

Part 1

Base Information

1. Project Title	Broomfield Transit Needs Assessment & Pilot			
2. Project <i>Start/End</i> points or Geographic Area <i>Provide a map with submittal, as appropriate</i>	City & County of Broomfield			
3. Project Sponsor (<i>entity that will construct/ complete and be financially responsible for the project</i>)	City & County of Broomfield			
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 type="checkbox"/> DRCOG 2040 Fiscally Constrained Regional Transportation Plan (2040 FC RTP)			
	<input checked="" type="checkbox"/> Local plan:	Broomfield Transportation Plan (page 5) https://www.broomfield.org/DocumentCenter/View/14606/Transportation-Plan-071216?bidId=		
	<input type="checkbox"/> Other(s):			
	<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 type="checkbox"/> Bicycle Facility <input type="checkbox"/> Pedestrian Facility <input type="checkbox"/> Safety Improvements <input type="checkbox"/> Roadway Capacity or Managed Lanes (2040 FC RTP) <input 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 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 type="checkbox"/> Bicycle Facility <input type="checkbox"/> Pedestrian Facility <input type="checkbox"/> Safety Improvements <input type="checkbox"/> Roadway Capacity or Managed Lanes (2040 FC RTP) <input 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 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 regional transportation system is well-connected and serves all modes of travel MV 5: The transportation is safe, reliable and well-maintained MV11: The region's residents have expanded connections to health services 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.

Study Component:

- Solicit Public Input (Community Surveys/On-board Surveys)
- Community Conditions and Future Trends
- Evaluation of Existing Services
- Assess Unmet Transit Needs
- Short Range Plan Recommendations for Broomfield Easy Ride Operations
- Transit Service & Pilot Recommendations
- Marketing Evaluation & Recommendations

Pilot Component:

Remainder of funds may be used to implement recommendations that are consistent with the use of federal funds including piloting new service operations, capital investments, technology, and marketing.

10. What is the status of the proposed project?

Broomfield is rapidly growing in the north as well as in the southwest. There portions of Broomfield, in particular northern communities, that are currently not served or underserved by transit.

The assessment will look at population and employment growth as well as demographic trends, and solicit community input to identify current unmet needs and project when where and what services should be expanded as Broomfield grows.

The assessment will also develop a short range plan to help Easy Ride plan for expansion of operations to support growth and increases in populations over the age of 60. By 2040 1 in 4 Denver metro residents will be over 60, Broomfield projections are anticipated to be comparable to the region.

The assessment will make recommendations and fund eligible pilot(s) and other recommendations to serve unmet transit needs

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.

Funding for the study or pilots may be reduced, if necessary

A. Project Financial Information and Funding Request

1. Total Project Cost		\$800,000
2. Total amount of DRCOG Subregional Share Funding Request	\$640,000	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
City & County of Broomfield	\$160,000	20%
	\$	0%
	\$	0%
	\$	0%
	\$	0%
	\$	0%
Total amount of funding provided by other funding partners <i>(private, local, state, Regional, or federal)</i>	\$160,000	

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	\$120,000	\$168,000	\$160,000	\$160,000	\$608,000
State Funds	\$	\$	\$	\$	\$0
Local Funds	\$30,000	\$82,000	\$40,000	\$40,000	\$192,000
Total Funding	\$150,000	\$250,000	\$200,000	\$200,000	\$800,000
4. Phase to be Initiated <i>Choose from Design, ENV, ROW, CON, Study, Service, Equip. Purchase, Other</i>	Study	Other	Other	Other	

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?

Broomfield's Transportation Vision calls for a multimodal system that is well-connected that safely accommodates all modes of transportation, providing mobility for people of all ages and abilities while supporting economic development, reducing dependence on the single occupant vehicles. Transit is a vital component of this vision and many residents of Broomfield do not have access or are underserved by transit.

The project is supported by Broomfield Comprehensive Plan & Transportation Plan Policy TS B2: Advocate for additional and/or expanded transit services that support the mobility needs of young people, older adults and individuals with disabilities.

The study will help pinpoint the unmet needs in the Broomfield subregion and fund eligible recommendations to serve those needs. The project seeks to expand transit service options for underserved trip types and populations and increase access to the regional transit system. The impact will be new (where no transit options exist) or expanded opportunities for Broomfield subregion residents and employees to have access to affordable transit options.

2. Does the proposed project cross and/or benefit multiple **municipalities**? If yes, which ones and how?

Yes, very likely. The project may make recommendations to serve destinations in neighbor municipalities to provide access to nutrition, medical, employment, commercial, or transit centers. Increasing options to the regional transit system increase mobility to cities throughout the Denver Metro.

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

The project may make recommendations to serve areas near Broomfield, in other Subregions such as Adams, Boulder, Jefferson or SW Weld, to provide access to nutrition, medical, employment, commercial, or transit centers. Increasing options to the regional transit system increase mobility to subregions throughout the Denver Metro.

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 aims to study and implement recommendations to improve Broomfield subregion's multimodal transportation system, services and connections by strengthening the region's comprehensive transit system and improve interconnections of the multimodal transportation system within and beyond the Broomfield subregion. The study will look at options to improve local service with priority to improved access to connections to the regional system, nutrition, employment, medical destinations, as well as, personal trips.

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

The project aims to improve transportation system performance and reliability. By improving access to transit, more people can come to rely on transit as a viable transportation option to access destinations and as a first & final mile solution to the regional transit system. The Project will aim to undersatnd and prepare for future needs.

MV11: The subregion's residents have expanded connections to health services.

The project will evaluate how to improve transportation connections to health care facilities and service

providers. The project aims to understand Broomfield subregion's deficiencies in access to health services and make recommendations on how to best serve these trips, which in some cases may be outside Broomfield subregional boundaries. Additionally, the study may also make recommendations on how to increase awareness of medical and health care trips that are currently underserved and improve community knowledge of transit options available.

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

The project will take a comprehensive look at current unmet transit needs and also make projections of where transit service will be needed in the future based on future development patterns and demographic trends across the subregion. Connectivity to/through the Urban Centers (Interlocken/Parkway Circle, Original Broomfield, and Broomfield Urban Transit Village) and emerging urban centers (SH 7/i-25 Activity Center) will also be looked at. The study may also make recommendations to improve first & final mile transit services to regional transit services.

The project improve access to opportunity by understanding unmet transit needs, in particular, make recommendations on how to improve access for traditionally underserved populations in the Broomfield Subregion including: elderly, individuals with disabilities, youth, low-income, and limited English proficiency populations. The study may also make recommendations about how to reach out to these populations and maintain awareness of options.

- 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?

Increasing transportation options for all ages and abilities improves the subregion's competitive position. The study and implementation of recommendations aim to expand transit options and access to transit, thus increasing mobility options and access to opportunity for Broomfield residents and employees.

Transit access will be improved for underserved populations and improve access to neighborhoods, employment centers, and urban activity centers.

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

One component of transit needs will evaluate first and final mile access to/from the regional transit system building on the US 36 First & Final Mile Study to improve intermodal connectivity.

The project may take a deeper dive into the current opportunities to improve first & final mile transit access from the regional transportation system to/from destinations in existing urban centers along US 36 and emerging urban centers at I-25/SH 7.

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

RTD and CDOT have expressed concurrence for the project. The study may make recommendations for new project partnerships.

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)**.

The project will inherently focus on evaluating the unmet transit needs of vulnerable populations that may not have access or the ability to drive. The study will aim to identify unmet needs and pilot programs to fulfill priority transit needs, in particular trips to medical & health service destinations, workplaces, nutrition, social and personal. Unmet needs could range from lack of access to a destination due to the geographic location of the destination or day/time-based.

According to the 2013-2017 American Community Survey Census data in the Broomfield subregion, there are thousands of individuals and households that are considered to be vulnerable, including:

- 8,000 persons over the age of 65
- 9,000 minority persons
- 2,800 low-income households
- 2,400 linguistically challenged persons
- 5,300 individuals with a disability
- 830 households without access to motor vehicle
- 11,000 children between the ages of 6-17

By 2040 there will be approximately 10,500 households over the age of 65, a little half are predicted to have more than one adult in the home, the other half is predicted to be alone. It is anticipated that as Broomfield grows that there will be an increase in vulnerable individuals and families that will need improved access to transit services to fulfill critical needs.

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

The study will identify when, where and how to expand options to transit to populations with unmet transit needs in the Broomfield subregion, increasing the reliability of the regional multimodal system by increasing access.

Currently, there are significant gaps in geographic availability of local transit service in Broomfield, not only there are many residential neighborhoods that are transit deserts with no public transit service available on any day or time, the emerging SH7 /I-25 urban center is included in Broomfield transit desert.

For areas that are served by transit, there are gaps in service for evenings after 7:00 PM weekdays. On Saturday and Sundays, all of Broomfield becomes a transit desert, except for US 36 Bus Rapid Transit service. Residents and employees, in particularly vulnerable populations without access to a car or who are unable to drive, have extremely limited ways to have access to/from the regional transit system that operates with 15-minute headway on Saturday and 30 minutes on Sunday. Local route 228 serves Interlocken on Saturdays, the 112 and 76 which serve Broomfield Station but the routes generally do not serve the Broomfield subregion. There is no service with local route 128 that serves many Broomfield neighborhoods and route 120 that serves the 120th Ave. commercial corridor with numerous employment destinations. The FlexRide services do not operate on weekends either.

Gaps in local service availability whether it is geographic or day/time based decreases reliable access to the multimodal transportation system, thus reducing mobility, economic and social opportunities that negatively impact the Broomfield subregion and ripples into the greater Denver Metro.

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

The project upon implementation of recommendation increases options to safe and affordable transportation for Broomfield subregion residents and employees.

The FHWA estimates that each year 5,000 pedestrians and 800 cyclists die on U.S. roads each year, another 65,000 pedestrians become injured, and 48,000 bicyclists are injured. According to Bureau of Transportation Statistics, public transit is a relatively safe form of transportation, in 2010 there were 32,885 fatalities and 2.2

million injuries due to vehicular collisions, 469 deaths due to aviation and 215 fatalities and 23,400 injuries from transit. Transit is relatively safer than driving a personal vehicle. For those that are unable to drive or do not have access to a vehicle if there is no access to transit, some may not be able to take the trip, limiting their health, economic and social opportunities. Others that must make the trip will only have more vulnerable options of walking and bicycling available, sometimes facilities for walking and cycling may be absent increasing risk of injury or death. Increasing access to transit increases safer mobility options for all.

https://www.bts.gov/archive/publications/by_the_numbers/transportation_safety/index

https://www.bts.gov/archive/publications/by_the_numbers/transportation_safety/indexhttps://safety.fhwa.dot.gov/ped_bike/

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

Yes. This project will look at the urban centers in the Broomfield subregion and evaluate current and future transit needs and how to support growth in these areas, including first and final mile transit trips to Bus Rapid Transit corridors to US 36 and future SH 7 service.

Transit service can support growth in urban centers making them attractive places to live, work and play, enticing employers, residents and businesses to establish in designated urban centers.

[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

By planning for transit in SH 7 / I-25 emerging urban center Broomfield may be able to make a case for building a mix of supportive land uses and densities that support transit service.

In our existing urban centers along US 36, assessing and improving transit service and access may encourage more new businesses to build and establish themselves as well increase the mix of uses, including transit supportive residential housing that is needed in the Interlocken Urban Center.

The project will aim to increase multimodal connections within & between urban centers, and other key destinations including commercial corridors and health facilities as well as access to the regional transit system at stations along highways and arterial corridors.

[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*

Yes. This core objective of this project is to assess unmet transit needs, provide recommendations and implement services that will improve and expand the subregion and region's multimodal transportation system, services and connections.

There are limited mobility choices in the Broomfield subregion for thousands of residents and households. The current system is limited to weekdays from 5:30 AM - 7:00 PM for most parts of Broomfield, with extremely reduced access on Saturday and Sundays. There are numerous neighborhoods and future neighborhoods that are transit deserts.

[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*

The full implementation of the project will help reduce emissions and increase air quality by increasing mobility options to driving. The data regarding current transit ridership will be assessed in the study. Pulling accurate data together for the application would be an overly burdensome task to predict cumulative impact based on unknown future conditions and recommendations.

It is anticipated that upon implementation of recommendations that overall transit ridership will increase as options become more available and accessible, reducing emissions that would come from automobile trips. Trips could be local and regional, furthering the air quality impact.

Trip conversations could come from a broad population ranging from commuters to elderly finding transit as a more reliable or safer option as they age. Low-income populations that could reduce their transportation costs by having a viable, affordable option, or reducing vehicle trips by caretakers and family members helping transport transportation dependent family members and friends, giving increased independence to these to Broomfield residents and employees.

[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*

This project has the potential to give increased access to multimodal connections that increase access to Broomfield subregion open spaces and parks. It is challenging to predict how future trips will be used to access these public amenities. Nonetheless, improving access to the multimodal network expands options and opportunities for residents of the subregion to access these community amenities.

Broomfield has over 5,000 acres of public open space and total of 8,360 acres of public and private open space, public and private parks, and open lands. There are 98 miles of multi-use paths and 28 miles of soft surface trails. Broomfield continues to increase its parks, opens spaces and trails as Broomfield expands. Improving access to transit will increase opportunities to access these community amenities.

[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*

Increasing access to transit increases the opportunity to walk and bicycle more by incorporating physical activity into daily activities. A report by Todd Litman in 2010 evaluated public transportation health benefits, some highlights are summarized below:

The CDC recommends at least 150 weekly minutes (22 minutes per day) of moderate aerobic activity, such as brisk walking. The World Health Organization states the regular physical activity provides a 50% decrease in heart disease, developing adult diabetes, and becoming obese, as well as reduced osteoporosis in elderly and reliefs symptoms of depression and anxiety. Currently, less than half of Americans meet the recommended physical activity targets.

Research indicates that on average North Americans walk 6 minutes daily, while public transit users walk an average of 19 minutes/day. Another study showed that public transit users are likely to walk ten times more than their non-transit user counterparts. Additionally, walking increased across all income levels for public transit users showing that access to transit can have positive health impacts across a variety of demographics. Other research indicated that resident that had access to more and better transit service tended to walk significantly more and drove substantially less than residents of more automobile-dependent neighborhoods

Source:

https://www.apta.com/resources/reportsandpublications/Documents/APTA_Health_Benefits_Litman.pdf

[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*

Broomfield will have an estimated population of 77,300 in 2020 a significant increase. even from the 2012-2016 ACS Census of 62,500.

The 2013-2017 ACS Census data indicates that there are approximately 8,000 seniors over 65, 900 minorities, 2,800 low-income households, 2,400 persons with limited English proficiency, 5,300 persons with a disability and 11,500 children. These residents are most likely to benefit from expanded mobility options.

This project will reduce critical health, education, income, and opportunity disparities by assessing unmet transit needs and piloting solutions to meet those needs by increasing access to Basic Mobility. Basic Mobility is the ability to access services and activities considered essential such as health care, primary shopping/nutrition, education, and employment opportunities, as well as, social and recreational activities.

Inadequate mobility can lead to missed medical appointments, which can exacerbate medical problems, could lead to costly medical or taxi transport. A survey of older adults over 65 found that non-drivers make 15% fewer trips to the doctor, 59% fewer shopping trips, 65% fewer trips for social, family activities, as compared to those who drive.

Income disparities can be reduced with affordable transit options. Having more opportunity to access affordable transit reduces the financial burden on household budgets, especially low-income and households in poverty. The need to own an operate a personal automobile could be reduced for these families such as the ability to not have

a necessary expense of a vehicle or reduce ownership from two to one. The options allow families to use the funds towards health expenses, adequate shelter, healthy food, medical care, education and reduces emotion stresses related to poverty.

Increased opportunity to access transit increases options for access to education, including access for youth who cannot drive and students accessing higher education with limited income available and tuition expenses to pay. Having the option to access education without the necessity of a vehicle reduces the financial burden on students or the need to be dependent on others for transportation to achieve education goals.

https://www.apta.com/resources/reportsandpublications/Documents/APTA_Health_Benefits_Litman.pdf
<https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml>

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

This project furthers the need to continually evaluate and invest in services that support a connected economy and offer opportunities for all residents to share and contribute to the subregion and region's communities. Broomfield subregion's economic vitality depends on providing a high quality of life, investing transit options that fulfill unmet needs and increase opportunity and access for all contribute to supporting growth of the Broomfield subregion's economic health and vitality as a great place to live, work and play.

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 Broomfield Transit Needs Assessment and Pilot project, in the event this project is selected by the Forum 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 reaffirm CDOT's concurrence at that time.

This concurrence is conditionally granted based on the scope as described. 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.

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 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

Use Current Census Data	Vulnerable Populations	Population within 1 mile
	1. Persons over age 65	
2. Minority persons		900
3. Low-Income households		2,800
4. Linguistically-challenged persons		2,400
5. Individuals with disabilities		5,300
6. Households without a motor vehicle		830
7. Children ages 6-17		11,000
8. Health service facilities served by project		29

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	0
2. 2040 ADT estimate	0
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	0
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Serious Injury crashes	0
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Other Injury crashes	0
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Property Damage Only crashes	0
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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:	