

# Part 1

# Base Information

1. Project Title	<b>US 36 Bikeway Realignment and Safety Improvements</b>	
2. Project <i>Start/End</i> points or Geographic Area <i>Provide a map with submittal, as appropriate</i>	US 36 Bikeway in Broomfield: approximately from the US 36 westbound onramp to the Interlocken Loop underpass	
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 SGrant@broomfield.org 303-438-6385	
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"/> <a href="#">DRCOG 2040 Fiscally Constrained Regional Transportation Plan (2040 FC RTP)</a>	
	<input checked="" type="checkbox"/> Local plan:	2016 Broomfield Transportation Master Plan <a href="https://www.broomfield.org/DocumentCenter/View/14606/Transportation-Plan-071216">https://www.broomfield.org/DocumentCenter/View/14606/Transportation-Plan-071216</a> page 27, 28  2005 Broomfield Open Space, Parks, Recreationa& Trails Master Plan <a href="https://www.broomfield.org/DocumentCenter/View/2110/OSPRT-FINAL-APPROVED-DOCUMENT?bidId=">https://www.broomfield.org/DocumentCenter/View/2110/OSPRT-FINAL-APPROVED-DOCUMENT?bidId=</a> page 8-5
	<input checked="" type="checkbox"/> Other(s):	DRCOG 2040 Metro Vision - TIP Eligible Bicycle Corridors (US 36 Bikeway is identified as a Key Multi-use trail)
	<i>Provide link to document/s and referenced page number if possible, or provide documentation with submittal</i>	
7. Identify the project's <b>key elements</b> .		
<input type="checkbox"/> Rapid Transit Capacity (2040 FC RTP) <input 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 type="checkbox"/> Roadway Operational	<b>Grade Separation</b> <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 type="checkbox"/> Study <input checked="" type="checkbox"/> Design <input checked="" type="checkbox"/> Other: Construction	

**8. Problem Statement** What specific Metro Vision-related regional problem/issue will the transportation project address?

The primary Metro Vision theme the Project addresses is a connected multimodal region by supporting the objective that the transportation system is safe, reliable and well-maintained.

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

The Project aims to improve safety conditions on US 36 Bikeway from approximately Flatiron Crossing US 36 westbound onramp to Interlocken Loop underpass, through the vicinity of Frank Varra Park. The project will widen the trail to the US 36 Bikeway standard width of 12-feet, where feasible. It will also realign the path to reduce safety issues that are difficult to mitigate such as winter icing due to shading. Additionally, the project will improve safety conditions in the vicinity of Flatiron Crossing Drive US 36 westbound onramp and Interlocken Loop underpass area. These improvements may include more lighting, signage, improved trail alignment geometry, and modifications to increase sight distances.

**10. What is the status of the proposed project?**

This section of the US 36 Regional Bikeway was not improved prior to the opening of the bikeway in 2016. This section was an existing 8' sidewalk built with the Flatiron Crossing mall development intended for pedestrian travel as it meanders through Frank Varra Park. The 8' concrete is substandard to the the newer sections of the Bikeway which is 12'. Additionally, the location of the current path poses safety concerns in the winter months as the location of the path remains in shaded, icy conditions along a grade.

The City & County of Broomfield has been working to improve conditions of the US 36 Bikeway since its opening to improve the pedestrian path by replacing deteriorating concrete, reducing landscape irrigation, removing moss and constructing cross drains to mitigate slippery conditions posed by irrigation and naturally occurring springs located in the Park.

Ultimately, with concurrence of public works, engineers, transportation and trails staff, the best and most cost-effective solution to improve conditions and increase path width is to realign the regional bikeway. As a result, the path will also follow a more direct and faster route for Bikeway users.

**11. Would a smaller federal 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.*

Yes, a lesser amount could be accepted. though a reduction in scope may occur and total sum of anticipated improvements may need to be addressed through separate projects.

## A. Project Financial Information and Funding Request

<b>1. Total Project Cost</b>		<b>\$3,085,000</b>
<b>2. Total amount of DRCOG Regional Share Funding Request</b> <i>(no greater than \$20 million and not to exceed 50% of the total project cost)</i>	<b>\$1,234,000</b>	<b>40%</b> of total project cost
<b>3. Outside Funding Partners (other than DRCOG Regional Share funds)</b> List each funding partner and contribution amount.	<b>\$\$</b> <b>Contribution Amount</b>	<b>% of Contribution to Overall Total Project Cost</b>
Broomfield Subregional Funds (Federal)	\$1,234,000	40%
City & County of Broomfield (local/non-federal)	\$467,000	15%
CDOT Region 1 (State/non-federal)	\$150,000	5%
	\$	0%
	\$	0%
	\$	0%
<b>Total amount of funding provided by other funding partners</b> <i>(private, local, state, Subregion, or federal)</i>	<b>\$1,851,000</b>	

<b>Funding Breakdown (year by year)*</b>	*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 2018.				
	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>Total</b>
<b>Federal Funds</b>	\$434,000	\$434,000	\$1,600,000	\$	<b>\$2,468,000</b>
<b>State Funds</b>	\$ 75,000	\$75,000	\$	\$	<b>\$150,000</b>
<b>Local Funds</b>	\$33,500	\$33,500	\$400,000	\$	<b>\$467,000</b>
<b>Total Funding</b>	\$542,500	\$542,500	\$2,000,000	\$0	<b>\$3,085,000</b>
<b>4. Phase to be Initiated</b> <i>Choose from Design, ENV, ROW, CON, Study, Service, Equip. Purchase, Other</i>	Design	ROW	CON	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. Regional significance of proposed project

WEIGHT **40%**

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

**1. Why is this project regionally important?**

The US 36 Bikeway is a recognized as a regional bicycle corridor, allowing for a direct, 18 mile route along the US 36 Highway to destinations and adjacent land uses from Boulder to Westminster.

To the north, the Trail provides access to many destinations and local trail connections in City of Boulder. To the south, the trail connects a short distance from the Little Dry Creek Trail via a neighborhood route, which connects to the regional Clear Creek trail with destinations to Golden and the South Platte River Trail to Denver destinations.

The US 36 Bikeway is a key first & final mile component of the the US 36 multimodal corridor supporting high-quality, high-frequency Bus Rapid Transit (BRT) service seven days a week to residents, commuters and visitors to the northwest corridor. The BRT also known as the Flatiron Flyer serves approximately 10-11,000 weekday boardings according to the 2017 RTD runboard. It also serves full end to end commuter bicycle trips, utilitarian and recreational trips.

Currently, US 36 Bikeway is host to several CDOT counters that collect trip counts year-round, the closest counter located in Broomfield near Uptown Ave. recorded 72,816 cycling trips in 2017. It is estimated that the project segment experiences similar volumes. On Bike to Work Day 2018, the peak day for cycling on the path, more than 1,100 cyclists were counted in the Broomfield segment of the corridor.

In June 2018, 11,900 cycling trips were recorded in Broomfield. More than 200,000 cycling trips have been recorded since the counter was installed in mid-2015, prior to the official opening in early 2016. The US 36 Bikeway continues to see growth trends each year, serving residents, commuters and visitors alike.

See Attachment 5 for cycling count data snapshots for the full time automatic counter located in Broomfield approximately 3.5 miles south of the project at the Parkland access located near 112<sup>th</sup> Avenue.

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

The project directly benefits residents and commuters of multiple municipalities on the US 36 corridor including City of Louisville, Town of Superior, City of Boulder, and Boulder County to the north and the City of Westminster to the south.

The project segment is a small, but substandard, portion of the 18 mile separated multi-use facility paralleling US 36.

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

The proposed project benefits the Boulder County subregion and the Jefferson & Adams County subregions and is a key piece of infrastructure for the US 36 multimodal corridor.

A letter of support from the Boulder County Subregional Forum indicates strong support for the project.

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

The primary Metro Vision theme the Project addresses is a connected multimodal region by supporting the objective that the transportation system is safe, reliable and well-maintained.

This project supports the Metro Vision initiative to invest in bicycle and pedestrian infrastructure that is comfortable, safe and convenient. This Project aims to increase safety and reliability of this substandard section of a regional facility.

The AASHTO (American Association of State Highway and Transportation Officials) Guide offers design criteria for constructing shared pathways. Minimum pathway width should be 10 feet with two additional feet of clearance on each side. If a mix of users or high volume is expected, the Guide recommends that the pathway be widened to 12-14 feet. In addition, the pathway should be as straight and direct as practical while still providing an interesting and safe user experience. This segment of clearly does not meet minimum AASHTO guidance. AASHTO recommends an operating width of 5' for cyclists, and a minimum of 4'. This does not take into consideration environmental conditions of the facility. It can be noted that the substandard width exists on a grade (varies up to approximately 7%) for a portion of this segment, posing additional safety challenges by downhill cyclists incurring speed and for cyclists that may be less skilled. In both cases, cyclists tend to not ride close to the edge of the path presenting safety conflicts for users passing in opposite directions. Additionally, the path meanders at a pedestrian scale. Cyclists tend to ride in direct manner, due to momentum and physics, the natural path of a cyclist may cross the centerline in the project area several times.

Ultimately, the facility was not designed for the use as a high-volume cycling facility. In June 2018 the CDOT counter recorded an average of 360 cyclists on a weekday and 440 cyclists on Saturdays, with the average peak hour volume of 65 cyclists an hour in Broomfield on a segment south of this facility at US 36 Bikeway at 112th/Uptown Ave. Staff estimates that usage in the Project vicinity is at least as much as the monitored segment, if not more.

The Project increases safety for users of all ages and abilities.

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 increase safe bicycle and pedestrian access on the US 36 Bikeway and provide a more direct route through this segment, reducing delay for commuters on the corridor and increasing accessibility of the facility. Additionally improvements are direct benefit to those accessing the DRCOG identified urban center: Interlocken Loop Activity Center by transit, foot and by bicycle.

A key strategy identified by Metro Vision is to prioritize investments that will contribute to mobility enhancements for employment centers and housing options.

This project invests in a key piece of our region's multimodal infrastructure to maintain economic competitiveness to attract and retain employers and employees in the Northwest region. The US 36 Bikeway not only provides first and final mile connectivity to the US 36 Bus Rapid Transit service, but also allows for complete trips to be made on the corridor for commuter, utilitarian and recreational trips, promoting healthy, active lifestyle. A key strategy identified by Metro Vision includes making investments that attract and enable employment near high-frequency transit. This project clearly invests in a substandard section of the US Bikeway, a critical component to the success of the multimodal corridor with access to a vast mix of housing and employment.

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

Non-motorized connectivity to the US 36 BRT stations at McCaslin and Flatiron will be improved by creating a safer section of the regional bikeway by bringing the width to a minimum standard of 12' where feasible and creating a more direct route.

Key safety issues such as icing in the winter will be mitigated by an alignment, thus encouraging year round cycling on the corridor to access US 36 BRT stations, employment, commercial destinations as well as year round enjoyment of cycling.

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

The Boulder County Subregion has submitted a letter of support for the region. Several communities in the subregion acknowledged verbally to Broomfield representation the September 7th Boulder County Subregional Forum that the project is key to success of the US 36 Bikeway and used by many Boulder County residents and would support a letter for this project. Broomfield Subregion did not request funding support from any subregion for this Regional TIP call submittal.

In addition, the US 36 Mayors and Commissioners have also written a letter of support acknowledging the facilities regional significance.

Letters attached.

**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)**.

Vulnerable populations are often most reliant on transit and active transportation options . For this particular project, improvements will most likely benefit low-income families,households without access to a vehicle, older adults and persons with disabilities that also have the ability to ride a bicycle or walk. The improvements will also increase safety for cyclists so of all ages and abilities.

One key aspect of the project scope is to increase the width of the Bikeway to 12' where feasible. The current, substandard 8' path can potentially pose safety challenges for bicyclists using wider devices including tricycle types for cyclists that need a seated position, rather than upright, including hand-powered bicycles. As an example, Broomfield staff has had verbal communications with a cyclist that lives in a neighborhood close to the project, who has disability and relies on a hand-powered bicycle for daily mobility needs. This person also has limited access to transit options. Additionally, families travelling the corridor with trailers for children or cargo also require a wider width trail to safely accommodate travel. Increasing the width and realigning the path for a safer, more direct route will enhance the accessibility of the trail for all ages, abilities and incomes.

Data for vulnerable populations within approximately one mile from the project is available in Part 3D. It is estimated that users of the facility are generally travelling farther than one mile on the corridor, with many users traveling the majority or entirety of the corridor in a single trip. Transit users on the corridor could potentially be accessing the area via US 36 BRT stations and passing through this segment as a first or final mile commute.

Vulnerable populations were estimated for the 18 mile US 36 Bikeway corridor to demonstrate potential populations that may interact with this facility:

- 18,200 seniors over 65
- 27% of the population is a minority
- 9,600 households in poverty
- 4,400 linguistically challenged persons
- 8,000 individuals with a disability
- 4,500 households without a vehicle
- 24,800 children
- 98 health facilities

Vulnerable populations from Boulder to Westminster that have the ability to ride a bicycle long distances or access the Bus Rapid Transit service on the corridor and use a bicycle as first and final mile solution will benefit from this project.

Medical facilities along the Bikeway within bicycling distance from the project location include: include Avista Hospital, Centennial Peaks Hospital in Louisville and UC Health Hospital in Broomfield. The improvements will increase safer access to these destinations including a total of 98 health facilities located along the US 36 corridor.

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

The project will improve safety and make the US 36 Bikeway a more reliable and safe facility, year-round. Currently, the Bikeway, under cold, winter conditions poses a safety concern due to the location of the Bikeway the path remains in the shade in the winter creating icy conditions. This safety concern poses a threat to many cyclists that utilize this 18 mile corridor and may discourage riding under these conditions.

Additionally, the substandard width of the facility is problematic on high volume days, particularly weekends during the peak summer months, including peak day: Bike to Work Day. Due to more opportunity for conflict the substandard width may contribute to safety for users on corridor. By increasing the width of the Bikeway to a standard width of 12' where feasible, as seen on newer sections of the facility, riders can rely on knowing the Bikeway will safely accommodate reasonable bicycling behavior on the facility.

It is critical that the Bikeway can be reliable year round for commuters and can safely handle capacity on peak days.

The Bikeway realignment will provide a more direct route and reduce unnecessary curves. The current path alignment meanders through the park, which reduces cycling momentum, speeds and increases energy output. Overall, cyclists will be able to anticipate a reduction in travel time on the US 36 Bikeway corridor and increase of efficiency of cycling momentum, reducing overall energy output to reach a destination. These improvements will also improve travel time reliability.

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

The project will improve safety by reducing the likelihood of and severity of crashes or solo-falls on the bikeway by improving conditions at the westbound onramp underpass curve and increasing the width of the Bikeway to a regional standard to safely allow the passing of bicycles including on grades.

The realignment will reduce unnecessary curves on the bikeway and reduce winter shading and icy conditions. Visibility will be improved where feasible to increase reaction time to avoid obstacles or other cyclists or pedestrians.

Some incidents and injuries have been reported to City & County of Broomfield along the US 36 Bikeway, and staff has worked to immediately mitigate the conditions that were the cause of the crashes and falls. It is not known how many other incidents that have occurred on the Bikeway that have not been reported.

Public Works staff have raised concerns about future incidents winter icy conditions may pose to regional Bikeway users that cannot be mitigated due to the geography of the path and terrain surrounding the path. To

the best of professional knowledge, the preferred solution is to realign the path further from the hillside, while also widening the path. The project will also make improvements to increase safety and improve conditions at the US 36 westbound onramp underpass and Interlocken Loop underpass.

## 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 difficult to say if this project will have a strong impact on the facilitation of urban growth. This Project improve an existing regional multi use corridor intended to serve multimodal mobility along US 36, supporting existing Bus Rapid Transit stations and connecting existing and emerging urban centers from Boulder to Denver. The project is physically located within the emerging urban center of Interlocken Loop Activity Center and will support direct multimodal access to this urban center from other urban centers along the corridor.

The Project supports commuters and residents along the US 36 multimodal corridor with future plans to increase first and final miles options that could include bike share, which potentially would increase utilization of the bike, particularly in peak commuter hours.

### [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

Yes, this Project enhances the existing and direct multi use path along US 36. The path connects six BRT stations including: US 36 at Table Mesa, McCaslin, Flatiron, Broomfield, Church Ranch and Sheridan Stations. The US 36 BRT Flatiron Flyer offers high-quality, high-frequency service 7 days a week to more than 10,000 daily commuters.

The US 36 Bikeway and BRT stations provide connectivity from Denver to Boulder including the existing urban centers of including three in Boulder and Downtown Denver, as well as, seven emerging urban centers at Superior Town Center, Interlocken Loop Activity Center, Broomfield Urban Transit Village, Original Broomfield, Westminster Promenade Activity Center, and Westminster Center.

### [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 the region for people, goods, or services?

Yes  No

Describe, including supporting quantitative analysis

Yes. This project will enhance mobility choices for people with in the region, primarily, the option to cycle more safely and directly on the corridor.



In particular, the facility will be improved to promote year round-use, increasing mobility options through the year.

A more direct route that allows cyclists to maintain a reasonable speed could save cycling commuters a few minutes on their route, increasing the viability of cycling as commuter option for some.

[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*

It is challenging to determine the exact air quality impact of this project, due to increase in ridership. The Project is a needed safety improvement to an existing regional facility.

Since mid-2015, before the official opening of the Bikeway, a total of more than 200,000 cycling trips have been recorded at the Broomfield full time automatic count location.

Providing high-quality, safe multimodal facilities can contribute to an overall reduction in emissions and air quality as users of the path become more frequent users if the facility is safe, attractive and convenient.

The project is consistent with Metro Vision objectives to invest in high-quality multimodal facilities.

[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*

The project will enhance safety of an existing facility that has connectivity to other regional trails and local access to open space in the Northwest corridor including: numerous City of Boulder Parks and Open Spaces, Davidson Mesa Open Space, Boulder County Open Spaces, Coal Creek, Frank Varra Park, Autry Park, Rock Creek Farm, Interlocken East Park, proposed parks in Arista, Lower Church Lake Open Space, Big Dry Creek Open Space, Hylands Pond Open Space and other community parks to be developed with new residential along the corridor.

Major regional trails include access connectivity to Rock Creek Trail, Big Dry Creek, Farmers High Line Canal Trail. A short ride from the terminus a cyclist can access the Little Dry Creek trail which leads to Clear Creek Trail to Golden. There are numerous local connections off the US 36 Bikeway to other local trails, and connections to on-street bike lanes.

Project improvements will enhance user experience and increase safety of access to our region's open space assets, and other regional trails.

[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. This project will enhance user experience and increase safety for all users of the US 36 Bikeway while potentially encouraging more frequent use of the facility for transportation, commuter and recreational trips. More importantly, the project will reduce negative experiences.

High-quality, separated facilities such as the US 36 Bikeway encourage cycling for all ages and abilities as it

attractive and accessible to a broader segment of the population. The high ridership found on the US 36 Bikeway (11,000 cycling trips in Broomfield, June 2018) is indicative of that. The proposed improvements will increase comfort and reduce potential conflicts that may ultimately discourage use of the facility and using the Bikeway for a variety of trip types.

Strava Data for the project segment indicates that 44% of Strava users on this bikeway log their trips as a commute. Strava users tend to also be recreational riders, this data may indicate that the facility encourages recreational cyclists to use the Bikeway for commuter trips as well, allowing for corridor residents and employees to integrate cycling more into daily life activity.

The improvements to expand the width of the Bikeway will allow for safer passing of users including cyclists passing joggers or people walking and users travelling in the opposite direction. The existing path will remain, allowing for another option for joggers and pedestrians that are not in need of a direct route. Providing for alternative routes allow users to choose a preferred path, expands route opportunities for different experiences. Users that have negative experiences, interactions or crash incidents may choose to not use the facility or may reduce overall walking, jogging or cycling habits. In severe cases, a user may stop cycling altogether if the incident results in injury.

The US 36 Bikeway is well connected to local access and other regional trails, expanding route and destination options. Enhancing the safety of facilities such as the US 36 Bikeway promote the use of the bicycle as a part of daily life and provide the opportunity for people to choose to lead healthy and active lives.

[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

It is challenging to assess how critical disparities will be reduced.

Reliability will be improved for all users of the facility, including some population with health, education, income and opportunity challenges, by increasing year-round accessibility and providing a more direct route, improving access to opportunity.

[MV objective 14](#)

**Improve the region’s competitive position.**

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

Yes  No

Describe, including supporting quantitative analysis

The US 36 multimodal corridor with BRT and commuter bikeway is a key piece of multimodal transportation infrastructure that attracts and retains employers and employees along the Northwest corridor that seek access high-quality multimodal amenities. It is also a key piece of infrastructure that promotes recreational activity and supports our emerging urban center residents with access to cycling, jogging and walking activity.

Improving this facility, especially as usage increases, demonstrates that communities on the corridor recognize the importance of keeping the facility, safe and well maintained. The US 36 Bikeway is a key component for promoting economic development of the corridor. It is important that residents, commuters and visitors have a safe and positive experience on the US 36 Bikeway for the Northwest region and the Metro as a whole, that the region takes pride in maintaining its multimodal facilities and offer a high-quality of life.

**D. Project Leveraging**

**WEIGHT 10%**

<b>9.</b> What percent of outside funding sources (non-DRCOG-allocated Regional Share funding) does this project have?	60%	80%+ outside funding sources ..... High 60-79% ..... Medium 59% and below ..... Low
--	-----	---

### 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	358
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: <b>{#3 X 50%}</b> 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: <b>{#5 X 30%}</b> (or other percent, if justified)	0	0
7. = Number of SOV trips reduced per day (#5 - #6)	0	0
8. Enter the value of <b>{#7 x 2 miles}</b> . (= 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: It is challenging to estimate the number of increased cycling trips due to facility improvements. Average Cycling trips for June 2018 weekdays was 358 (excluding Bike to Work Day). Saturday average was 439		
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: <b>{#3 X 50%}</b> 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: <b>{#5 X 30%}</b> or other percent, if justified)	0	0

7. = Number of SOV trips reduced per day (#5 - #6)	0	0
12. Enter the value of <b>{#7 x .4 miles}</b> . (= 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		0
3. Low-Income households		418
4. Linguistically-challenged persons		188
5. Individuals with disabilities		482
6. Households without a motor vehicle		206
7. Children ages 6-17		3,155
8. Health service facilities served by project		8

## 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 <b>{#3 - #4}</b> = Reduced VHD	0
6. Enter value of <b>{#5 X 1.4}</b> = <b>Reduced person hours of delay</b> <i>(Value higher than 1.4 due to high transit ridership must be justified by sponsor)</i>	0
7. <b>After project peak hour congested average travel time reduction</b> 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*)

<b>Fatal</b> crashes	0
----------------------	---

<b>Serious Injury</b> crashes	0
-------------------------------	---

<b>Other Injury</b> crashes	1
-----------------------------	---

<b>Property Damage Only</b> crashes	0
-------------------------------------	---

2. Estimated reduction in crashes applicable to the project scope (*per the five-year period used above*)

<b>Fatal</b> crashes reduced	0
------------------------------	---

<b>Serious Injury</b> crashes reduced	0
---------------------------------------	---

<b>Other Injury</b> crashes reduced	0
-------------------------------------	---

<b>Property Damage Only</b> crashes reduced	0
---	---

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
---------------------------------------	----------------

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

3. Average Daily User Volume	0
------------------------------	---

### Bicycle/Pedestrian/Other Facility

4. Current bicycle/pedestrian/other facility condition	Fair
--	------

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

The width is substandard for a regional, high use bicycle facility. Project will widen the path to 12' standard where feasible.

6. Average Daily User Volume	0
------------------------------	---

## 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** *(identified and calculated by the sponsor)*

1.	
2.	
3.	

**J. Disbenefits or Negative Impacts** *(identified and calculated by the sponsor)*

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:	