MEETING AGENDA



- **1.** Introductions
- 2. Role of this Committee
- 3. Planning for More Resilient Transit Amidst a Global Pandemic
- 4. Project Overview
- 5. Existing Conditions Assessment
- 6. Defining Vision and Values
- 7. Schedule and Next Steps





Boulder County Transportation Master Plan

Strategy 1: Develop a Multimodal Transportation System



Strategy 3: Invest in Key Transportation Corridors



Strategy 4: Increase Accessibility



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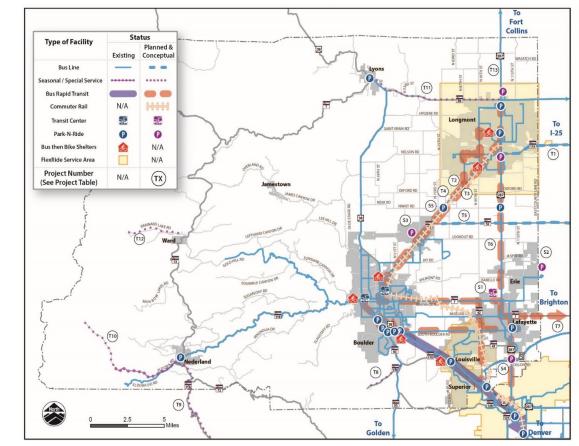
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Strategy 5: Enhance Mountain Area Connections



Key Action Items

- Prioritize moving people
- Advance Northwest Area Mobility corridors
- Explore funding options and innovative partnerships



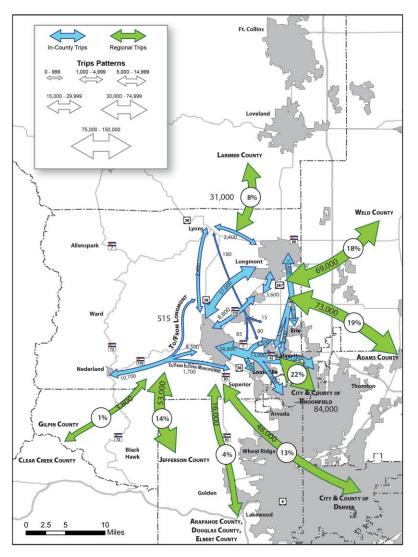
LONGMON

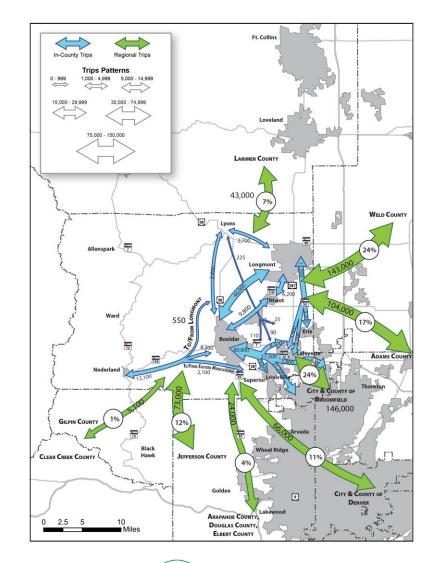
Lafavett

41.1

Boulder County

Boulder County TMP – Inter-regional Travel Trends





111

Boulder County LONGMONT

Lafavette









INTRODUCTIONS





RI

PLANNING FOR MORE RESILIENT DA AGRANIST - 77 1855 TRANSIT AMIDST A GLOBAL PANDEMIC

Veronica Siranosian, Al

AECOM

WHERE ARE WE

WHAT COULD HAPPEN NEXT?

GETTING TO THE BETTER NORMAL



MAG

29.7M Cases Worldwide

(World Health Organization, 9.17.20)

63K Cases in Colorado

(Colorado Department of Public Health and Environment, 9.17.20)

5.2% Shrink in Global Economy (World Bank)

Disproportionate illness and death among racial and ethnic minorities

"Moving people and goods is not a luxury..., it's an absolute necessity,"

Rep. Peter A. DeFazio (D-Ore.), US House Transportation and Infrastructure Committee



"This horrific pandemic is giving an unsolicited, yet possibly useful, glimpse of what it might take to bring an atmosphere clogged with toxic and heat-trapping gases, which contribute to climate change, back to a healthier balance."

Bruce Finley, Denver Post



Increased demand and need for spaces for people

ΑΞϹΟΜ

74% of CFOs will move at least 5% of their workforce to remote post COVID 19 (Gartner)

WHAT COULD HAPPEN NEXT?

MC

BUSINESS AS USUAL

Inequity exacerbated

Driving alone increases for those who can

Transportation funding decreased

Environment at the expense of the economy | The economy at the expense of the environment

Digital divide

Image Source: Denver Post

AECOM

A BETTER NORMAL

Equity and access central to decision-making

Data and new technologies integrated to enhance access and sustainability

Improvements accelerated, made permanent

More places for people

Bridging the digital divide

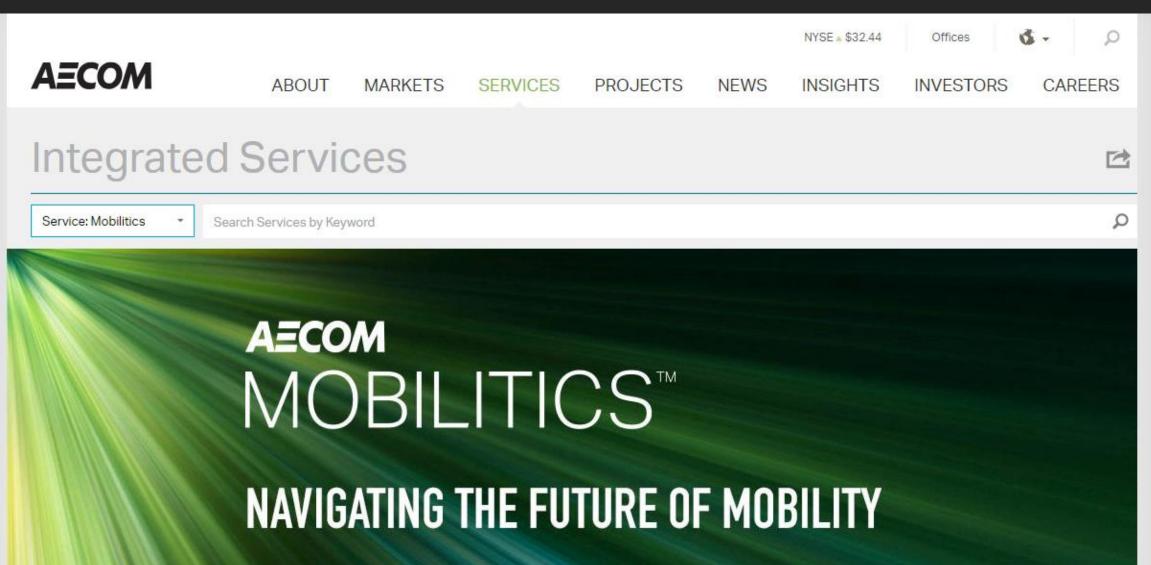
AECOM

GETTING TO THE BETTER NORMAL

MAC

Leveraging Data for More Informed Decisions

New Jersey Transit



Integrating Technology to Safeguard People with

TRIPS (Transportation Resilient Integrated Passenger Solution)

Port Authority Trans Hudson, NY



AECOM



Moving from Single Use + Rigid -> Flexible + Adaptable Infrastructure

Transport for London

ΑΞϹΟΜ

Automation to Safeguard People and Expand Access

CapriMobility.com

InnovateUK + Centre for Connected & Autonomous Vehicles, London

Doniou

AECOM



Thank you.

Veronica Siranosian, AICP Vice President, AECOM Ventures, Digital & Innovation

Veronica.Siranosian@aecom.com @vsiranosian

AECOM

US 287 BRT

FEASIBILITY PROJECT OVERVIEW

Park-n-Ride U.S. 287 & Niwot Road

Boulder County

US 287 | BRT Feasibility Study

OBJECTIVE

The intent of the US 287 BRT Feasibility Study is to understand north/south mobility needs between Broomfield and Longmont to recommend specific Bus Rapid Transit and other mobility investments along the corridor

Communities:

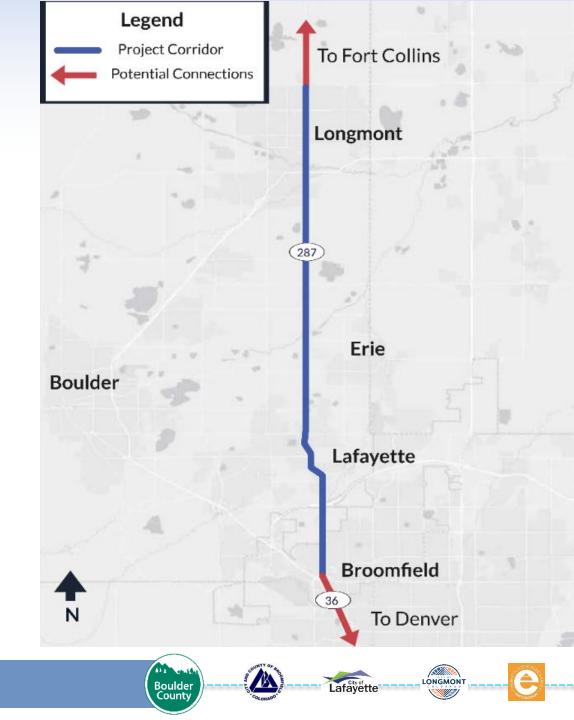
Longmont

Erie

Lafayette

Broomfield

Potential one seat ride to Fort Collins and Denver



SCOPE OF THIS STUDY

Phase I: Feasibility Study

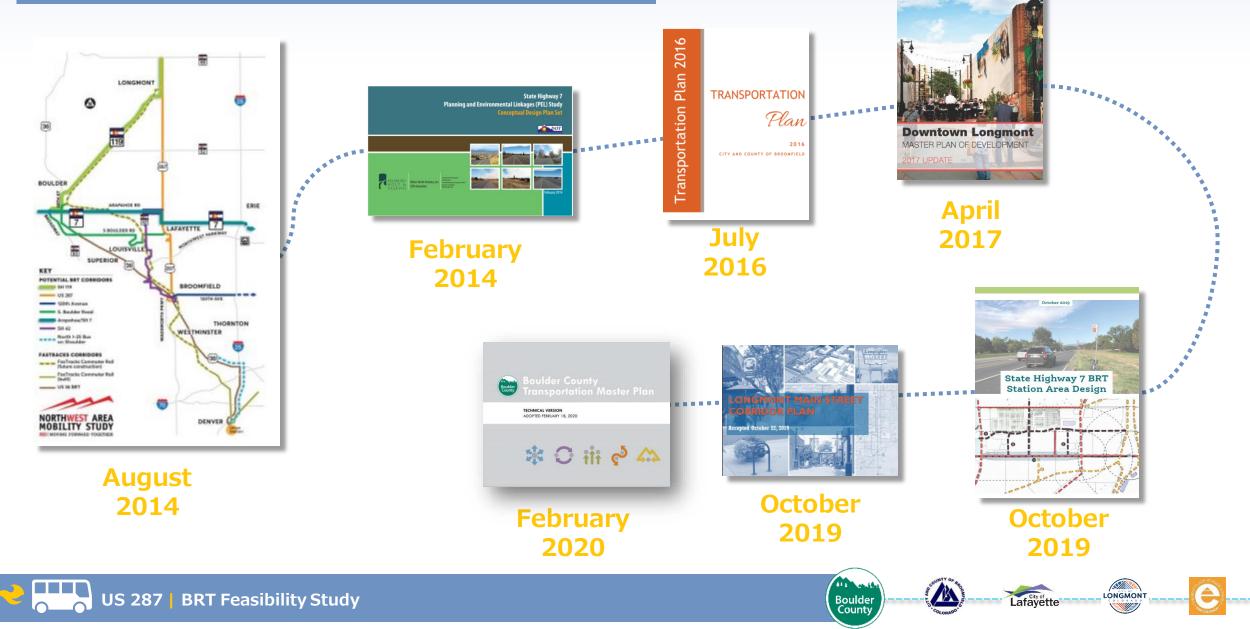
- Community Involvement
- Establishing a Corridor Vision
- Existing Conditions Analysis
- BRT Feasibility & Cost Estimates
- Station Toolkit
- Setting up Funding

Phase II & Long Term Objectives

- BRT Concept Design
- Prioritization of Improvements
- Design
- Environmental Analysis
- Federal and Other Funding
- Implementation



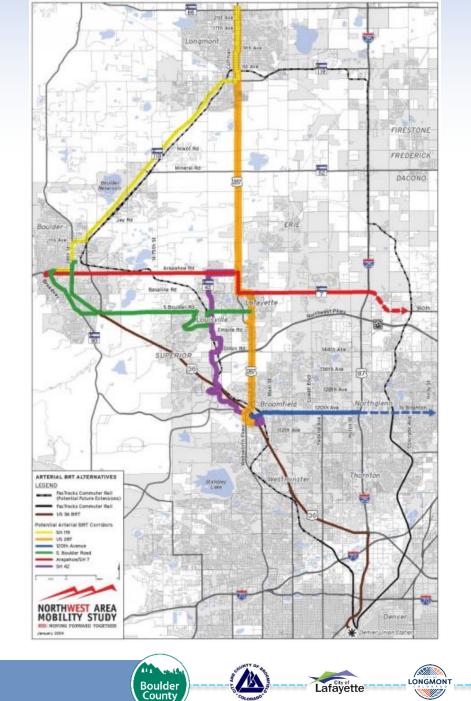
BUILDING ON PREVIOUS PLANS



ADVANCING THE NAMS

US 287 showed strongly for BRT Feasibility

- 22 major and 16 minor stops
- **9,000** Daily Boardings (2035)
- **\$56 Million** Capital Cost
- \$7.2 million annual O&M
- **39 minute** BRT travel time (Longmont to Broomfield)
- Bus on Shoulder potential



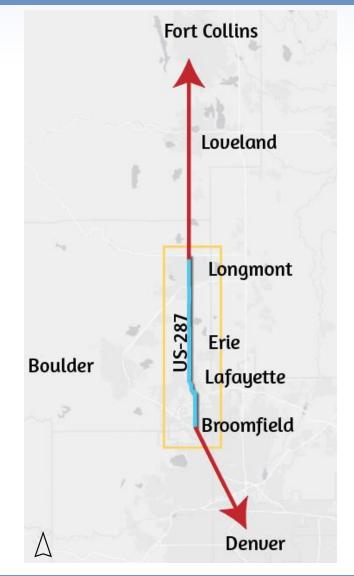
EXISTING

CONDITIONS





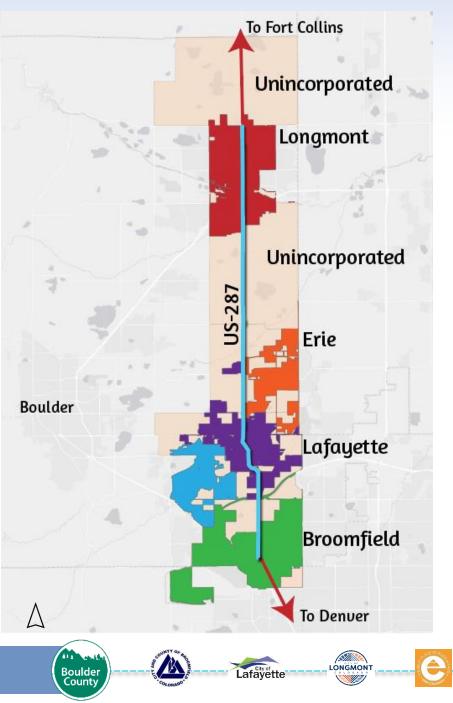
CORRIDOR CONTEXT



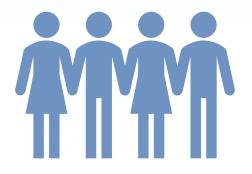
US 287 | BRT Feasibility Study

Four municipalities within physical study limits

20 miles from
State Highway
66 to
Broomfield Park
& Ride

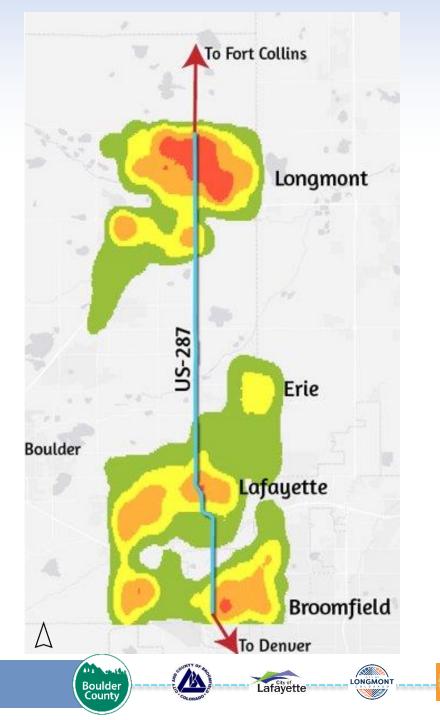


CORRIDOR POPULATION DENSITY



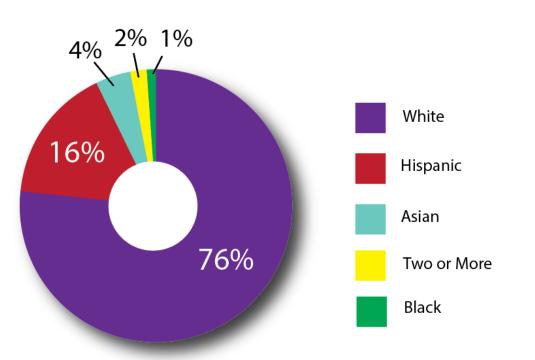
- People within 2 miles : 149,891
- Corridor Household Size: 2.24
- Boulder County Household Size: 2.46

US 287 | BRT Feasibility Study



MINORITY POPULATION & LANGUAGES

Racial Breakdown



Language Spoken at Home

- 5% of the corridor population speaks English " Less than Very Well"
- 16,488 people speak primarily Spanish at home

1

Boulder County



To Fort Collins

ngmont

Erie

Density of people who speak English less than very well

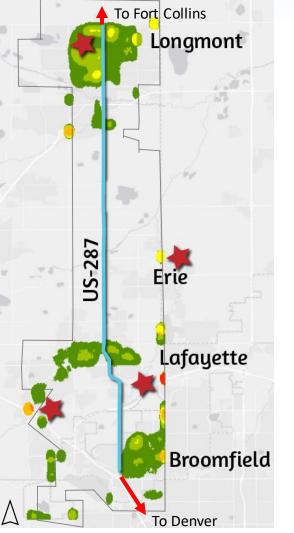
Lafavette

LONGMON.

Total Population: 149,891



AGING POPULATION

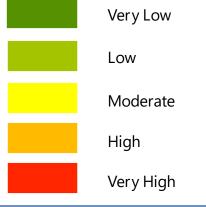


US 287 | BRT Feasibility Study



Presence of Senior Facilities

Density of Aging Populations on the Corridor



 13% of people on the corridor are 65+

- 15% in Longmont
- 11% in Erie

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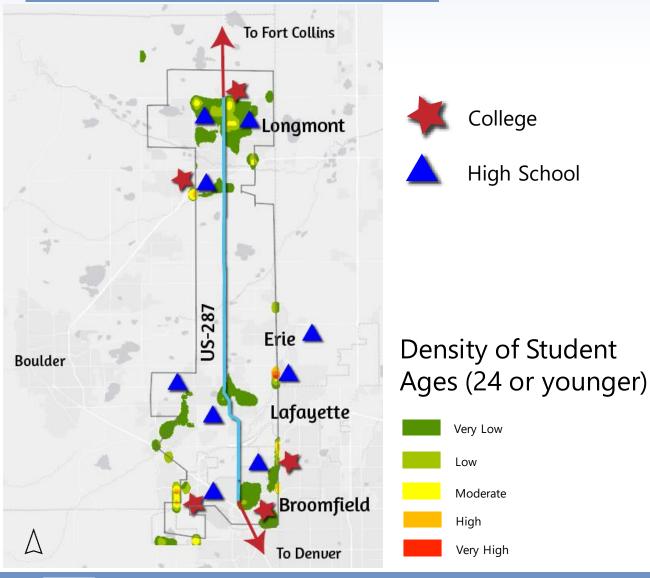
Boulder County

- 8% in Lafayette
- 12% in Broomfield

LONGMONT

Lafavette

YOUNG POPULATION



BRT Feasibility Study

US 287

 32% of corridor population is youth

LONGMON.

Lafavette

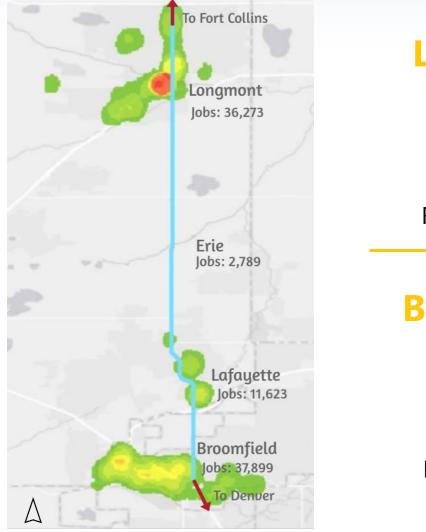
- 32% in Longmont
- 33% in Erie
- 29% in Lafayette

A11

Boulder County

30% in Broomfield

EMPLOYMENT DENSITY



LONGMONT 36,273 Total Jobs 7,500

Retail Service Jobs

ERIE 2,789 Total Jobs 367 Retail Service Jobs

BROOMFIELD 37,899

Total Jobs

8,722 Retail Service Jobs LAFAYETTE 11,623 Total Jobs 2,916 Retail Service Jobs

LONGMONT

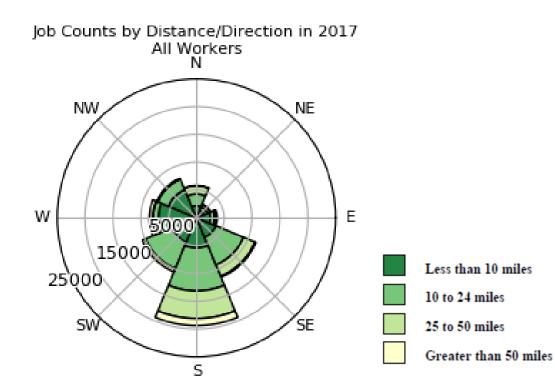
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Boulder County

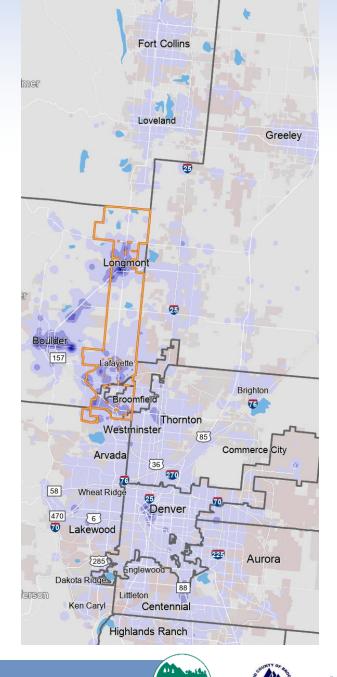
COMMUTER WORK LOCATIONS

Work location of people who live along US 287 Project Corridor



BRT Feasibility Study

US 287



Boulder County Analysis Selection
5 - 216 Jobs/Sq.Mile
217 - 851 Jobs/Sq.Mile
852 - 1,910 Jobs/Sq.Mile
1,911 - 3,392 Jobs/Sq.Mile
3,393 - 5,298 Jobs/Sq.Mile

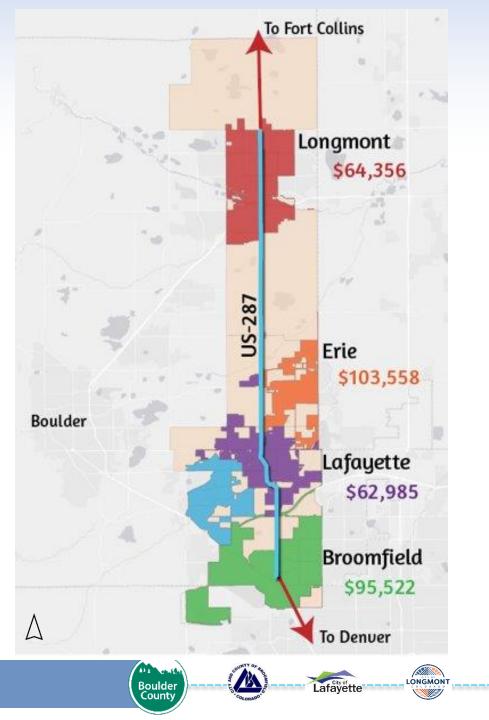
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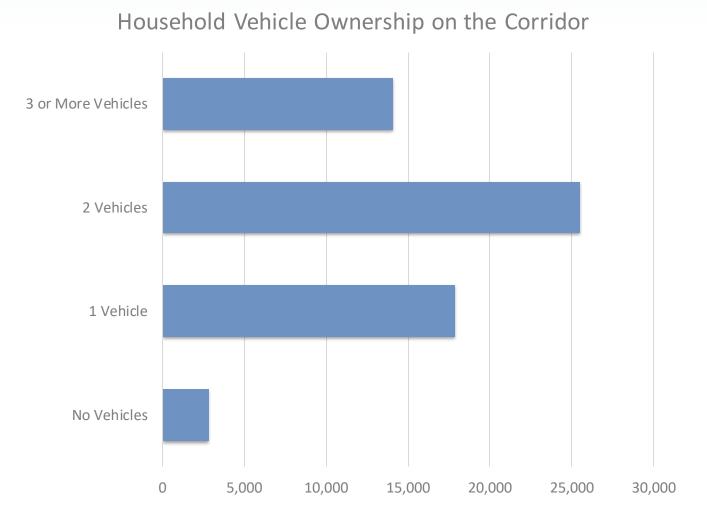




- Corridor MEDIAN household income is \$86,576
- 8.5% of the population on the corridor is below poverty



VEHICLE OWNERSHIP





- Within the study area, there are 2,858 (4.7%) CAR FREE HOUSEHOLDS which is lower than regional 6.1%
- LONGMONT has the greatest concentration with 718 car free households

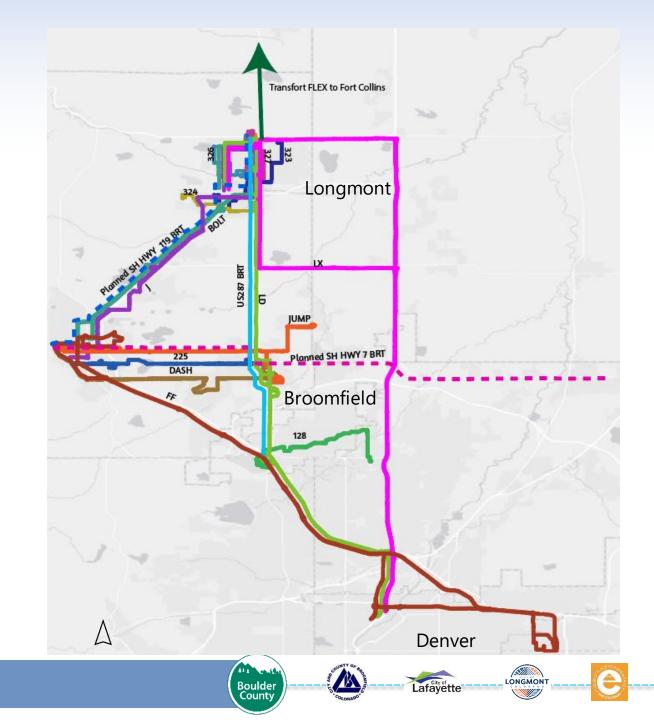
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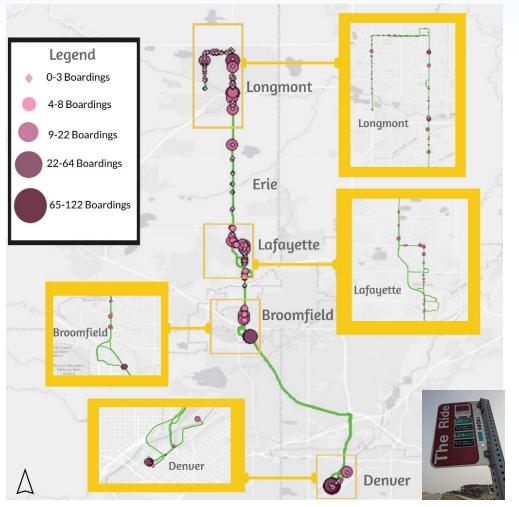
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TRANSIT NETWORK

- LX and LD are core RTD routes between US 287 and Denver
- Other RTD routes shown have transfer opportunities
- TransFort FLEX express service between Longmont and Fort Collins
- BRT planning underway on SH 119 and SH 7



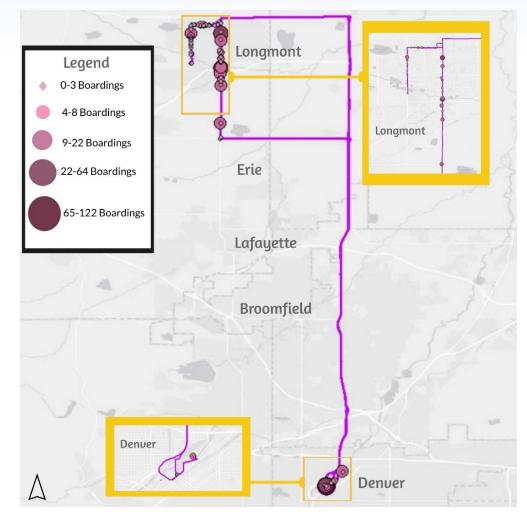
LX & LD Routes



LD: AM peak to Denver, PM peak reverse

US 287 | BRT Feasibility Study

RTD Boardings: Aug 2019



LX: Longmont/Denver peak service on I-25

Lafayette

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EXISTING TRANSIT RIDERSHIP

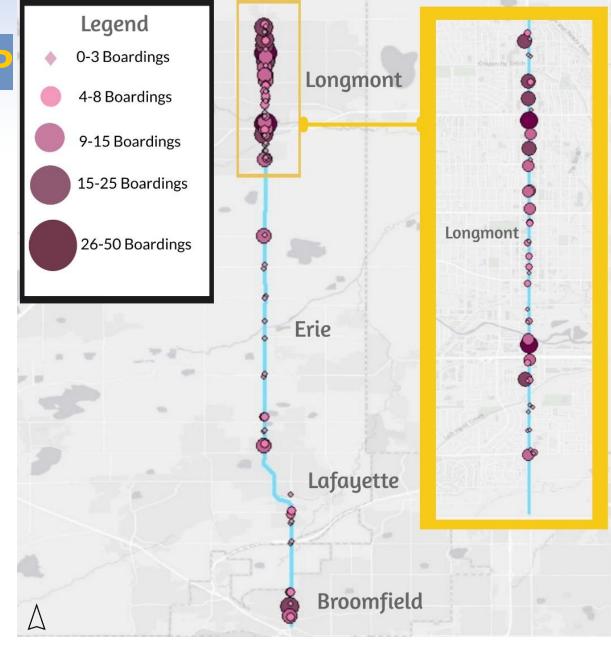
Existing Route Ridership

Route	Daily Boardings
324: Main Street	1,216
LD: Longmont/Denver	945
LX: Longmont I-25 Express	461

High Ridership Stops

Stop	Daily Boardings
Main St/17 th Ave	50
S Main St/Delaware Ave	35
Main St/19 th Ave	25

RTD Boardings: Aug 2019

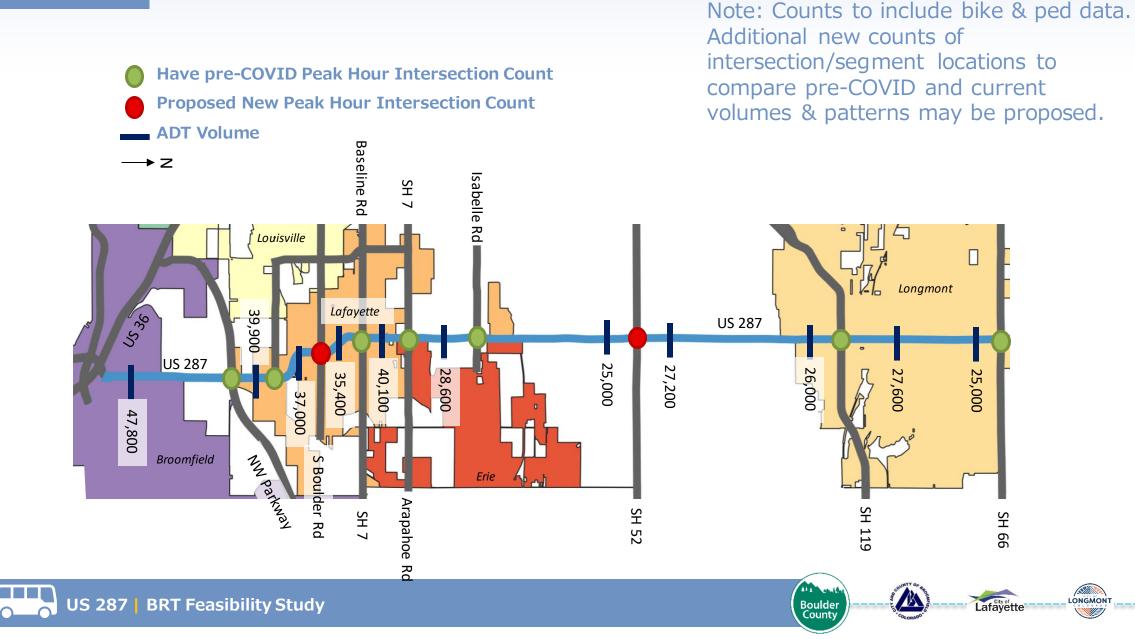


Lafayette

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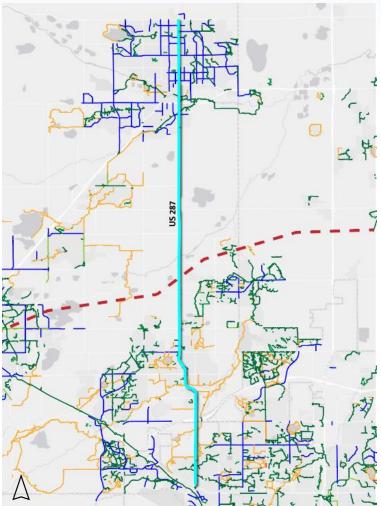






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BIKE FACILITIES



DRCOG Existing Bicycle Inventory

- 0.65 Miles of bicycle lanes on US 287 (Longmont)
- 1.7 Miles of shared use paths along US 287
- 14 paths, trails, and bike lanes cross US 287
- Wide shoulder can be used by bikes

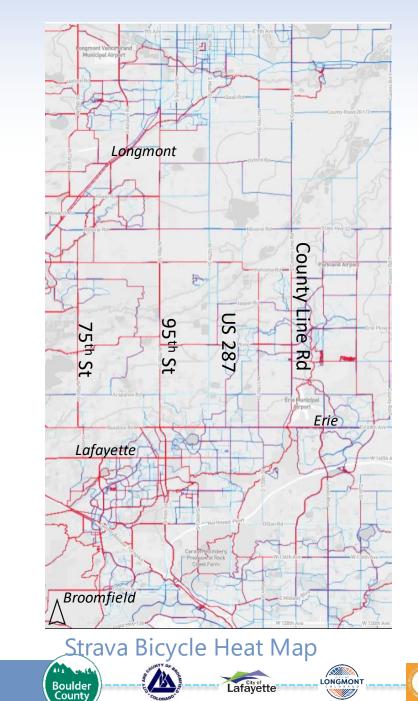
Legend

Facility Type

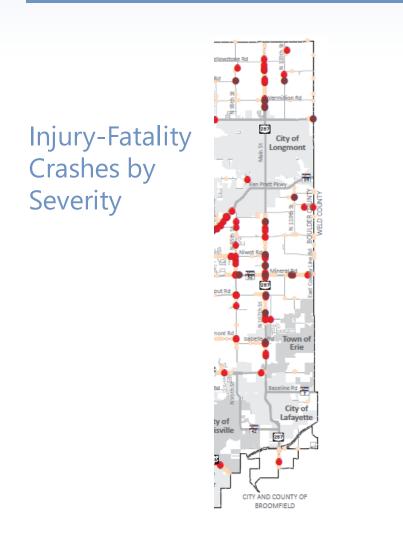
- BICYCLE LANE
- ------ LOCAL PATH
- PAVED SHOULDER
- SEPARATED BICYCLE LANE

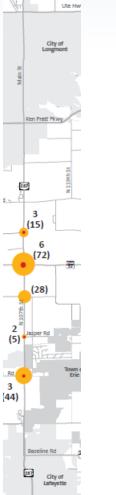
------ SHARED USE PATH

- UNPAVED PATH
- - PROPOSED RTD RAIL TRAIL



SAFETY AND CRASHES

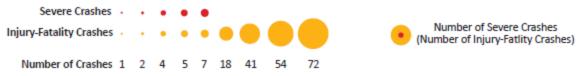




Intersection crashes by severity Boulder County is in process of updating crash report which will include detailed US 287 crash data analysis

LONGMON.

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Boulder County

Fatal Crashes
Major Injury Crashes
Minor Injury Crashes

US 287

BRT Feasibility Study

CORRIDOR CHARACTER ZONES

Purpose:

Identify characteristics of the roadway that will influence potential and appropriate BRT improvements

Methodology:

- Evaluation Criteria: Cross-Section, Right-of-Way, and Land Use
- Determine segments of the project corridor that fall into the following categories for each criteria

Cross-Section	Right-of- Way	Land Use
TYPE 1: Town Streets Physical median, on-street parking, and sidewalks	Narrow, Moderate	Town
TYPE 2: Suburban Streets Physical median and sidewalks	Moderate, Wide	Suburban
TYPE 3: Rural Highway Two-way turn lane and shoulder	Moderate, Wide	Rural
TYPE 4: Suburban Highway Physical median and shoulder	Wide	Suburban

LONGMON

411







Physical Median, On-Street Parking, Sidewalks

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Boulder

LONGMONT

Lafavette



Physical Median, Sidewalks



Two-Way Turn Lane, Shoulder



Physical Median, Shoulder



CROSS SECTIONS



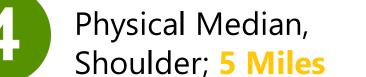
Physical Median, On-Street Parking, Sidewalks; 1 Mile



Two-Way Turn Lane, Shoulder; 9.5 Miles

Lafavette

Physical Median, Sidewalks; 2.5 **Miles**









m.

Boulder County LONGMONT

Lafayette

Narrow Moderate Wide 0'-100'

US 287 | BRT Feasibility Study





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Boulder County LONGMONT

Lafayette

Narrow

Moderate Wide 100'-150'

US 287 | BRT Feasibility Study





Narrow Moderate

Wide 150'+

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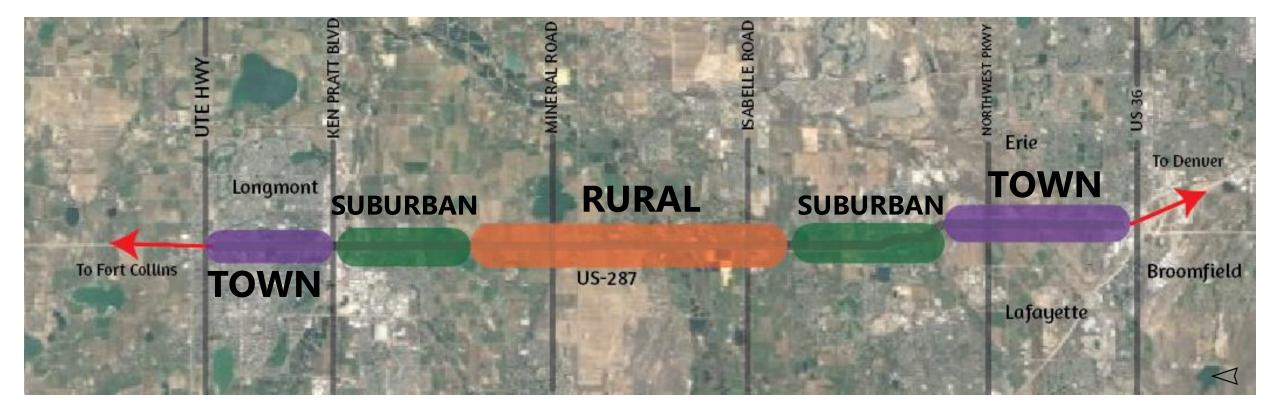
Boulder County

LONGMONT

Lafayette







m.

Boulder County Lafayette



CHARACTER ZONE SUMMARY

Cross Section + Right Of Way + Land Use



Boulder County LONGMON.

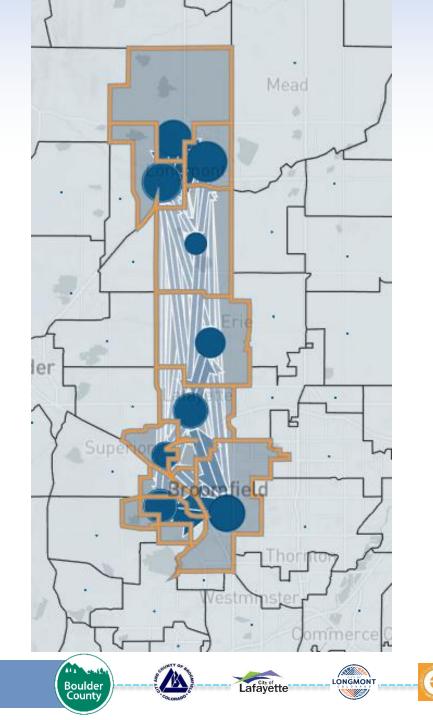
13

Lafavette



ORIGIN & DESTINATION ALL TRIPS

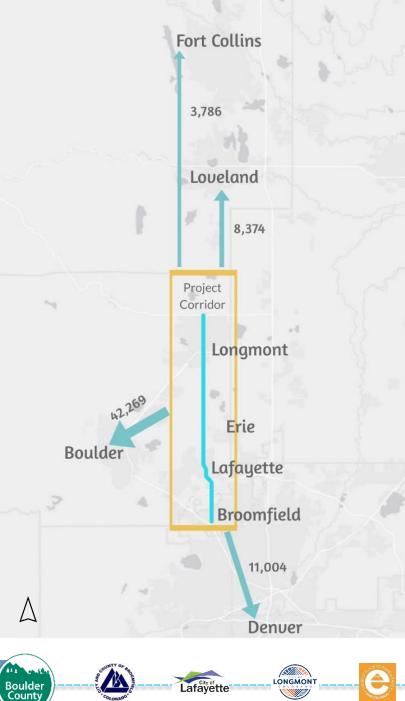
- Teralytics is a big data provider that uses cell towers to track people's locations and movements
- Summarized within and between census tracts
- Provides valuable insights on travel patterns
- US 287 BRT Feasibility analysis focused on north south patterns
- Using pre-pandemic 2019 data



REGIONAL DESTINATIONS OF TRIPS ORIGINATING ON PROJECT CORRIDOR

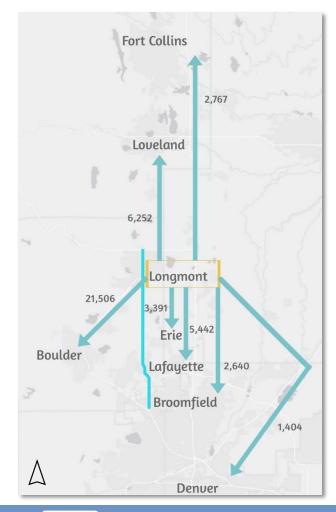
- On an average weekday, MORE THAN 183,000 regional trips that originate within the project corridor end at a destination outside of the corridor
- BOULDER was the most common destination for trips that end outside of the project corridor

Rank	Destination	2019 Average Weekday Trips
1	On Corridor	133,895
2	Other Destinations	118,441
3	Boulder	42,269
4	Denver	11,004
5	Loveland	8,374
6	Fort Collins	3,786



LONGMONT TRIPS

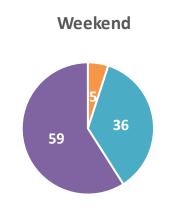
Where are people traveling?

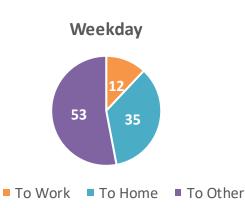


On an average weekday... 76,293 trips Start and End in Longmont 43,402 trips Start in Longmont and End Elsewhere On an average weekend day... 85,911 trips Start and End in Longmont 32,811 trips

Start in Longmont and End Elsewhere

Why are people traveling?





Boulder County

How far are people traveling?

Average Trip Length



Potential Transit Trips

If 1% of trips were completed via transit, there is potential for

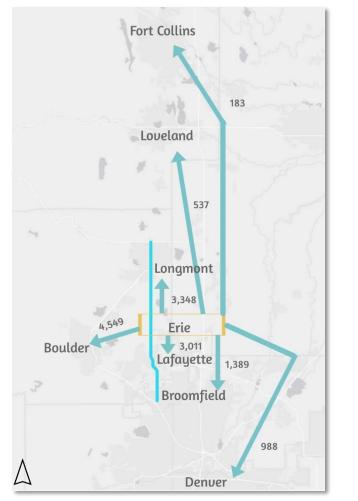


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LONGMONT

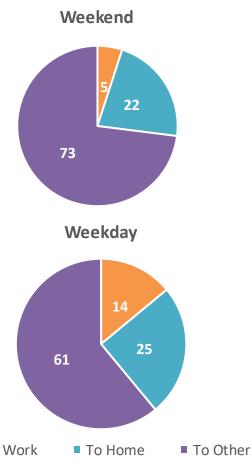


Where are people traveling?





Why are people traveling?



1

Boulder County

How far are people traveling?

Average Trip Length



Potential Transit Trips

If 1% of trips were completed via transit, there is potential for



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LONGMONT

US 287 BRT Feasibility Study



On an average weekday...

14,001 trips

Start and End

in Lafayette

20,451 trips Start in Lafayette and End Elsewhere

On an average

weekend day...

12,131 trips

Start and End

in Lafayette

16,403 trips Start in Lafayette

and End Elsewhere

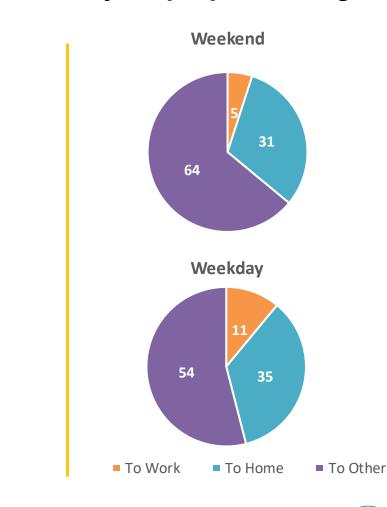
BRT Feasibility Study

Where are people traveling?



US 287

Why are people traveling?



A11.

Boulder County

How far are people traveling?

Average Trip Length



Potential Transit Trips

If 1% of trips were completed via transit, there is potential for

344

Weekday transit trips

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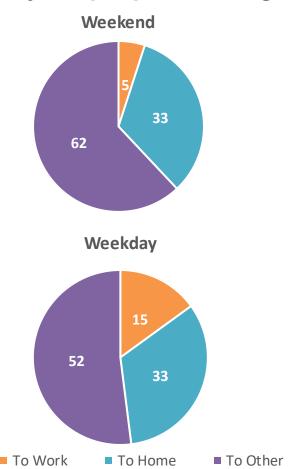
LONGMONT

BROOMFIELD TRIPS

Where are people traveling?



On an average weekday... 40,657 trips Start and End in Broomfield 62 20,187 trips Start in Broomfield and End Elsewhere On an average weekend day... 40,813 trips Start and End 52 in Broomfield 15,330 trips Start in Broomfield and End Elsewhere To Work



Boulder County

Why are people traveling?

How far are people traveling?

Average Trip Length



Potential Transit Trips

If 1% of trips were completed via transit, there is potential for

608

Weekday transit trips

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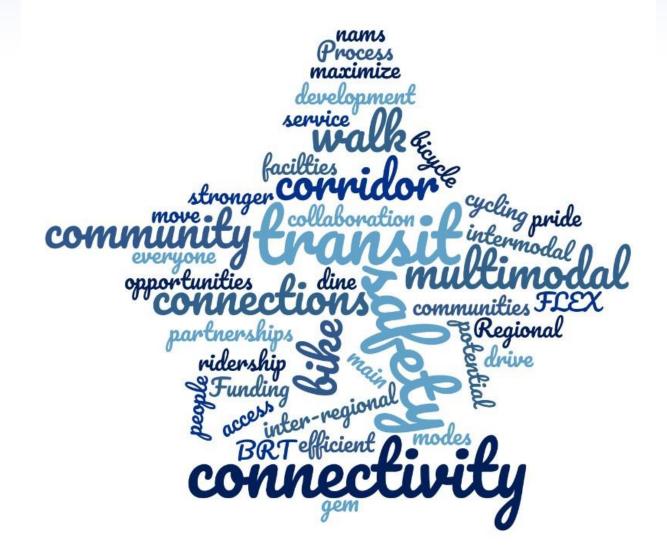








WORD CLOUD FROM INTRODUCTIONS



Lafayette

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SWOT ANALYSIS

Strengths

- What does 287 do well?
- What unique things can be capitalized on?
- What does the public like?

Opportunities

- What opportunities are open?
- What trends can be capitalized on?
- Strengths that can turn into opportunities?

Weaknesses

- What could be improved?
- Specific locations that could use improvement
- What doesn't the public like?

Threats

- What threats could hinder success?
- What are competing interests?
- What threats do weaknesses expose?

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Boulder County LONGMONT

Lafavette



SMALL GROUP DISCUSSION INSTRUCTIONS

20 minute breakout

- Group 1: Broomfield/Lafayette
- Group 2: Longmont
- Group 3: Erie and Rural
- Group 4: Connections to Fort Collins and Denver
- Topics to Consider
 - Bus Stops
 - Signalized and Unsignalized Intersections
 - Buses on Roadway (rural, suburban, town)
 - Bicycle and Pedestrian Facilities
 - Much much more

Group 1: Broomfield/ Lafayette Area

- Alex Hyde-Write, Boulder County
- Sarah Grant, Broomfield
- Ryan Sorensen, CDOT
- Joliette Woodson, Lafayette
- Chad Endicott, Boulder County
- Steve Tuttle, Fox Tuttle
- Nick VanderKwaak, AECOM (Moderator)

Group 2: Longmont Area

- Scott McCarey, Boulder County
- Mica Zogorski, Longmont
- Phil Greenwald, Longmont
- Chris Quinn, RTD
- Jeff Butts, Boulder County
- Dayna Wasley, AECOM (Moderator)

Group 3: Erie & Rural Area

- Alberto De Los Rios, Boulder County
- Daniel Marcucci, CDOT
- David Pasic, Erie
- Audrey DeBarros, Commuting Solutions
- Bill Fox, Fox Tuttle
- Ed Parks, AECOM (Moderator)

Group 4: Connections to Fort Collins/ Denver

- Nataly Handlos, RTD
- Seth Lorson, Fort Collins
- Nathan Vander Broek, CDOT
- Tracey MacDonald, FTA
- Kathleen Bracke, Boulder County
- Lindsey Sousa, AECOM (Moderator)



TRANSITION TO CONCEPT BOARD

<u>https://app.conceptboard.com/home</u>

an a

Boulder County Lafayette



VALUE STATEMENTS

Prioritize moving number of people over moving number of vehicles

Focus on frequency of buses during peak hours over span of service throughout the day

Leverage BRT integration with economic development opportunities

Maximize transfer opportunities with existing regional transit

Prioritize one seat rides between high ridership origin and destinations

Improve safety and mobility

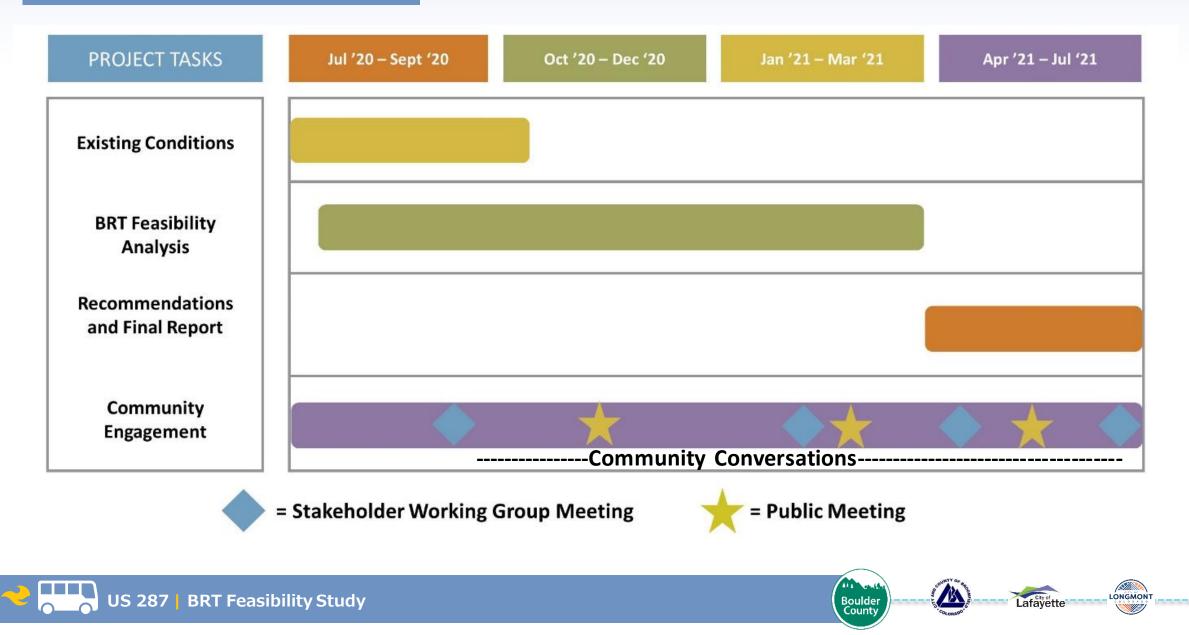
Provide bus service that competes with car travel times

Contribute significantly to greenhouse gas reduction and VMT reduction with world class transit service

Boulder County LONGMON

Offer better amenities at bus stops and more comfortable walking and biking connections

PROJECT SCHEDULE





- Update/confirm contact list of organizations and people
- Add community events that could potentially be a venue for project info and feedback

https://docs.google.com/spreadsheets/d/1cBR5rCZLOGoSjMhRpHhCsjZnfOYCSskpwMnMZlCy7Z0/edit#gid=0

Boulder County LONGMON

(link will be shared in follow up email)

Provide contact updates by October 2





- Continue existing conditions analysis
- Public Meeting #1 –early November (Wednesday November 4th or Thursday November 5th)
- Community Conversations Ongoing
- November-January: Develop alignment alternatives and Station Area Toolkit
- SWG Meeting #2 Feb/Mar 2021
 - Alternatives input
 - Station Toolkit input





boco.org/287planning

DISCUSSION +

Boulder County

PLEASE DRIVE SAFELY

N MEMORY EILEEN

Boulder County PM: Jeff Butts, jbutts@bouldercounty.org AECOM PM: Nick VanderKwaak, nvanderkwaak@aecom.com

LD1

3727

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LONGMON

Lafavett

