, 1,500 individuals with a disability, 580 individual with limited English proficiency, and 25 health facilities along this corridor.

Increasing mobility options increases access to opportunity, including the option reduce vehicle ownership, freeing household budget to make expenditures on other necessary expenses that increase health, education and reduce economic disparities.

Improving multimodal access for all ages and abilities, increases opportunities available for all populations.

[MV objective 14](#)

Improve the region's competitive position.

8. Will this project help support and contribute to the growth of the subregion's economic health and vitality?

Yes No

Describe, including supporting quantitative analysis

Continually investing in infrastructure investments support a thriving economy and offer opportunity for communities to prosper. Establishing and maintaining a well-connected multimodal system on which businesses, employees and residents can count on reliability makes the subregion a desirable place to live, work and play and contribute to growth of the subregion and regions's economic health and vitality.

D. Project Leveraging

WEIGHT 10%

9. What percent of outside funding sources (non-DRCOG-allocated Subregional Share funding) does this project have?

20%

60%+ outside funding sources High
30-59% Medium
29% and below Low



February 8, 2019

Sarah Grant
Transportation Manager, City and County of Broomfield
1 Descombes Drive
Broomfield, CO 80020

RE: CDOT Region 1 Support Request for DRCOG TIP Subregional Call FY20-FY23

Dear Ms. Grant,

This letter is to inform you that the Colorado Department of Transportation (CDOT) Region 1 concurs with the following City and County of Broomfield application for the DRCOG Subregional FY20-23 TIP Call. This concurrence applies only for the US 287 / 120th Avenue Multimodal & Safety Study project, in the event this project is selected by the Forums and DRCOG as a Subregional project in April/May 2019. If this Subregional project is awarded DRCOG funds at a later date, the local agency will need to submit a separate request for CDOT's concurrence and funding contribution at that time.

Based on CDOT's existing priorities and limited funds, CDOT Region 1 is able to provide \$60,000 of the \$60,000 requested, in the event this project is selected by the Forum and DRCOG. If the project is awarded funding outside of the initial Subregional process in spring 2019, then CDOT's funding contribution will need to be reaffirmed. Projects impacting state highways should assume that CDOT will manage the project and the local agency is responsible for payment of CDOT's work including indirect charges. Please note that per the DRCOG TIP Policy, if project costs increase on DRCOG-selected projects, sponsors must make up any shortfalls.

Regardless of funding source, if a local agency uses Federal and/or State funds in the design of a project, they must complete construction of the project within the contract term stated in the IGA, or reimburse CDOT/FHWA for the expended funds. Any cost overruns that exceed federal and state amounts listed on Exhibit C of the IGA will be the responsibility of the Local Agency.

This concurrence and funding contribution are conditionally granted based on the scope as described and pending CDOT funding availability. CDOT does however retain final decision-making authority for all improvements and changes within CDOT's right of way. As the project progresses the local agency will need to work closely with CDOT Region staff to ensure CDOT's continued concurrence.

This project must comply with all CDOT and/or FHWA requirements including those associated with clearance for Right of Way, Utilities, and Environmental. All costs associated with clearances including right of way acquisition, utilities relocation, and environmental mitigation measures, such as wetland creation, must be included in the project costs. CDOT staff will assist you in determining which clearances are required for your project. The CDOT Local Agency Manual includes project requirements to assist with contracting, design, and construction, which can be accessed at:

http://www.coloradodot.info/business/designsupport/bulletins_manuals

Should you have any questions regarding this concurrence or if your agency would like to schedule time to meet with CDOT specialty units, please contact JoAnn Mattson at (303) 757-9866.

Sincerely,



Paul Jesaitis
CDOT Region 1 Transportation Director



Sarah Grant <sgrant@broomfield.org>

CDOT & RTD Concurrence - Broomfield Subregional TIP Projects

Quinn, Chris <Chris.Quinn@rtd-denver.com>

Fri, Feb 8, 2019 at 4:22 PM

To: Sarah Grant <sgrant@broomfield.org>

Cc: Tom Schomer <tschomer@broomfield.org>, Katie Allen <kallen@broomfield.org>, Fonda Buckles <fbuckles@broomfield.org>, "Sirois, William" <William.Sirois@rtd-denver.com>, "Van Meter, Bill" <Bill.VanMeter@rtd-denver.com>

Sarah,

This email is to provide RTD's concurrence for the City & County of Broomfield's TIP application requests.

For the Bike-n-Ride shelters, we will want to work closely with the City on the project design details.

Please contact me if you would like additional information.

Thanks

Chris Quinn

Project Manager

Regional Transportation District

Suite 700

1560 Broadway

Denver, CO 80202

(303) 299-2439

chris.quinn@rtd-denver.com

From: Sarah Grant <sgrant@broomfield.org>

Sent: Monday, January 07, 2019 4:56 PM

To: Danny Herrmann <danny.herrmann@state.co.us>; Quinn, Chris <Chris.Quinn@RTD-Denver.com>

Cc: Tom Schomer <tschomer@broomfield.org>; Katie Allen <kallen@broomfield.org>; Fonda Buckles <fbuckles@broomfield.org>

Subject: CDOT & RTD Concurrence - Broomfield Subregional TIP Projects

Hello Danny & Chris,

Please find attached below the required forms for CDOT & RTD's consideration of support for Broomfield Subregional projects that may be considered for submittal.

The document title clarifies if CDOT, RTD or both entities are requested to consider the project.

Please let me know if you have any questions or need clarification.

Thank you,

Sarah

Sarah Grant

Transportation Manager

City and County of Broomfield

Community Development • Planning Division

One DesCombes Drive • Broomfield CO 80020

sgrant@broomfield.org

303-438-6385



Part 3

Project Data Worksheet – Calculations and Estimates

(Complete all subsections applicable to the project)

A. Transit Use

1. Current ridership weekday boardings	0
2. Population and Employment	

Year	Population within 1 mile	Employment within 1 mile	Total Pop and Employ within 1 mile
2020	0	0	0
2040	0	0	0

Transit Use Calculations	Year of Opening	2040 Weekday Estimate
3. Enter estimated additional daily transit boardings after project is completed. <i>(Using 50% growth above year of opening for 2040 value, unless justified)</i> <i>Provide supporting documentation as part of application submittal</i>	0	0
4. Enter number of the additional transit boardings (from #3 above) that were previously using a different transit route. <i>(Example: {#3 X 25%} or other percent, if justified)</i>	0	0
5. Enter number of the new transit boardings (from #3 above) that were previously using other non-SOV modes (walk, bicycle, HOV, etc.) <i>(Example: {#3 X 25%} or other percent, if justified)</i>	0	0
6. = Number of SOV one-way trips reduced per day (#3 – #4 – #5)	0	0
7. Enter the value of {#6 x 9 miles}. (= the VMT reduced per day) <i>(Values other than the default 9 miles must be justified by sponsor; e.g., 15 miles for regional service or 6 miles for local service)</i>	0	0
8. = Number of pounds GHG emissions reduced (#7 x 0.95 lbs.)	0	0
9. If values would be distinctly greater for weekends, describe the magnitude of difference:		
10. If different values other than the suggested are used, please explain here:		

B. Bicycle Use

1. Current weekday bicyclists	0
2. Population and Employment	

Year	Population within 1 mile	Employment within 1 mile	Total Pop and Employ within 1 mile
2020	0	0	0
2040	0	0	0

Bicycle Use Calculations	Year of Opening	2040 Weekday Estimate
3. Enter estimated additional weekday one-way bicycle trips on the facility after project is completed.	0	0
4. Enter number of the bicycle trips (in #3 above) that will be diverting from a different bicycling route. (Example: {#3 X 50%} or other percent, if justified)	0	0
5. = Initial number of new bicycle trips from project (#3 – #4)	0	0
6. Enter number of the new trips produced (from #5 above) that are replacing an SOV trip. (Example: {#5 X 30%} or other percent, if justified)	0	0
7. = Number of SOV trips reduced per day (#5 - #6)	0	0
8. Enter the value of {#7 x 2 miles} . (= the VMT reduced per day) (Values other than 2 miles must be justified by sponsor)	0	0
9. = Number of pounds GHG emissions reduced (#8 x 0.95 lbs.)	0	0
10. If values would be distinctly greater for weekends, describe the magnitude of difference:		
11. If different values other than the suggested are used, please explain here:		

C. Pedestrian Use

1. Current weekday pedestrians (include users of all non-pedaled devices)	0
2. Population and Employment	

Year	Population within 1 mile	Employment within 1 mile	Total Pop and Employ within 1 mile
2020	0	0	0
2040	0	0	0

Pedestrian Use Calculations	Year of Opening	2040 Weekday Estimate
3. Enter estimated additional weekday pedestrian one-way trips on the facility after project is completed	0	0
4. Enter number of the new pedestrian trips (in #3 above) that will be diverting from a different walking route (Example: {#3 X 50%} or other percent, if justified)	0	0
5. = Number of new trips from project (#3 – #4)	0	0
6. Enter number of the new trips produced (from #5 above) that are replacing an SOV trip. (Example: {#5 X 30%} or other percent, if justified)	0	0
7. = Number of SOV trips reduced per day (#5 - #6)	0	0

12. Enter the value of {#7 x .4 miles} . (= the VMT reduced per day) <i>(Values other than .4 miles must be justified by sponsor)</i>	0	0
8. = Number of pounds GHG emissions reduced (#8 x 0.95 lbs.)	0	0
9. If values would be distinctly greater for weekends, describe the magnitude of difference:		
10. If different values other than the suggested are used, please explain here:		

D. Vulnerable Populations

	Vulnerable Populations	Population within 1 mile
	Use Current Census Data	1. Persons over age 65
2. Minority persons		520
3. Low-Income households		1,044
4. Linguistically-challenged persons		587
5. Individuals with disabilities		1,558
6. Households without a motor vehicle		467
7. Children ages 6-17		6,765
8. Health service facilities served by project		25

E. Travel Delay *(Operational and Congestion Reduction)*

Sponsor must use industry standard Highway Capacity Manual (HCM) based software programs and procedures as a basis to calculate estimated weekday travel delay benefits. *DRCOG staff may be able to use the Regional Travel Model to develop estimates for certain types of large-scale projects.*

1. Current ADT (average daily traffic volume) on applicable segments	36,000
2. 2040 ADT estimate	44,280
3. Current weekday vehicle hours of delay (VHD) (before project)	0

Travel Delay Calculations	Year of Opening
4. Enter calculated future weekday VHD (after project)	0
5. Enter value of {#3 - #4} = Reduced VHD	0
6. Enter value of {#5 X 1.4} = Reduced person hours of delay <i>(Value higher than 1.4 due to high transit ridership must be justified by sponsor)</i>	0
7. After project peak hour congested average travel time reduction per vehicle (includes persons, transit passengers, freight, and service equipment carried by vehicles). <i>If applicable, denote unique travel time reduction for certain types of vehicles</i>	0
8. If values would be distinctly different for weekend days or special events, describe the magnitude of difference.	

9. If different values other than the suggested are used, please explain here:

F. Traffic Crash Reduction

1. Provide the current number of crashes involving motor vehicles, bicyclists, and pedestrians (*most recent 5-year period of data*)

Fatal crashes	1
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Serious Injury crashes	54
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Other Injury crashes	0
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Property Damage Only crashes	451
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2. Estimated reduction in crashes applicable to the project scope (*per the five-year period used above*)

Fatal crashes reduced	0
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Serious Injury crashes reduced	0
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Other Injury crashes reduced	0
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Property Damage Only crashes reduced	0
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Sponsor must use industry accepted crash reduction factors (CRF) or accident modification factor (AMF) practices (*e.g., NCHRP Project 17-25, NCHRP Report 617, or DiExSys methodology*).

G. Facility Condition

Sponsor must use a current industry-accepted pavement condition method or system and calculate the average condition across all sections of pavement being replaced or modified. Applicants will rate as: Excellent, Good, Fair, or Poor

Roadway Pavement

1. Current roadway pavement condition	Choose an item
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2. Describe current pavement issues and how the project will address them.

3. Average Daily User Volume	0
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Bicycle/Pedestrian/Other Facility

4. Current bicycle/pedestrian/other facility condition	Choose an item
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5. Describe current condition issues and how the project will address them.

6. Average Daily User Volume	0
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H. Bridge Improvements

1. Current bridge structural condition from CDOT

2. Describe current condition issues and how the project will address them.

3. Other functional obsolescence issues to be addressed by project	
4. Average Daily User Volume over bridge	0
I. Other Beneficial Variables <i>(identified and calculated by the sponsor)</i>	
1.	
2.	
3.	
J. Disbenefits or Negative Impacts <i>(identified and calculated by the sponsor)</i>	
1. Increase in VMT? <i>If yes, describe scale of expected increase</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No
2. Negative impact on vulnerable populations	
3. Other:	