Part 1 Base Information

1. Project Title	**SH66/WCR7 Pedestrian Underpass**
2. Project *Start/End* points or Geographic Area *Provide a map with submittal, as appropriate*	The project will construct a bicycle and pedestrian trail and underpass of SH 66, west of WCR 7. The project is an integral part of an overall plan to connect a trail from Downtown Mead and provide a commuter connection between Mead, Longmont and the region. A map with supplemental information is attached for your review.
3. Project Sponsor *(entity that will construct/ complete and be financially responsible for the project)*	Town of Mead, Colorado
4. Project Contact Person, Title, Phone Number, and Email	Erika Rasmussen, PE Town Engineer/Public Works Director 970-805-4185 erasmussen@townofmead.org
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:	2018 Comprehensive Plan 2018 Transportation Plan Open Space, Parks & Trails Master Plan
☐ Other(s):	

https://www.townofmead.org/engineering/page/master-plans
https://www.townofmead.org/planning/page/master-plans-maps

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?

Biking along WCR 7 is considered hazardous and uncomfortable by the majority of bicycle riders. The roadway is 36-feet wide, no bike lanes, a speed limit of 50 mph, and limited shoulders. Crossing SH 66 as a pedestrian is also uncomfortable since SH 66, albeit signalized, has no pedestrian phasing, has a speed limit of 60 miles per hour, heavy truck traffic, and has an ADT of approximately 19,000 vehicles per day. The town center of Mead is approximately 3.5 miles from the Mead High School (located on WCR 7 south of SH 66). Students attending the high school really have no choice but to drive to school or be driven or take the bus. Commuters living in Mead and going to Longmont for employment have no options at this time but to drive their own vehicles. WCR 7 is the most primary north-south arterial that connects Mead to the region. As the Town continues to grow, traffic volumes will increase and will make traveling this corridor even more difficult than it is today. The trail system has already been constructed north of the intersection, providing a connection to downtown Mead and the elementary and junior high schools. The key remaining piece to the puzzle in creating a great option for cycling and walking is providing a safe and comfortable grade-separated crossing of SH 66 and an eventual connection to Mead High School and the St. Vrain Greenway Trail in Longmont. The completion of the underpass under SH 66, and the trail connectors on either side, would provide a safe and convenient transportation option for school children, pedestrians, bicyclists, and recreationalists throughout southwest Weld County.

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

The project proposes to construct a trail and pedestrian underpass of SH 66 directly adjacent to and west of WCR 7. This project will tie into the existing trail to the north, connect to the Liberty Ranch subdivision to the south, and provide a safe and efficient off-street commuter and recreational bikeway for the residents of Mead.

10. What is the status of the proposed project?

The project is currently under preliminary design. The ½ mile segment of trail north of the intersection is designed and right-of-way has been dedicated. The Town is working with a private consultant as well as local developers in securing the design, ROW, and access for the underpass and southern ½ mile trail segment.

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.

It is possible that a smaller allocation would be acceptable. There are other options that could possibly fulfill the intent of the project to a lesser degree, such as rebuilding the traffic signal and providing enhanced crossing techniques and on-street bike lanes. However, the overall safety benefits would be diminished by still having ped/bike/motor vehicle conflicts. A smaller allocation would also extend the project into the future as the Town of Mead develops other funding mechanisms to fund any shortfall.

A. Project Financial Information and Funding Request

1. Total Project Cost		**$3,000,000**
2. Total amount of DRCOG Subregional Share Funding Request	**$2,400,000**	**80%**
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**

Town of Mead	$600,000	20%
Other partners include local development that are providing ROW and portions of the trail connections.	$NA	
	$	
	$	
	$	
	$	
Total amount of funding provided by other funding partners *(private, local, state, Regional, or federal)* ***The contributions of other partners in the project are separate projects and not part of this funding request***	**$600,000**	

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	$	$168,000	$120,000	$2,112,000	**$2,400,000**
State Funds	$	$	$	$	**$0**
Local Funds	$	$42,000	$30,000	$528,000	**$600,000**
Total Funding	$	$210,000	$150,000	$2,640,000	**$3,000,000**
4. Phase to be Initiated *Choose from Design, ENV, ROW, CON, Study, Service, Equip. Purchase, Other*	Design	ROW	Construction	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. ☒

6.

7.

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?

Mead is a growing community with many young families moving to the area. Studies have shown the increasing importance of active modes of transportation for the younger generations when choosing where to live in relation to work and play. The Town has expressed a desire to provide transportation options that are active and healthy to a growing population. Although transit options are not economically viable at this time, it is critical that a walkable and bikeable community be constructed over time that allows people options for travel.

The Town of Mead has adopted a Comprehensive Plan, a Transportation Plan, and an Open Space and Trails Plan that supports the vision of an active and healthy community. The region and sub-region have all adopted goals, objectives and visions that support bikeway systems.

This particular project is a catalyst for creating the north-south bicycle commuter system that will enhance and promote active modes of transportation, and provide connectivity to the region.

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

The long-range planned trail ties directly into the St. Vrain Greenway Trail for the City of Longmont. This particular project is a key segment that will bring the trail south under SH 66 and make the connection to the Liberty Ranch subdivision. Once that connection is made, commuters and recreational cyclists will have a vast area to be able to ride without the conflict of high speed and heavy traffic. In the long-term, commuters in between Longmont and Mead will have a safe passage between the two communities when this particular gap is rectified and corrected. The SH66 underpass is providing a stepping stone to connecting the region.

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

The project provides a critical connection for healthy and active living and will provide students and commuters an option other than a single occupant vehicle. In the future, the project provides that critical element that will allow bike commuters to safely reach Longmont in a convenient and safe way. The trail system will eventually tie into Longmont's St. Vrain Greenway Trail system, which allows bicycle commuters and recreational riders to disperse throughout the region.

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

Currently, there are gaps in the bicycle system that prevent bicycling from being a serious choice of transportation. The Town of Mead has made a conscious and significant effort through their planning and budget processes to make biking and walking a viable mode of transportation in the community. There is significant motor vehicle traffic that currently travels the WCR 7 corridor as students commute back and forth to school, as well as the work trips leaving and entering the community. This project removes the most significant barrier in creating a trail system that will allow students a choice of travel means.

The connection also opens up the possibility of future employee commuter traffic between Mead and Longmont by removing the significant barrier of crossing SH 66. The regional connection issue will take place in due time, but the project will impact the immediate and current problem with north-south bicyle and pedestrian travel within Mead itself.

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 will give people choice in their travel decisions when moving north and south in Mead and the destinations in-between, as well as to future commercial development proposed north and south of the intersection. Active living transportation choices are foundational to a healthy and propsperous community.

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

The project will also function as a walkway for people as well as a bicycle system. Developments to the north and south have proposed commercial properties and people will be able to walk and bike between developments.

There is no local transit system, so the connections would allow people to leave their cars at home and have choices when walking and biking throughout the community whether it be for shopping, work, school, or recreation.

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

This particular project is being funded through two principle sources – DRCOG SW Region and the Town of Mead. It is important to remember that this is just one, although critical piece, of an entire system. The Town, through local dollars as well as developer participation, are creating a trail system that will function for the entire community.

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).**

Most of the residents, whether vulnerable or not, rely on the health facilities. There are no major health facilities within Mead. However, the trail crossing will allow vunerable populations improved mobility by providing access between the south side of Mead to the downtown area.

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

The reliability of the connection is that it is removing pedestrians from motor vehicle conflicts, regardless of the time of day. No longer will time of day, or safety, be of concern for a cyclist or pedestrian when trying to cross SH 66.

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

There are 32 ways to have a crash in an intersection. A pedestrian/bicycle underpass removes all of these conflicts, which in turn is a major improvement in safety. As for security, tunnels in general can give people pause, especially for women at night. The Town is proposing to have the the underpass well lit to give a higher sense of security for people.

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* Mead is a small community under tremendous growth pressure – especially in terms of housing growth. It is likely that growth will follow those areas where services can be provided – water, sewer, power, and transportation. Most growth trends in housing are moving towards the areas that already have services provided. Active modes of transportation is a desirable service to have access to when developing property. Having an outstanding trail system will play a part in focusing growth near the trails.		
MV objective 3	**Increase housing and employment in urban centers.**	
2. Will this project help establish a network of clear and direct multimodal connections within and between urban centers, or other key destinations?		☒ Yes ☐ No
Describe, *including supporting quantitative analysis* The project opens up the desitinations of commercial areas, the high school and the downtown area. In the long-term future, the connection will play a part in an interregional connection between Longmont and Mead. **(see supplemental information that displays the network of trails)**		
MV objective 4	**Improve or expand the region's multimodal transportation system, services, and connections.**	
3. Will this project help increase mobility choices within and beyond your subregion for people, goods, or services?		☒ Yes ☐ No
Describe, *including supporting quantitative analysis* The project creates a safe connection that opens up the sub-regional connections in southwestern Weld County.		
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 project should be able to remove approximately 400 vehicles per day and replace them with bicycle and pedestrian traffic. The removal of vehicular traffic will reduce ground-level O3, as well as CO2, CO, NOx and VOC's. Direct modelling of the impacts of the trail has not been completed, but falls into the category of exclusion because of the obvious benefits of the project.		
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 helps complete the local trail system that has both a transportation as well as recreation component. The project will assist in completing one of the missing links in the critical connection to the St. Vrain Greenway Trail system in Longmont.

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 project provides a safe and efficient alternative to driving an automobile to the residents of Mead when commuting, recreating, and going to school. The project removes a major barrier for people choosing walking or a bicycle as their transportation. Crossing of the intersection of SH66 is intimidating for all but the most brave of pedestrians and bicyclists.

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*

The project will allow people to choose a healthy and inexpensive travel mode for most north-south trips within Mead and the surrounding area. The project will provide great access to the downtown, elementary and junior high schools, and southern residential and commercial areas, giving people more opportunity in terms of time and income by providing a reliable and safe transportation choice.

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*

A functioning and efficient trail system is always a plus for a community. People want healthy communities and the opportunities to grow and be active. This trail system and underpass create an opportunity for people to use their bikes safely and efficiently during their travels through the area, which will promote healthy living and active lifestyles.

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

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. *(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	10
2. Population and Employment	

Year	Population within 1 mile	Employment within 1 mile	Total Pop and Employ within 1 mile
2020	4600	3600	**8200**
2040	20000	17560	**37560**

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.	400	1000
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)*	100	300

5. = Initial number of new bicycle trips from project (#3 – #4)	300	400
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)*	90	**120**
7. = Number of SOV trips reduced per day (#5 - #6)	210	280
8. Enter the value of **{#7 x 2 miles}**. (= the VMT reduced per day) *(Values other than 2 miles must be justified by sponsor)*	420	560
9. = Number of pounds GHG emissions reduced (#8 x 0.95 lbs.)	336	476
10. If values would be distinctly greater for weekends, describe the magnitude of difference: Most likely the same with commuter trips replaced with recreational/shopping trips.		
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	2360	1205	**82000**
2040	20000	17560	**37560**

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	100	300
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)	100	300
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)*	100	300
7. = Number of SOV trips reduced per day (#5 - #6)	100	300
12. Enter the value of **{#7 x .4 miles}**. (**= the VMT reduced per day**) *(Values other than .4 miles must be justified by sponsor)*	40	120
8. = Number of pounds GHG emissions reduced (#8 x 0.95 lbs.)	95	285
9. If values would be distinctly greater for weekends, describe the magnitude of difference: Most likely the same		

10. If different values other than the suggested are used, please explain here:	
11.	

D. Vulnerable Populations

	Vulnerable Populations	Population within 1 mile
Use Current Census Data	**1.** Persons over age 65	214
	2. Minority persons	265
	3. Low-Income households	83
	4. Linguistically-challenged persons	260
	5. Individuals with disabilities	Unknown
	6. Households without a motor vehicle	21
	7. Children ages 6-17	799
	8. Health service facilities served by project	2

E. Travel Delay(Travel delay is not an issue for the project)

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 (WCR 7)	3500
2. 2040 ADT estimate	13,900
3. Current weekday vehicle hours of delay (VHD) (before project)	Unknown without modeling

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) 4 years of data at the intersection has been provided by CDOT Region IV*		***A DiExsys model was run for 4 years on the key intersection. Since there are no ped/bike crashes at the intersection due to the lack of pedestrians and bikes, reduction is not possible. More importantly, there will be bikes and pedestrians with the construction of the trail system and with the regional growth, so crashes will occur. Since SH66 has a speed limit of 60 mph, it is anticipated that without the grade-separated crossing, serious injuries to pedestrians and bikes will occur. This proposed project is pro-active in preventing accidents.***
Fatal crashes	0	
Serious Injury crashes	25	
Other Injury crashes	0	
Property Damage Only crashes	31	
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	0	
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	Fair
2. Describe current pavement issues and how the project will address them. No pavement issues	
3. Average Daily User Volume	***The crossing is currently not used often by bikes or pedestrians due to the lack of signal phasing and perceived safety issue.***

Bicycle/Pedestrian/Other Facility

4. Current bicycle/pedestrian/other facility condition	The crossing does not exist currently
5. Describe current condition issues and how the project will address them. There is a signalized crossing at the intersection, but no pedestrian phases or crosswalks. The environment is considered hostile to active modes.	
6. Average Daily User Volume **there are virtually no bikes or peds currently using the crossing due to the condition of the crossing and the lack of trail**	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 No impact to vulnerable populations.	
3. Other: none	