



DRCOG FY2022-2025 TIP – Adams County Subregion
Subregional Share Air Quality/Multimodal (AQ/MM)
Application Programming Federal Fiscal Years 2023-2025

APPLICATION OVERVIEW

What: The Subregional Share Call for Projects for the FY2022-2025 TIP, programming fiscal years 2023-2025

Funding Available: \$161,292,000 overall. Target of \$24,903,000 for Adams County (estimated as of the open date)

Application: Air Quality & Multimodal (AQ/MM) eligible projects only

Major Project Eligibility Exceptions: Roadway capacity, roadway reconstruction, bridge, interchange projects

Call Opens: May 2, 2022

Call Closes: June 24, 2022, 3 pm

Application Submittals: submit the items below online through the submittal link on the [TIP Data Hub](#)

1. REQUIRED: a **single PDF document** containing the below. Please **DO NOT** attach additional cover pages, embed graphics in the application, or otherwise change the format of the application form.
 - a. this application
 - b. one location map/graphic
 - c. cost estimate (your own or the CDOT [cost estimate form](#))
 - d. CDOT/RTD concurrence response (if applicable)
 - e. any required documentation based on the application text (i.e., FHWA emissions calculators)
 - f. project support letters and/or [Request for Peer Agency Support](#)
2. OPTIONAL: Submit **one additional** PDF document containing any supplemental materials, if applicable
3. REQUIRED: Submit a zipped GIS shapefile of your project. Requests for assistance with creating a shapefile should be submitted to tipapplications@drcog.org no later than June 3, 2022

Other Notable items:

- **TIP Trainings:** To be eligible to submit an application, at least one person from your agency must have attended one of the two mandatory TIP training workshops ([February 10](#) and [February 16, 2022](#))
- **CDOT/RTD Concurrence:** If required, [CDOT and/or RTD concurrence](#) must be provided with the application submittal. The CDOT/RTD concurrence request is due to CDOT/RTD no later than May 13, 2022, with CDOT/RTD providing a response no later than June 10, 2022. Submit requests to the following: CDOT Region 1 – JoAnn Mattson, joann.mattson@state.co.us; CDOT Region 4 – Josie Hadley, josie.hadley@state.co.us; RTD – Chris Quinn, chris.quinn@rtd-denver.com
- **If a submitted application in Call #1 was not funded,** and you wish to resubmit the same application for this call, please contact DRCOG at tipapplications@drcog.org. In these cases, we can unlock the application, change the title, and save the applicant work in the resubmittal process.
- **Application Data:** To assist sponsors in filling out the application, DRCOG has developed a TIP Data Tool to streamline quantitative analyses requested in the application. A link to the TIP Data Tool and instructions on how to use it are available on the [TIP Data Hub](#). Additionally, sponsors may download datasets to run their own analyses from this same site. Requests for additional data or calculations from DRCOG staff should be submitted to tipapplications@drcog.org no later than June 3, 2022
- **Project Affirmation:** The application must be affirmed by either the applicant’s City or County Manager, Chief Elected Official (Mayor or County Commission Chair) for local governments, or agency director or equivalent for other applicants
- **TIP Policy:** Further details on project eligibility, evaluation criteria, and the selection process are defined in the [Policies for TIP Program Development](#) document (a [quick-guide](#) is also available for reference)
- **Evaluation Process:** DRCOG staff will review submittals for eligibility and post to the DRCOG website (June 27-July 1). Applications and scoring sheets will then be provided to the individual subregional forums no later than July 1. The forums will then review, score, discuss, and rank the applications and provide a recommended funding list within the funding available by August 5. The forums’ recommendations will then be forwarded to the DRCOG committee process for incorporation into the adopted TIP
- If you have any questions or need assistance, reach out to us at tipapplications@drcog.org

APPLICATION FORMAT

The AQ/MM Subregional Share application contains two parts: *project information* and *evaluation questions*.

Project Information

Applicants enter **foundational** information for the *project/program/study* (hereafter referred to as *project*), including a problem statement, project description, and concurrence documentation from CDOT and/or RTD, if applicable. This section is not scored.

Evaluation Questions

This part includes four sections (A-D) for the **applicant to provide qualitative and quantitative responses** to use for scoring projects. The checkboxes and data entry fields should guide the applicant’s responses. They are not directly scored but provide context as reviewers consider the full response to each question. Applicants may access the TIP Data Tool and additional data resources which applicants may find useful [here](#).

Scoring Methodology: Each section will be scored on a scale of 0 to 5, relative to other applications received. All questions will be factored into the final score, with any questions left blank receiving 0 points. The four sections are weighted and scored as follows:

Section A. Subregional Impact of Proposed Projects..... 30%

Projects will be evaluated on the degree to which they address a significant regional or subregional problem or benefit people throughout the subregion. Relevant quantitative data should be included within narrative responses.

5	The project benefits will substantially address a major regional or subregional problem and benefit people and businesses in multiple subregions.
4	The project benefits will significantly address a major subregional problem primarily benefiting people and businesses in one subregion.
3	The project benefits will either moderately address a major subregional problem or significantly address a moderate -level subregional problem.
2	The project benefits will moderately address a moderate -level subregional problem.
1	The project benefits will address a minor subregional problem.
0	The project does not address a subregional problem.

Section B. Metro Vision Regional Transportation Plan Priorities50%

The TIP’s investments should implement the 2050 Metro Vision Regional Transportation Plan (2050 MVRTP) regional project and program investment priorities, which contribute to addressing the Board-adopted Metro Vision objectives and the federal performance-based planning framework required by the Federal Highway Administration and Federal Transit Administration as outlined in current federal transportation legislation and regulations. Therefore, projects will be evaluated on the degree to which they address the six priorities identified in the 2050 MVRTP: safety, active transportation, air quality, multimodal mobility, freight, and regional transit. It is anticipated that projects may not be able to address all six priorities, but it’s in the applicant’s interest to address as many priority areas as possible. Relevant quantitative data is required to be included within narrative responses. The table below demonstrates how each priority area will be scored.

5	The project provides demonstrable substantial benefits in the 2050 MVRTP priority area and is determined to be in the top fifth of applications based on the magnitude of benefits in that priority area.
4	The project provides demonstrable significant benefits in the 2050 MVRTP priority area.
3	The project provides demonstrable moderate benefits in the 2050 MVRTP priority area and is determined to be in the middle fifth of applications based on the magnitude of benefits in that priority area.
2	The project provides demonstrable modest benefits in the 2050 MVRTP priority area.
1	The project provides demonstrable slight benefits in the 2050 MVRTP priority area and is determined to be in the bottom fifth of applications based on the magnitude of benefits in that priority area.
0	The project does not provide demonstrable benefits in the 2050 MVRTP priority area.

Section C. Project Leveraging (“overmatch”) 10%
 Scores are assigned based on the percent of other funding sources (non-Subregional Share funds).

Score	% non-Subregional Share funds
5	60% and above
4	50-59.9%
3	40-49.9%
2	20-39.9%
1	10.1-19.9%
0	10%

Section D. Project Readiness 10%

Be sure to answer ALL questions. While “Yes” answers will generally reflect greater readiness, opportunities are given to provide additional details to assist reviewers in fully evaluating the readiness of your project.

5	Substantial readiness is demonstrated and all known obstacles that are likely to result in project delays have been mitigated.
4	Significant readiness is demonstrated and several known obstacles that are likely to result in project delays have been mitigated.
3	Moderate readiness is demonstrated and some known obstacles that are likely to result in project delays have been mitigated.
2	Slight readiness is demonstrated and some known obstacles that are likely to result in project delays have been mitigated.
1	Few mitigation or readiness activities have been demonstrated.
0	No mitigation or readiness activities have been demonstrated.

Project Information

1. Project Title		100th Avenue Multimodal path Riverdale Road to W. Forest Circle	
2. Project Location <i>Provide a map, as appropriate (see Page 1)</i>		Start point: 100 th Avenue and Riverdale Road End point: W Forest Circle OR Geographic Area: See attached Location Map - Figure 1	
3. Project Sponsor <i>(entity that will be financially responsible for the project)</i>		City of Thornton	
4. Project Contact Person:			
Name	Marta Junyent	Title	Senior Civil Engineer - Traffic
Phone	720 977 6486	Email	marta.junyent@thorntonco.gov
5. Required CDOT and/or RTD Concurrence: Does this project touch CDOT Right-of-Way, involve a CDOT roadway, access RTD property, or request RTD involvement to operate service?			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If yes, provide applicable concurrence documentation</i>
<input checked="" type="checkbox"/> DRCOG 2050 Metro Vision Regional Transportation Plan (2050 MVRTP)			
Provide MVRTP staging period, if applicable capital project:			
6. What planning document(s) identifies this project? <i>Provide link to document(s) and referenced page number if possible, or provide documentation in the supplement</i>	Planning Document Title: Thornton's Transportation and Mobility Master Plan (TMMP) https://www.thorntonco.gov/government/citydevelopment/planning/Documents/master-plans/transportation-plan/tmmp-adopted-april-2022.pdf Adopting agency (local agency Council, CDOT, RTD, etc.): City of Thornton's Council Provide date of adoption by council/board/commission, if applicable: 4/23/2022 Planning Document Title: North Metro Commuter Survey Adopting agency: Smart Commute Metro North Date of Survey: Fall 2021 Planning Document Title: 2020 Comprehensive Plan https://www.thorntonco.gov/government/citydevelopment/planning/Documents/2020-comp-plan/2020-comprehensive-plan-adopted.pdf (chapters 3 and 5, pages 3.14, 3.32, and 5.6) Adopting Agency: City of Thornton Council Date of Adoption: 7/15/20 Planning Document Title: American with Disabilities Act Transition Plan https://www.thorntonco.gov/government/humanresources/Documents/thornton-ada-transition-plan-update-11-29-2021.pdf (pages 7 and 8)		
	<input checked="" type="checkbox"/> Local/Regional plan:		

		Date of Report: November 2021
	Please describe public review/engagement to date:	<p>This location was specifically identified during the public outreach during the development of Thornton's TMMP that included a comprehensive outreach to gather meaningful input from many residents, employees, stakeholders, and City Council. The TMMP sought feedback through targeted outreach by small focus groups meetings, special interest meetings, City Council Planning sessions, and ongoing staff involvement. Broad outreach included an online survey, an interactive mapping tool, one virtual public event, print and media relations, and detailed information on the city website. (Thornton's TMMP Chapter 3 Community Engagement)</p> <p>An online survey conducted on February 2021 identified as the biggest barrier to walking in Thornton missing or poorly maintained sidewalks. (Figure 7.1 Online Survey Results, page 7.2 of Thornton's TMMP)</p>
	Other pertinent details:	<p>The proposed project removes an existing identified gap in the active transportation network to access transit, employment, health care, educational, recreation opportunities. The proposed project will fill a gap in Thornton's existing pedestrian network. This is identified in the TMMP as one of the five main objectives in the Pedestrian Plan.</p> <p>The overall vision of Thornton's TMMP is a transportation network and mobility plan that expands transportation options to enable a resident to access all areas of Thornton in a timely manner without using a private vehicle.</p> <p>The goal of the TMMP is to provide an interconnected multimodal transportation network and mobility plan for all people to access goods, services, residences, and employment and accommodates safely moving people, goods, and services using a variety of modes that includes vehicle, bicycle, pedestrian, bus, shuttle, and passenger rail based on the future land use projections and overall vision for the City.</p>

7. Identify the project's key phases and the anticipated schedule of phase milestones.

(phases and dates should correspond with the Funding Breakdown table below)

Phases to be included:	Major phase milestones:	Anticipated completion date (based on 9/21/2022 DRCOG approval date): (MM/YYYY)
<u>FOR ALL PHASES</u>	Intergovernmental Agreement (IGA) executed (with CDOT/RTD; assumed process is 4-9 months)	05/2023
<input checked="" type="checkbox"/> Design	Design contract Notice to Proceed (NTP) issued (if using a consultant):	12/2023
	Design scoping meeting held with CDOT (if no consultant):	
<input checked="" type="checkbox"/> Environmental	Environmental contract Notice to Proceed (NTP) issued (if using a consultant):	12/2023
	Environmental scoping meeting held with CDOT (if no consultant):	

<input checked="" type="checkbox"/> Right-of-Way	Initial set of ROW plans submitted to CDOT:	06/2024
	ROW acquisition completed: Estimated number of parcels to acquire: 3	12/2024
<input checked="" type="checkbox"/> Construction	FIR (Field Inspection Review):	09/2024
	FOR (Final Office Review):	11/2024
	Required clearances:	02/2025
	Project publicly advertised:	04/2025
<input type="checkbox"/> Study	Kick-off meeting held after consultant NTP (or internal if no consultant):	
<input type="checkbox"/> Bus Service	Service begins:	
<input type="checkbox"/> Equipment Purchase (Procurement)	RFP/RFQ/RFB (bids) issued:	
<input checked="" type="checkbox"/> Other:	First invoice submitted to CDOT/RTD:	12/2023

8. Problem Statement: What specific subregional problem/issue will the transportation project address?

The proposed project will close a gap in the existing active transportation network that prevents residents from accessing transit, recreation, employment, and health care opportunities. In addition the project will address subregional issues of multimodal mobility, lack of connectivity to the existing multimodal transportation network, equity in environmental justice areas, air quality, and traffic safety. The Farmington community is located north of 100th Avenue between W Forest Circle and Hudson Street and currently there is no multimodal connection going west to the city's transportation network.

9. Identify the project's key elements. A single project may have multiple project elements.

Roadway

Operational Improvements

Grade Separation

- Roadway
- Railway
- Bicycle
- Pedestrian

Regional Transit¹

- Rapid Transit Capacity (2050 MVRTP)
- Mobility Hub(s)
- Transit Planning Corridors
- Transit Facilities/Service (Expansion/New)

Safety Improvements

Active Transportation Improvements

- Bicycle Facility
- Pedestrian Facility

Air Quality Improvements

Improvements Impacting Freight

Multimodal Mobility (i.e., accommodating a broad range of users)

Complete Streets Improvements

Study

Other, briefly describe:

¹For any project with transit elements, the sponsor must coordinate with RTD to ensure RTD agrees to the scope and cost. Be sure to include RTD's concurrence in your application submittal.

10. Define the **scope and **specific elements** of the project (including any elements checked in #9 above). *DO NOT include scope elements that will not be part of the DRCOG funded project or your IGA scope of work (i.e., adjacent locally funded improvements or the project merits and benefits). Please keep the response to this question tailored to details of the scope only and no more than five sentences.***

This project conducts the engineering design and completes the construction of the installation of a multiuse path on the north side of 100th Avenue between Riverdale Road and the existing sidewalk just west of West Forest Circle. The project includes streetlights, ADA ramps at the intersection of 100th Avenue and Riverdale Road, and pavement markings that include crosswalks at the intersection of 100th Avenue and Riverdale Road.

11. What is the current status of the proposed scope as defined in Question 10 above? *Note that overall project readiness is addressed in more detail in Section D below.*

The project is currently not funded. No elements of preliminary engineering and environmental design have been completed to date. It is anticipated that acquisition of right-of-way will be required.

12. Would a smaller DRCOG-allocation than requested be acceptable, while maintaining the original intent of the project?

Yes No

*If yes, smaller meaningful limits, size, service level, phases, or scopes, along with the cost, **MUST** be defined.*

Smaller DRCOG funding request:

Outline the differences between the scope outlined above and the reduced scope:

Project Financial Information and Funding Request		(All funding amounts in \$1,000s)
Total amount of Subregional Share Funding Request (in \$1,000's) <i>(No less than \$100,000 and not to exceed 90% of the total project cost)</i> <input type="checkbox"/> Check box if requesting only state MMOF funds (requires minimum 50% local funds) ¹	\$756	79.92% of total project cost
Match Funds (in \$1,000's) List each funding source and contribution amount.	Contribution Amount	% Contribution to Overall Project Total
City of Thornton	\$190	20%
	\$	0%
	\$	0%
	\$	0%
	\$	0%
	\$	0%

Total Match <i>(private, local, state, another subregion, or federal)</i>		\$190	20.08%
Project Total		\$946	
Notes:	<p>1. Per CDOT action, the following jurisdictions are only required to provide 25% match on the MMOF funds: Englewood, Jamestown, and Wheat Ridge. The following jurisdictions are not required to provide a match on the MMOF funds: Federal Heights, Lakeside, Larkspur, Sheridan, and Ward. All sponsors will still be required to have 20% match on any added federal funds.</p>		

Funding Breakdown (in \$1,000s) (by program year)¹ (Total funding should match the Project Total from above)

	FY 2023	FY 2024	FY 2025	Total
DRCOG Requested Funds	\$153,400	\$93,500	\$509,100	\$756,000
CDOT or RTD Supplied Funds²	\$	\$	\$	\$0
Local Funds (Funding from sources other than DRCOG, CDOT, or RTD)	\$38,600	\$23,500	\$127,900	\$190,000
Total Funding	\$192,000	\$117,000	\$637,000	\$946,000
Phase to be Initiated	Design	ROW	Construction	
Notes:	<ol style="list-style-type: none"> 1. Fiscal years are October 1 through September 30 (e.g., FY 2023 is October 1, 2022 through September 30, 2023). 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 a recommended 3% inflation factor. 2. Only enter funding in this line if CDOT and/or RTD specifically give permission via concurrence letters or other written source. 			
Affirmation:	By checking this box, the applicant's Chief Elected Official (Mayor or County Commission Chair/City or County Manager/Agency Director) has certified it allows this application to be submitted for potential DRCOG-allocated funding and will follow all local, DRCOG, state, and federal policies and regulations if funding is awarded. <input checked="" type="checkbox"/>			

Evaluation Questions

A. Subregional Impact of Proposed Project

WEIGHT

30%

Provide **qualitative and quantitative** responses to the following questions on the regional impact of the proposed project. Be sure to provide all required information for each question. Quantitative data from DRCOG is available [here](#).

1. Why is this project subregionally important? Relevant quantitative data in your response is required.

The proposed project is subregional important because it will address subregional issues of multimodal mobility and accessibility and equity in environmental justice areas. Shifting a greater share of commute, errand, or social trips to non-motorized trips alleviates traffic congestion, improves road safety, improves air quality, and reduces greenhouse gas emissions.

Research has found that providing multiuse paths separated from the travel lanes can help to prevent up to 88% of crashes involving pedestrians walking along roadways (An Analysis of Factors Contributing to "Walking Along Roadway" Crashes: Research Study and Guidelines for Sidewalks and Walkways, Report No FHWA-RD-01-101 Federal Highway Administration).

2. How will the proposed project address the specific transportation problem described in the **Problem Statement** (as submitted in Project Information, #8)? Relevant quantitative data in your response is required.

The multimodal improvements proposed in this project will address the following challenges identified in the problem statement: insufficient multimodal facilities, lack of connectivity of the existing multimodal network, improving equity in environmental justice areas, air quality, and traffic safety.

The proposed project will provide a multimodal facility and connection to the Farmington community. The Farmington neighborhood has about 3,000 residents with currently no multimodal mobility to the west and main access to their community is by roadway. The project will provide modal transportation choice for residents when accessing transit (bus and rail), employment, recreation, and health care.

In addition, residents to the west of Riverdale Road will have a multiuse path to recreational opportunities east of Riverdale Road that include organized sports, fishing, an outdoor archery range, and the regional Front Range Colorado Trail.

The proposed project will serve a community with a disproportionately impacted population. Within 1/2 mile of the project, 62% of the population are individuals of color, 7% of the population are people with limited English proficiency, and 23% of the population are children ages 5-17.

The proposed project will improve air quality by providing a multimodal mode choice that reduces traffic congestion, greenhouse gas emission, and improves air quality.

The proposed project will improve traffic safety by providing pedestrians a safer space to travel within the public right-of-way that is separated from motor vehicles.

3. Does the proposed project benefit multiple municipalities and/or subregions? If yes, which ones and how? Also describe any funding partnerships (other subregions, regional agencies, municipalities, private, etc.) established in association with this project.

The project benefits multiple municipalities and subregions as it will provide a multimodal connection to RTD N Line Thornton Crossroads - 104th Avenue station, a regional transit station and bus route 93L.

4. Describe how the project will improve access and mobility for each of the applicable disproportionately impacted and environmental justice population groups identified in the table below. This data is available in the TIP Data Tool.

Completing the below table and referencing relevant quantitative data in your response is required.

	DI and EJ Population Groups	Number within ½ mile	% of Total	Regional %
Use 2015-2019 American Community Survey Data (In the TIP Data Tool, use a 0.5 mile buffer)	a. Total population	14,390	-	-
	b. Total households	5,369	-	-
	c. Individuals of color	8,855	62%	33%
	d. Low-Income households	424	8%	9%
	e. Individuals with limited English proficiency	1,051	7%	3%
	f. Adults age 65 and over	1,068	7%	13%
	g. Children age 5-17	3,381	23%	16%
	h. Individuals with a disability	827	6%	9%
	i. Households without a motor vehicle	101	2%	5%
	j. Households that are housing cost-burdened	1,173	22%	32%

For Lines c. – i. use definitions in the [DRCOG Title VI Implementation Plan](#). For Line j., as defined in C.R.S. 24-38.5-302(3)(b)(I): “‘cost-burdened’ means a household that spends more than thirty percent of its income on housing.”

Describe how this project will improve access and mobility for each of the applicable groups, *including the required quantitative analysis*: The proposed project will add a multiuse path on 100th Avenue to provide multimodal access and mobility to the Farmington Community. The Farmington neighborhood is located north of 100th Avenue between West Forest Circle and Hudson Street and there is currently no multimodal access to the west for the community, the only existing access to the west is by roadway. The community which this project will serve has disproportionately impacted and environmental justice population groups. Within 1/2 mile of the project, the percentage of population of color is 62%, population with limited English proficiency is 7%, and children ages 5-17 is 23%, all percentages significantly higher than the regional average. Specifically, the statistics for the Farmington community show even more significant disadvantaged groups. The Farmington neighborhood is comprised of 667 households with a population of 2,906, of which 81% is of color, 12% of limited English proficiency, 31% of ages 5-17, and 16% are low-income households. Attached are the TAZ demographics for the project location (Figure 2) and for Farmington neighborhood (Figure 3).

5. How will this project move the region toward achieving the shared [regional transportation outcomes](#) established in [Metro Vision](#)?

- Improve the diversity and livability of communities. Multiuse paths can contribute to increased walking volumes and mode shares that encourage more diverse groups to locate in the subdivision and enhances the livability of the community by providing additional transportation choices.
- Contain urban development in locations designated for urban growth and services. This project does not address urban growth.
- Increase housing and employment in urban centers. Investing in multimodal enhancements along corridors such as multiuse paths can increase housing and employment in urban centers by creating safe, convenient, and affordable travel choices.
- Improve and expand the region’s multimodal transportation system, services, and connections. The addition of this multiuse path improves the capacity of the multimodal regional roadway system, eliminates a gap in the existing active transportation network, improves accessibility to other transportation modes such as rail and bus transit, and connections to the regional trail system.
- Operate, manage, and maintain a safe and reliable transportation system. Multiuse paths provide pedestrians and bicyclists a safe space to travel within the public right-of-way that is separated from motor vehicles.
- Improve air quality and reduce greenhouse gas emissions. Multiuse paths provide mode choices that reduce traffic congestion, greenhouse gas emission, and improve air quality.
- The proposed project will improve traffic safety by providing pedestrians and bicyclists a safer space to travel within the public right-of-way that is separated from motor vehicles.
- Connect people to natural resource and recreational areas. The proposed multiuse path will provide a multimodal connection to the Riverdale Ballpark fields for the Farmington community, the RTD N Line

Thornton Crossroads - 104th Avenue station, the 93L bus route, the Colorado Front Range Regional Trail, and the Sprat Platte Fishing Facility, Thornton Sports Fields, Riverdale Ball Park, among others.

- Reduce the risk of hazards and their impact. This project does not address hazard mitigation.
- Increase access to amenities that support healthy, active choices. This multiuse path will increase safe and convenient multimodal options for all ages and abilities and create more opportunities to incorporate active transportation modes to encourage healthier lifestyles.
- Improve transportation connections to health care facilities and service providers. This project does not address health care.
- Diversify the region’s housing stock. The addition of this multiuse path may increase opportunities for diverse housing accessible by multimodal transportation.
- Improve access to opportunity. The installation of this multiuse path in this higher environmental justice area will improve transportation mode choice and access for traditionally underserved populations.
- Improve the region’s competitive position. Investing in this multimodal infrastructure ensures that the region remains globally competitive by providing alternative active transportation modes to access jobs, shopping, schools, and recreation to those who cannot or choose not to use a motor vehicle.

6. Describe how the project will improve access to and/or connectivity between DRCOG-defined urban centers, multimodal corridors, mixed-use areas, Transit Oriented Development (transit near high-density development), or locally defined priority growth areas. Items marked with an asterisk (*) below are available in the TIP Data Tool.

- Is there a DRCOG designated urban center within ½ mile of the project limits?*
- Does the project connect two or more urban centers?*
- Is there a transit stop or station within ½ mile of the project limits?*
- Is the project in a locally-defined priority growth and development area?
- Is the project in an area with zoning that supports compact, mixed-use development patterns and a variety of housing options?*

outside this area.

Code. https://library.municode.com/co/thornton/codes/code_of_ordinances?nodeId=CO_CH18DECO_ARTIIIIZODI

Provide households and employment data*	2020	2050
Households within ½ mile	5,369	7,285
Jobs within ½ mile	1,223	2,393
Household density (per acre) within ½ mile	2.63	3.67
Job density (per acre) within ½ mile	0.58	1.10

Describe how this project will improve access to and/or connectivity between the above identified areas, including the required quantitative analysis:

The multiuse path will provide multimodal access and connection to bus stops located within 1/2 mile along Riverdale Road and will also provide multimodal access and connection to the RTD N Line Thornton Crossroads - 104th Avenue station within 1 mile of the project. In addition, it provides additional access to recreational opportunities and active transportation commuter opportunities.

7. Describe how this project will improve **access** and **connections** to key employment centers or regional destinations, including health services; commerce, educational, cultural, and recreational opportunities; or other important community resources. In your answer, define the key destination(s) and clearly explain how the project improves **access** and/or **connectivity**.

This project will provide multimodal access and connection to the RTD N Line Thornton Crossroads - 104th Avenue station, which is located within 1 mile of the project. This Commuter Rail Station connects to the N Line which provides direct access to Union Station in Downtown Denver. At Union Station, passengers can connect to the C, E and W light rail lines, the University of Colorado A Line to the airport, the B Line to Westminster, the G Line to Arvada/Wheat Ridge, Local and Regional buses, the Free MallRide, and Free MetroRide. The N line commuter rail service connects the Denver Metro Region and serves Denver, Commerce City, Northglenn, and Thornton. The project also provides access to the 93L bus route that provides access to employment, health care, shopping, and recreational opportunities.

B. MVRTP Priorities

WEIGHT

50%

- **Qualitative and quantitative** responses are **REQUIRED** for the following items on how the proposed project contributes to the project and program investment priorities in the adopted 2050 Metro Vision Regional Transportation Plan. To be considered for full points, you must fully answer all parts of the question, including incorporating quantitative data into your answer. (see scoring section for details). Quantitative data from DRCOG is available [here](#).
- Checkboxes and data tables help to provide context and guide responses, but do not account for the full range of potential improvements and are not directly scored, but are required to be completed.
- Not all proposed projects will necessarily be able to answer all questions, however it is in the applicant's interest to address as many priority areas as possible.

Multimodal Mobility

Provide improved travel options for all modes.

(drawn from [2050 MVRTP priorities](#); [federal travel time reliability, infrastructure condition, & transit asset management performance measures](#); & [Metro Vision objective 4](#))

Examples of Project Elements: combinations of improvements that support options for a broad range of users, such as complete streets improvements, or a bicycle/pedestrian access to transit, etc.

How does this project help increase mobility choices for people, goods, and/or services? Note that any roadway operational improvements must be on the DRCOG [Regional Roadway System](#) and/or [Regional Managed Lanes System](#).

- What modes will project improvements directly address?
 Walking Bicycling Transit Roadway Operations Other:
- List the elements of this project which will address the above modes (i.e., sidewalk, shared use path, bus stop improvements, signal interconnection, etc.): [Installation of a multiuse path, installation of ADA ramps, pavement markings including crosswalks.](#)
- Will the completed project be a complete street as described in the [Regional Complete Streets Toolkit](#)? This data is available in the TIP Data Tool.
 Yes No If yes, describe how it implements the Toolkit's strategies in your response.
- Does this project improve travel time reliability?
 Yes No
- Does this project improve asset management of active transportation facilities and/or transit vehicle fleets?
 Yes No
- Does this project implement resilient infrastructure that helps the region mitigate natural and/or human-made hazards?
 Yes No

Describe how this project increases mobility choices for all users, *include quantitative information, including any items referenced above, in your response:*

[This project](#) provides multimodal mobility and accessibility to the Farmington neighborhood, which currently has no multimodal connection to the west. The Farmington neighborhood includes 667 households that currently have no mode choice to access their community other than a motor vehicle. This aligns with the Metro Vision goal of improving and expanding the regions multimodal transportation systems, services and connection.

In addition, this starts to implement complete streets concepts by adding a transportation mode options that is identified and separated from the motor vehicle space.

Pedestrian/bicycle infrastructure projects improve air quality and reduce greenhouse gas emissions by increasing the quantity and quality of non-motorized trips, increasing the facilities' ease of use and encouraging mode shift. It is estimated that shifting trips to bicyclist and pedestrians could reduce greenhouse emissions by 65 pounds a day by 2050. This aligns with the Metro Vision goal of improved air quality and lower greenhouse gas emissions.

Air Quality

Improve air quality and reduce greenhouse gas emissions.

(drawn from [2050 MVRTP priorities](#); [state greenhouse gas rulemaking](#); [federal congestion & emissions reduction performance measures](#); [Metro Vision objectives 2, 3, & 6a](#))

Examples of Project Elements: active transportation, transit, or TDM elements; vehicle operational improvements; electric vehicle supportive infrastructure; etc.

How does this project help reduce congestion and air pollutants, including but not limited to, carbon monoxide, ground-level ozone precursors, particulate matter, and greenhouse gas emissions?

- Does this project reduce congestion?
 Yes No
- Does this project reduce vehicle miles traveled (VMT)?
 Yes No
- Does this project reduce single-occupant vehicle (SOV) travel?
 Yes No

Emissions Reduced (kg/day)	CO	NO _x	VOCs	PM 10
	1.92	0.14	0.15	0.01

Use the [FHWA CMAQ Calculators](#) or a similar reasonable methodology to determine emissions reduced. Base your calculations on the year of opening. Please attach a screenshot of your work (such as the FHWA calculator showing the inputs and outputs) as part of your submittal packet.

Note: if not using the FHWA Calculators, please note your methodology in your narrative below.

Describe how this project reduces air pollutants, *include quantitative information, including any items referenced above, in your response:*

Pedestrian / bicycle infrastructure projects improve air quality and reduce greenhouse gas emissions by increasing the quantity and quality of non-motorized trips, increasing the facilities' ease of use and encouraging mode shift. To estimate the reduction in emissions, it is assumed that the proposed multiuse path will be installed by 2025 and 5% of trips would shift from motor vehicles to pedestrian after the installation this translates into a reduction of CO gas of about 4 pounds per day after installation in 2025.

**Regional
Transit**

Expand and improve the region’s transit network.

(drawn from [2050 MVRTP priorities](#), [Coordinated Transit Plan](#), [RTD’s Regional Bus Rapid Transit Feasibility Study](#))

Examples of Project Elements: transit lanes, station improvements, new/expanded service, etc.

Note: For any project with transit elements, the sponsor must coordinate with RTD to ensure RTD agrees to the scope and cost. Be sure to include RTD’s concurrence in your application submittal.

How does this project improve connections to or expand the region’s transit system, as outlined in the [2050 MVRTP](#)? Note that rapid transit improvements must be on the [Regional Rapid Transit System](#). Items marked with an asterisk (*) below are available in the TIP Data Tool.

- Does this project implement a portion of the [regional bus rapid transit \(BRT\) network](#)?*
 Yes No If yes, which specific corridor will this project focus on?
- Does this project involve a [regional transit planning corridor](#)?*
 Yes No If yes, which specific corridor will this project focus on?
- Does this project implement a mobility hub as defined in the [2050 MVRTP](#)?
 Yes No
- Does this project improve connections between transit and other modes?
 Yes No If yes, please describe in your response.
- Is this project adding new or expanded transit service?
 Yes No If yes, who will operate the service?
- Does this project add and/or improve transit service to or within a DRCOG-defined urban center?*
 Yes No If yes, provide the name of the urban center:

Describe how this project improves connections to or expands the region’s transit system, *include quantitative information, including any items referenced above, in your response:*

The proposed multiuse path will provide multimodal access and connection to bus stops located within 1/2 mile along Riverdale Road. The proposed sidewalk will also provide multimodal access and connection to the RTD N Line Thornton Crossroads - 104th Avenue station within 1 mile of the project. This station serves the N Line which provides direct access to Union Station in Downtown Denver. At Union Station, passengers can connect to the C, E and W light rail lines, the University of Colorado A Line to the airport, the B Line to Westminster, the G Line to Arvada/Wheat Ridge, Local and Regional buses, the Free MallRide, and Free MetroRide. The N line commuter rail service connects the Denver Metro Region and serves Denver, Commerce City, Northglenn, and Thornton.

Safety **Increase the safety for all users of the transportation system.**
 (drawn from [2050 MVRTP priorities](#), [Taking Action on Regional Vision Zero](#), [CDOT Strategic Transportation Safety Plan](#), & [federal safety performance measures](#))
 Examples of Project Elements: bike/pedestrian crossing improvements, vehicle crash countermeasures, traffic calming, etc.

How does this project implement safety improvements (roadway, active transportation facility, etc.), particularly improvements in line with the recommendations in [Taking Action on Regional Vision Zero](#)? Note that any improvements on roadways must be on the DRCOG [Regional Roadway System](#). Items marked with an asterisk (*) below are available in the TIP Data Tool.

- Does this project address a location on the [DRCOG High-Injury Network or Critical Corridors](#) or corridors defined in a local Vision Zero or equivalent safety plan?*
 Yes No
- Does this project implement a safety countermeasure listed in the [countermeasure glossary](#)?
 Yes No

Provide the current number of crashes involving motor vehicles, bicyclists, and pedestrians* <i>(using the 2015-2019 period – in the TIP Data Tool, use a 0.02 mile buffer of your project)</i> <i>NOTE: if constructing a new facility, report crashes along closest existing alternative route</i>		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	0	
Serious Injury crashes	0	
Other Injury crashes	3	
Property Damage Only crashes	4	
Estimated reduction in crashes <u>applicable to the project scope</u> <i>(per the five-year period used above)</i>		Provide the methodology below:
Fatal crashes reduced	0.00	A 10% reduction is estimated in all crashes
Serious Injury crashes reduced	0.00	
Other Injury crashes reduced	2.70	
Property Damage Only crashes reduced	3.60	

Describe how this project will improve safety, *include quantitative information, including any items referenced above, in your response:*

Multiuse paths provide people with space to travel within the public right-of-way that is separated from motor vehicles. They are associated with reduced crashes where people walking were previously walking along the roadway.

The estimated crash reduction factor for installing sidewalks (multiuse paths) is 88 for crashes where a pedestrian was walking along the roadway indicating that sidewalks can prevent up to 88% of these type of crashes (Toolbox of Countermeasures and Their Potential Effectiveness for Pedestrian Crashes, FHWA-SA-014, Federal Highway Administration). In addition to reducing crashes that involve walking along roadways, sidewalks can reduce other types of crashes, such as head-on, sideswipe, and fixed object crashes. (Investigation of Exposure-Based Pedestrian Accident Areas: Crosswalks, Sidewalks, Local Streets, and Major Arterials. Publication No. FHWA/RD87-038, Federal Highway Administration).

Freight

Maintain efficient movement of goods within and beyond the region.

(drawn from [2050 MVRTP priorities](#); [Regional Multimodal Freight Plan](#); [Colorado Freight Plan](#), [federal freight reliability performance measure](#); [Metro Vision objective 14](#))

Examples of Project Elements: roadway operational improvements, etc.

How does this project improve the efficient movement of goods, specifically improvements identified in the [Regional Multimodal Freight Plan](#)? Note that any improvements on roadways must be on the DRCOG [Regional Roadway System](#). Items marked with an asterisk (*) below are available in the TIP Data Tool.

- Is this project located in or impact access to a [Freight Focus Area](#)?*
 Yes No If yes, please provide the name:
- Is the project located on the [Tier 1 or Tier 2 Regional Highway Freight Vision Network](#)?*
 Yes No
- If this project is located in a [Freight Focus Area](#) does it address the relevant Needs and Issues identified in the Plan (see text located within each Focus Area)?
 Yes No If yes, please describe in your response.
- Check any items from the [Inventory of Current Needs](#) which this project will address:
 Truck Crash Location Rail Crossing Safety ([eligible locations](#))
 Truck Delay Truck Reliability
Please provide the location(s) being addressed:
- Does this project include any innovative or non-traditional freight supportive elements (i.e., curb management strategies, cargo bike supportive infrastructure, etc.)?
 Yes No If yes, please describe in your response.

Describe how this project will improve the movement of goods, *include quantitative information, including any items referenced above, in your response:*

[This project does not address any freight needs.](#)

Active Transportation	Expand and enhance active transportation travel options. <small>(drawn from 2050 MVRTP priorities; Denver Regional Active Transportation Plan; & Metro Vision objectives 10 & 13) Examples of Project Elements: shared use paths, sidewalks, regional trails, grade separations, etc.</small>
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How does this project help expand the active transportation network, close gaps, improve comfort, and/or improve connections to key destinations, particularly improvements in line with the recommendations in the [Denver Regional Active Transportation Plan](#)? Items marked with an asterisk (*) below are available in the TIP Data Tool.

- Does this project close a gap or extend a facility on a [Regional Active Transportation Corridor](#) or locally-defined priority corridor?*
 Yes No
- Does this project improve pedestrian accessibility and connectivity in a [pedestrian focus area](#)?*
 Yes No
- Does this project improve active transportation choices in a [short trip opportunity zone](#)?*
 Yes No
- Does this project include a high-comfort bikeway (like a sidepath, shared-use path, separated bike lane, bicycle boulevard)?
 Yes No If yes, please describe in your response.

Bicycle Use

NOTE: if constructing a new facility, report bike usage along closest existing alternative route

1. Current Average Single Weekday Bicyclists:	5	
Bicycle Use Calculations	Year of Opening	2050 Weekday Estimate
2. Enter estimated additional average weekday one-way bicycle trips on the facility after project is completed.	41	53
3. Enter number of the bicycle trips (in #2 above) that will be diverting from a different bicycling route. <i>(Example: {#2 X 50%} or other percent, if justified on line 10 below)</i>	8	10
4. = Initial number of new bicycle trips from project (#2 – #3)	33	43
1. Enter number of the new trips produced (from #4 above) that are replacing a trip made by another non-SOV mode (bus, carpool, vanpool, bike, etc.). <i>(Example: {#4 X 30%} or other percent, if justified on line 10 below)</i>	1.00	2.00
5. = Number of SOV trips reduced per day (#4 - #5)	32.00	41.00
6. Enter the value of {#6 x 2 miles} . (= the VMT reduced per day) <i>(Values other than 2 miles must be justified by sponsor on line 10 below)</i>	64.00	82
7. = Number of pounds GHG emissions reduced (#7 x 0.95 lbs.)	60.80	77.90
8. If values would be distinctly greater for weekends, describe the magnitude of difference:		

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

Weekday bicyclist data is estimated based on comparison of current Strava Heat maps of the project location and existing data in similar facilities. The estimated number of opening day additional weekday one-way bicycle trips is based on data from Bicycle and Pedestrian TIP Projects - User Counts After Completion of Project (Last Updated April 21, 2021) on bicycle facilities of potentially similar characteristics (W 74th in Arvada) to represent commuting trips and the average bicycle counts from the South Platter River Trail to represent recreational trips (10+36-5=41 additional trips). The estimated number of bicycle trips that will be diverting from a different route was estimated by 20%. The 2050 estimate is based on a 30% growth. It is estimated that 5% of trips would be from another non-SOV mode.

Pedestrian Use

NOTE: if constructing a new facility, report pedestrian usage along closest existing alternative route

2. Current Average Single Weekday Pedestrians (including users of non-pedaled devices such as scooters and wheelchairs):	0	
Pedestrian Use Calculations	Year of Opening	2050 Weekday Estimate
3. Enter estimated additional average weekday pedestrian one-way trips on the facility after project is completed	12	16
4. Enter number of the new pedestrian trips (in #2 above) that will be diverting from a different walking route <i>(Example: {#2 X 50%} or other percent, if justified on line 10 below)</i>	2	3

5.	= Number of new trips from project (#2 – #3)	10	13
6.	Enter number of the new trips produced (from #4 above) that are replacing a trip made by another non-SOV mode (bus, carpool, vanpool, bike, etc.). (Example: {#4 X 30%} or other percent, if justified on line 10 below)	1.00	1.00
7.	= Number of SOV trips reduced per day (#4 - #5)	9.00	12.00
8.	Enter the value of {#6 x .4 miles}. (= the VMT reduced per day) (Values other than .4 miles must be justified by sponsor on line 10 below)	3.60	4.80
9.	= Number of pounds GHG emissions reduced (#7 x 0.95 lbs.)	3.42	4.56
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: Weekday pedestrian data is assumed to be zero due to the non-existing facility. The estimated number of opening day additional weekday one-way pedestrian trips is based on data from Bicycle and Pedestrian TIP Projects - User Counts After Completion of Project (Last Updated April 21, 2021) on facilities of potentially similar characteristics (W 74 th in Arvada). The estimated number of pedestrian trips that will be diverting from a different route was estimated by 20%. The 2050 estimate is based on a 30% growth. It is estimated that 5% of trips would be from another non-SOV mode.		

Describe how this project will expand the active transportation network, close gaps, improve comfort, and/or improve connections to key destinations, *include quantitative information, including any items referenced above, in your response:*

This project will expand the active transportation network and close gaps by providing a multimodal connection which is currently non-existing. This project will improve connection to key destinations that will expand multimodal mobility and accessibility to the RTD Thornton Crossroads - 104th Avenue station, Riverdale Ballfield and the Colorado Front Range Regional Trail among others.

C. Project Leveraging	WEIGHT	10%
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What percent of outside funding sources (non-Subregional Share funding) does this project have? <i>(number will automatically calculate based on values entered in the Funding Request table)</i>	20.08%	60%+ outside funding sources 5 pts 50-59.9% 4 pts 40-49.9% 3 pts 20-39.9% 2 pts 10.1-19.9% 1 pt 10% 0 pts
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D. Project Readiness	WEIGHT	10%
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Provide responses to the following items to demonstrate the readiness of the project. DRCOG is prioritizing those projects that have a higher likelihood to move forward in a timely manner and are less likely to experience a delay.

Section 1. Avoiding Pitfalls and Roadblocks

a. Has a licensed engineer (CDOT, consultant, local agency, etc.) reviewed the impact the proposed project will have on utilities, railroads, ROW, historic and environmental resources, etc. and have those impacts and pitfalls been mitigated as much as possible to date before this submittal?
 Yes No N/A (for projects which do not require engineering services)

If yes, please type in the engineer's name below which certifies their review and that impacts have been evaluated and mitigated as much as possible before your application is submitted:
 Marta Junyent

Please describe the status to date on each, including 1) anticipated/known pitfalls/roadblocks, and 2) mitigation activities taken to date:

- Utilities:
- Railroad: N/A
- Right-of-Way: It is anticipated that ROW will need to be acquired for about 500 feet and this has been identified in the project scope
- Environmental/Historic:
- Other:

b. Is this application for a single project phase only (i.e., design, environmental, ROW acquisition, construction only, study, bus service, equipment purchase, etc.)?
 Yes No

If yes, are the other prerequisite phases complete? Yes No N/A

If this project is for construction, please note the NEPA status: **Not Started**

c. Has all required ROW been identified? Yes No N/A
 Has all required ROW already been acquired and cleared by CDOT? Yes No N/A

d. Based on the current status provided in Project Information, question 11, do you foresee being able to execute your IGA by October 1 of your first year of funding (or if requesting first year funding, beginning discussions on your IGA as soon as possible), so you can begin your project on time?
 Yes No

Does your agency have the appropriate staff available to work on this project? Yes No

If yes, are they knowledgeable with the federal-aid process? Yes No

e. Have other stakeholders in your project been identified and involved in project development?
 Yes No N/A

If yes, who are the stakeholders?

Please provide any additional details on any of the items in Section 1, if applicable.

Section 2. Local Match

- a. Is all the local match identified in your application currently available, and if a partnering agency is also committing match, do you have a commitment letter?

Yes No

Please describe:

The identified local match will be available on 1/1/2023 after approval of the city's 2023 budget.

- b. Is all funding for this project currently identified in the sponsor agency's Capital Improvement Program (CIP)?

Yes No

Please describe:

The funding for this project will be identified as a Thornton CIP in 1/1/2023 after approval of the city's 2023 budget.

Section 3. Public Support

- a. Has the proposed project previously been through a public review process (public comment period, public hearing, etc.)?

Yes No

- b. Has the public had access to translated project materials in relevant languages for the local community?

Yes No

Please describe:

The proposed project is a direct product of the recommendations identified in the Thornton's TMMP Chapter 11. The development of Thornton's TMMPS included a comprehensive public outreach and community engagement. Specifically, an online survey conducted on February 2021 identified as the biggest barrier to walking in Thornton missing or poorly maintained sidewalks. (Figure 7.1 Online Survey Results, page 7.2 of Thornton's TMMP)

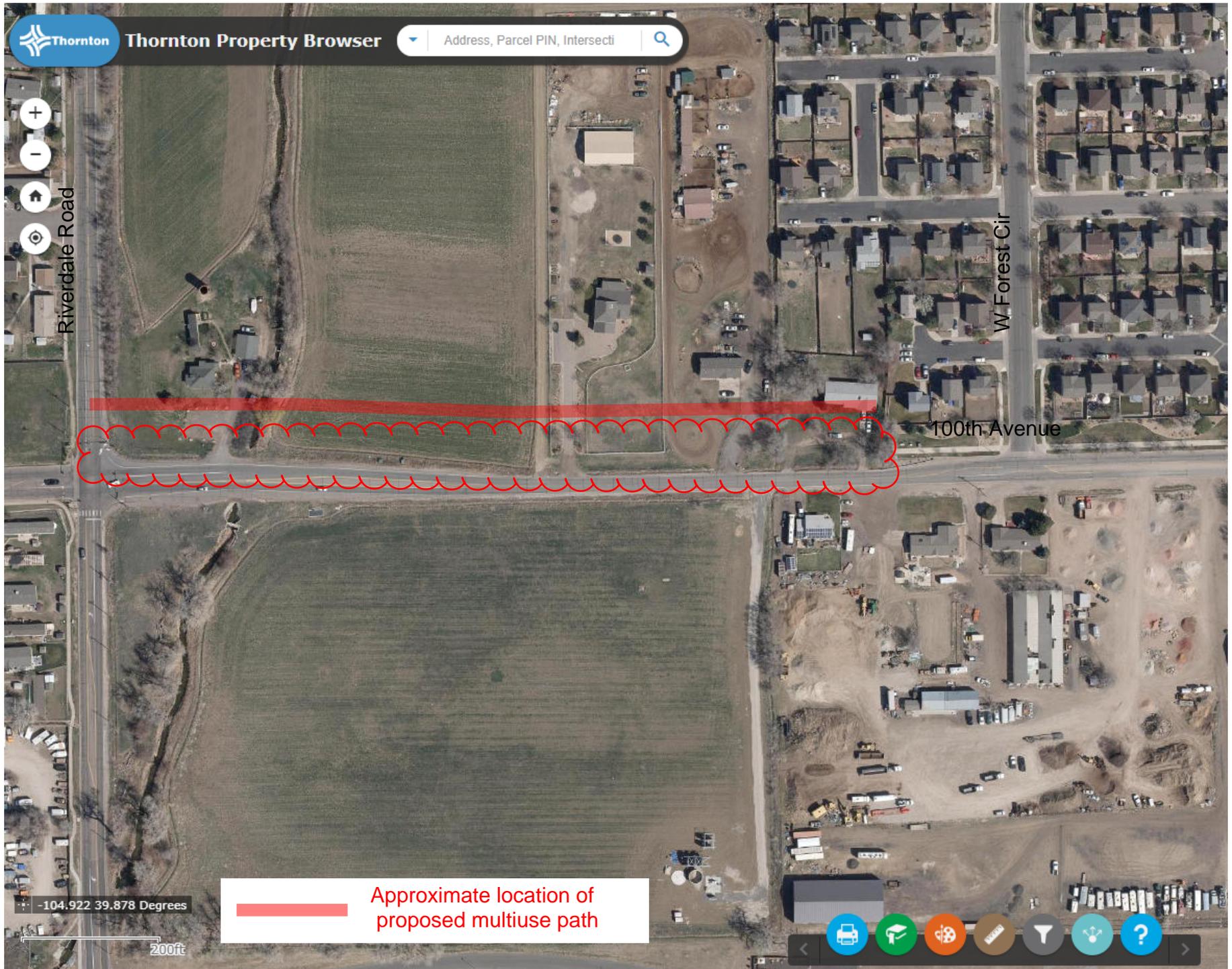
- c. Have any adjacent property owners to the proposed project been contacted and provided with the initial project concept?

Yes No N/A

Please provide any additional details on the items in Section 3, if applicable.

Submit completed applications through the [TIP Data Hub](#) no later than 3pm on June 24, 2022.

Location Map - Figure 1



100th Avenue Multiuse Path - Figure 2

RTD Stops & Stations (Grouped Counts)

COUNT	Bus
2	2

TAZ Demographics (Summary)

Total Population	Total Households	Individuals of Color	Households in Poverty	Individuals w/Limited English	Adults 65 & Over	Children 5 to 17
14,390	5,369	8,855	424	1,051	1,068	3,381

Individuals w/a Disability	Households w/o a Vehicle	Households Cost-Burdened	2020 Households	2020 Jobs	2050 Households	2050 Jobs
827	101	1,173	5,369	1,223	7,285	2,393

2020 Households/Acre	2020 Jobs/Acre	2050 Households/Acre	2050 Jobs/Acre
2.63	0.58	3.67	1.1

TAZ Demographics

Zone ID	Total Population	Children 5 to 17	Individuals 65 And Over	Individuals of Color	Individuals With Limited English	Individuals With a Disability
1,018	239	56	23	80	9	4
1,036	1,248	253	71	385	50	34
1,099	2,340	430	286	1,142	61	75
1,100	1,538	499	63	1,139	84	145
1,101	2,906	905	118	2,353	353	169
1,104	1,363	324	91	906	221	68
1,105	4,756	914	416	2,850	273	332

Households Below Poverty Level	Households Without a Vehicle	Households That Are Housing Cost Burdened	2020 Employment	2020 Households	2050 Employment	2050 Households
3	2	17	26	30	54	39
12	6	41	111	472	201	494
88	11	289	533	1,388	906	2,451
41	19	72	122	601	236	683
105	14	173	188	667	430	752
69	13	87	76	496	147	885
106	36	494	167	1,715	419	1,981

2020 Jobs/Acre	2020 Households/Acre	2050 Jobs/Acre	2050 Households/Acre
0.021	0.024	0.043	0.031
0.524	2.228	0.949	2.332
1.655	4.309	2.813	7.61
0.708	3.487	1.369	3.962
0.193	0.685	0.442	0.772
0.51	3.33	0.987	5.941
0.425	4.366	1.067	5.043

Bicycle and Pedestrian Improvements

This calculator will estimate the reduction in emissions resulting from improvements to bicycle and pedestrian infrastructure and associated mode shift from passenger vehicles to bicycling or walking, including but not limited to sidewalks, dedicated bicycle infrastructure, improved wayfinding, mid-block crossing installations, bike share systems, and bike parking improvements.

Navigator

Bicycle and Pedestrian Improvements

INPUT

(1) What is your project evaluation year?

(2) Estimate the shift in daily motorized passenger vehicle trips to non-motorized travel due to the bicycle and pedestrian project.

Daily Passenger Vehicle Trips		
Before	After	Change
6,000	5700	300

(3a) Select the data type used for entering the typical one-way trip distance of passenger vehicles below:

Trip Distance Source

(3b) If you selected "Average" above, enter the typical one-way trip distance. If you selected "Distribution" above, enter the typical distribution of one-way trip distances.

Typical Trip Distance (miles one way)	Distribution of Trip Distances (daily fraction per mileage bin)					Sum
	$x < 1$	$1 \leq x < 2$	$2 \leq x < 3$	$3 \leq x < 4$	$4 \leq x \leq 5$	
<input type="text" value="1"/>						

OUTPUT

EMISSION REDUCTIONS

Pollutant	Total
Carbon Monoxide (CO)	1.920
Particulate Matter <2.5 μm (PM _{2.5})	0.004
Particulate Matter <10 μm (PM ₁₀)	0.013
Nitrogen Oxide (NOx)	0.139
Volatile Organic Compounds (VOC)	0.151
Carbon Dioxide Equivalent (CO ₂ e)	115.316
Total Energy Consumption (MMBTU/day)	1.481

*Units in kg/day unless otherwise noted

ENGINEER'S ESTIMATE

PROJECT TITLE: 100th Avenue Multiuse Path at Riverdale Road	Summary	Year	Amount
PROJECT LOCATION/LIMITS: North side of 100th Avenue from Riverdale Rd east to the sidewalk stub at the southwest corner of the Farmington subdivision.	Design	2023	\$192,000
	Right-of Way	2024	\$117,000
DATE PREPARED: 5/19/2022	Construction	2024	\$637,000
PREPARED BY: Tiffany Hess	Const. Infl-7% yr		YES
	Total		\$946,000
PROJECT SCOPE: This project constructs a multiuse path along the north side of 100th Avenue from the northeast corner of Riverdale Road to the sidewalk stub at the west end of the Farmington subdivision. It includes restriping crosswalks at the Riverdale Road and 100th Avenue intersection and adding four ADA ramps.			

CONSTRUCTION

ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	PRICE	AMOUNT
1	Clearing and grubbing	LS	1	\$20,000.00	\$20,000.00
2	Remove tree	EA	3	\$2,500.00	\$7,500.00
3	Embankment (complete in place)	CY	440	\$30.00	\$13,200.00
4	18 inch RCP culvert (complete in place)	LF	500	\$85.00	\$42,500.00
5	Inlet Type R L5 (5 foot)	EA	1	\$6,500.00	\$6,500.00
6	Concrete sidewalk (6" depth)	SY	870	\$80.00	\$69,600.00
7	Concrete curb ramp	SY	14	\$160.00	\$2,275.56
8	Curb and gutter Type 2 (Section IIB)	LF	980	\$40.00	\$39,200.00
9	Preformed pavement marking (Type I) (crosswalk - stopline)	SF	210	\$15.00	\$3,150.00
10	Street lights (200-ft spacing)	EA	6	\$11,000.00	\$66,000.00
11	Traffic control	LS	1	\$35,000.00	\$35,000.00
12	Erosion control	LS	1	\$30,000.00	\$30,000.00
13	Surveying	LS	1	\$30,000.00	\$30,000.00
14	LCC Ditch Crossing Permit Fee & Engr	LS	1	\$10,000.00	\$10,000.00
15	Minor Contract Revisions	LS	1	\$25,000.00	\$25,000.00
16	Partnering and On-the-Job Training	LS	1	\$2,500.00	\$2,500.00
17	ESB Program	LS	1	\$5,000.00	\$5,000.00
18	Environmental Health and Safety	LS	1	\$5,000.00	\$5,000.00
Subtotal =					\$412,425.56
7% Mobilization					\$28,869.79
8% QC/CM =					\$32,994.04
20% Contingency =					\$82,485.11
CONSTRUCTION TOTAL =					\$556,774.50

Right-of-Way

ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	PRICE	AMOUNT
1	ROW	SF	6400	\$7.00	\$44,800.00
2	Easements	SF	5000	\$2.00	\$10,000.00
3	Appraiser	EA	3	\$8,000.00	\$24,000.00
4	Land Agent	LS	1	\$10,000.00	\$10,000.00
5	Title Search	EA	5	\$750.00	\$3,750.00
Subtotal =					\$92,550.00
10% Contingency =					\$9,255.00
ROW TOTAL =					\$101,805.00

DESIGN

ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	PRICE	AMOUNT
1	Design Cost (25% of Construction Cost)	LS	1	\$139,193.63	\$139,193.63
2	Environmental Study and As-builts	LS	1	\$40,000.00	\$40,000.00
DESIGN TOTAL =					\$179,193.63