Part 1 Base Information

1. Project Title	**SH7/East Arapahoe Multi-Use Path and Transit Stop Improvements**
2. Project *Start/End* points or Geographic Area	38th /Marine streets to Cherryvale Road *(See attached map)*
3. Project Sponsor *(entity that will construct/ complete and be financially responsible for the project)*	City of Boulder
4. Project Contact Person, Title, Phone Number, and Email	Gerrit Slatter, Principal Transportation Projects Engineer, 303-441-1978, slatterg@bouldercolorado.gov
5. Does this project touch CDOT Right-of-Way, involve a CDOT roadway, access RTD property, or request RTD involvement to operate service?	☒ Yes ☐ No *If yes, provide applicable concurrence documentation with submittal*

6. What planning document(s) identifies this project?

☒ DRCOG 2040 Fiscally Constrained Regional Transportation Plan (2040 FCRTP)	
☒ Local plan:	City of Boulder Transportation Master Plan, East Arapahoe Transportation Plan
☒ Other(s):	Northwest Area Mobility Study, SH7 Planning and Environmental Linkages Study

Provide link to document/s and referenced page number if possible, or provide documentation with submittal

7. Identify the project's **key elements**.

- ☐ Rapid Transit Capacity (2040 FCRTP)
- ☒ Transit Other:
- ☒ Bicycle Facility
- ☒ Pedestrian Facility
- ☒ Safety Improvements
- ☐ Roadway Capacity or Managed Lanes (2040 FCRTP)
- ☐ Roadway Operational

Grade Separation
- ☐ Roadway
- ☐ Railway
- ☐ Bicycle
- ☐ Pedestrian

- ☐ Roadway Pavement Reconstruction/Rehab
- ☐ Bridge Replace/Reconstruct/Rehab
- ☐ Study
- ☐ Design
- ☐ Transportation Technology Components
- ☐ Other:

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

SH 7/East Arapahoe Avenue is one of Boulder's busiest travel corridors, connecting Boulder to I-25/Brighton and connecting the 40,000 employees who work in the corridor to destinations throughout the city. 40% of the jobs in Boulder are located along the East Arapahoe corridor between Downtown and 75th streets. Recognizing the need to provide better travel options for commuters and for the greater number of people who will be working and living in the corridor over the coming years, the City has adopted the East Arapahoe Transportation Plan (EATP). The EATP sets out a long-range vision, with safety, access, and mobility improvements that can be phased incrementally and in coordination with the SH 7 Coalition communities to create a regional multimodal corridor with high-quality/high-frequency bus rapid transit (BRT), a regional bikeway, pedestrian improvements and first and final mile supportive infrastructure.

This project would advance the near term action items of the EATP to enhance multimodal safety, access and connectivity by completing gaps in the pedestrian network, creating off-street pedestrian and bicycle connections to local and regional transit service and providing a safe and comfortable environment for waiting transit passengers. This project, therefore, addresses several subregional problems by improving the multimodal network, improving safety and travel comfort for pedestrians, bicyclists and transit users and first and final mile access to transit service. As noted in a recent University of Utah Impacts of Bus Stop Improvements Study, these bus stop improvements will support transit ridership growth as well.

The lack of any type of pedestrian and bicycle facility makes it difficult for pedestrians, cyclists and transit users to access residences, business and transit and reduces safety and mobility. These enhancements will address existing deficiencies, such as missing segments of multiuse path on either side of SH 7/Arapahoe Avenue, upgrading narrow sidewalks to wider multiuse paths, and transit stops that lack infrastructure, such as concrete pads, trash receptacles and shelters.

Images of East Arapahoe Avenue east (above left) and west (above right) missing multi-use path and enhanced bus stop locations

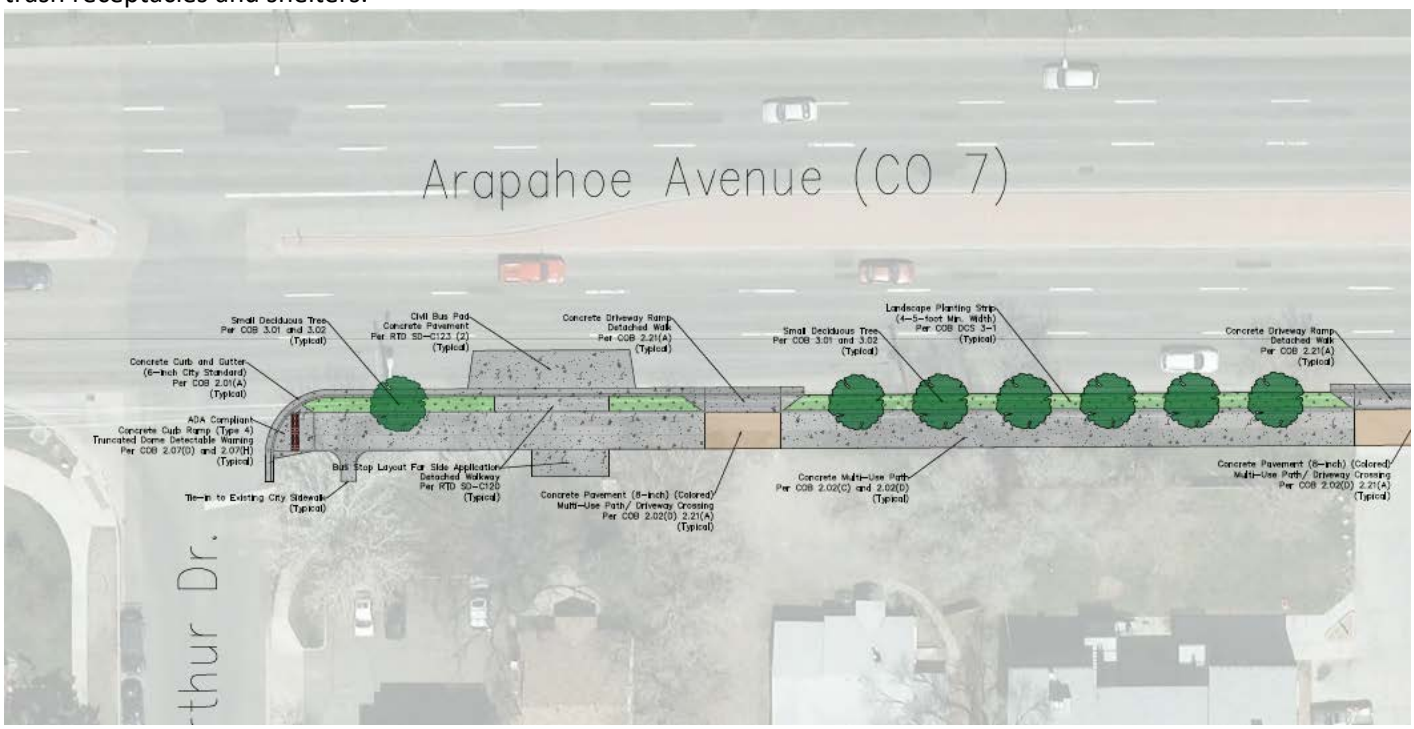
The JUMP transit service currently operates on SH7/Arapahoe Avenue with BRT service anticipated through the SH7 Study.

Bus stops along East Arapahoe Avenue/SH7 at Conestoga (above left) and east of 55th St (above right).

The corridor experiences missing sections of multi-use path.

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

The project would fill in missing links in the multiuse path system along Arapahoe Avenue between 38th /Marine streets and Cherryvale Road and would enhance nine transit stops within this corridor section with concrete pads, trash receptacles and shelters.



Additional pages of the conceptual design and cost estimate are included at the end of this application.

10. What is the status of the proposed project?

The East Arapahoe Transportation Plan was accepted by the Boulder City Council in August 2018 and conceptual level plans have been developed for this section of the project.

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. Project Financial Information and Funding Request

1. Total Project Cost		**$1,900,000**
2. Total amount of DRCOG Subregional Share Funding Request	**$760,000**	**40% 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 of Boulder	$1,140,000	60%
	$	
	$	
	$	
	$	
	$	
Total amount of funding provided by other funding partners *(private, local, state, Regional, or federal)*	**$1,140,000**	

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	$	$38,000	$152,000	$570,000	**$760,000**
State Funds	$	$	$	$	**$0**
Local Funds	$	$57,000	$228,000	$855,000	**$1,140,000**
Total Funding	$0	$95,000	$380,000	$1,425,000	**$1,900,000**
4. Phase to be Initiated *Choose from Design, ENV, ROW, CON, Study, Service, Equip. Purchase, Other*	Choose an item	Design	ROW	Construction	

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?

SH7/Arapahoe Avenue is a key east-west corridor in the City of Boulder serving regional and local travel needs. SH 7/East Arapahoe Avenue connects Boulder to I-25/Brighton connecting the 40,000 employees who work in the corridor to destinations throughout the city including access to corridor businesses, the Flatirons Business Park, Boulder Community Health main hospital campus and nearby University of Colorado and the 29th Street Retail Center. This project intersects with the Boulder's Greenway System and the Boulder Creek and South Boulder Creek paths.

This project's improvements support the Boulder County subregion with improved bicycle and pedestrian facilities designed for a wider range of ages and abilities and enhanced transit stops. These improvements support safer and more comfortable travel for pedestrians and bicyclists accessing regional and local transit services as well as planned future BRT services.

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

Yes, Arapahoe Avenue/SH7 is a major east-west travel corridor connecting Boulder to Brighton and benefits residents and employees access the local and regional transit services connecting the many corridor communities together with an improved multimodal transportation network serving regional and local travel needs.

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

Yes, the project's benefits support the first and final mile access to transit benefiting the residents and employees of Boulder, Broomfield and Adams subregions.

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

This project would advance the near-term action items of the EATP to enhance multimodal safety, access and connectivity by completing gaps in the bicycle and pedestrian network, creating off-street pedestrian and bicycle connections to transit stops and providing a safe and comfortable environment for waiting transit passengers.

The lack of any type of bicycle and pedestrian facility makes it difficult for pedestrians, cyclists and transit users to access residences, business and transit and reduces safety and mobility. These enhancements will address existing deficiencies, such as missing segments of multiuse path on either side of SH 7/Arapahoe Avenue, upgrading narrow sidewalks to wider multiuse paths, and transit stops that lack infrastructure, such as concrete pads, trash receptacles and shelters.

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?

This project fulfills economic sustainability goals by increasing access and connections for a number of travel modes, which benefits local businesses through improved transportation for customers, goods, services and employees. As evidenced by transportation investments along other city corridors including 30th Street, north of Arapahoe Avenue, and the US 36/28th Street corridor, private dollars follow public investment. Additionally, as evidenced by the past federal stimulus efforts, construction of transportation infrastructure is considered a good mechanism for stimulating local economies through the creation of direct construction jobs and supporting positions and the purchases of goods and services.

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

The first and final mile access to and from transit for pedestrians and bicyclists with this project's installation of multi-use path. These facilities are separated from vehicles which can accommodate a wider range of ages and abilities to comfortable travel by foot or wheel.

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

The project has had extensive community engagement in the development of the recommended design. The City of Boulder has been working with the Colorado Department of Transportation on this corridor and a near term pavement resurfacing project on Arapahoe Avenue in Boulder. These improvements will optimize the investment that CDOT will be making and discussions will continue to see if there are opportunities to minimize construction impacts or costs. A request for project funding match was made to CDOT but they are unable to provide a match at this time.

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).**

As indicated in the census data supplied by DRCOG, there are 19 health facilities in this corridor including Boulder Community Health which is directly located on Arapahoe Avenue providing medical treatment and services to residents and non-residents of Boulder and Boulder County. The proposed biking, walking and transit stop improvements will benefit residents, visitors and employees, including older adults (9% of the population within 1 mile of the project area), low-income households (25% of the households within 1 mile of the project area) and people with disabilities (8% of the population within 1 mile of the project area)

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

Increased reliability of the existing multimodal transportation network is supported by this project by expanding the options to a wider range of current and potential users. This project will provide direct bicycle and pedestrian connections to transit services as well as enhanced bus stops which supports the transit riders' user experience while waiting and connecting to or from transit.

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

The multi-use path and transit stop enhancements provide travel comfort and security for users of a wider range of ages and abilities and supports the city's Vision Zero safety objectives. As shown in Part 3 section F and the supporting study sources, it's anticipated that these improvements will reduce 1 serious injury crash.

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*

This project is within the City of Boulder's Area 1 Planning Area, as defined Boulder in the Valley Comprehensive Plan which fully supports growth where urban-level infrastructure already exists and/or there are plans in place for infrastructure and service expansion. Consistent with the BVCP, the urban level infrastructure has been planned to accommodate any and all future redevelopment.

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*

This project is within the central and east Boulder residential areas which has higher density residential uses along the corridor and links to regional transit service. This project will provide direct bicycle and pedestrian connections to transit services as well as enhanced bus stops which supports the transit riders' user experience while waiting and connecting to or from transit.

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*

This project provides clear and direct multimodal connections to the existing and adjacent pedestrian, bicycle and transit stop facilities and services and are within the Boulder urban center.

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*

This project supports and encourages the shift towards active transportation and transit modes which supports a reduction in greenhouse gas (GhG) emissions.

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 expands the connection to users of a wider range of ages and abilities to the City of Boulder's Greenway system including Boulder Creek and South Boulder Creek greenways which are regional and local environmental assets.

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*

The improvements supports the active transportation modes of walking and bicycling.

	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*

Providing a multimodal transportation network that is designed to appeal to residents, employees and visitors of a wider range of ages and abilities connecting is anticipated to promote reliable transportation connections to local and regional transit service and key destinations and employers along SH7/Arapahoe Avenue including Boulder Community Health, Ball Aerospace, the central Boulder business district and nearby Flatirons Business Park and University of Colorado.

	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*

Completing the multimodal system and connections to local and regional transit increases options for residents and employees to this employment center which includes regional employers such as the University of Colorado, Boulder Community Health, Ball Aerospace and the Flatirons Business Park.

D. Project Leveraging

WEIGHT **10%**

9. What percent of outside funding sources (non-DRCOG-allocated Subregional Share funding) does this project have?	60%	60%+ outside funding sources .....High 30-59% .....Medium 29% 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	37,916	54,656	**92,572**
2040	39,777	69,926	**109,703**

Transit Use Calculations	Year of Opening	2040 Weekday Estimate
3. Enter estimated additional daily transit boardings after project is completed. *(Using 50% growth above year of opening for 2040 value, unless justified)* *Provide supporting documentation as part of application submittal*	0	0
4. Enter number of the additional transit boardings (from #3 above) that were previously using a different transit route. (Example: **{#3 X 25%}** *or other percent, if justified)*	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.) (Example: **{#3 X 25%}** *or other percent, if justified)*	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**) *(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)*	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	180
2.	Population and Employment	

Year	Population within 1 mile	Employment within 1 mile	Total Pop and Employ within 1 mile
2020	37,916	54,656	**92,572**
2040	39,777	69,926	**109,703**

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.	4	45
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)*	2	22
5. = Initial number of new bicycle trips from project (#3 – #4)	2	23
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	**7**
7. = Number of SOV trips reduced per day (#5 - #6)	2	16
8. Enter the value of **{#7 x 2 miles}**. (= the VMT reduced per day) *(Values other than 2 miles must be justified by sponsor)*	4	32
9. = Number of pounds GHG emissions reduced (#8 x 0.95 lbs.)	3	30
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)	410
2. Population and Employment	

Year	Population within 1 mile	Employment within 1 mile	Total Pop and Employ within 1 mile
2020	37,916	54,656	**92,572**
2040	39,777	69,926	**109,703**

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	10	102
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)*	5	51
5. = Number of new trips from project (#3 – #4)	5	51
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)*	1	15
7. = Number of SOV trips reduced per day (#5 - #6)	4	36
12. Enter the value of **{#7 x .4 miles}**. (**= the VMT reduced per day**) *(Values other than .4 miles must be justified by sponsor)*	1	14
8. = Number of pounds GHG emissions reduced (#8 x 0.95 lbs.)	0	13

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	4,008
	2. Minority persons	11,015
	3. Low-Income households	4,277
	4. Linguistically-challenged persons	925
	5. Individuals with disabilities	3,690
	6. Households without a motor vehicle	2,243
	7. Children ages 6-17	3,101
	8. Health service facilities served by project	19

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** *(Value higher than 1.4 due to high transit ridership must be justified by sponsor)*	0
7. **After project peak hour congested average travel time reduction** per vehicle (includes persons, transit passengers, freight, and service equipment carried by vehicles). *If applicable, denote unique travel time reduction for certain types of vehicles*	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)*		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).*
Fatal crashes	1	
Serious Injury crashes	10	
Other Injury crashes	115	
Property Damage Only crashes	337	
2. Estimated reduction in crashes <u>applicable to the project scope</u> *(per the five-year period used above)*		
Fatal crashes reduced	0	
Serious Injury crashes reduced	1	
Other Injury crashes reduced	0	
Property Damage Only crashes reduced	0	

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	Choose an item
5. Describe current condition issues and how the project will address them.	
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? *If yes, describe scale of expected increase*	☐ Yes ☐ No
2. Negative impact on vulnerable populations	
3. Other:	