

# Part 1

# Base Information

1. Project Title	Nickel/Commerce Street & Industrial Lane Intersection Improvements			
2. Project <i>Start/End</i> points or Geographic Area <i>Provide a map with submittal, as appropriate</i>	Nickel Street, Industrial Lane Commerce Street intersection			
3. Project Sponsor ( <i>entity that will construct/ complete and be financially responsible for the project</i> )	City & County of Broomfield			
4. Project Contact Person, Title, Phone Number, and Email	Sarah Grant, Transportation Manager City & County of Broomfield 303-438-6385 SGrant@broomfield.org			
5. 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 with submittal</i>			
6. What planning document(s) identifies this project?	<input type="checkbox"/> <a href="#">DRCOG 2040 Fiscally Constrained Regional Transportation Plan (2040 FC RTP)</a>			
	<input checked="" type="checkbox"/> Local plan:	Broomfield Transportation Plan (supporting policy) 2019 Broomfield Capital Improvement Plan (page 19) <a href="https://www.broomfield.org/DocumentCenter/View/28530/2019C_ompleteCIP_Sept112019">https://www.broomfield.org/DocumentCenter/View/28530/2019C_ompleteCIP_Sept112019</a>		
	<input type="checkbox"/> Other(s):			
	<i>Provide link to document/s and referenced page number if possible, or provide documentation with submittal</i>			
<b>7. Identify the project's key elements.</b> <table border="0" style="width: 100%;"> <tr> <td style="vertical-align: top; width: 50%;"> <input type="checkbox"/> Rapid Transit Capacity (2040 FC RTP)  <input type="checkbox"/> Transit Other:  <input checked="" type="checkbox"/> Bicycle Facility  <input checked="" type="checkbox"/> Pedestrian Facility  <input checked="" type="checkbox"/> Safety Improvements  <input type="checkbox"/> Roadway Capacity or Managed Lanes (2040 FC RTP)  <input checked="" type="checkbox"/> Roadway Operational         </td> <td style="vertical-align: top; width: 50%;"> <b>Grade Separation</b>  <input type="checkbox"/> Roadway  <input type="checkbox"/> Railway  <input type="checkbox"/> Bicycle  <input type="checkbox"/> Pedestrian  <input type="checkbox"/> Roadway Pavement Reconstruction/Rehab  <input type="checkbox"/> Bridge Replace/Reconstruct/Rehab  <input type="checkbox"/> Study  <input checked="" type="checkbox"/> Design  <input type="checkbox"/> Transportation Technology Components  <input type="checkbox"/> Other: Construction         </td> </tr> </table>			<input type="checkbox"/> Rapid Transit Capacity (2040 FC RTP) <input type="checkbox"/> Transit Other: <input checked="" type="checkbox"/> Bicycle Facility <input checked="" type="checkbox"/> Pedestrian Facility <input checked="" type="checkbox"/> Safety Improvements <input type="checkbox"/> Roadway Capacity or Managed Lanes (2040 FC RTP) <input checked="" type="checkbox"/> Roadway Operational	<b>Grade Separation</b> <input type="checkbox"/> Roadway <input type="checkbox"/> Railway <input type="checkbox"/> Bicycle <input type="checkbox"/> Pedestrian <input type="checkbox"/> Roadway Pavement Reconstruction/Rehab <input type="checkbox"/> Bridge Replace/Reconstruct/Rehab <input type="checkbox"/> Study <input checked="" type="checkbox"/> Design <input type="checkbox"/> Transportation Technology Components <input type="checkbox"/> Other: Construction
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<b>8. <span style="border: 1px solid red; padding: 2px;">Problem Statement</span></b> What specific Metro Vision-related subregional problem/issue will the transportation project address?  MV 5: The transportation system is safe, reliable and well-maintained				

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

The project will modify the 3-way intersection of Nickel Street / Industrial Lane and Commerce Street to reduce delay and improve safety with a coordinated traffic signal with US 287 and BNSF railway.

The project will improve vehicular circulation, substandard bicycle facilities and pedestrian ramps in need ADA upgrades. The project will also consult RTD regarding the location of bus stops to serve local routes. The project aims to improve safety for all road users that the intersection in proximity to US 287 and at grade BNSF railway crossing.

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

The project will modify the 3-way intersection of Nickel Street / Commerce Street and Industrial Lane. This intersection experiences congestion and delay due to the at-grade crossing of BNSF railway and is only 200' from US/287/Nickel Street intersection. The project is currently being evaluated for appropriate treatments.

After CCOB completed a stop sign study at the intersection of Nickel St. and Industrial Ln., it was determined that this location warranted a traffic signal. A traffic signal would increase safety for motor vehicles at this intersection as well as bicycles that will use the future bike lane along Industrial Lane.

In 2018 Broomfield began analysis of the intersection to determine was appropriate improvements (roundabout or a signal) to reduce congestion, increase safety and provide better pedestrian and bicycle access. The results indicated that intersection alignment modifications and coordinated traffic signals with US 287 and BNSF would improve circulation, reducing delay and enhancing the safety of all users.

The project will also take into design consideration improvements that are planned for Industrial Lane Bikeway (with access to the US 36 Bikeway), planned pedestrian improvements across BNSF railway crossing and connectivity to the multiuse trail behind Commerce Street businesses with access to Wadsworth Parkway. In addition, the design will take into consideration connectivity to the 2019 CIP project to improve Nickel Street with complete sidewalks and bicycle lanes.

**11. Would a smaller DRCOG-allocated funding amount than requested be acceptable, while maintaining the original intent of the project?**

Yes  No

*If yes, define smaller meaningful limits, size, service level, phases, or scopes, along with the cost for each.*

A smaller amount may be considered. Staff make make a decision if using federal funds at available amount is reasonable to continue to pursue this funding for the project.

## A. Project Financial Information and Funding Request

<b>1. Total Project Cost</b>		<b>\$2,400,000</b>
<b>2. Total amount of DRCOG Subregional Share Funding Request</b>	<b>\$1,920,000</b>	<b>80%</b> of total project cost
<b>3. Outside Funding Partners (other than DRCOG Subregional Share funds)</b> List each funding partner and contribution amount.	<b>\$\$</b> <b>Contribution Amount</b>	<b>% of Contribution to Overall Total Project Cost</b>
City & County of Broomfield	\$480,000	20%
	\$	0%
	\$	0%
	\$	0%
	\$	0%
	\$	0%
<b>Total amount of funding provided by other funding partners</b> <i>(private, local, state, Regional, or federal)</i>	<b>\$480,000</b>	

### 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.*

	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>Total</b>
<b>Federal Funds</b>	\$	\$	\$288,000	\$1,632,000	<b>\$1,920,000</b>
<b>State Funds</b>	\$	\$	\$	\$	<b>\$0</b>
<b>Local Funds</b>	\$	\$	\$72,000	\$408,000	<b>\$480,000</b>
<b>Total Funding</b>	\$0	\$0	\$360,000	\$2,040,000	<b>\$2,400,000</b>
<b>4. Phase to be Initiated</b> <i>Choose from Design, ENV, ROW, CON, Study, Service, Equip. Purchase, Other</i>	Choose an item	Choose an item	Design	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.



## 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? What is the impact on the greater Broomfield community?

The project reduces delay and improves multimodal safety near US 287 and BNSF railway crossing. The intersection is the only one of two access points to Industrial Lane (this intersection on the east end and Flatiron Crossing Drive/Midway intersection on the west end), minor arterial with commercial and Industrial activity.

Th impact to Broomfield is improved access to Industrial Lane, which parallels US 36. In addition this intersection provides multimodal access to two of the US 36 Bus Rapid Transit stations: both US 36 and Broomfield Station and US 36 & Flatiron Station. Commuters cand Drive, bicycle or walk to either of these stations. Significant improvemetns are planned to add a Bikeway along Industrial Lane.

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

the project does not cross municipal boundaries. Project may benefit residents and commuters from other municipalites

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

the project does not cross subregioanl boundaries. Project may benefit residents and commuters from other municipalities.

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

MV 5: The transportation system is safe, reliable and well-maintained

Since 2013 there have been 23 reported collisions at the intersection. The project aims to improve safety for all road users.

Additionally a recent traffic study indicated that the intersection met warrants for a signal. The improvements aim to reduce delay and increase reliability.

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?

Improvements to the intersection feed into Industrial Lane, a key minor arterial that provides parallel access to US 36 and to the Interlocken Urban Center as well as numerous commercial and industrail destinations for business and employees.

The project aims increase the comfort comfort and safety of vulnerable road users at a very auto-centric intersection. This project along with several other planned in the area, cumulative will increase access and safety for all modes.

Increasing the livability of this subregional corridor Increases opportunities for physical health, access to a variety destinations help our residents thrive, and makes Broomfield subregion a great place to live, work and play.

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

The project is one of several that are underway or planned, including the Industrial Lane Bikeway, Nickel Street Bikelanes and sidewalk and Nickel Street BNSF railroad crossing. Cumulatively, these project will enhance access for active transportation modes to US 36 Broomfield Station and US 36 Flatiron Station.

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

There are no partnerships in place for this project.

**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).**

Project will aim to improve access for vulnerable road users (people walking and cycling) by enhancing amenities to walk or cycle across the intersection.

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

A recent traffic analysis identified that the intersection meets signal warrants, indicating that congestion is increasing. Coordination of traffic signals will enhance reliability crossing the intersection, BNSF Railway to US 287. Signals will be coordinated with CDOT and BNSF.

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

In the last 5 years there have been 19 collisions and 1 injury collision. Intersection modifications and signals aim to improve safety of the intersection for all users.

**C. Consistency & Contributions to Transportation-focused Metro Vision Objectives**

WEIGHT **20%**

Provide **qualitative and quantitative** responses (derived from Part 3 of the application) to the following items on how the proposed project contributes to Transportation-focused Objectives (in bold) in the adopted Metro Vision plan. Refer to the expanded Metro Vision Objective by clicking on links.

[MV objective 2](#)

**Contain urban development in locations designated for urban growth and services.**

**1. Will this project help focus and facilitate future growth in locations where urban-level infrastructure already exists or areas where plans for infrastructure and service expansion are in place?**

Yes  No

Describe, including supporting quantitative analysis

It is challenging to determine how this project will focus growth.

[MV objective 3](#)

**Increase housing and employment in urban centers.**

**2. Will this project help establish a network of clear and direct multimodal connections within and between urban centers, or other key destinations?**

Yes  No

Describe, including supporting quantitative analysis

The Project will improve multimodal access through the intersection. Cumulatively will all the projects underway and planned in the area will contribute toward clear and direct multimodal connections to our Urban Center: Interlocken, Original Broomfield and Broomfield Urban Transit Village, US 36 Bikeway and to the the commercial area at Midway and Nickel, as well as enhance access to US 287 and US 36.

[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

Cumulatively, all the projects planned will increase mobility choices. The intersection is a critical pinchpoint for vulnerable road users walking or cycling to access the multimodal network at the BRT stations and US 36 Bikeway and to our Urban Centers.

[MV objective 6a](#)

**Improve air quality and reduce greenhouse gas emissions.**

4. Will this project help reduce ground-level ozone, greenhouse gas emissions, carbon monoxide, particulate matter, or other air pollutants?

Yes  No

Describe, including supporting quantitative analysis

It is challenging to determine how air quality will be impacted by this project.

[MV objective 7b](#)

**Connect people to natural resource or recreational areas.**

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

Yes  No

Describe, including supporting quantitative analysis

The project does not clearly increase access to our regions open spaces. Imprvng access for ped/bikes through this intersection is key to the success fo the Industrial Lane Bikeway and Nickel Street sidewalk/Bike Lane project.

[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

It is challenging to determine how much the project alone will impact the choice to use active transportation. Improving access for ped/bikes through this intersection is key to the success fo the Industrial Lane Bikeway and Nickel Street sidewalk/Bike Lane project, which cumulatively will increase access to walk and bicycle options.

[MV objective 13](#)

**Improve access to opportunity.**

7. Will this project help reduce critical health, education, income, and opportunity disparities by promoting reliable transportation connections to key destinations and other amenities?

Yes  No

Describe, including supporting quantitative analysis

It is challenging to determine how economic inequalities will be reduced by this project alone.

[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

Continually investing in our subregion's multimodal infrastructure supports our region's economic vitality by keeping people and freight moving safely and smoothly through the network.

**D. Project Leveraging**

**WEIGHT 10%**

9. What percent of outside funding sources (non-DRCOG-allocated Subregional Share funding) does this project have?

20%

60%+ outside funding sources ..... High  
 30-59% ..... Medium  
 29% and below ..... Low

### Part 3

## Project Data Worksheet – Calculations and Estimates

(Complete all subsections applicable to the project)

### A. Transit Use

1. Current ridership weekday boardings	0
2. Population and Employment	

Year	Population within 1 mile	Employment within 1 mile	Total Pop and Employ within 1 mile
2020	0	0	0
2040	0	0	0

Transit Use Calculations	Year of Opening	2040 Weekday Estimate
3. Enter estimated additional daily transit boardings after project is completed. <i>(Using 50% growth above year of opening for 2040 value, unless justified)</i> <i>Provide supporting documentation as part of application submittal</i>	0	0
4. Enter number of the additional transit boardings (from #3 above) that were previously using a different transit route. <i>(Example: {#3 X 25%} or other percent, if justified)</i>	0	0
5. Enter number of the new transit boardings (from #3 above) that were previously using other non-SOV modes (walk, bicycle, HOV, etc.) <i>(Example: {#3 X 25%} or other percent, if justified)</i>	0	0
6. = Number of SOV one-way trips reduced per day (#3 – #4 – #5)	0	0
7. Enter the value of {#6 x 9 miles}. (= the VMT reduced per day) <i>(Values other than the default 9 miles must be justified by sponsor; e.g., 15 miles for regional service or 6 miles for local service)</i>	0	0
8. = Number of pounds GHG emissions reduced (#7 x 0.95 lbs.)	0	0
9. If values would be distinctly greater for weekends, describe the magnitude of difference:		
10. If different values other than the suggested are used, please explain here:		

### B. Bicycle Use

1. Current weekday bicyclists	0
2. Population and Employment	

Year	Population within 1 mile	Employment within 1 mile	Total Pop and Employ within 1 mile
2020	0	0	0
2040	0	0	0



Bicycle Use Calculations	Year of Opening	2040 Weekday Estimate
3. Enter estimated additional weekday one-way bicycle trips on the facility after project is completed.	0	0
4. Enter number of the bicycle trips (in #3 above) that will be diverting from a different bicycling route. (Example: <b>{#3 X 50%}</b> or other percent, if justified)	0	0
5. = Initial number of new bicycle trips from project (#3 – #4)	0	0
6. Enter number of the new trips produced (from #5 above) that are replacing an SOV trip. (Example: <b>{#5 X 30%}</b> or other percent, if justified)	0	0
7. = Number of SOV trips reduced per day (#5 - #6)	0	0
8. Enter the value of <b>{#7 x 2 miles}</b> . (= the VMT reduced per day) (Values other than 2 miles must be justified by sponsor)	0	0
9. = Number of pounds GHG emissions reduced (#8 x 0.95 lbs.)	0	0
10. If values would be distinctly greater for weekends, describe the magnitude of difference:		
11. If different values other than the suggested are used, please explain here:		

### C. Pedestrian Use

1. Current weekday pedestrians (include users of all non-pedaled devices)	0
2. Population and Employment	

Year	Population within 1 mile	Employment within 1 mile	Total Pop and Employ within 1 mile
2020	0	0	0
2040	0	0	0

Pedestrian Use Calculations	Year of Opening	2040 Weekday Estimate
3. Enter estimated additional weekday pedestrian one-way trips on the facility after project is completed	0	0
4. Enter number of the new pedestrian trips (in #3 above) that will be diverting from a different walking route (Example: <b>{#3 X 50%}</b> or other percent, if justified)	0	0
5. = Number of new trips from project (#3 – #4)	0	0
6. Enter number of the new trips produced (from #5 above) that are replacing an SOV trip. (Example: <b>{#5 X 30%}</b> or other percent, if justified)	0	0
7. = Number of SOV trips reduced per day (#5 - #6)	0	0

<b>12.</b> Enter the value of <b>{#7 x .4 miles}</b> . (= the VMT reduced per day) <i>(Values other than .4 miles must be justified by sponsor)</i>	0	0
<b>8.</b> = Number of pounds GHG emissions reduced (#8 x 0.95 lbs.)	0	0
<b>9.</b> If values would be distinctly greater for weekends, describe the magnitude of difference:		
<b>10.</b> If different values other than the suggested are used, please explain here:		

## D. Vulnerable Populations

Use Current Census Data	Vulnerable Populations	Population within 1 mile
	<b>1.</b> Persons over age 65	
<b>2.</b> Minority persons		200
<b>3.</b> Low-Income households		500
<b>4.</b> Linguistically-challenged persons		190
<b>5.</b> Individuals with disabilities		630
<b>6.</b> Households without a motor vehicle		200
<b>7.</b> Children ages 6-17		1,910
<b>8.</b> Health service facilities served by project		21

## 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.*

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

Travel Delay Calculations	Year of Opening
<b>4.</b> Enter calculated future weekday VHD (after project)	0
<b>5.</b> Enter value of <b>{#3 - #4}</b> = Reduced VHD	0
<b>6.</b> Enter value of <b>{#5 X 1.4}</b> = <b>Reduced person hours of delay</b> <i>(Value higher than 1.4 due to high transit ridership must be justified by sponsor)</i>	0
<b>7.</b> <b>After project peak hour congested average travel time reduction</b> per vehicle (includes persons, transit passengers, freight, and service equipment carried by vehicles). <i>If applicable, denote unique travel time reduction for certain types of vehicles</i>	0
<b>8.</b> If values would be distinctly different for weekend days or special events, describe the magnitude of difference.	

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

## F. Traffic Crash Reduction

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

<b>Fatal</b> crashes	0
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<b>Serious Injury</b> crashes	1
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<b>Other Injury</b> crashes	0
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<b>Property Damage Only</b> crashes	19
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2. Estimated reduction in crashes applicable to the project scope (*per the five-year period used above*)

<b>Fatal</b> crashes reduced	0
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<b>Serious Injury</b> crashes reduced	0
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<b>Other Injury</b> crashes reduced	0
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<b>Property Damage Only</b> crashes reduced	0
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Sponsor must use industry accepted crash reduction factors (CRF) or accident modification factor (AMF) practices (*e.g., NCHRP Project 17-25, NCHRP Report 617, or DiExSys methodology*).

## G. Facility Condition

Sponsor must use a current industry-accepted pavement condition method or system and calculate the average condition across all sections of pavement being replaced or modified.  
Applicants will rate as: Excellent, Good, Fair, or Poor

### Roadway Pavement

1. Current roadway pavement condition	Choose an item
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2. Describe current pavement issues and how the project will address them.

3. Average Daily User Volume	0
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### Bicycle/Pedestrian/Other Facility

4. Current bicycle/pedestrian/other facility condition	Choose an item
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5. Describe current condition issues and how the project will address them.

6. Average Daily User Volume	0
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## H. Bridge Improvements

1. Current bridge structural condition from CDOT

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

3. Other functional obsolescence issues to be addressed by project

4. Average Daily User Volume over bridge 0

**I. Other Beneficial Variables** *(identified and calculated by the sponsor)*

1.

2.

3.

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

1. Increase in VMT? *If yes, describe scale of expected increase*  Yes  No

2. Negative impact on vulnerable populations

3. Other: