STATION ANALYSIS:
US 36 and Table Mesa Station
PROBLEM STATEMENT

US 36 and Table Mesa Station is located on a key transit corridor (US 36) which includes bus rapid transit between Boulder and Denver.

US 36 itself creates a physical barrier to accessing the station, although a pedestrian bridge does link the east and west sides. The annual average daily parking utilization in the Station structure is 68%.

The surrounding area is a mix of residential, employment and other land use types, and the station falls in the suburban-mixed typology. The population around the station generally includes wealthy, family-oriented communities. There is a relatively even mix of people walking and driving alone to access the station.

Recently, the Commuting Solutions TMA conducted a First and Final Mile Study for the US 36 transit corridor. Key recommendations included:

- Bike-n-Ride shelters
- Branded wayfinding
- Marketing the EcoPass program
- Increased carshare and taxi service
- B-cycle or Zagster bike share memberships
- Transit supportive land use policies
- First and Finale mile mobile app
- Real-time US 36 bus tracker
- Bikeshare services at each station
- Secure scooter parking

For more details, visit https://commutingsolutions.org/regional-planning/us-36-first-and-final-mile-study/

OVERLAYS

This location doesn’t meet any overlays.

STATION JURISDICTION

This station is located within the City of Boulder

STATION OVERVIEW

The station is currently served by:
- Local Bus Routes: 206, 236, AB, DASH
- Regional Bus Routes: FF1, FF2, FF4, FF5, FF6

TRANSPORTATION MANAGEMENT ASSOCIATION

Boulder Transportation Connections TMA and Commuting Solutions

PARKING

There are 824 RTD parking spaces at this location, with 68% average parking utilization.

A pedestrian bridge over US 36.

Boulder County provides secure bicycle parking.
This section includes a description of the demographic and travel patterns of the surrounding station area. All data sources included within this section are universally available throughout the region. The aim of the demographic and travel pattern data is to provide insight into current travel demands, patterns and opportunities to improve first and last mile connectivity.

Demographic and travel pattern data within this section includes:

- **Census Data (2015):** Data collected and analyzed from OnTheMap which includes LEHD (Longitudinal Employer-Household Dynamics) data, annually updated. Data for the year 2015 was most recent available at time of writing.
- **RTD On-Board Survey (2015):** The RTD On-Board Survey is an annual survey conducted on RTD services.
- **Tapestry Segmentation Data (2018):** Available by zip code, highlights the surrounding population’s lifestyle choices, including openness to using technology and trying new modes of transportation. Tapestry data is owned by Esri.
- **Context Map:** Provides a snapshot of the situation of the station or service location with regards to the immediate surrounding area.

1 For more information about OnTheMap and associated data sources, use this link: [https://onthemap.ces.census.gov](https://onthemap.ces.census.gov)


3 For more information about DRCOG’s Focus Model, use this link: [https://drcog.org/services-and-resources/data/maps-and-modeling/travel-modeling/focus-travel-model](https://drcog.org/services-and-resources/data/maps-and-modeling/travel-modeling/focus-travel-model)

### CENSUS DATA (2015)

The maps below show the concentration of population and employment within a 2-mile buffer of the station. As seen in the maps below, there is a medium density of population to the north and west of the station, and very little employment in the immediate vicinity of the station.

The LEHD data (processed using OnTheMap) also shows the distance traveled to work for employees whose job is located within a 1-mile radius of US 36 and Table Mesa Station.

**Distance Traveled to Work For Employees Working Within 1-Mile Radius of US 36 and Table Mesa Station**

- Less than 10 miles
- 10-24 miles
- 25-50 miles
- Greater than 50 miles

**RTD ON-BOARD SURVEY DATA (2015)**

According to the survey walking is the most commonly-reported mode of accessing the station for both arriving and departing trips. This is followed by driving alone, being dropped off or picked up, biking, and dropped off by a taxi or TNC. Compared to the RTD district-wide average for rail stations, US 36 and Table Mesa Station has a lower share of people walking and a higher share of people driving alone to and from the station.

The off-peak hours accounted for the majority of boardings.

Passenger-reported boarding times. Source: RTD On-Board Survey

### TAPESTRY (ESRI) DATA (2018)

Below are the three largest Tapestry Segments in the 80305 zip code around US 36 and Table Mesa Station:

#### Urban Chic

- **Prof/Mgmt College Degree White**
  - Visit museums, art galleries
  - Own healthy portfolio
  - Ski, practice yoga, hike, play tennis
  - Shop, bank online
  - Choose luxury imports

#### College Towns

- **Students/Prof/Svcs College Degree White**
  - Use computers, cell phones for everything
  - Pay bills online
  - Shop impulsively
  - Customize cell phones
  - Prefer vehicle with good gas mileage

#### Emerald City

- **Prof/Mgmt College Degree White**
  - Travel frequently
  - Contribute to NPR/PBS
  - Buy, eat organic foods
  - Read books, magazines on tablets
  - Prefer natural, green products
CONTEXT MAP
This map shows the location of the Station with regards to surrounding land uses and transportation connections.
The US 36 and Table Mesa Station is located off of US 36 on Table Mesa Dr/S Boulder Rd.

Bicycle Facilities
- Route/Shared Roadway (no dedicated facilities)
- On-Street Dedicated
- Off-Street

Pedestrian Facilities
- 10-minute Walkshed

Transit
- Bus Stop
- Bus Route
- Park-n-Ride

Destinations
- School
- Park

ASSESSING STATIONS
ACTIVE TRANSPORTATION ANALYSIS

NORTH ROUTE
Opportunities: Wide sidewalks from the transit station along Boulder Rd create a reasonably comfortable environment for pedestrians. Crosswalk striping, signage, and pedestrian signals allow for the safe crossing of highway on- and off-ramps. Manhattan Dr, Crescent Dr, and Eisenhower Dr are all low-stress roads through residential neighborhoods that provide a comfortable route for bicyclists. Signage at key junctions facilitates navigation.

Challenges: Conventional bike lanes on South Boulder Rd do not provide bicyclists with separation from four lanes of traffic, which may be uncomfortable for some bicyclists. The intersection of South Boulder Rd and Manhattan Dr is somewhat confusing for east-bound bicyclists, as current wayfinding signage does not include the option to turn north onto Manhattan Dr, even though it is a designated bicycle route.

SOUTHWEST ROUTE
Opportunities: Similar to the north route, pedestrian facilities immediately to the west of the station provide a comfortable environment with wide detached sidewalks and well-designed bicycle and pedestrian crossings at the highway on- and off-ramps. North-bound Lehigh St has shared lane markings, which are sufficient for the relatively low-stress roadway. A bike lane on the south-bound side adds comfort for bicyclists traveling uphill.

Challenges: Conventional bike lanes on Table Mesa Dr do not buffer bicyclists from the four lanes of relatively fast-moving vehicular traffic. Traveling east, the bike lane on Table Mesa Dr only begins at Broadway; from Lehigh St to Broadway infrequent shared lane markings direct bicyclists to share the travel lane with vehicles, a less than comfortable situation for many bicyclists given four to five travel lanes.

GENERAL FINDINGS
• While both routes have generally adequate infrastructure for confident bicyclists, some sections do not provide sufficient comfort for less-confident bicyclists.
• Pedestrian facilities within the walkshed are generally very high-quality.

Level of Comfort Analysis
- Most Comfortable
- Comfortable
- Least Comfortable

Bicycle Facilities
- Route/Shared Rd
- On-Street Dedicated
- Off-Street

Transit Routes
- Bus Stop
- Bus Route
- Park-n-Ride

Destinations
- Healthcare/Medical Facility
- School
- Activity Generator
- Park

Includes bike parking capacities for the existing Bike-n-Ride shelter that is part of the Boulder County Bike-n-Ride Program.
CURBSIDE MANAGEMENT AND PARKING ANALYSIS

Opportunities: There are ten Kiss-n-Ride, or short-term parking spaces right at the entrance to the Station. These could be reconfigured to include access for various types of passenger loading and unloading.

Challenges: There are not a lot of opportunities to reconfigure on-street curb space around the station, therefore most of the opportunities exist in reconfiguring the layout or access of the Station structure.
**RTD FIRST LAST MILE PLAN**

**ASSESSING STATIONS**

**TRANSPORT FREQUENCY AND EXISTING TRAVEL PATTERNS**

- RTD routes serving the station:
  - Flatiron Flyer - High peak frequency
  - Good local transit coverage

**DRCOG Walking, Biking, and Transit Trips:**
- DRCOG model shows a medium to high level of walking, biking, and transit trips

**DRCOG FOCUS Model**
- Average weekday daily walk, bike, and transit trips as a percentage of total trips
  - 0.0% - 5.2%
  - 5.3% - 9.0%
  - 9.1% - 12.9%
  - 13.0% - 17.0%
  - 17.1% - 28.0%

- RTD Transit Routes
  - Average maximum weekday wait time during peak periods (Spring 2018)
    - Every 10 Minutes or Better
    - Between Every 10 and 15 Minutes
    - Between Every 15 and 30 Minutes
    - Between Every 30 and 60 Minutes
    - Every 60 Minutes or More

**LAND OWNERSHIP**

- Land and Development Characteristics:
  - Some of the land around the station is owned by CU-Boulder or the City of Boulder
  - RTD leases the land for the parking garage and station from CDOT

- Parcel Information
  - RTD-Owned Parcels
  - School
  - Public-Owned Parcels
  - Light Rail Station
  - Privately-Owned Parcels

**RTD Bus Stop**
- Station 1-Mile Radius
- Transit Station
3 RECOMMENDATIONS

ACTIVE TRANSPORTATION RECOMMENDATIONS

NORTH ROUTE
Given the four to five lanes on S Boulder Rd and the relatively high traffic volumes, installing buffered or separated bike lanes will provide a more comfortable route for bicyclists accessing the transit station from the east. Existing pedestrian infrastructure along the route is high-quality, allowing pedestrians to comfortably and safely reach the station.

SOUTHWEST ROUTE
Similar to the northeast route, replacing conventional bike lanes and shared lane markings with buffered or separated bike lanes on Table Mesa Dr will reduce stress for bicyclists accessing the station from the west.

STATION IMPROVEMENTS
None noted; existing Station amenities are satisfactory.

RECOMMENDATIONS FOR ASSESSED ROUTES

<table>
<thead>
<tr>
<th>Bicycle facility</th>
<th>Transit</th>
<th>Destinations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Route/Shared Rd</td>
<td>Bus Stop</td>
<td>Healthcare/medical facility</td>
</tr>
<tr>
<td>Off-Street</td>
<td>Rail Station</td>
<td>School</td>
</tr>
<tr>
<td>On-Street</td>
<td>Bus Route</td>
<td>Activity Generator</td>
</tr>
<tr>
<td>Dedicated</td>
<td>Rail Route</td>
<td>Park</td>
</tr>
</tbody>
</table>

EXISTING CONDITIONS

- Bicycle facilities:
  - Route/Shared Rd
  - On-Street Dedicated
  - Off-Street
- Transit:
  - Bus Stop
  - Rail Station
- Destinations:
  - Healthcare/medical facility
  - School
  - Activity Generator
  - Park
CURBSIDE MANAGEMENT RECOMMENDATIONS

- Reconfiguring the 10 Kiss-n-Ride stalls inside the parking garage to two pick up and drop off through lanes could improve accessibility for TNC pick up and drop offs, and quicker Kiss-n-Ride drop offs.
- Other parking spaces should be identified to provide preferential parking to carpoolers, combined with the introduction of a dynamic carpooling program.
- The existing westbound climbing line on Boulder Rd/Table Mesa Dr is stressful for bicyclists due to the vehicle weaving conflicts created by the adjacent auxiliary lane. Removing the right turn slip lanes could provide a lower-stress connection.

**View from parking garage to Table Mesa Drive**

**Right turn lane next to climbing bike lane creates stressful bicycling environment**

**Potential to reconfigure Head-In Spaces as Two Pick-Up/Drop-Off Pull Through Lanes**

**10 Existing Head-In Kiss-n-Ride Parking Spaces**
<table>
<thead>
<tr>
<th>FLM Toolkit Theme</th>
<th>Strategy</th>
<th>Rationale</th>
<th>Desired Outcomes</th>
<th>Priority</th>
<th>Implementing Agencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>First and Last Mile General Guidance</td>
<td>Improve bicycle and micro-mobility infrastructure: stripe bike lanes on 17th Ave</td>
<td>Bike lanes will provide dedicated space for bicyclists, but will also have a traffic calming effect by narrowing vehicle travel lanes.</td>
<td>Bicycling and using a micromobility device will become more comfortable.</td>
<td>High</td>
<td>City of Aurora</td>
</tr>
<tr>
<td>Programmatic</td>
<td>Promotion of RTD pass programs</td>
<td>Promote the low-income transit pass, provide an opportunity for people to try transit for free before committing to the pass.</td>
<td>Some existing or potential RTD customers in the area may not know about the new discount pass programs. A promotion program would help spread the word.</td>
<td>High</td>
<td>NETC</td>
</tr>
<tr>
<td>Transportation Demand Management</td>
<td>New resident / employee / student transportation kits</td>
<td>Provide welcome kits to new residents and new hires to educate them about transportation options available at their new residence or employment site. The kits should include transit schedules, bicycle maps, information on available subsidies and transportation programs, and, ideally, multiple free bus passes.</td>
<td>Research shows that when someone makes a major life change (e.g. moving house or changing employer) they are more open to changing travel behavior.</td>
<td>High</td>
<td>NETC, Employers, Property Owners</td>
</tr>
<tr>
<td>First and Last Mile General Guidance</td>
<td>Improve pedestrian infrastructure: widen sidewalks</td>
<td>Sidewalks that are less than five feet wide are not comfortable for pedestrians and do not adequately accommodate people using wheelchairs or pushing strollers.</td>
<td>Pedestrian access and comfort will improve.</td>
<td>Medium</td>
<td>City of Aurora</td>
</tr>
<tr>
<td>First and Last Mile General Guidance</td>
<td>Pedestrian-scale Lighting</td>
<td>Ensure that major walking routes to/from stations have adequate, pedestrian friendly lighting. This can be a significant barrier for people’s sense of security, especially at night.</td>
<td>People may be more likely to take transit, if the walk to the stop is well-lit and feels safe.</td>
<td>Medium</td>
<td>City of Aurora, Xcel</td>
</tr>
<tr>
<td>New Infrastructure</td>
<td>Multimodal maps and wayfinding</td>
<td>People may be less likely to walk or bike to/from the station if they do not know how to access it.</td>
<td>People may be more likely to walk or bike to/from the station if the safest, most comfortable routes are clear and easy to follow.</td>
<td>Medium</td>
<td>City of Aurora</td>
</tr>
<tr>
<td>New infrastructure</td>
<td>Short-term bike parking</td>
<td>There are no existing bike racks at the bus stops.</td>
<td>More people will bike to the bus stops.</td>
<td>Medium</td>
<td>RTD, City of Aurora</td>
</tr>
<tr>
<td>Transportation Demand Management</td>
<td>Bicycle Education and Encouragement Programs</td>
<td>Host bike skills, safety or maintenance workshops for residents and employees close by the transit location. Hosting a workshop can help recruit on-site Bike Ambassadors who can teach the skills and tools required to foster a cycling culture.</td>
<td>People may want to cut their travel time accessing this station from the east or west. Teaching them bicycling skills allows them to shorten their access time to transit.</td>
<td>Medium</td>
<td>NETC</td>
</tr>
<tr>
<td>Programmatic</td>
<td>Commuter Expert or Commuter Buddy</td>
<td>Implement a program where expert commuters at an employer or residential location can teach the skills and tools required to foster a cycling culture.</td>
<td>This strategy increases transit use among potential riders who are unfamiliar or not sure how to navigate transit--in particular people with disabilities and the elderly</td>
<td>Low</td>
<td>Northeast Transportation Connections (NETC)</td>
</tr>
<tr>
<td>Programmatic</td>
<td>Commuter tax benefits</td>
<td>Employers have the ability to offer pre-tax commute benefits to employees. Section 132-9 of the IRS code allows employees to use up to $260 per month in pre-tax money to pay for their parking, transit and vanpool fares (2018 limits). Ensure that these commute benefits are being fully implemented by employers near transit stops and stations.</td>
<td>Employees who have access to commute benefits are more likely to use transit, thereby increasing transit ridership in the station catchment area.</td>
<td>Low</td>
<td>NETC, Employers</td>
</tr>
<tr>
<td>Transportation Demand Management</td>
<td>Bicycle end-of-trip facilities and amenities</td>
<td>This strategy encompasses low-cost shared amenities offered by employers that encourage walking or biking for mid-day trips, even in inclement weather. They can include shared umbrellas, ponchos, bike lights, rain covers for bike seats and bags/ backpacks and other items that can be borrowed when needed. Bike pumps and simple repair tools are another example of shared amenities that promote and facilitate biking to transit.</td>
<td>Supporting employees to be able to take mid-day trips without a car can lead to them having a higher propensity to take transit to work.</td>
<td>Low</td>
<td>Employers, Property Owners</td>
</tr>
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<td>Transportation Demand Management</td>
<td>Encouragement of shared micromobility providers within the station area</td>
<td>The area already has a high existing walking, biking, and transit mode share so there should be a strong market for additional micromobility options.</td>
<td>Encouraging micromobility use may widen the catchment area of the station to people who currently feel it is too far to walk to the station.</td>
<td>Low</td>
<td>City of Aurora, NETC</td>
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CONCLUSION

This chart on this page provides a framework for prioritizing recommendations. This framework is called the “Big Easy” and is a simple method to help identify which recommendations may be the best to implement first. Those that require relatively less effort for relatively more impact may provide the best opportunities in the near-term. Recommendations that take relatively more effort for more impact, and those that take relatively less effort for less impact should be considered in the medium to long term.

The chart is intended to be a simple guide and each of the recommendations should be investigated in more thoroughly by the implementing agency before moving forward. Implementing agencies are identified next to each recommendation.

The chart shows the ‘quick wins’ (less effort/more impact) for the US 36 and Table Mesa station include:

- Implementing a multimodal wayfinding system to the station that provides information while also promoting transit.
- Encouraging shared micromobility providers to the station area to improve first and last mile access.
- New resident and employee transportation kits to provide travel information and transit incentives to people new to the area.
- Preferential parking for carpools and vanpools.
- Provide a dynamic carpool program to provide a flexible and sustainable transportation service to the transit location.
- Innovative Station management will allow RTD to try out new methods to manage the Station more efficiently.
- TNC, car or vanpool financial incentives to improve access for people who do not own cars but live too far away to walk or use active transportation.

IMPLEMENTING AGENCIES

This station is situated in the City of Boulder, as such it is suggested that the City should take the lead in developing new infrastructure and reuse of existing infrastructure to improve access to the station.

The station falls within the Commuting Solutions and Boulder Transportation Connections (BTC) TMA area, and therefore it is suggested that they take the lead on TDM recommendations with support from RTD. Additionally, RTD can implement some of the transportation service recommendations.

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<th>MORE IMPACT</th>
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