

Part 1

Base Information

1. Project Title	City-Wide Pedestrian Accessibility Enhancement – Closing Critical Gaps of Missing Sidewalks / Ramps	
2. Project <i>Start/End</i> points or Geographic Area <i>Provide a map with submittal, as appropriate</i>	Sidewalk gaps located throughout the city of Aurora within Adams county. See maps in Attachment A	
3. Project Sponsor (<i>entity that will construct/ complete and be financially responsible for the project</i>)	City of Aurora	
4. Project Contact Person, Title, Phone Number, and Email	Mac Callison, Transportation Planning Supervisor, 303-739-7256, Mcalliso@auroragov.com	
5. Does this project touch CDOT Right-of-Way, involve a CDOT roadway, access RTD property, or request RTD involvement to operate service?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If yes, provide applicable concurrence documentation with submittal</i> See CDOT and RTD letters of concurrence in Attachment B .	
6. What planning document(s) identifies this project?	<input checked="" type="checkbox"/> DRCOG 2040 Fiscally Constrained Regional Transportation Plan (2040 FC RTP)	
	<input checked="" type="checkbox"/> Local plan:	Adams County Transportation Plan, 2012. (http://www.adcogov.org/sites/default/files/2776.pdf , page 40). Aurora Places, 2018) (https://www.auroragov.org/UserFiles/Servers/Server_1881137/File/Business%20Services/Planning/Comprehensive%20Plan/Aurora%20Places%20Comp%20Plan%20Adopted%202018%20MQ.pdf , pages: 21, 28, 30-31, 40-41, 42-43, 44-45, 46-47, 65, 70, 71) Fitzsimons Area Wide Multi-modal Transportation Study, 2009 (https://www.auroragov.org/UserFiles/Servers/Server_1881137/Image/Departments/Development/Fitz.pdf , pages: ES-7-8, 21, 51, 72, 73, and 74) Bicycle and Pedestrian Master Plan, 2008 (https://www.auroragov.org/business_services/planning/plans_and_studies/transportation_planning/bicycle_and_pedestrian_planning , page 10). NW Aurora Mobility study, 2018 (https://www.auroragov.org/UserFiles/Servers/Server_1881137/File/Business%20Services/Planning/Transportation%20Planning/NW%20Aurora%20Mobility%20Study%20102918.pdf , page 21)
	<input type="checkbox"/> Other(s):	
<i>Provide link to document/s and referenced page number if possible, or provide documentation with submittal</i>		
7. Identify the project's key elements .		

- Rapid Transit Capacity (2040 FC RTP)
- Transit Other:
- Bicycle Facility
- Pedestrian Facility
- Safety Improvements
- Roadway Capacity or Managed Lanes (2040 FC RTP)
- 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?

The City of Aurora proposes to fill in missing sidewalk gaps in areas that are both near schools, and in block groups with multiple categories of higher than regional average percentage of vulnerable populations. Metro Vision recognizes the need to promote livability in our communities, while also improving the region’s multimodal system and increasing access to opportunities that promote health or active choices. **Closing critical gaps in the sidewalk infrastructure on collector and arterial roads addresses these issues.** The city of Aurora’s sidewalk network has a variety of critical gaps throughout the city. These gaps along arterial and collector roads, which either directly connect with regional trip generators such as the Anschutz Medical Campus/Fitzsimons Innovation Community at the border of Adams County and Arapahoe County, or the regional transit network, have become significant obstacles preventing residents and visitors from safe, comfortable and reliable accessing regional destinations or transit network. A two-foot wide sidewalk gap between the house of a person using a wheelchair or other mobility device, and the nearest transit stop, can require the resident to use paratransit service rather than a fixed route service. This can result in a cost to RTD of \$43.47 for a paratransit trip, compared to a cost of \$5.02 for a bus trip (National Transit Database, 2017).

At the time of development of the roadway network and land uses in some of these areas with gaps, the importance of a complete and comfortable sidewalk network to citizens and the overall transportation system was not fully recognized and, therefore, incomplete sidewalk network were allowed to occur over time. In some developed locations, missing sidewalks are waiting to be constructed when the adjacent infill land use developments occur. However, present-day users have to navigate challenging travel routes to schools or health facilities with limited choices before those significant sidewalk gaps are closed. These sidewalk gaps occur primarily in northwest Aurora, an area that is characterized primarily by relatively older neighborhoods, denser household concentrations, and a higher proportion of disadvantaged or vulnerable populations relative to the metro area as a whole. **Requiring many mobility impaired persons to use the much more costly paratransit service rather than the more efficient fixed route transit service, because of relatively short gaps in the sidewalk network, has regional implications on the ability for RTD to provide transit service throughout the metro area.** Filling in these gaps would address several of the Metro Visions’ objectives related to livability and transportation.

A complete sidewalk network will support “built environments...that **accommodate and the widest spectrum of people** – regardless of age, income, or ability” (**Metro Vision Regional Objective 1**). Addressing sidewalk gaps **improves the region’s multimodal transportation system** and connections including pedestrian accessibility and supports the transit system through first and last mile connections (**Metro Vision Regional Objective 4**). Creating a defined, designated space for pedestrians alongside roads **creates a safer transportation system by reducing fatalities and serious injuries of pedestrian walking along collector and arterial streets**, and increases the level of service for pedestrians (**Metro Vision Regional Objective 5**). Improving the transportation network, particularly for those not driving and in areas with high numbers of vulnerable populations, increases accesses to amenities

that **support healthy, active choices to create comfortable and safe travel and access for users of all ages and abilities**, including access to food options (**Metro Vision Regional Objective 10**). Ensuring a complete sidewalk network also means that **connections are improved to health care**, whether residents walk directly to a health care facility, or walk to a transit first in order to reach health care (**Metro Vision Regional Objective 11**). Finally, by prioritizing gap closures in areas with higher than regional average of vulnerable populations, this project will **improve access for the traditionally underserved areas and their residents (Metro Vision Regional Objective 13)**.

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

This project will design and construct sidewalks that would complete gaps in portions of Aurora’s sidewalk network. The City of Aurora has previously identified and catalogued in GIS shapefiles the location of sidewalk gaps, what gaps are currently programmed to be addressed by the city or private developers, and an initial evaluation of whether constructing sidewalks at those locations would be feasible relative to current or projected need. For this TIP application, the previously identified sidewalk gaps have been further evaluated to those that only meet all of the below conditions:

- Within **½ mile of elementary, middle, or high school, or vocational school or college**. Administrative buildings have been excluded.
- Located on a **collector or arterial street**
- In 2016 American Community Survey block groups with **three or more** of the below **vulnerable populations** above the average for the DRCOG area:
 - Percent of population above the age 65
 - Number of Health Facilities
 - Percent minority population
 - Percent of household in poverty
 - Percent of language challenged
 - Percent of working persons with a disability
 - Percent of working persons in poverty
 - Percent of households with no vehicle available

The City of Aurora has identified 6,765 feet of sidewalk in Adams County along arterial streets and collector streets that would be designed and constructed under this project. The new sidewalks would be constructed according to the city’s current standards, including **10 foot wide, detached sidewalks along arterial streets and 6 foot wide detached sidewalks along collector streets Associated ADA ramps would also be constructed**. For those gaps that directly serve transit stops, the city will coordinate with RTD to determine if other transit amenities, such as stop pad or benches or shelters, will be installed. Should an initially selected sidewalk gap be deemed upon further evaluation technically infeasible or likely to have no current or future demand, a like-kind sidewalk gap meeting the same selection criteria will be addressed.

The initial sidewalk gaps selected for this TIP project were based on a preliminary evaluation process applying the methodology described above. More detailed and in-depth analyses will be conducted during the project implementation phase when a TIP grant is awarded for this project. Selection of final sidewalk segments would account for what sidewalk gaps have since been addressed, subsequent land development adjacent to any current gaps, and best planning and engineering judgement to assemble gaps of meaningful length and independent utilities.

The overall cost estimate includes design and construction of the actual sidewalk segments including necessary adjustments in landscaping/irrigation, on-site and off-site drainage, utility relocation, construction stormwater management, construction traffic control, mobilization.

10. What is the status of the proposed project?

Sidewalk gap locations have been identified as well as a preliminary evaluation of the technical feasibility of construction and current or projected potential demand. Specific gap locations occurring in areas with high numbers of vulnerable populations relative to the DRCOG area has also been identified. **The need to address sidewalk gaps, and the adverse impact of those residents walking or biking in Aurora has been highlighted by various local plans, including: Arapahoe County Bicycle and Pedestrian Master Plan, 2017, Fitzsimons Area Wide Multi-modal Transportation Study, 2009, Aurora’s Bicycle and Pedestrian Master Plan, 2012, Aurora Places, 2018, and the NW Aurora Mobility study, 2018.** The city has programed the needed matching fund and are ready to begin the project implementation when the TIP grant is awarded for this 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.

The current project application would address arterial and collector sidewalk gaps within ½ mile of schools in block groups with 3 or more vulnerable populations. This would be approximately 6,765 linear feet of sidewalks. Arterial and collector **sidewalk gaps within ½ mile of schools in block groups of 5 or more vulnerable populations** could be addressed for \$1,265,000. This would address approximately 5,236 linear feet of sidewalks. See cost estimates for limited scope in **Attachment C**.

A. Project Financial Information and Funding Request

1. Total Project Cost See Attachment C , a planning level cost estimate.		\$1,336,000
2. Total amount of DRCOG Subregional Share Funding Request	\$935,200	70% 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 Aurora	\$400,800	30%
	\$	
	\$	
	\$	
	\$	
	\$	
Total amount of funding provided by other funding partners <i>(private, local, state, Regional, or federal)</i>	\$400,800	

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	\$	\$	\$	\$935,200	\$935,200
State Funds	\$	\$	\$	\$	\$0
Local Funds	\$	\$	\$	\$400,800	\$400,800
Total Funding	\$0	\$0	\$0	\$1,336,000	\$1,336,000
4. Phase to be Initiated <i>Choose from Design, ENV, ROW, CON, Study, Service, Equip. Purchase, Other</i>	Choose an item	Choose an item	Choose an item	DES & CON	

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. See **Application Cover Letter**, a letter from the city of Aurora city manager.



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?

The city of Aurora’s sidewalk network has a collection of gaps throughout the city. These gaps are along arterial and collector roads, which either directly connect with significant regional employment centers or urban centers such as the Fitzsimmons medical campus at the border of Adams County and Arapahoe County, or allow residents and visitors to more safely, comfortably, and reliably access the regional transit network that leads to more important regional destinations throughout the metro area. A two-foot wide sidewalk gap between the house of a person using a wheelchair or other mobility device, and the nearest transit stop, can require the resident to use paratransit service rather than a fixed route service. This can result in a cost to RTD of \$43.47 for a paratransit trip, compared to a cost of \$5.02 for a bus trip (National Transit Database, 2017).

This project directly benefits the regional population using transit. A typical transit user will walk five to ten minutes, or a quarter mile, to use transit. An important aspect of their decision to use transit is based on the availability of safe, convenient and complete connectivity of the walking environment to reach that transit stop. **These sidewalk improvements are within a quarter mile of transit stops that provide 5,784 boardings per day.** Improving sidewalk connections to bus stops can increase transit boardings by 2.19 percent compared to bus stops without improvements (“Impacts of Bus Stop Improvements.” Kim, Bartholomew, and Ewing, March 2018). This would result in 127 additional daily transit boardings at opening year, and 190 additional daily transit boardings at year 2040. If 10 percent of these boardings were persons that would have otherwise used paratransit, this would result in \$124,520 of savings to RTD over the course of a single year, or \$2,490,406 worth of savings over a 20 year timeframe. These savings can be reinvested back into transit benefiting the entire region.

Addressing these sidewalks would also directly benefit regional vulnerable populations. While the city of Aurora has over 220 miles of missing sidewalk infrastructure, the **1.3 miles of gaps proposed to be addressed in this project have been specifically chosen because they’re in Census blockgroups with higher rates than regional average of 3 or more vulnerable populations groups. These gaps are also within a half mile of schools increasing the ability for our youngest and most vulnerable residents of the region another choice to get to school in a healthy way. In fact, the city has received multiple requests regarding missing sidewalks that preventing middle school and high school students from accessing their schools via bicycles.** Within a mile of these improvements, there are nearly 1,421 persons over 65 years of age, 8,963 minorities, 2,353 low income households, 4,434 linguistically challenged households, 2,360 persons with disabilities, and nearly 1,113 households without a motor vehicle. See Vulnerable Population map in **Attachment A**. These are all populations that are more likely to rely entirely on a safe, comfortable, and functioning sidewalk network to complete their daily trips or use sidewalks to access transit services.

Emphasizing closing sidewalk gaps along arterials and collectors, provides a way to decrease congestion on our roadway system. A 1 percent increase in the quality of the pedestrian environment was associated with a 0.19 percent decrease in VMT (“Impacts of Pedestrian Strategies on Passenger Vehicle Use and Greenhouse Gas Emissions.” Handy and Sciara, 2014). Providing a way to move local vehicle trips off of the regional roadway network would free up capacity for those users in cars making longer trips. Based solely off of sidewalks gaps along two arterials (Smith Road and Sable Boulevard), combined with the benefits to transit users, completing sidewalk gaps would remove 73 daily single occupant vehicle trips from the network per day. This does not include vehicles removed because of the sidewalk network being completed along collector streets that would likely also replace single occupant vehicle trips.

Finally, this investment would allow the region to support access needs and improvements identified in previous area transportation plans, including supporting sidewalks in the pedestrian activity centers in the 2012 Adams County Transportation Plan, and specific gaps identified in the city of Aurora’s 2012 Bicycle and Pedestrian Master Plan

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

This project occurs within the city limits of Aurora, although the areas of influence around the sidewalk gaps encompass portions of Denver. The targeting of these improvements in areas with high numbers of vulnerable populations and near transit stops would allow additional access for these groups to the rest of the region and therefore, **will benefit all municipalities around the major regional transit services, including the City and County of Denver, the Cities of Greenwood Village, Centennial and Lone Tree as well as unincorporated Adams and Arapahoe Counties. These sidewalk gap closures includes areas within the pedestrian activity centers in the 2012 Adams County Transportation Plan.**

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

This project occurs within the Adams County subregion, but as it is discussed above, it will also benefit Denver and Arapahoe County Subregions.

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

Closing gaps along arterial and collector roads, which either directly connect with regional trip generators such as the Anschutz Medical Campus/Fitzsimons Innovation Community or regional transit network, would remove the significant obstacles preventing residents and visitors from safe, comfortable and reliable accessing regional destinations or transit network. Filling in these gaps would address several of the Metro Visions’ objectives related to livability and transportation. A complete sidewalk network will support “built environments...that accommodate and the widest spectrum of people – regardless of age, income, or ability” (Metro Vision Regional Objective 1). Addressing sidewalk gaps improves the region’s multimodal transportation system and connections including pedestrian accessibility and supports the transit system through first and last mile connections (Metro Vision Regional Objective 4). Creating a defined, designated space for pedestrians alongside roads creates a safer transportation system by reducing fatalities and serious injuries of pedestrian walking along collector and arterial streets, and increases the level of service for pedestrians (Metro Vision Regional Objective 5). Improving the transportation network, particularly for those not driving and in areas with high numbers of vulnerable populations, increases access to amenities that support healthy, active choices to create comfortable and safe travel and access for users of all ages and abilities, including access to food options (Metro Vision Regional Objective 10). Ensuring a complete sidewalk network also means that connections are improved to health care, whether residents directly to any of the 36 health care facilities within a mile of the improvements, or walk to a transit stop first in order to reach health care (Metro Vision Regional Objective 11). Finally, by prioritizing addressing and gaps in areas with higher than regional average of vulnerable populations, this project will improve access for the traditionally underserved areas (Metro Vision Regional Objective 13).

5. One foundation of a sustainable and resilient economy is physical infrastructure and transportation. How will the **completed** project allow people and businesses to thrive and prosper?

The sidewalks gaps to be addressed are within half-mile of four elementary schools and one elementary-middle school. Filling in the gaps on the sidewalk network would provide additional choices for these students and their parents to travel between home and school in a safe and comfortable fashion. Focusing these improvements on arterial and collector streets also prioritizes investment that would allow other users, such the adult working population, to travel safely to jobs, social services, or access transit. In addition, Investments in multimodal improvements have been linked to overall health and economic benefits to users as well as property values of adjacent neighborhoods. *Economic and Health Benefits of Bicycling and Walking*, 2016, estimated that there is a **\$3.2 billion annual benefit from reduced mortality from bicycling and walking in Colorado and a \$1.6**

billion annual economic contribution by individuals who bike and/or walk to access local industry. See letters of support in **Attachment D**

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

The identified sidewalk gaps are within one-quarter mile of 41 transit stops that provide 5,784 daily boardings. A quarter-mile is the typical walking distance that transit users will travel to get to a bus stop. Sidewalks along arterials will be constructed to a 10 foot design width, and bicyclists are allowed to ride on sidewalks in Aurora. Closing these sidewalk gaps will provide safe and complete access and connections to the 41 transit stops and the regional transit network.

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

The city of Aurora is providing local match for this project. RTD will be engaged on sidewalk improvements directly adjacent to transit stops to determine if installing additional bus stop amenities are appropriate.

B. DRCOG Board-approved Metro Vision TIP Focus Areas

WEIGHT **30%**

*Provide **qualitative and quantitative** (derived from Part 3 of the application) responses to the following questions on how the proposed project addresses the three DRCOG Board-approved Focus Areas (in bold).*

1. Describe how the project will improve mobility infrastructure and services for vulnerable populations (including improved transportation access to health services).

The location of these improvements are in Census blockgroups with higher rates than regional average of 3 or more vulnerable populations groups, which many of them rely entirely on bicycle and pedestrian facilities and public transportation services as their only means of transportation for their daily travel need. . **Addressing sidewalk gap will provide access to 4 schools within a half-mile of the existing gaps, and provide a benefit to the 1,421 persons over 65 years of age, 8,963 minorities, 2,353 low income households, 4,434 linguistically challenged households, 2,360 persons with disabilities, and nearly 1,113 households without a motor vehicle that live within a mile of the improvements. With the additional connectivity of the mobility infrastructure, these vulnerable populations will also have improved access to the 163 health service facilities within a mile of these improvements.**

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

This project directly serves both transit stops, and first- and last-mile connections to transit stops by **closing the critical sidewalk gaps and therefore providing a safe and interconnected walking route to transit.** It is within one-quarter mile of 41 transit stops, serving 5,784 daily boardings. The city of Aurora allows bicyclists to ride on sidewalks. Sidewalk gaps addressed on arterial streets will be 10 feet wide, allowing the safer sharing of the facility by people walking and people biking.

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

Correcting sidewalk gaps will make traveling along major corridors safer for pedestrians, motorists, and bicyclists. For example, a sidewalk gap is present on Smith Road, which serves an area with several manufacturing and distribution facilities, and where many people walk or bike along a road next to semi-trucks but with no sidewalks. Smith Road has an ADT of 10,205. The arterial and collector streets immediately adjacent to the sidewalk gaps have experienced 556 crashes between 2012 and 2018. Better separated users and modes along these corridors will increase the comfort, safety and service levels for pedestrians.

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

By definition, **addressing sidewalk gaps supports reinvestment in locations where urban-level infrastructure already exists.** This study will increase multimodal network connectivity in an existing urban area, and will link to several urban centers. Approximately 86,000 people live or work within within one-mile of the project area (anticipated to grow to over 116,000 by 2040).

[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

Several of the gaps identified are within or between the Peoria-Smith Urban Center and Fitzsimons Urban Center. This project will provide safe, clear, direct and complete pedestrian connections to these urban centers and regional transit network, which also connects to other key destinations.

[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

Emphasizing fixing sidewalk gaps along arterials and collectors, provides a way to decrease congestion on our roadway system. A 1 percent increase in the quality of the pedestrian environment was associated with a 0.19 percent decrease in VMT (“Impacts of Pedestrian Strategies on Passenger Vehicle Use and Greenhouse Gas Emissions.” Handy and Sciara, 2014). Providing a way to move local vehicle trips off of the regional roadway network would free up capacity for those users in cars making longer trips. Based solely off of sidewalks gaps along an arterial and a collector (Smith Road and Sable Boulevard), completing sidewalk gaps would remove 10 daily single occupied vehicle trips from the network per day. This does not include vehicles removed because of the sidewalk network being completed along collector streets that would likely also replace single occupied vehicle trips.

These sidewalk improvements are within a quarter mile of transit stops that provide 5,784 boarding per day. Improving sidewalk connections to bus stops can increase transit boardings by 2.19 percent compared to bus stops without improvements (“Impacts of Bus Stop Improvements.” Kim, Bartholomew, and Ewing, March 2018). This would result in 127 additional daily transit boardings at opening year, and 190 additional daily transit boardings at year 2040. If 10 percent of these boardings were persons that would have otherwise used paratransit, this would **result in \$124,520 of savings to RTD over the course of a single year, or \$2,490,406 worth of savings over a 20 year timeframe.** These savings can be reinvested back into transit benefiting the entire region.

Within a mile of these improvements, there are significant numbers of vulnerable populations, including 1,421 persons over 65 years of age, 8,963 minorities, 2,353 low income households, 4,434 linguistically challenged

households, 2,360 persons with disabilities, and nearly 1,113 households without a motor vehicle. These are all populations that are more likely to rely on a safe, comfortable, and functioning sidewalk network to complete their daily trips or use sidewalks to access transit services. This project will provide mobility choices for the vulnerable populations to access key destinations, transit stops and regional transit network.

[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

Completing sidewalk gaps would remove 73 daily single occupied vehicle trips from the network per day. This would reduce GHG emissions by 545 pounds in year of opening, and 900 pounds in 2040.

[MV objective 7b](#)

Connect people to natural resource or recreational areas.

5. Will this project help complete missing links in the regional trail and greenways network or improve other multimodal connections that increase accessibility to our region’s open space assets?

Yes No

Describe, including supporting quantitative analysis

The sidewalk gap on Sable Boulevard would substantially complete the sidewalk network on Sable Boulevard between Colfax Avenue and the Sand Creek Greenway Trail. Closing gaps on Fitzsimons Parkway would also address part of the missing network between Colfax Avenue, the Fitzsimons Innovation Community, and the Sand Creek Greenway Trail. In addition, by providing safe and convenient access to transit stops and the regional transit network, this project helps to improve multimodal connections to various open space assets in the region.

[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 sidewalk gap on Sable Boulevard would substantially complete the sidewalk network on Sable Boulevard between Colfax Avenue and the Sand Creek Greenway Trail. These gaps are also within a half mile of schools increasing the ability for our youngest and most vulnerable residents of the region another choice on how to get to school in a healthy way. Within a mile of these improvements, there are 44,100 residents and 42,000 jobs. There are also many vulnerable populations, including 1,421 persons over 65 years of age, 8,963 minorities, 2,353 low income households, 4,434 linguistically challenged households, 2,360 persons with disabilities, and 1,113 households without a motor vehicle. These are all populations that are more likely to rely on a safe, comfortable, and functioning sidewalk network to complete their daily trips or use sidewalks to access transit services. **By providing safe, convenient and complete sidewalks and enhanced access to transit stops, regional transit network and many regional parks and open spaces, this project will expand opportunities for residents, especially vulnerable populations, to walk and bike more and therefore lead healthy and active lifestyles.**

[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

There are 44,000 residents and 42,000 jobs within a mile of these improvements. This is forecast to reach nearly 60,000 residents and 56,000 jobs by 2040. 25,000 existing jobs are at the Anschutz Medical Campus, with 4,500

medical students. There is also a significant number of vulnerable populations that can benefit from closing sidewalk gaps, including 1,421 persons over 65 years of age, 8,963 minorities, 2,353 low income households, 4,434 linguistically challenged households, 2,360 persons with disabilities, and 1,113 households. These are all populations that are more likely to rely on a safe, comfortable, and functioning sidewalk network to complete their daily trips or use sidewalks to access transit services, and can benefit from the additional access to the 36 health service facilities within a mile of the improvements. **This project provides the critical connections for vulnerable populations to schools, health care facilities, and jobs and therefore, reduce critical health, education, income and opportunity disparities.**

[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*

Investment in bicycle and pedestrian infrastructure has been linked to economic health and vitality. A 2016 study found bicycling and walking contribute approximately \$1.6 billion annually to Colorado’s economy (Economic and Health Benefits of Bicycling and Walking, BBC Research & Consulting, October 2016).

D. Project Leveraging

WEIGHT 10%

9. What percent of outside funding sources (non-DRCOG-allocated Subregional Share funding) does this project have?	30%	60%+ outside funding sources High 30-59% Medium 29% and below Low
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Part 3 Additional Considerations

The ADCOG Subregional Forum has established five additional considerations to guide project selection within the subregional process. These considerations may be used by the ADCOG Subregional Forum in the project evaluation process in combination with the above listed criteria. The five additional considerations are:

- Does the project benefit a small community, which for this process is defined as a community with a population of less than 50,000 people? **No.**
- Is this project a suburban connector? **No.**
- Does the project address a gap in existing service? **Yes. Closing sidewalk gaps would make progress towards creating a more complete sidewalk network, and allow greater access to the regional transit network.**
- Is this the logical next step of a project? **Yes. It addresses several goals identified in Aurora Places (2018), the Adams County Transportation Plan (2012), and City of Aurora Bicycle and Pedestrian Master Plan (2008).**
- Is the project construction ready? **Yes, given overall minimal design efforts required and the anticipation that the majority of sidewalk gaps are within existing right-of-way.**

Applicants should provide an attachment to the application to address these additional considerations.

Part 4 Project Data Worksheet – Calculations and Estimates
(Complete all subsections applicable to the project)

A. Transit Use

1. Current ridership weekday boardings	5,784
2. Population and Employment	

Year	Population within 1 mile	Employment within 1 mile	Total Pop and Employ within 1 mile
2020	44,130	41,953	86,083
2040	59,628	56,471	116,099

Transit Use Calculations	Year of Opening	2040 Weekday Estimate
3. Enter estimated additional daily transit boardings after project is completed. <i>(Using 50% growth above year of opening for 2040 value, unless justified)</i> <i>Provide supporting documentation as part of application submittal</i>	127	190
4. Enter number of the additional transit boardings (from #3 above) that were previously using a different transit route. <i>(Example: {#3 X 25%} or other percent, if justified)</i>	32	48
5. Enter number of the new transit boardings (from #3 above) that were previously using other non-SOV modes (walk, bicycle, HOV, etc.) <i>(Example: {#3 X 25%} or other percent, if justified)</i>	32	48
6. = Number of SOV one-way trips reduced per day (#3 – #4 – #5)	63	94
7. Enter the value of {#6 x 9 miles} . (= the VMT reduced per day) <i>(Values other than the default 9 miles must be justified by sponsor; e.g., 15 miles for regional service or 6 miles for local service)</i>	570	846
8. = Number of pounds GHG emissions reduced (#7 x 0.95 lbs.)	542	804
9. If values would be distinctly greater for weekends, describe the magnitude of difference: N/A		
10. If different values other than the suggested are used, please explain here: "Impacts of bus stop improvements", (Kim, Bartholomew, Ewing; Utah Department of Transportation, March 2018) attributes a growth in ridership of 2.19% due to bus stop improvement improvements (including sidewalks) over non-improved stops.		

B. Bicycle Use

1. Current weekday bicyclists	0
2. Population and Employment	

Year	Population within 1 mile	Employment within 1 mile	Total Pop and Employ within 1 mile
2020			
2040			

Bicycle Use Calculations	Year	2040
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	of Opening	Weekday Estimate
3. Enter estimated additional weekday one-way bicycle trips on the facility after project is completed.		
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)		
5. = Initial number of new bicycle trips from project (#3 – #4)		
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)		
7. = Number of SOV trips reduced per day (#5 - #6)		
8. Enter the value of {#7 x 2 miles} . (= the VMT reduced per day) (Values other than 2 miles must be justified by sponsor)		
9. = Number of pounds GHG emissions reduced (#8 x 0.95 lbs.)		
10. If values would be distinctly greater for weekends, describe the magnitude of difference: N/A		
11. If different values other than the suggested are used, please explain here: N/A		

C. Pedestrian Use

1. Current weekday pedestrians (include users of all non-pedaled devices)	479
2. Population and Employment	

Year	Population within 1 mile	Employment within 1 mile	Total Pop and Employ within 1 mile
2020	44,130	41,953	86,083
2040	59,628	56,471	116,099

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	35	48
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)	18	24
5. = Number of new trips from project (#3 – #4)	17	24
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)	5	7
7. = Number of SOV trips reduced per day (#5 - #6)	10	17

12. Enter the value of {#7 x .4 miles} . (= the VMT reduced per day) <i>(Values other than .4 miles must be justified by sponsor)</i>	4	6.8
8. = Number of pounds GHG emissions reduced (#8 x 0.95 lbs.)	3.92	6.46
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: Current weekday pedestrians are derived as regional mode share counts on DRCOG-provided traffic counts at Smith Road, and Sable Boulevard. These do not include potential pedestrian increases on gaps addressed at other arterial or collector streets performed as part of this project.		

D. Vulnerable Populations

Use Current Census Data	Vulnerable Populations	Population within 1 mile
	1. Persons over age 65	
2. Minority persons		8,963
3. Low-Income households		2,353
4. Linguistically-challenged persons		4,434
5. Individuals with disabilities		2,360
6. Households without a motor vehicle		1,113
7. Children ages 6-17		8,810
8. Health service facilities served by project		36

E. Travel Delay *(Operational and Congestion Reduction)*

Sponsor must use industry standard Highway Capacity Manual (HCM) based software programs and procedures as a basis to calculate estimated weekday travel delay benefits. *DRCOG staff may be able to use the Regional Travel Model to develop estimates for certain types of large-scale projects.*

1. Current ADT (average daily traffic volume) on applicable segments	0
2. 2040 ADT estimate	0
3. Current weekday vehicle hours of delay (VHD) (before project)	0

Travel Delay Calculations	Year of Opening
4. Enter calculated future weekday VHD (after project)	0
5. Enter value of {#3 - #4} = Reduced VHD	0
6. Enter value of {#5 X 1.4} = Reduced person hours of delay <i>(Value higher than 1.4 due to high transit ridership must be justified by sponsor)</i>	0
7. After project peak hour congested average travel time reduction per vehicle (includes persons, transit passengers, freight, and service equipment carried by vehicles). <i>If applicable, denote unique travel time reduction for certain types of vehicles</i>	0

8. If values would be distinctly different for weekend days or special events, describe the magnitude of difference.

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

F. Traffic Crash Reduction

1. Provide the current number of crashes involving motor vehicles, bicyclists, and pedestrians (*most recent 5-year period of data*)

Fatal crashes	0
Serious Injury crashes	0
Other Injury crashes	0
Property Damage Only crashes	0

Sponsor must use industry accepted crash reduction factors (CRF) or accident modification factor (AMF) practices (*e.g., NCHRP Project 17-25, NCHRP Report 617, or DiExSys methodology*).

2. Estimated reduction in crashes applicable to the project scope (*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

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

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

N/A

2. Describe current condition issues and how the project will address them. N/A	
3. Other functional obsolescence issues to be addressed by project N/A	
4. Average Daily User Volume over bridge	0
I. Other Beneficial Variables <i>(identified and calculated by the sponsor)</i>	
1.	
2.	
3.	
J. Disbenefits or Negative Impacts <i>(identified and calculated by the sponsor)</i>	
1. Increase in VMT? <i>If yes, describe scale of expected increase</i>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
-	
2. Negative impact on vulnerable populations None anticipated.	
3. Other:	