



WEST



The Ride





# ANALYZE AND IDENTIFY OPPORTUNITIES



This section takes a deeper look into analyzing and identifying opportunities in Adams County. These categories are:

- Demographics and Employment Trends and Projections
- County-wide Challenge and Opportunity Areas
- Modal Maps and Analysis

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## DEMOGRAPHICS AND EMPLOYMENT TRENDS AND PROJECTIONS

According to data from the state demographer, the population of Adams County in 2020 was expected to be 528,857, which is approximately 16.4 percent higher than 2010, or a growth rate of 1.6 annually. Growth is projected to remain steady over the next five years at 1.8 percent annually (8.9 percent overall) reaching a population of 580,775 by 2025. The population of unincorporated Adams County in 2020 was 100,558. That number has grown by around 16 percent since 2010. Population growth is expected to occur most significantly and rapidly in the westernmost portions of Adams County that are closer to Denver and other urban centers. Adams County residents are predominantly white, with 70% of the population reporting being white alone, although 40% report Hispanic origin. The Hispanic population is expected to continue growing and account for 41.7% of the population by 2025. 10% of households receive food stamps

and 10% of households are below the poverty line. Nearly 30% of households reported English as a second language with the majority of those residents speaking Spanish.

With abundant land available for new development, ideal location in Central Colorado and exceptional infrastructure in place to serve a diverse range of businesses, Adams County has potential for increased economic capacity. According to 2020 data from ESRI Business Analyst, there are 14,172 businesses in Adams County employing 196,673 total employees. The unemployment rate, without accounting for COVID-19 impacts, is relatively low at 7.3% (264,459 people) of the County's population over the age of 16 being employed. The work distribution is mostly white collar, which accounts for 54.4% of total employment, followed by blue collar and services, which make up 27.4% and 18.2% respectively.

The County's Median Household Income (MHI) is relatively low at \$70,282 compared to the State at \$73,219. The County's MHI is expected to increase at the same rate as statewide MHI, growing by 1.7% annually (8.4% overall) over the next five years reaching \$76,194 by 2025.


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## COUNTY-WIDE CHALLENGE AND OPPORTUNITY AREAS

A set of challenge and opportunity areas were identified to show specific geographies where there



*Example of vacant property*



are opportunities to advance specific topic areas. This section describes the methodology used to select the areas and provides a summary describing the characteristics of each location that presents challenges and opportunities that will be addressed in the TMP.

This analysis considers a range of factors for informing the selection of challenge and opportunity areas. The following factors were used to identify the seven specific areas of mobility challenges and opportunities highlighted in **Figure 1** and described in **Table 2**. Locations where one or more factors were found to be especially prevalent were considered for the selection of challenge and opportunity areas.

## BARRIERS TO MULTIMODAL TRAVEL

Adams County is currently conducive to travel by motor vehicle. Presence of railroad crossings, arterials with high volume and high speed, and major highways create the need for out of direction travel or uncomfortable crossings for people walking and biking. This factor informed selection of specific locations where travelers are likely to be most comfortable traveling by vehicle, rather than walking or biking.

## SAFETY

**Figure 1** shows the Denver Regional Council of Governments Vision Zero High Injury Network (HIN) that are on roadways in unincorporated Adams

County. The HIN are the roadways with the highest density of fatal and severe injury collisions. The presence of the HIN informed selection of challenge and opportunity areas; the following section (Section C) includes a deeper look at the data to understand specific areas where traffic safety is a major concern and locations where the TMP can make recommendations for countermeasures that improve safety outcomes and increase comfort.

## CONGESTION

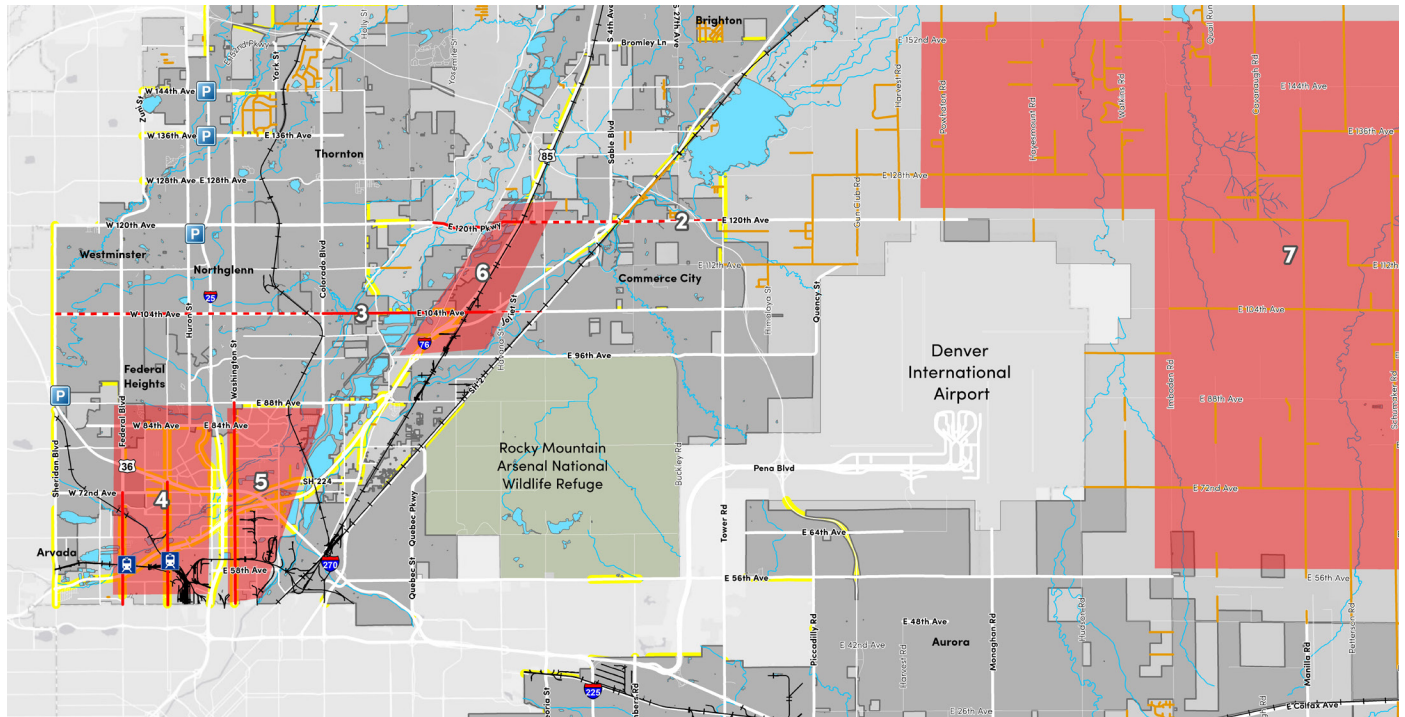
Using traffic count data available for 2010–2019, this analysis identified specific locations where traffic volumes are growing the fastest in unincorporated Adams County and used these locations to inform selection of the challenge and opportunity areas. Changes in Average Daily Traffic (ADT) reported in **Table 2** are for specific locations along the corridors where year over year traffic data is available.

## TRANSIT

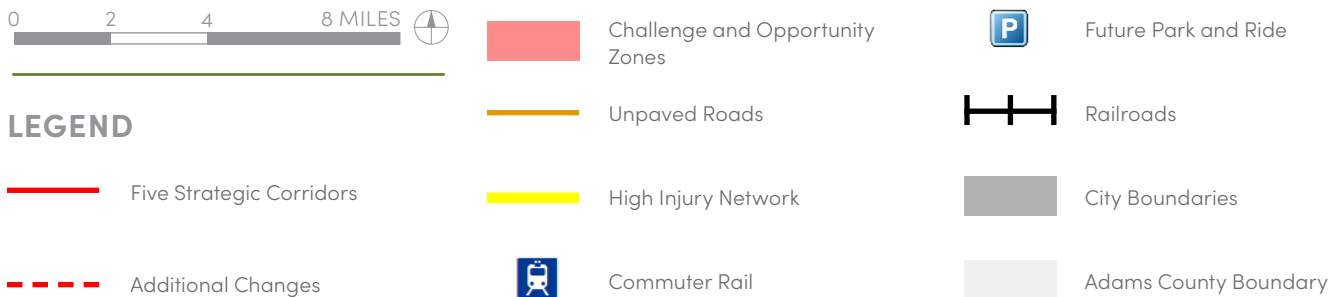
The proposed Bus Rapid Transit (BRT) service on SH 7, the two new commuter rail stations in unincorporated Adams County, and the future Park and Ride stations all contribute to Adams County having opportunities for multimodal travel enhancements in the western portion of the County. This analysis also identified challenge areas outside the RTD service area where future transit options are needed to provide residents with mobility options.



## MAP OF CHALLENGE AND OPPORTUNITY AREAS



**Figure 1:** Map of Challenge and Opportunity Areas for the Adams County Transportation Plan



**Table 2:** Description of Challenge and Opportunity Areas

	DESCRIPTION	VISION INDICATOR
<b>1: SH 7</b>	SH 7 is a major east-west corridor through unincorporated Adams County and will grow in significance with upcoming BRT service.	<ul style="list-style-type: none"> <li>Proposed BRT corridor</li> <li>Traffic congestion: ADT increased 4% from 2016 to 2018 (though fell slightly in 2019)</li> <li>Need for multimodal facilities</li> <li>On High Injury Network</li> </ul>
<b>2: 120th Avenue (part of 5 Strategic Corridor discussion)</b>	In addition to the segment identified as a strategic corridor for the TMP, 120th Avenue connects to areas of unincorporated Adams County east of Commerce City. This corridor has challenging travel conditions for non-drivers, growing travel demand, and documented safety issues.	<ul style="list-style-type: none"> <li>Challenging railroad crossings</li> <li>Traffic congestion: ADT increased 19% from 2012 to 2019</li> <li>On High Injury Network</li> <li>Future bicycle corridor</li> <li>Future Parks/Open Space along the corridor</li> </ul>

<b>3: 104th Avenue</b> <i>(part of 5 Strategic Corridor discussion)</i>	<p>In addition to the segment identified as a strategic corridor, the wider extent of 104th Avenue crosses between incorporated cities and unincorporated Adams County and brings travelers through difficult barriers like railroad crossings and travel segments with high crash rates.</p>	<ul style="list-style-type: none"> <li>• Traffic congestion: ADT increased 7% from 2017 to 2019</li> <li>• On High Injury Network</li> <li>• Railroad crossings are a barrier</li> </ul>
<b>4. Southwest Adams County (west of I-25)</b>	<p>Southwest Adams County west of I-25 is the area of unincorporated Adams County with the highest population density and the site of two TMP strategic corridors (Federal Boulevard and Pecos Street). Recent transit investments have been focused in this area, which create a need for multimodal transportation planning that will support walkable environments. Safety and traffic congestion issues are also prevalent in this area.</p>	<ul style="list-style-type: none"> <li>• The two commuter rail stations in unincorporated Adams County are in the Southwest. There are opportunities for targeted pedestrian network enhancements in these station areas that will support walkable Transit Oriented Development (TOD) and first and last mile solutions.</li> <li>• Traffic congestion</li> <li>• Most major roadways are on the High Injury Network</li> <li>• General need in this area for upgrading pedestrian facilities, adding on-street bicycle facilities, and ensuring trail connections are prevalent and comfortable</li> </ul>
<b>5: Southwest Adams County (east of I-25)</b>	<p>Southwest Adams County east of I-25 is dense with commercial and industrial land uses and the site of a TMP strategic corridor (Washington Street). This area has a high amount of freight activity and poor connectivity for people walking.</p>	<ul style="list-style-type: none"> <li>• Heavy freight traffic</li> <li>• General need in this area for upgrading pedestrian facilities, adding on-street bicycle facilities, and ensuring trail connections are prevalent and comfortable</li> <li>• Barriers for circulation including highways, a disconnected street grid, and large industrial sites.</li> </ul>
<b>6: Western edge of Commerce City where railroad and highways converge</b>	<p>This area of the County presents general travel barriers due to the convergence of freight railroads as well as major roadways like US-85.</p>	<ul style="list-style-type: none"> <li>• Railroad crossing barriers</li> <li>• Major roadways that create challenges for non-vehicle travel</li> </ul>
<b>7: Central Adams County</b>	<p>This portion of the County has mostly unpaved roads and a rural character. However, with development pressures that may cause population growth to extend east, consideration for how to enhance multimodal travel opportunities is needed.</p>	<ul style="list-style-type: none"> <li>• Strategic prioritization of roadway paving is needed including future development cost participation</li> <li>• Most of this area is just outside the RTD service area. Planning is needed to determine what expanded transit and human services transportation in central and eastern Adams County might look like.</li> <li>• Considerations for a future bicycle network are needed. Would this network serve future parks? There are currently no key destinations in this area, will that change?</li> </ul>



## MODAL MAPS AND ANALYSIS

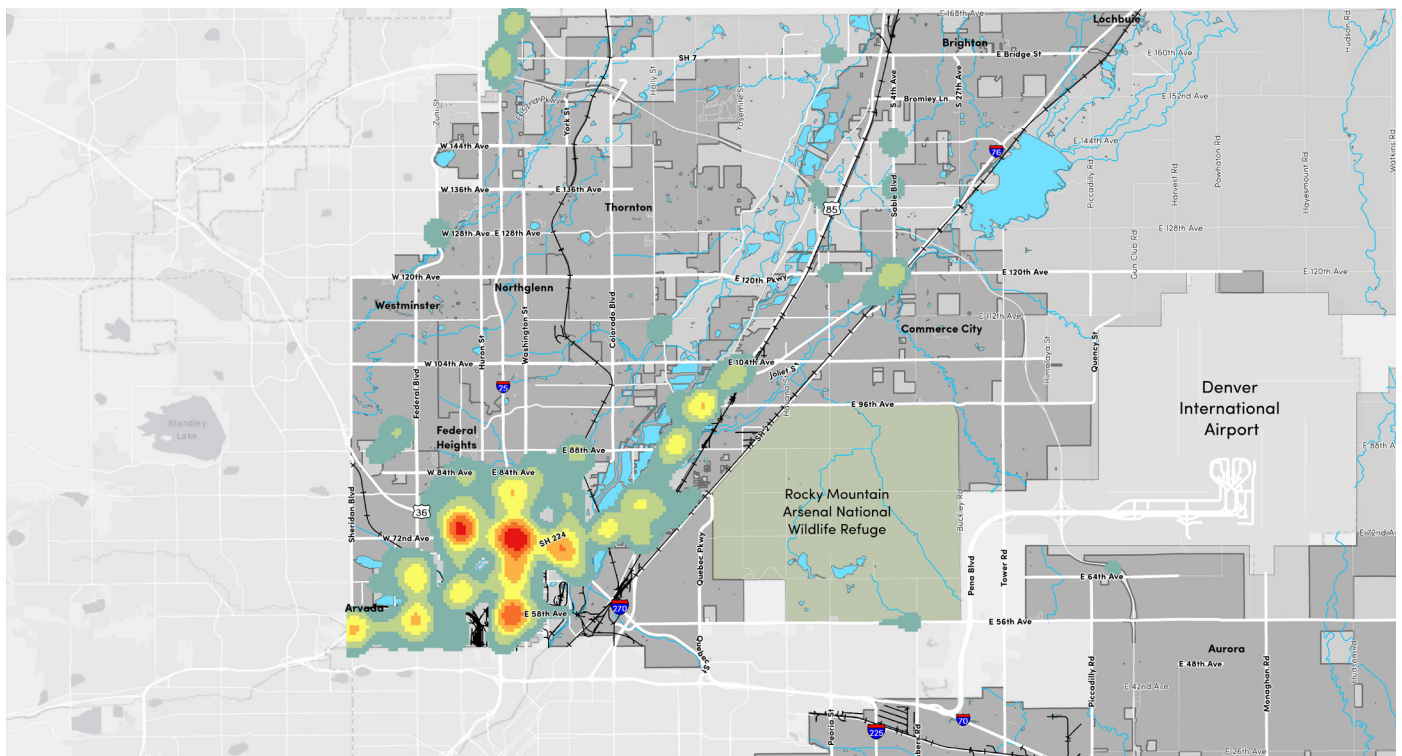
### TRAFFIC SAFETY

This section summarizes the safety performance of the existing transportation network in Adams County. Crash records have been analyzed from 2013 through 2018, the most recent complete six-year period for which records were available through the Denver Regional Council of

Governments (DRCOG). Crashes were analyzed based on several factors:

- Location within unincorporated Adams County
- Severity: More specifically at trends for crashes that resulted in death or severe injury
- Mode: More specifically at trends for crashes involving a bicyclist or pedestrian

## TOP CRASH LOCATIONS IN UNINCORPORATED ADAMS COUNTY



**Figure 2:** Top Crash Locations in Unincorporated Adams County



### LEGEND



Very Few Crash Incidents



Up to 350 Crashes



351 - 700 Crashes



701 - 1,200 Crashes



1,201 - 1,900 Crashes



1,901 - 2,800 Crashes



2,801 - 2,900 Crashes



Railroads



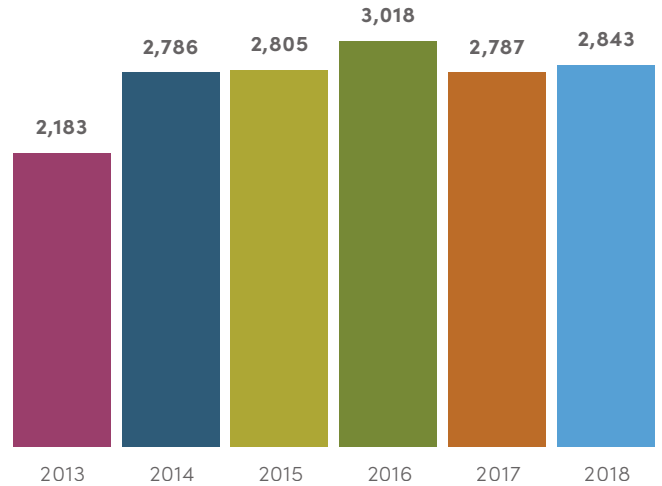
City Boundaries



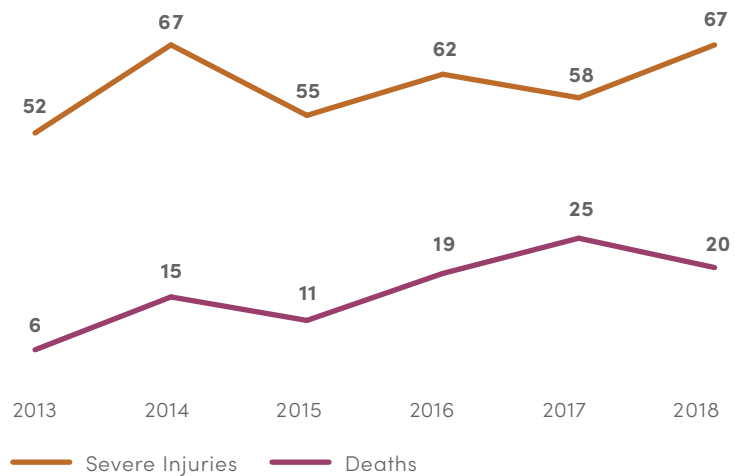
Adams County Boundary

From 2013 to 2018, there were 16,422 crashes that occurred on roadways in unincorporated Adams County. The majority of those crashes were concentrated in the southwest part of the County, with many of the crashes occurring on I-25 (**Figure 2**). Of the crashes in unincorporated Adams County, 457 resulted in death or severe injury. The yearly number of crashes sharply increased from 2013 to 2014 and, with the exception of 2016 when there was an especially high number of crashes, the number of incidents has remained relatively flat since 2014 (**Figure 3**). The number of crashes resulting in severe injuries stayed close to the six-year average of 60 severe injuries per year, while the number of crashes resulting in deaths has steadily been increasing since 2013, with the exception of a decline in 2018 (**Figure 4**).

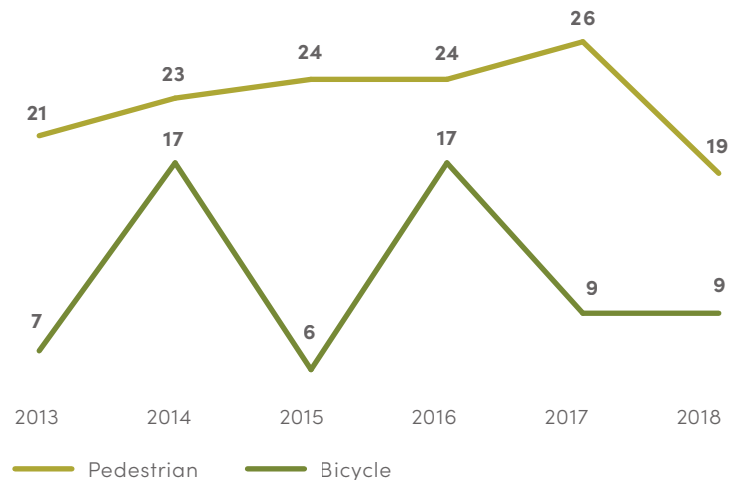
Crashes involving pedestrians remained relatively steady from 2013 to 2018, with an average of approximately 23 crashes per year. The number of bicyclist-involved crashes has varied more significantly (**Figure 5**). The leading cause of crashes are rear end collisions, which accounted for 37% of all crashes from 2013 to 2018. In addition, 29% of crashes occurred on County-owned roadways. The TMP will explore opportunities to pursue engineering and programmatic safety countermeasures on high-crash roadways managed by Adams County in order to improve the comfort and safety for all users on those corridors. We will consider specifically countermeasures to the most common causes of crashes.



**Figure 3:** Crashes on Roadways in Unincorporated Adams County, 2013-2018 (Source: DRCOG)



**Figure 4:** Crashes Resulting in Death or Severe Injury, 2013-2018 (Source: DRCOG)



**Figure 5:** Crashes Involving Bicyclists and Pedestrians, 2013-2018 (Source: DRCOG)



## PEDESTRIAN NETWORK

**Figure 6** shows the existing sidewalk network in Adams County. There are approximately 57 miles of sidewalk gaps in the County, about 13 miles of which are located along roadways within unincorporated County land. For perspective, there are 2,901 miles of sidewalk Countywide, 407 of which are located in unincorporated Adams County. The majority of the gaps in sidewalks are located in the southwest portion of the County. Locations like 70th Avenue and Pecos Street have a number of sidewalk gaps adjacent to higher density residential land uses and commercial properties with higher pedestrian activity. *Advancing Adams* will include a prioritized list of pedestrian improvement areas that builds off of the *Americans with Disabilities Act (ADA) Transition Plan* which considers adjacent projects, proximity to destinations with high pedestrian volumes, and locations with significant barriers to accessibility. .

The *Transportation Master Plan* will coordinate closely with the *Comprehensive Plan* to determine how proposed land use changes will impact transportation recommendations, such as pedestrian improvements, more specifically. In addition to areas for development of new sidewalks, Adams County has sidewalks that do not meet the County standards described in the following section. Examples include the portion of Federal Boulevard between 63rd Avenue and 64th Avenue where the existing sidewalk width is three feet (narrower than the 5.5 foot

standard) (**Figure 7**). . Because Adams County has a number of state-owned roadways, some of these sidewalk gaps should be completed in coordination with CDOT.

*Advancing Adams* will also include guidance for upgrading sub-standard sidewalks and crossings. There is not data available on sidewalk quality, but qualitatively, there are many areas where sidewalks are present but are of poor quality (e.g. with cracks or inconsistent grades). Rehabilitating these sidewalks is important, in addition to filling in sidewalk gaps. The County utilizes an asset management database known as Cartegraph to identify and prioritize sidewalk repairs. *Advancing Adams* will identify strategies to ensure that development standards and regulations are met not only along property frontages, but continue beyond these parcels to provide connectivity and continuity for people walking.

The Adams County *ADA Transition Plan* provides guidance not only on the prioritization of implementing projects within the pedestrian realm, but on the approach to implementation. As outlined in the plan, accessibility improvements should first occur in conjunction with other projects (new construction, new improvements, major maintenance and rehabilitation) and then as a part of routine maintenance. Funding for these projects is identified in the Annual Capital Improvement Plan Projects but can also be obtained through Federal grants, bonds, or taxing districts.

# MAP OF SIDEWALK NETWORK

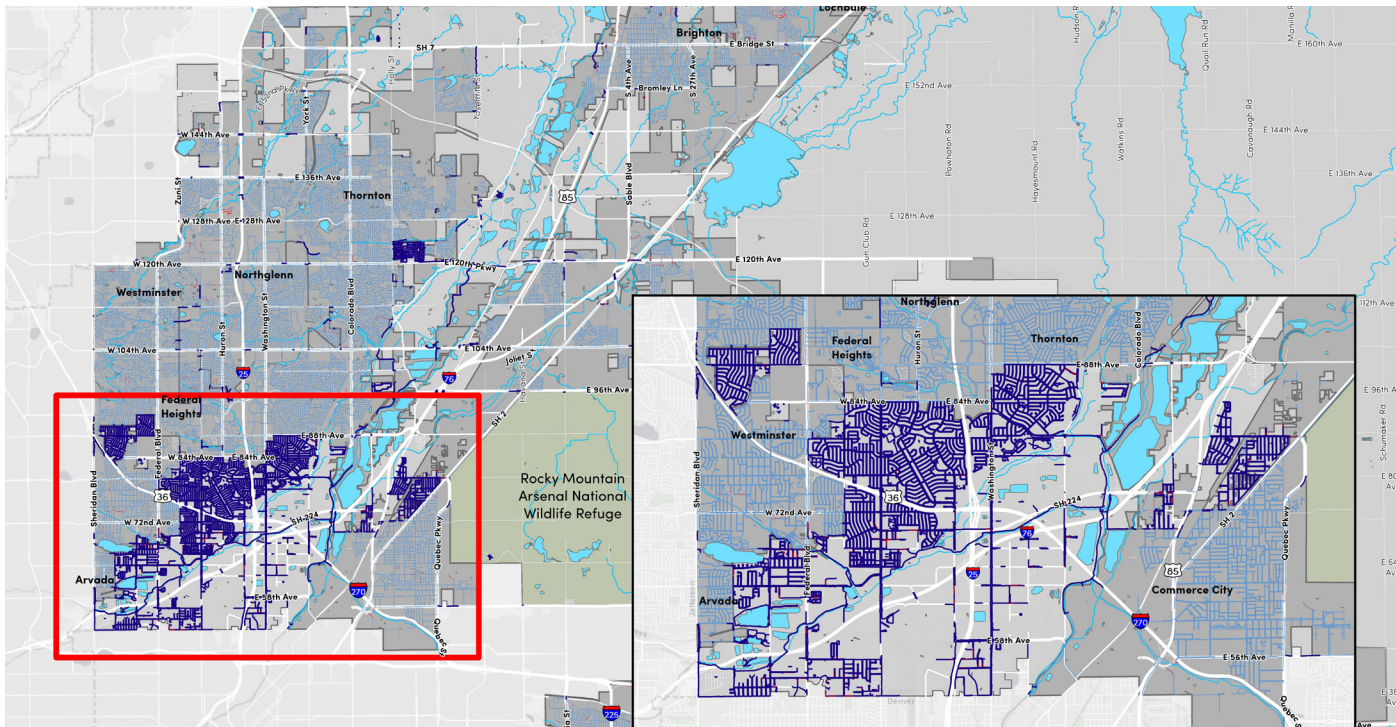


Figure 6: Adams County Sidewalk Network

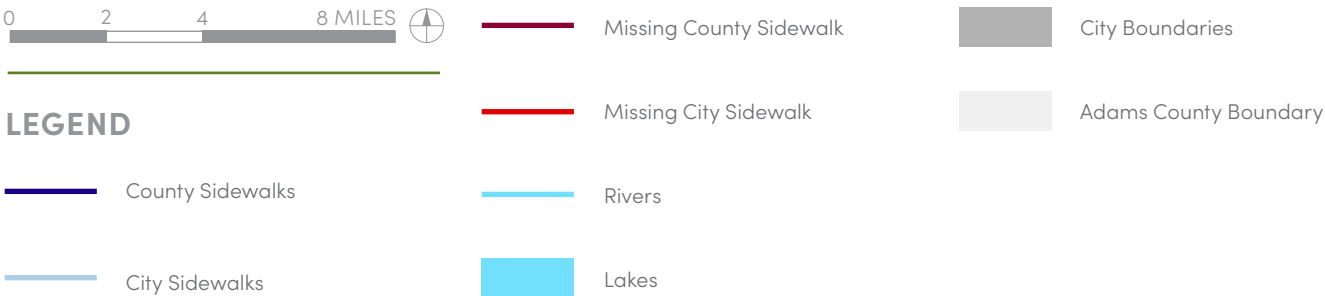


Figure 7: Example of Narrow Sidewalk on Federal Boulevard



## SIDEWALKS

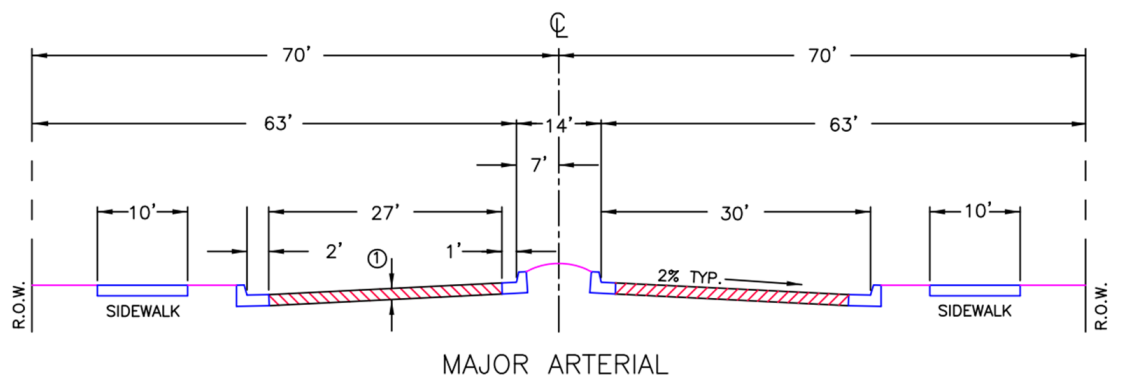
Chapter 7 of the *Adams County Development Standards and Regulations* requires that all new sidewalks have a minimum width of 5.5 feet. This standard denotes that sidewalk widths may be required to be wider than 5.5 feet in areas of heavy pedestrian traffic, although definitions of areas with ‘heavy pedestrian traffic’ are not defined. *Advancing Adams* will explore opportunities for further defining the widening of sidewalks and adding a landscaped buffer in locations with vulnerable populations (e.g., seniors, youth, those with mobility challenges) and high pedestrian activity. This Plan will also explore how sidewalk standards will vary based

on available right of way in order to mitigate impacts to property owners.

Although the County does not specify the width of sidewalks or buffers as they vary across street classifications, the Development Standards includes typical cross sections for various street classifications. **Figure 8** shows a major arterial with a detached ten-foot sidewalk. Typical cross sections for each street classification are shown in **Table 3**. Transit Oriented Development (TOD) areas were discussed conceptually in the *2012 Transportation Master Plan* as areas that should reflect complete street designs that emphasize pedestrian and bicycle movements. The 2012 Plan did not identify specific standards for sidewalks within TOD areas, but the *Advancing Adams*

**Table 3: Typical Sidewalk Widths Based on Street Classification**

STREET CLASSIFICATION	SIDEWALK WIDTH	ATTACHED/DETACHED
<b>Major Arterial</b>	10'	Detached
<b>Minor Arterial</b>	10'	Detached
<b>Minor Arterial (rural)</b>	0' (6' paved shoulder)	N/A
<b>Major Collector</b>	5.5'	Attached
<b>Minor Collector</b>	5.5'	Attached
<b>Minor Collector (rural)</b>	0' (8' paved shoulder)	N/A
<b>Local (industrial/commercial)</b>	5.5'	Attached
<b>Local (residential)</b>	5.5'	Attached
<b>Local (residential, rural)</b>	0' (6' paved shoulder)	N/A



**Figure 8: Major Arterial Typical Cross Section**

process will specify sidewalk widths and specification for these overlay areas.

The identified sidewalk widths and standards provide a consistent and ADA-accessible network for pedestrians. However, a buffer between the sidewalk and roadway on major and minor collectors would provide additional comfort by providing a space between high volume, high speed vehicles and people walking. The buffer would also allow for snow storage, so snow does not accumulate in the sidewalk.

*Advancing Adams* will build off the *ADA Transition Plan* for guidance on filling in missing gaps and upgrading deficient segments in the sidewalk network.

## CROSSINGS

The *Public Rights-of-Way Accessibility Guidelines* requires ADA-compliant curb ramps at all intersections and midblock locations with marked pedestrian crossings. The County utilizes Community Development Block Grant monies to install ADA-compliant curb ramps in conjunction with other projects such as new construction, new improvements, major maintenance and rehabilitation. Grade separated pedestrian crossings may be required when regional/neighborhood trails cross collectors and arterials, as determined by the Parks Department. Barriers throughout Adams County, such as highways, rivers, and railroads, decrease connectivity for pedestrians.



*Intersection of Washington Street and E 88th Avenue*



Pedestrian crossings of these barriers result in out of direction travel and are high stress. Additional grade separated crossings and upgrades of inadequate pedestrian amenities on bridges and underpasses will be considered as a part of *Advancing Adams*.

Pedestrian crossings on arterials in Adams County are often infrequent and uncomfortable. Increasing the frequency of crossings to reduce out of direction travel for pedestrian will create a more connected and comfortable pedestrian environment. Crossings at signalized intersections should have pedestrian accommodations including ADA-accessible directional curb ramps, a pedestrian signal head, high visibility marking, and a median refuge island for long crossings.

## BICYCLE NETWORK

Adams County's bicycle network consists of three primary bicycle facility types, discussed in further detail in the following sections—bicycle lanes, paved multiuse trails, and unpaved multiuse trails. Facilities are defined in greater detail in this section. **Figure 9** shows the County's existing on and off-street bicycle network. The existing bicycle lane network Countywide is approximately 31 miles; bicycle lanes are predominantly found on roadways in the incorporated cities like the bike lane on Colorado Boulevard through Thornton. Some bicycle lanes, like the one on 88th Avenue, serve the border roadways of cities and unincorporated Adams County. The

trail network consists of over 385 miles of infrastructure, most of which is hard-surface, concrete paths. The system's backbones are comprised of four regional trails—Little Dry Creek Trail, Clear Creek Trail, South Platte Trail, and Niver Canal Trail. These trails provide low stress local and regional connections for people bicycling for recreation and transportation. They provide access to locations including Jefferson County, City and County of Denver, light rail stations, and regional parks. The *Parks, Open Space and Trails Plan* provides additional detail on the existing multiuse trail network in Adams County. The County currently has a number of bicycle facilities within current capital improvement projects that are under design or construction; these include Pecos Street improvements, York Street safety improvements, 62nd Avenue safety improvements, and Dahlia Street bike lanes.

*Advancing Adams* will build on the existing bicycle network, especially the strong system of multiuse trails, to provide direct and comfortable bicycle access to commercial corridors and large employers. This expansion of the network will make bicycling a more viable transportation option for Adams County residents and employees. The *Adams County Development Standards and Regulations* do not contain specifications for bicycle facilities. There are, however, requirements for providing bicycle parking at multi-family developments and commercial areas.

# MAP OF ADAMS COUNTY BICYCLE FACILITIES

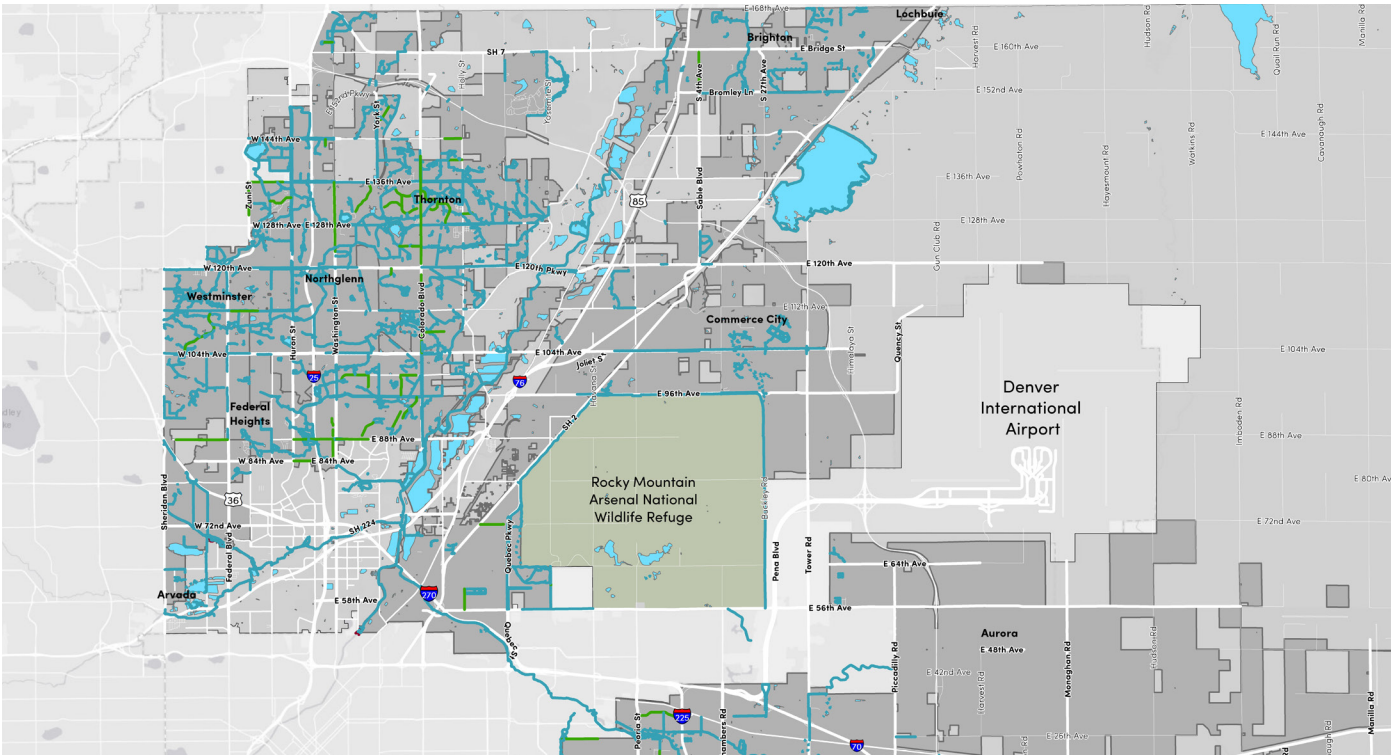
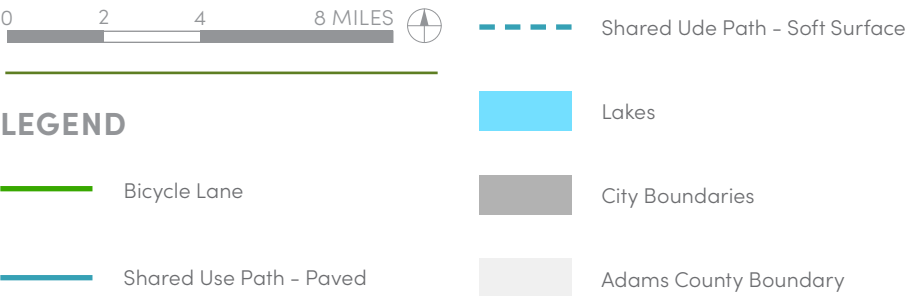
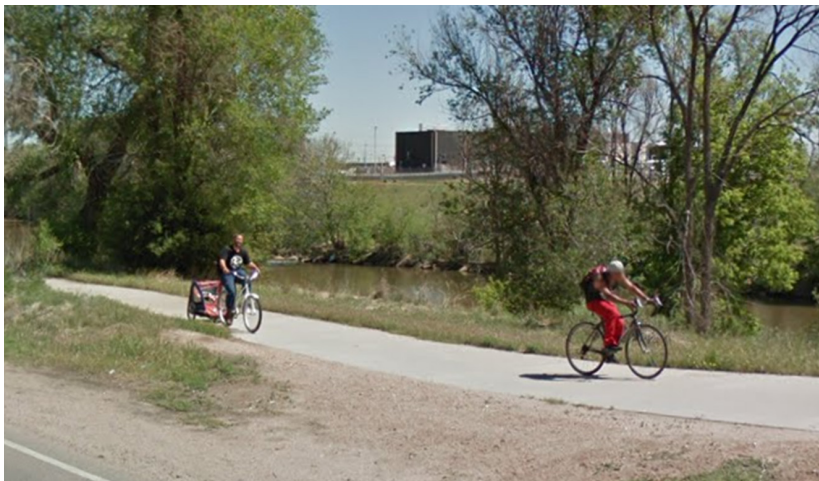


Figure 9: Adams County Bicycle Facilities





**Figure 10:** Example of a Bicycle Lane (88th Avenue at Downing Street)



**Figure 11:** Example of a Paved Multiuse Trail (South Platte River Trail) (Source: Google Maps)



**Figure 12:** Example of a Multiuse Trail (Clear Creek Trail) (Source: TrailLink)

## BICYCLE LANES

A bicycle lane is a designated space for bicyclists, separated from the general-purpose travel lane or parking lane by a single painted white line. This provides a comfortable place for people biking on corridors where vehicle volumes and speeds are too high for many riders to comfortably share the travel lane with vehicles. On roadways with even higher speeds and volumes, a horizontal or vertical buffer is recommended between the bicycle lane and vehicle lane. **Figure 10** shows an example of a bicycle lane, on 88th Avenue, in Adams County.

## PAVED MULTIUSE TRAILS

A multiuse trail is a low stress facility that supports opportunities for both recreation and transportation. People who walk, bicycle, skate, or use wheelchairs such as mobility devices can experience increased comfort and safety on a multiuse trail because it is entirely separated from motor vehicles. Paved multiuse trails are preferred over unpaved paths for corridors that are likely to be used for transportation or regional connections. This allows for more versatility in the types of users who can safely and comfortably travel. **Figure 11** shows an example of a paved multiuse trail in Adams County—the South Platte Trail.

## UNPAVED MULTIUSE TRAILS

Unpaved multiuse trails can be composed of a range of material (gravel, crusher fines, dirt) and may be narrower than paved trails. They



provide valuable opportunities for equestrian use, connector trails, and recreation through open space. **Figure 12** shows the Clear Creek Trail, a trail with sections that are soft surface.

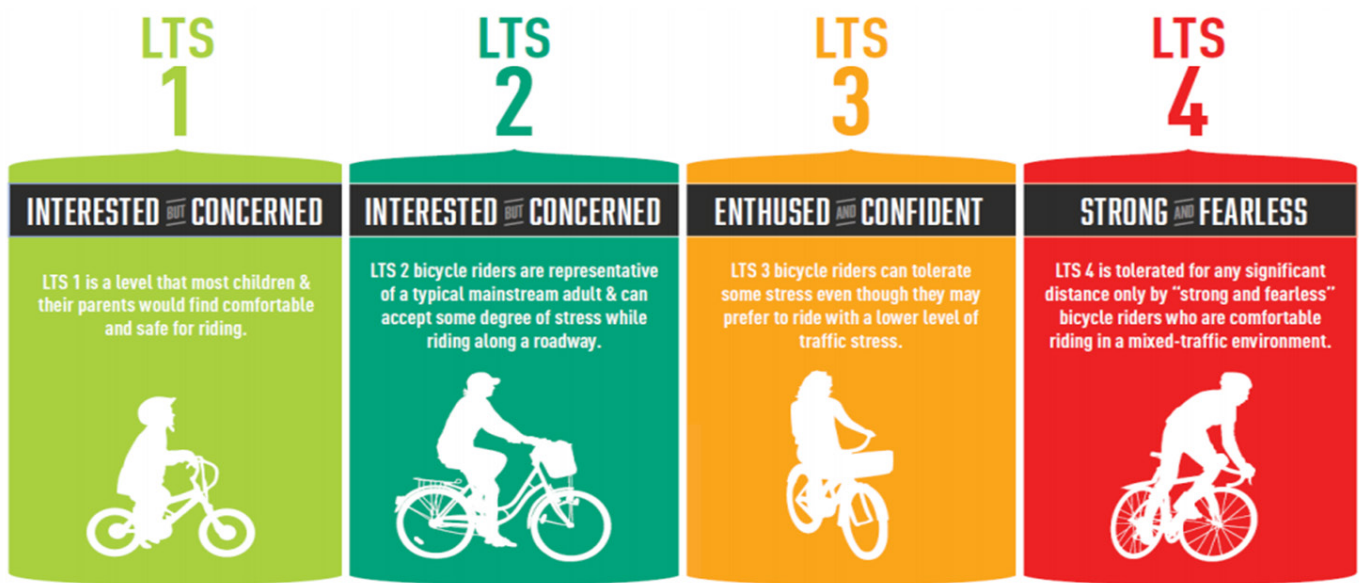
## LEVEL OF TRAFFIC STRESS METHODOLOGY

In addition to evaluating the presence of bicycle or pedestrian facilities, assessing their level of comfort, known more formally as Level of Traffic Stress, is important. This concept acknowledges that although there may be an existing bicycle or pedestrian facility present, it may not effectively serve users of all ages and abilities. *Advancing Adams* will recommend additional bicycle and pedestrian facilities that are low stress, but also opportunities to upgrade existing facilities so that they are comfortable for all ages and abilities.

In 2012, Mekuria, Furth, and Nixon developed the original Level of Traffic

Stress (LTS) framework with guidance from the National Association City of Transportation Officials (NACTO) and the American Association of State Highway and Transportation Officials (AASHTO). As a national best practice, LTS is used to inform the appropriate bicycle facility type for a roadway that will be comfortable for all ages and abilities, based on street characteristics, including speed limit, traffic volumes, the number of travel lanes, and the bike facility type. Scores range from LTS 1 to LTS 4. LTS 1 and LTS 2 are considered low stress bicycle facilities, while LTS 3 and LTS 4 are considered high stress. **Figure 13** displays and describes the four types of bicyclists considered within the LTS framework.

Adams County multiuse trails, such as the South Platte Trail, are a great example of an LTS 1 facility, given their separation from vehicular traffic and width to accommodate bidirectional traffic of people walking and biking.



**Figure 13:** Bicycle Rider Types and Corresponding Levels of Traffic Stress

The existing bicycle lanes on roadways in unincorporated Adams County are predominantly higher stress. For example, the bicycle lane on 88th Avenue shown in **Figure 10** is considered high stress since the facility is four lane arterial with a 35 mph speed limit. Decreasing the speed limit and/or implementing bollards on the bicycle lane would help increase the comfort level for bicyclists.

## STRAVA HEATMAP ACTIVITY PATTERNS

Strava Global Heatmap data was used to examine bicycling activity patterns in Adams County from 2018 to 2020. Strava is an internet service with a smartphone application that enables users to track their physical activity; it is popular among active transportation users. **Figure 14** and **Figure 15** show bicycling activity in Adams County, on the west and east sides of the County respectively, as recorded by Strava users. It is important to note that this Strava data represents only bicyclists who have chosen to record their activity using the Strava application and many people bicycling, especially commuters, do not use Strava and are not being captured in this data; however, the data provides an opportunity to understand the rate of travel on different roadways and paths. The lighter and thicker blue lines represent more popular biking routes while the thinner purple and blue routes represent less-used routes.

The data shows the most bicycling activity on the trails within the County. On the east side, there is a notable amount of activity on the County Roads, likely from recreational bicyclists.





## STRAVA HEATMAP OF BICYCLING ACTIVITY (WEST)

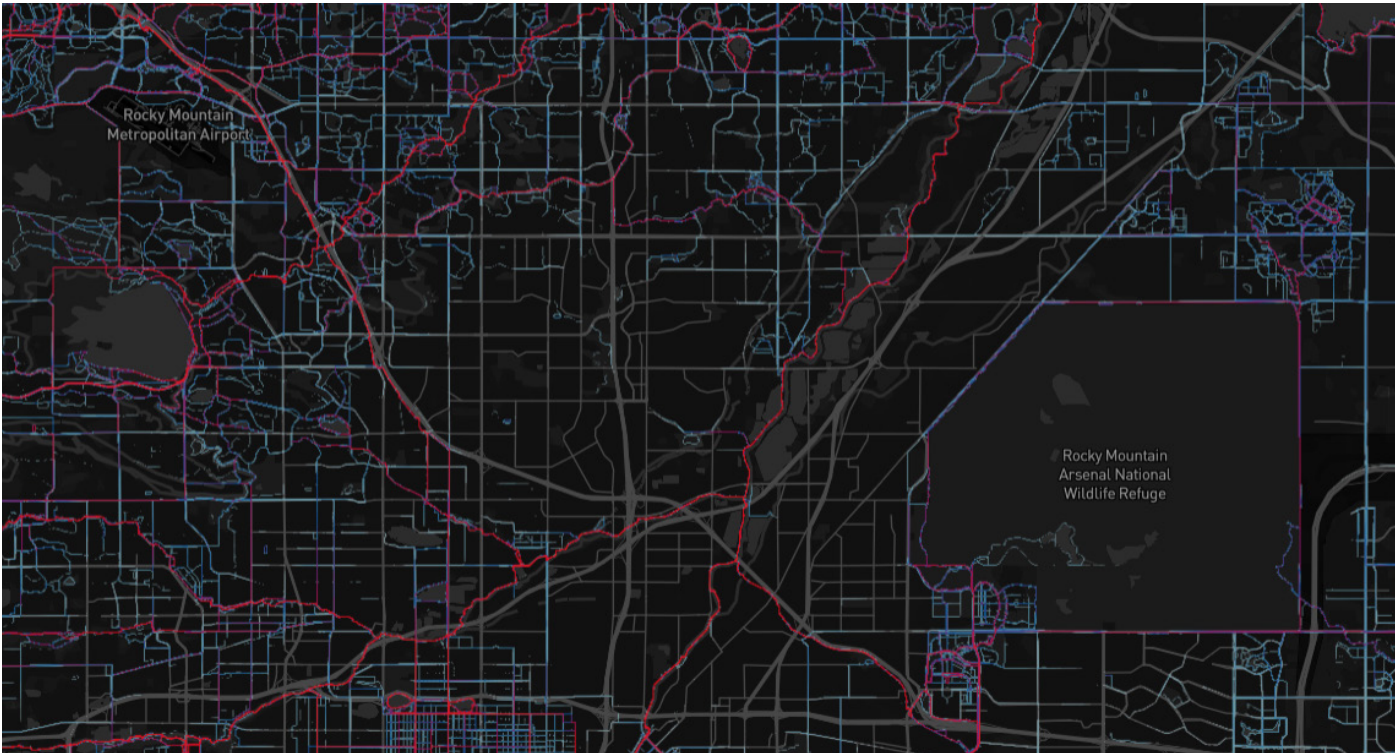


Figure 14: Strava Heatmap of Bicycling Activity (West)

## STRAVA HEATMAP OF BICYCLING ACTIVITY (EAST)

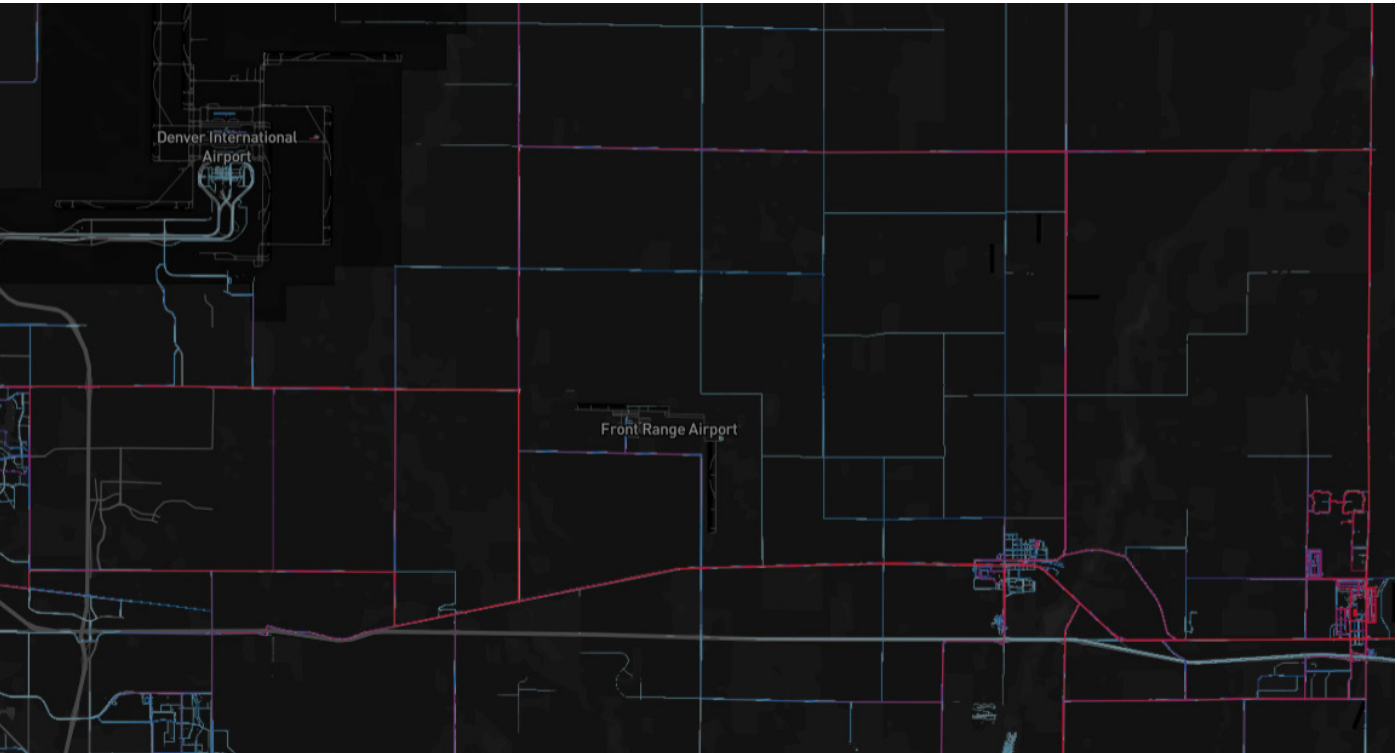


Figure 15: Strava Heatmap of Bicycling Activity (East)

# TRANSIT

Adams County is served by RTD, which offers a variety of transit service types (Figure 16 and Table 4). The service boundary for RTD is located in central Adams County, which dictates that there is no fixed route transit service in the eastern portions of the County.

Table 4: Adams County RTD Transit Service	
SERVICE TYPE	NUMBER OF ROUTES
Local Bus	30
Regional Bus	6
Commuter Rail	3
Light Rail	1 (a portion of the R Line)
Airport Bus	2
FlexRide	3

## MAP OF RTD TRANSIT SERVICE

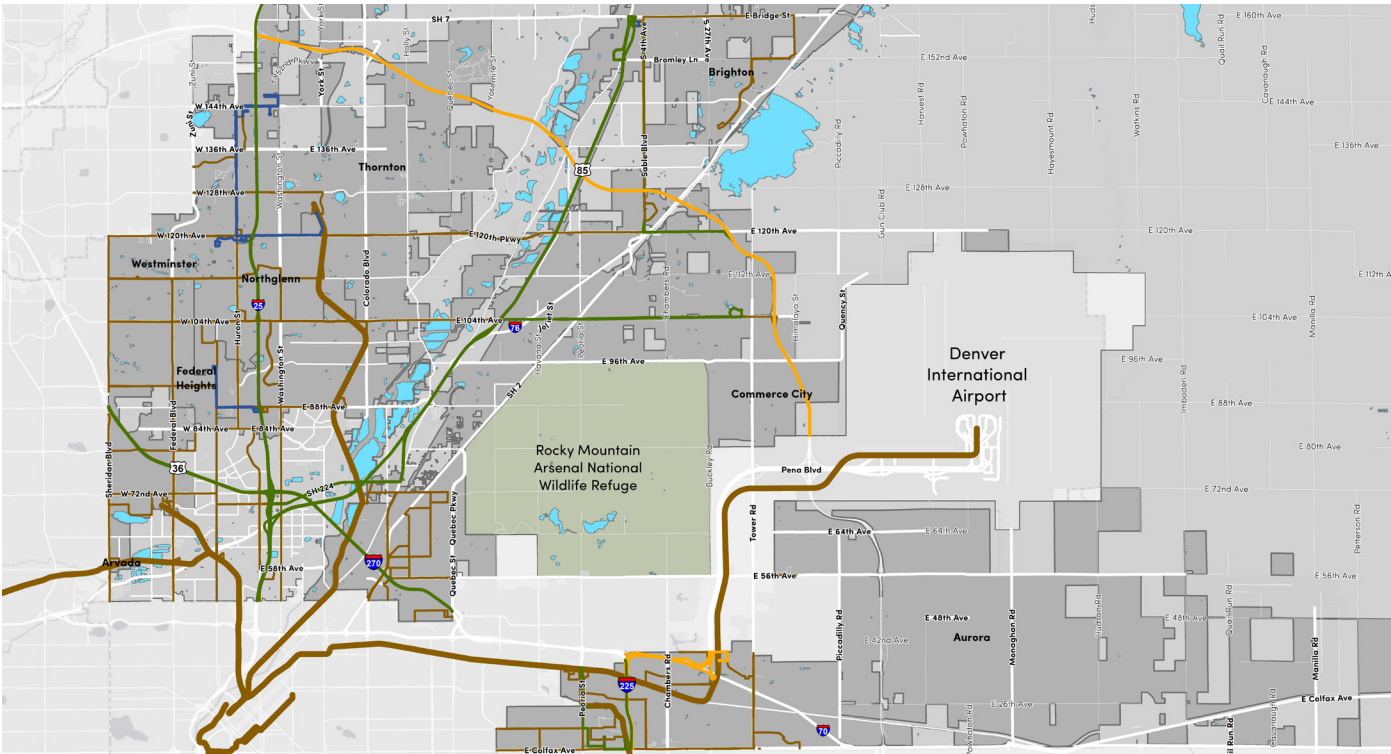


Figure 16: Adams County RTD Transit Service





Transit investment in Adams County has been high in recent years with the addition of the B and G rail lines as well as the recent opening of the N Line. Average weekday transit ridership for stops serving Adams County was approximately 53,400 riders in January 2019. Ridership fell in 2020 due to public health agency restrictions on transit operations to help mitigate the transmission of the COVID-19 virus. April 2020 ridership in Adams County was 49% lower than January 2019 levels. Compared to the national average of an 81% decline in ridership due to the COVID-19, demand for transit has remained comparatively strong in Adams County (National Transit Database).

Of all transit stops in Adams County, ten stops account for approximately one-third of the County's transit ridership. These stops are located in incorporated Adams County communities serve the A and R rail lines and the 120X and 15 bus routes, which are some of the highest ridership routes in the RTD system. Transit stops in unincorporated Adams County tend to have lower ridership than stops in Adams County municipalities, with the majority of stops serving fewer than 25 riders per day (**Figure 18**). It should be noted that the G Line had not yet started service in January 2019. Ridership by stop was likely differently distributed in January 2020. Advancing Adams will include an updated ridership analysis. As of January 2019, the highest ridership stops in the unincorporated portion of the County are Pecos Street & W 72nd



**Figure 17:** RTD G Line Clear Creek Station at Federal Boulevard

Avenue, Pecos Street & W 70th Avenue, and Federal Boulevard & W 56th Avenue. These stops serve the following routes:

- 19 – The North Pecos route, offering service between Civic Center Station in Denver and 106th & Melody Transfer Center in Northglenn
- 31 – The Federal Boulevard route, operating between Evans Avenue and Front Range Community College
- 72 – The 72nd Avenue route, operating between Arvada and the 72nd Avenue N Line station in Commerce City

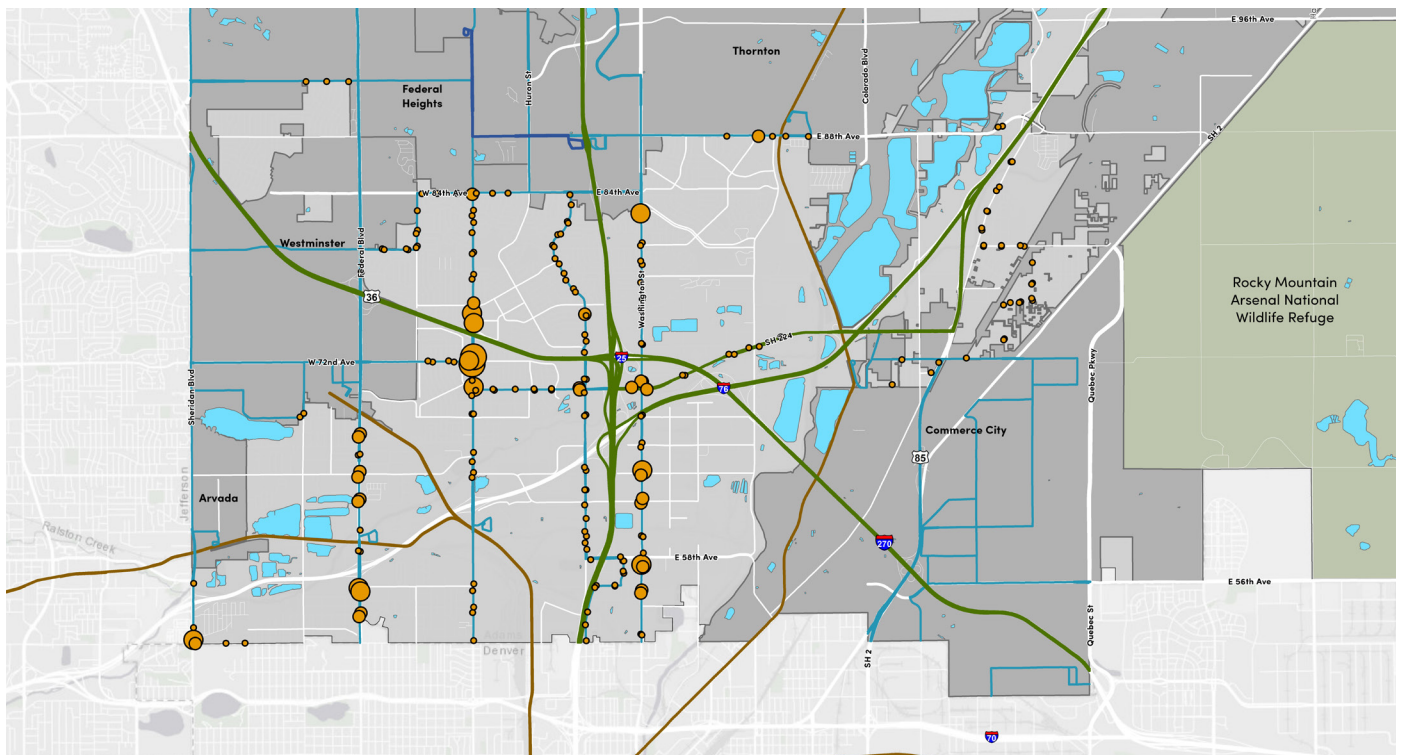
The high ridership on bus routes serving Pecos Street suggests that additional service may be needed on the corridor to accommodate demand. Major transfer points and routes serving rail stations tend to have higher ridership. *Advancing Adams* will explore opportunities to enhance transit service where demand is highest while

determining whether service changes are needed at lower ridership stops. Alternatives include on-demand service or schedule adjustments.

As transit investments evolve, transit planning in Adams County will continue to adapt. For example, the addition of commuter rail lines result

in the need for first and last mile connections to improve access to this reliable transit service. Additionally, as funding and services provided by RTD evolve, Adams County should consider additional opportunities to fill in gaps in transportation services that RTD is unable to provide.

## TRANSIT RIDERSHIP BY STOP IN UNINCORPORATED ADAMS COUNTY



**Figure 18:** Transit Ridership by Stop in Unincorporated Adams County

0 .75 1.5 3 MILES

### Average Weekday Ridership (January 2019)

- Less than 25
- 25 - 50
- 51 - 100
- 100 - 205

### Service Type

- Regional Bus
- FlexRide
- Local Bus
- Commuter Rail

- Lakes
- City Boundaries
- Adams County Boundary



## HUMAN SERVICE PROVIDERS

Human service transportation supplements traditional fixed route public transit to provide transportation services for disadvantaged populations that may have unique transportation needs. These populations include older adults, people with disabilities, veterans, and/or those with lower income. Human service transportation providers accommodate these needs through such characteristics as on-demand booking, door to door service, or fare free systems. The operational models of these providers may vary and could include taxi vouchers, reimbursement of mileage for friends and family of users, or volunteer driver programs. There are many different providers and programs in the region that serve these populations. Many of these services have limited eligibility or only operate during limited times for defined service areas.

Service providers and programs in the Adams County region include:

- A-Lift
- Amazing Wheels
- American Cancer Society, Road to Recovery
- Care-a-Van Transport/A1 Non-Emergency Transport
- Colorado Non-Emergent Medical Transportation
- RTD's Access-a-Ride
- Seniors' Resource Center
- Servicios de La Raza
- Via Mobility Services
- Volunteers of America Veteran Services Center

### DID YOU KNOW?

#### TRANSIT



3

**NEW COMMUTER  
RAIL LINES**

THE N LINE BEING THE MOST RECENT

47

**BUS  
ROUTES**

*Advancing Adams* will further explore the breadth of these services, their geographies, and eligible populations to better understand where there are gaps in human service transportation.

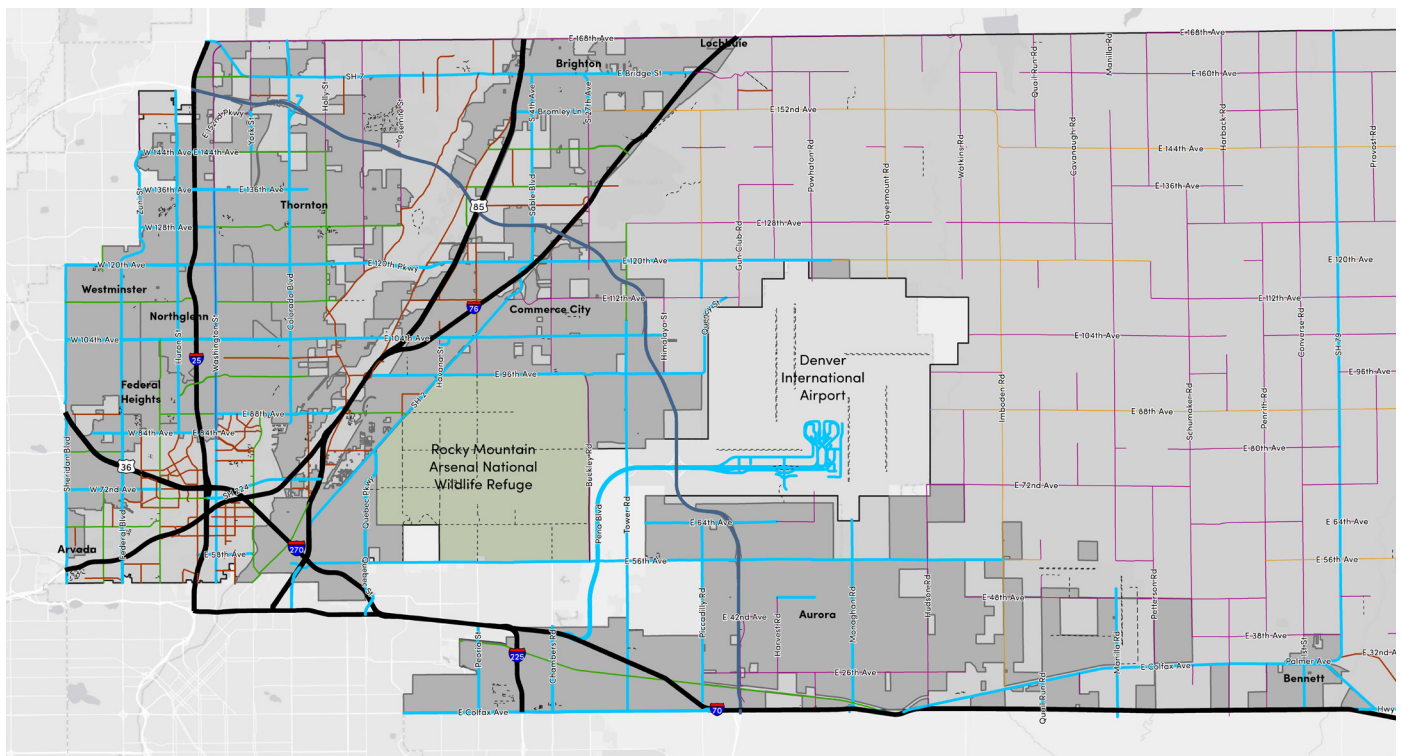
## VEHICULAR NETWORK

The Adams County roadway network is comprised of Adams County-owned roadways and CDOT-owned roadways. The roadway network provides a connected and efficient means of moving vehicles, including freight, to and through Adams County. The County applies a methodical approach, using the Capital Improvement

Program (CIP), to maintain and upgrade Adams County-owned streets.

The state highway system within Adams County provides key connections for the County and provides an important role by prioritizing mobility, in order to allow for parallel corridors to prioritize access to destinations. However, Adams County dedicates a lot of our resources and advocacy towards missing or

## EXISTING ADAMS COUNTY ROADWAY NETWORK (WESTERN)



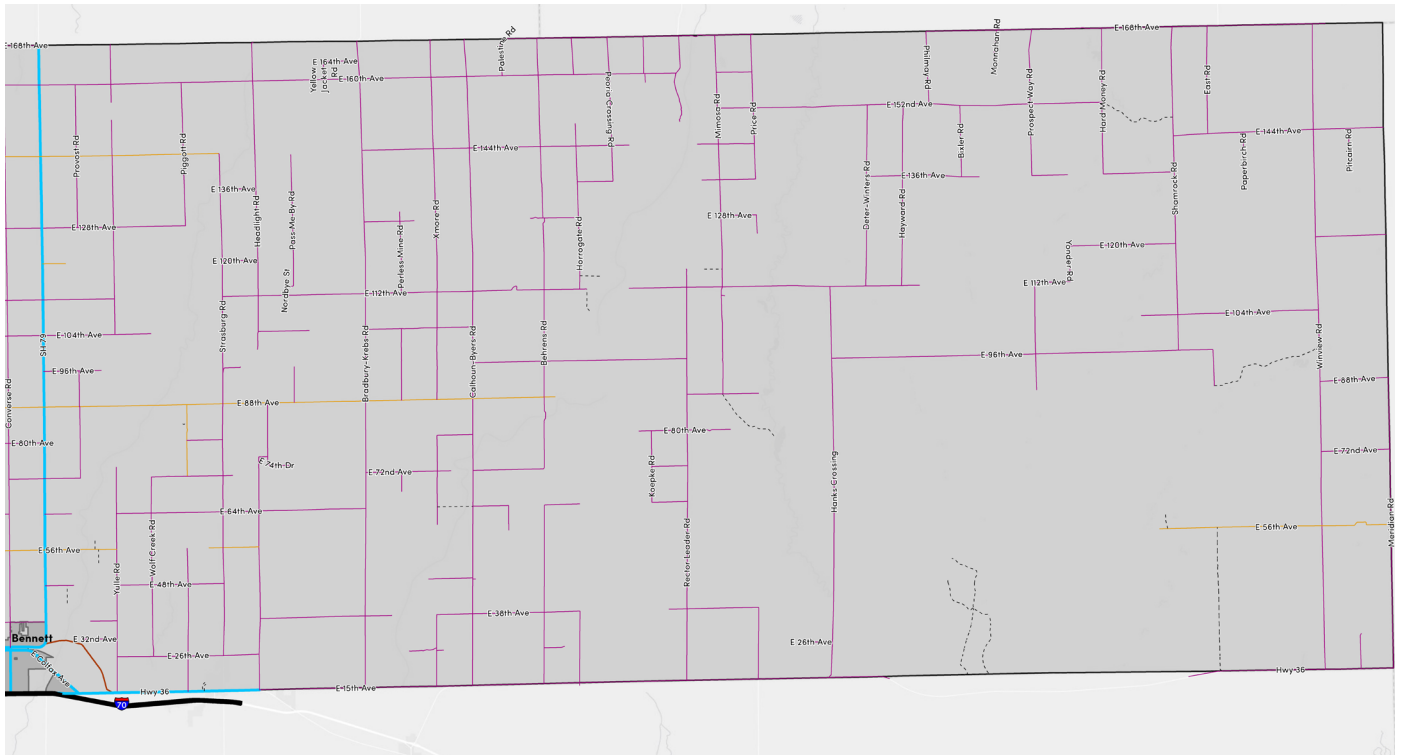
**Figure 19:** Existing Adams County Roadway Network (Western Portion of County)

0 1.25 3.5 7 MILES

### Roadway Classifications

Expressway	Principal Arterial	Section Line Arterial	City Boundaries
Freeway	Minor Arterial	Collector	Adams County Boundary
Tollway	Rural Arterial	Private	

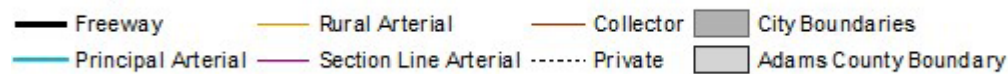
## EXISTING ADAMS COUNTY ROADWAY NETWORK (EASTERN)



**Figure 20:** Existing Adams County Roadway Network (Eastern Portion of County)



### Roadway Classifications



functionally deficient portions of the CDOT system. Tate-owned roadway locations with deficiencies include Federal Boulevard, Sheridan Boulevard, SH 224, 104th Avenue, I-270, US-85, and interchanges along I-70, SH 79. These deficiencies include potholes, maintenance needs, inadequate lighting, and insufficient bicycle and pedestrian facilities.

**Figure 19** and **Figure 20** show the existing roadway network in Adams County.



*Example of a multilane arterial running through Adams County*



Adams County Development Standards and Regulations includes a street classification system based on traffic volumes and surrounding existing and future land use. Roadway types consist of:

- Local – Residential
- Local – Residential, Rural
- Local – Industrial/Commercial
- Minor Collector
- Minor Collector, Rural
- Major Collector
- Minor Arterial
- Minor Arterial, Rural
- Major Arterial
- Transit Oriented Development Parkway
- Transit Oriented Development Collector

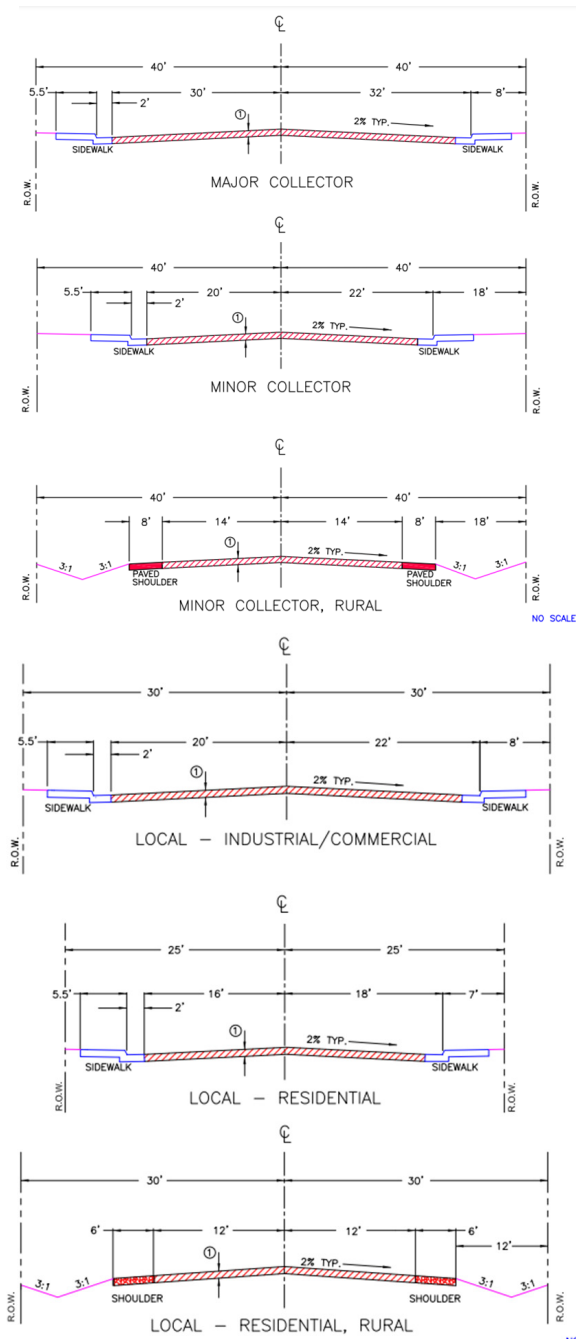


N Pecos Street and W 70th Avenue

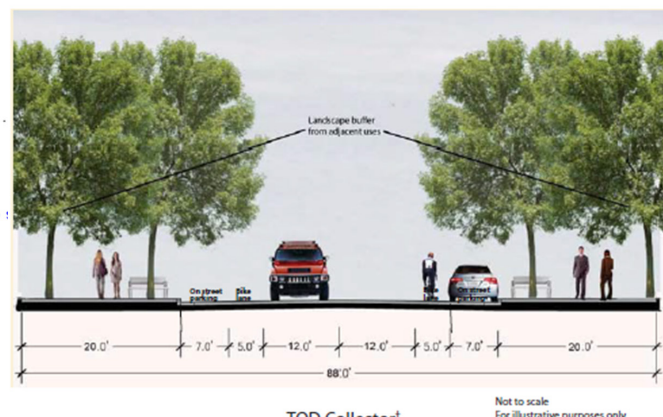
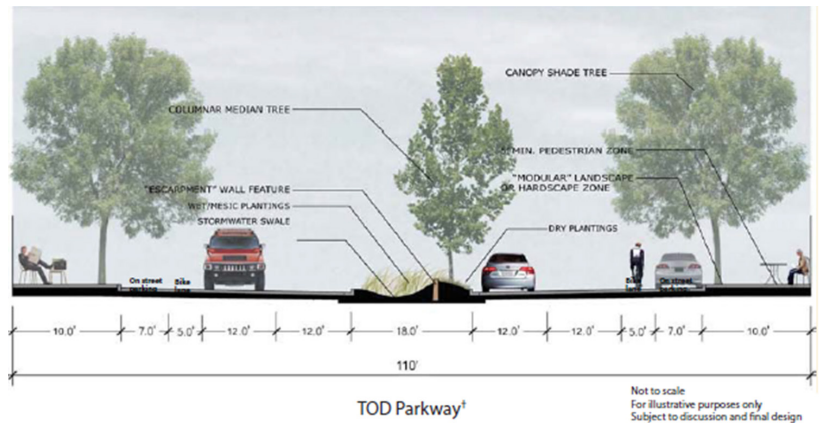
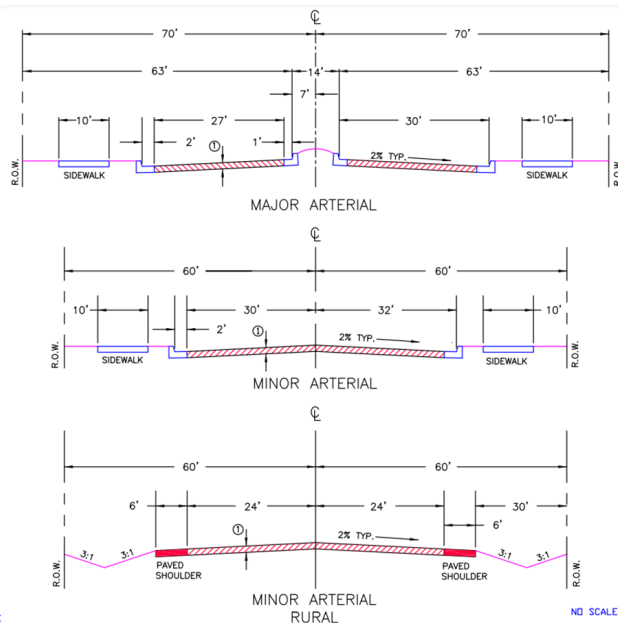
The *Development Standards and Regulations* outline design standards for each street classification. The standards were developed and should continue to be updated based on *AASHTO, A Policy on Geometric Design of Highways and Streets* (“Green Book”) and the latest edition of the Colorado Department of Transportation Design Guides may also be used for roadway design. **Figure 21** and **Figure 22** shows Adams County typical cross sections for each of the identified street classifications, per the County’s Development Standards and Regulations as of December 2020. In addition to design standards, the Development Standards include specifications on street characteristics including width, curb and gutter, traffic control, access conditions and function. Transit Oriented Development (TOD) areas were discussed in the 2012 Transportation Master Plan as areas that should be considered in designing streets in TOD areas and other appropriate neighborhoods that reflect complete street designs that emphasize pedestrian and bicycle movements. These corridors are shown in **Figure 22** and will be refined as a part of the Advancing Adams process.

The County utilizes an asset management database known as Cartegraph to identify street paving and street seal programs for maintaining paved roadways.

# TYPICAL CROSS SECTIONS BY STREET CLASSIFICATION



**Figure 21:** Typical Cross Sections by Street Classification (Source: Adams County Development Standards and Regulations Appendix C)

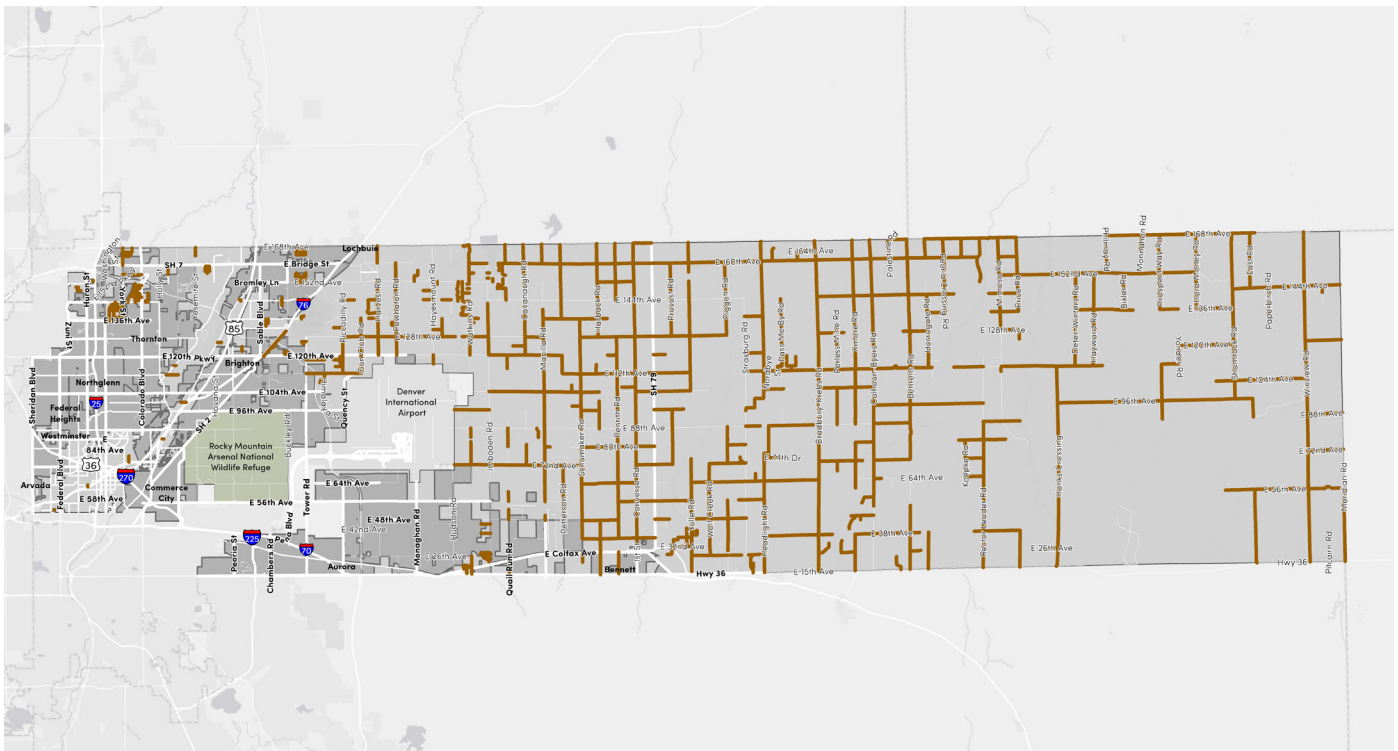


**Figure 22:** TOD Cross Sections (Source: 2012 TMP)

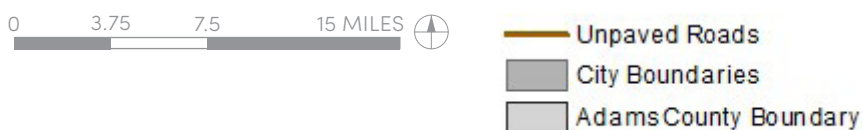
The County has approximately 700 miles of unpaved roadways (**Figure 23**). These roadways are primarily in the central and eastern portions of the County. **Figure 24** shows an example of an unpaved section of 104th Avenue near Denver International Airport. Adams County currently has a successful Gravel Road Program that invests in the unpaved road network in the County to ensure roadways are safe and efficient. This program not only informs the prioritization of roadways for repaving but applies an innovative approach to maintenance of existing unpaved roads. This innovative approach resulted in the development

of a mixture of materials for unpaved roads that that requires less maintenance and uses fewer resources to improve the quality of roads. While some roadways are periodically upgraded to accommodate new development, improve safety, and eliminate hazards, the high cost of upgrading and maintaining roadways dictates that the County should strategically upgrade unpaved roadways. Advancing Adams will provide an update the existing Gravel Road Program's prioritization process for paving roads based on land use, safety, and traffic volume trends.

## UNPAVED ROADS IN ADAMS COUNTY



**Figure 23:** Unpaved Roadways in Adams County



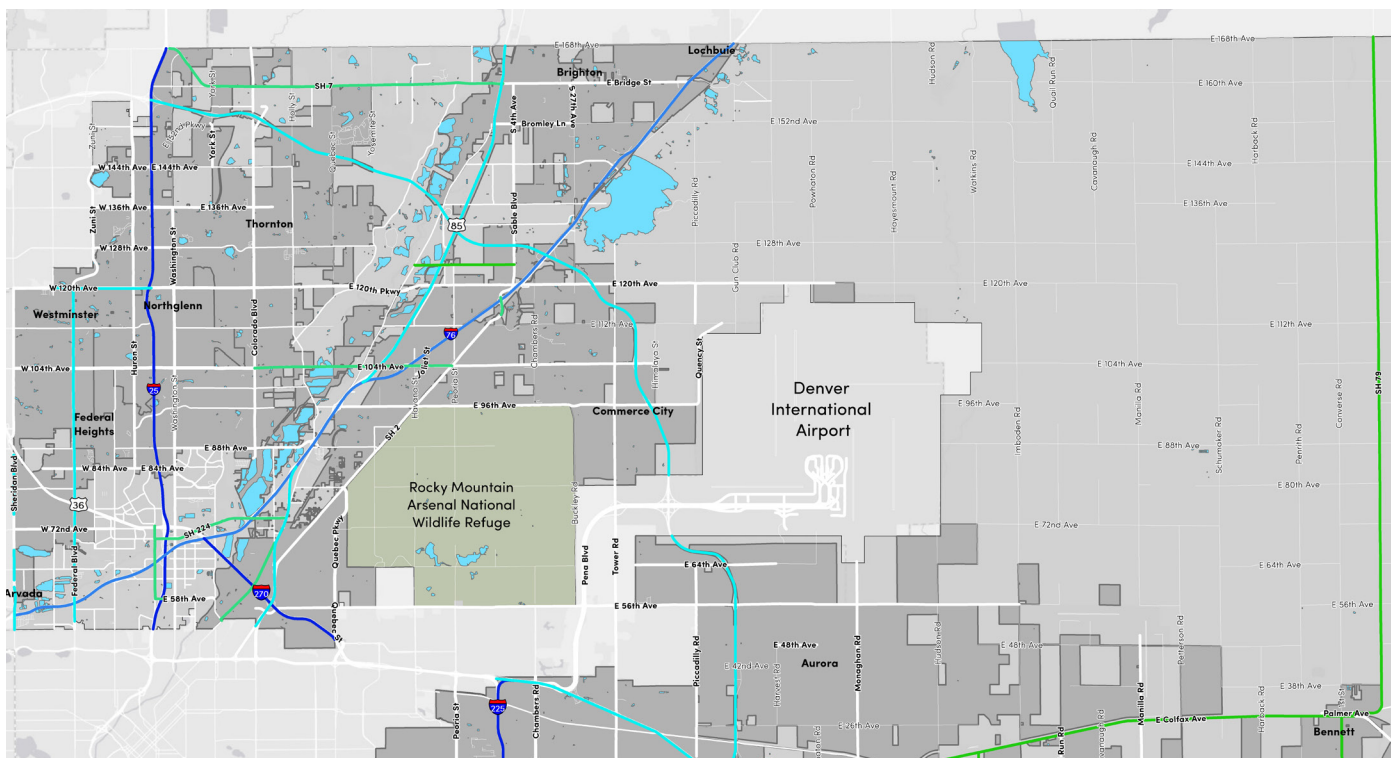




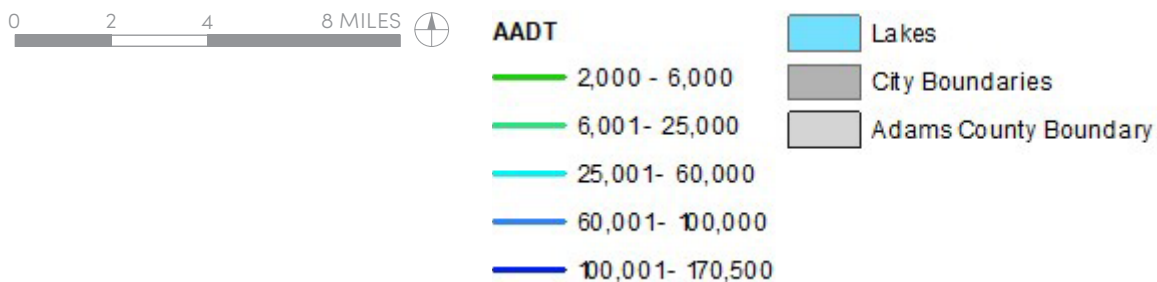
**Figure 24:** Unpaved Section of Imboden Road

CDOT monitors traffic volumes on major roadways in the County. **Figure 25** shows the average annual daily traffic for 2019. I-25 and I-270 are the highest traffic volume roadways in Adams County.

## ANNUAL AVERAGE DAILY TRAFFIC IN ADAMS COUNTY



**Figure 25:** 2019 Annual Average Daily Traffic (Source: CDOT)



## PARKING

### OFF-STREET PARKING

Adams County has nearly 13 square miles of off-street surface parking, 97% of which consists of impervious surfacing (**Figure 26**). Utilization data for some off-street parking is available through the 2019 *Adams County Southwest County Parking Study*, which examined parking in 15 neighborhoods. The study included a review of five off-street parking facilities in Perl Mack, Goat Hill, Lakeshore Estates, Welby, and Fairview. The Study found that of the five lots, the Perl Mack lot had a peak weekday occupancy rate of 42% while the other four lots ranged from 2% to 4% occupancy. While this study represents a small sample of the available off-street parking in Adams County, the analysis suggests that there may be an excess of surface parking in Adams County.

*Advancing Adams* will explore opportunities to repurpose underutilized surface parking for other uses, expand opportunities for shared use parking, or absorb the high demand for on-street parking in certain neighborhoods, as discussed in the following section.

### ON-STREET PARKING

According to the 2019 parking study, demand for on-street parking is relatively low, with an average peak of 25% occupancy on weekdays. However, some communities do experience challenges with spillover parking, which occurs when land

uses generate parking demand in excess of the number of spaces available and parking spills over to adjacent properties. While the average occupancy is 25%, there may be certain locations where the occupancy is closer to 100%. The study found this phenomenon to be most prevalent in the Berkeley, Perl Mack, and Welby neighborhoods. *Advancing Adams* will evaluate opportunities for managing on-street parking demand in those communities by leveraging available surface parking.

### PARKING REQUIREMENTS

Chapter 4 of the County's *Development Standards* identifies parking requirements and restrictions for various developments and overlay zones in the County. Minimum parking requirements are identified depending on the land use type and size of the development. Standards make additional specifications for on vs. off-street parking, design and layout, lighting, signs, landscaping within parking lots, location of parking, paving material, parking space size, access requirements, and handicap parking spaces. There are opportunities for developments to provide fewer parking spaces than is specified in the standards. Developers can capitalize on these exceptions through the implementation of: Transportation Demand Management strategies such as transit passes, bike share, or Van Pool; demonstrable pedestrian, bicycle, or mass transit facilities; shared parking; or electric vehicle charging parking.

# SHARED PARKING

Shared parking is a strategy that optimizes parking capacity by allowing complementary land uses to share parking spaces, rather than producing separate spaces for separate uses. For example, a church that uses parking

primarily on Sundays could share parking spaces with a bank, who uses spaces primarily Monday through Friday. The County’s Development Standards support opportunities for shared parking, with some restrictions on the nature of the land use types and proximity of parking.

## ADAMS COUNTY SURFACE PARKING

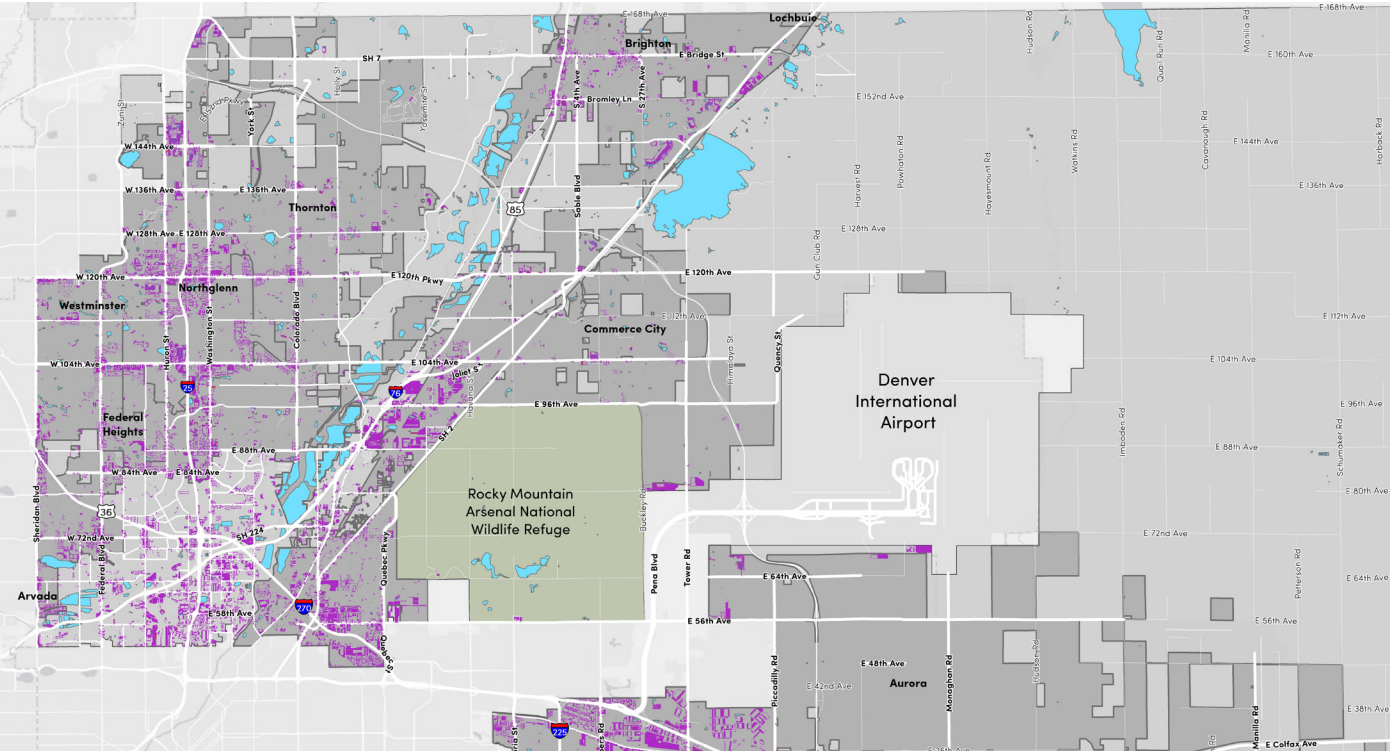


Figure 26: Surface Parking in Adams County (Source: DRCOG)



### LEGEND

Parking Surface Type	Lakes
Impervious	City Boundaries
Mixed	Adams County Boundary
Pervious	

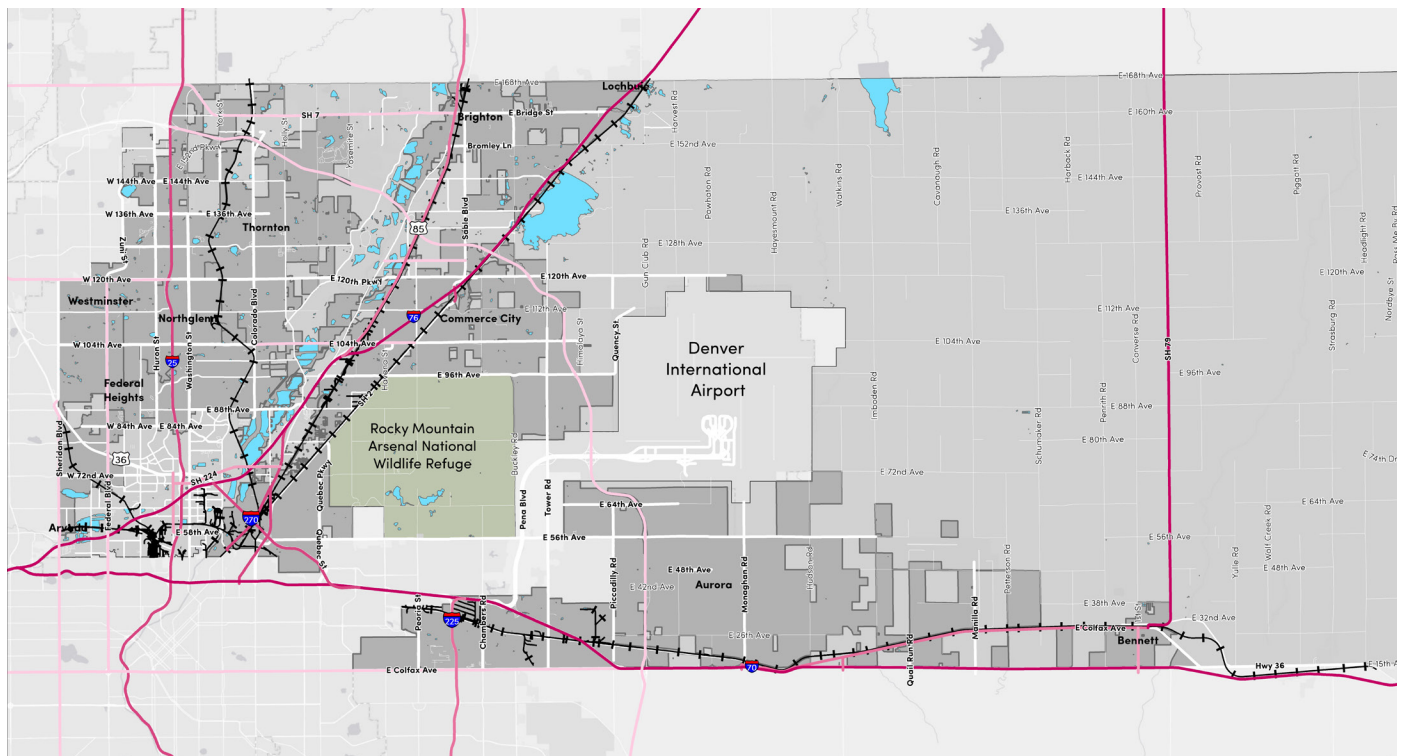


## FREIGHT

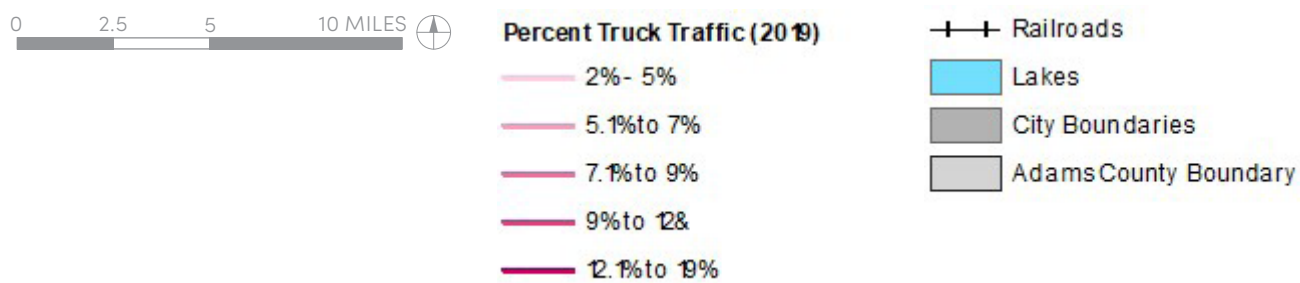
Adams County has a high level of freight activity due to its proximity to Denver, presence of distribution and logistics centers, access to multiple interstate highways, and presence of freight railroad lines. I-70 is the main freight corridor, with trucks constituting 19% of vehicle traffic on average (**Figure 27**). SH 79 and I-76 are the second and third largest carriers of freight vehicles respectively.

Demand for freight movement has grown in recent years due to industrial land uses that are increasingly being added to the southwestern and central portions of Adams County (**Figure 28**). In addition, companies like Amazon have established distribution and fulfillment centers in Adams County that serve the regional demand for consumer goods. Amazon has a significant presence in unincorporated Adams County, Thornton, and Aurora.

## FREIGHT ROUTES AND TRUCK TRAFFIC IN ADAMS COUNTY



**Figure 27:** Freight Routes and Truck Traffic in Adams County (Source: DRCOG)



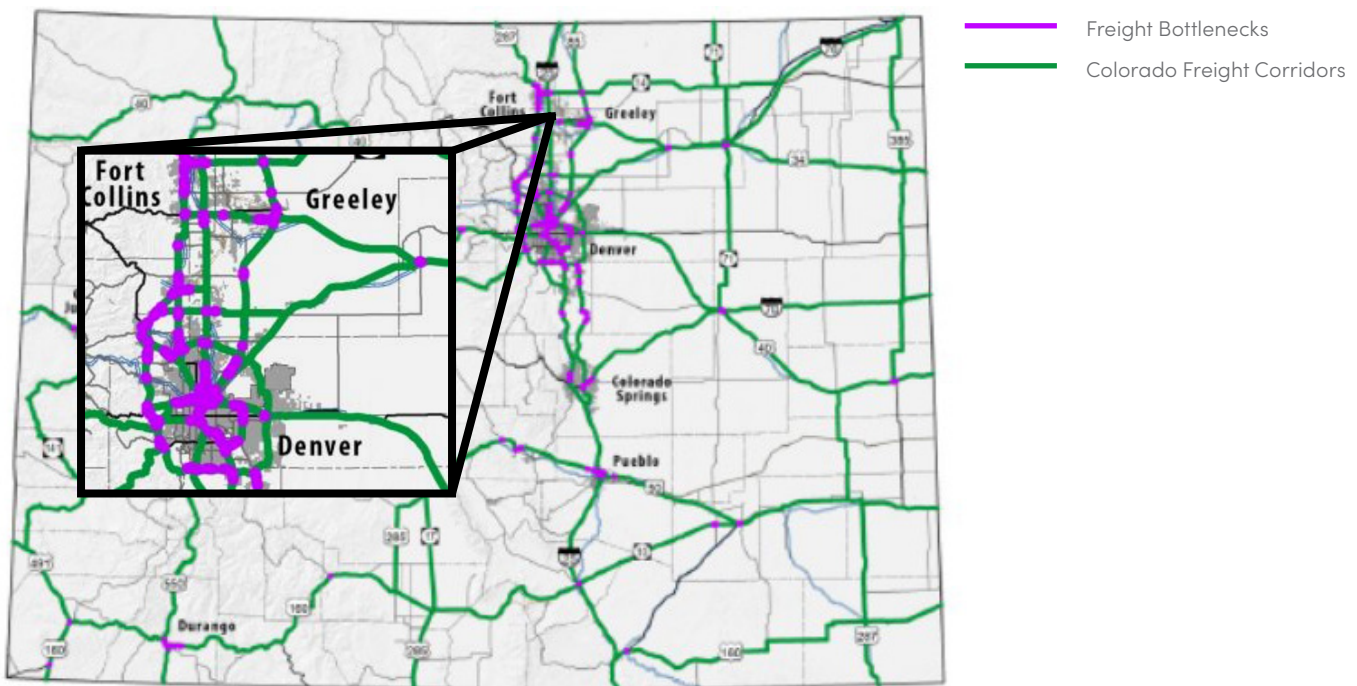
The area around the US-85 and I-76 corridors is home to a number of industrial uses and logistics centers.

Adams County contains many of the freight bottlenecks identified in the CDOT 2019 Colorado Freight Plan (**Figure 29**). Bottlenecks are defined as areas where traffic slows due to roadway design rather than congestion caused by the number of vehicles exceeding roadway capacity. As the presence of industrial activity and associated freight demand increases in Adams County, the County should continue to work with CDOT to address the freight bottlenecks and support more efficient movement of goods. Adams County contains many of the freight bottlenecks identified in the CDOT 2019 Colorado Freight Plan (**Figure 29**). Bottlenecks are defined as areas where traffic slows due to



**Figure 28:** Examples of Industrial and Warehousing Land Uses Increasing Freight Traffic

roadway design rather than congestion caused by the number of vehicles exceeding roadway capacity. As the presence of industrial activity and associated freight demand increases in Adams County, the County should continue to work with CDOT to address the freight bottlenecks and support more efficient movement of goods.



**Figure 29:** Colorado Freight Bottlenecks (Source: Colorado Freight Plan, 2019)