

Question: What is the problem we're trying to solve?

Answer: How to best move people and goods through and within a changing corridor for the next 20 years and beyond.

SHORT RESPONSE We expect traffic to increase by as much as 20% with growth in surrounding communities and Boulder's position as a regional employment center. We need to provide better travel options for in-commuters and for the greater number of people who are working and living in the corridor today and in the future.

The long-range East Arapahoe Transportation Plan considers potential improvements between Folsom and 75th streets, including safety for people using all modes, walking and biking enhancements, improved transit, and efficient vehicular travel to transform the corridor (a separate Boulder County review of the corridor east of 75th is also underway).

MORE INFORMATION From people traveling into and through Boulder for work, school, and healthcare services, or simply accessing recreational and shopping amenities – forecasted regional transportation demands on the East Arapahoe Corridor will change how it functions. Additional demands will also come from the changing travel needs of Boulder residents working, living and accessing services within the corridor, which is no longer seen as just a “pass through” for in-commuters. People visiting Boulder Community Hospital, students traveling between university campuses, and employees just wanting to grab lunch or run an errand must also be considered as we weigh the need to move people and products safely and conveniently within and through this transitioning area of the city.

As East Arapahoe becomes more of a destination, travelers of all modes are looking for a more comfortable experience – with features that are scaled for people and create a place that is attractive to both travel through and spend time in.

We must plan for both today and tomorrow along East Arapahoe, or we're going to see conditions degrade with increasing congestion, travel choices that are suboptimal for people using walking, biking and using transit and growing safety concerns.

Importantly, transportation improvements will support the goals and objectives of the Boulder Valley Comprehensive Plan, the Transportation Master Plan (TMP), Access Management and Parking Strategy (AMPS), and the city's Climate Commitment and Sustainability Framework.

QUESTION: Why the Complete Streets philosophy?

ANSWER: Transportation planning that considers all types of travel at the outset is the best way to improve convenience and safety and meet our climate goals.

SHORT RESPONSE Boulder is committed to accommodating all modes of travel, and Complete Streets ensures proper consideration from the outset, by making transportation alternatives safer and more convenient.

MORE INFORMATION As the East Arapahoe corridor continues to evolve as a hub for businesses, health and education facilities and residences, Complete Streets encourages people to travel by modes other than cars, helping the community to meet its goals for reduction of carbon emissions. It also provides transportation alternatives that improve the quality of the overall area and provide connections that allow people to travel both within the area and to other areas of Boulder as well using a variety of modes of transportation.

This approach can already be seen on Broadway or 28th Street, where consideration is being given to pedestrians, cyclists, transit, ride-sharing and driving.

QUESTION: Why not add additional lanes to Arapahoe?

ANSWER: We cannot pave our way out of the corridor's transportation problems. Additional lanes bring additional traffic, which isn't an effective long-term strategy or in keeping with community goals.

SHORT RESPONSE The benefits of just adding lanes is not a cost-effective long-term solution, as added traffic would quickly fill the new lanes and further congest Arapahoe Avenue and connecting streets until Arapahoe Avenue becomes as congested as it is today.

It is the policy of the City of Boulder to implement cost-effective roadway improvements (turn lanes, intersection improvements, transit, sidewalks and shoulders) that increase the efficiency of the existing transportation system.

MORE INFORMATION Additionally, intersection improvements at 'choke points' east of 55th Street in Boulder are being reviewed as part of a separate Boulder County transportation project. While in the short-term, adding new general-purpose lanes would reduce some congestion in the corridor, these lanes would soon be filled by commuters and others who would be diverted from other routes or change their travel patterns, resulting in continued

congestion. This “induced demand” scenario is at odds with Boulder’s larger transportation, environmental and community goals.

QUESTION: Will the alternatives that repurpose traffic lanes result in more congestion and longer travel times for drivers?

ANSWER: Forecasts show repurposing the outside travel lanes for transit and right turning vehicles can actually reduce future auto travel time compared to doing nothing.

SHORT RESPONSE Side-running bus-rapid-transit (Alternative 3), combined with protected bike lanes and pedestrian options, is the best option for maintaining or improving travel times for all commuters

The more trips we can carry through transit, bike and on foot, the more mobility we have for autos in the general-purpose lanes. A recent example is US36, travel time in general purpose lanes have improved by over 20% (Source HPTE data. See Commuting Solutions web site).

MORE INFORMATION Outside traffic lanes are currently underutilized. If they are repurposed for transit and right-turn vehicle access only, end-to-end auto travel times could be maintained or improves and will be shorter than if we didn’t make improvements. High-capacity transit service could reduce traffic in the corridor by as much as 3,700 vehicles per day.

Our policy is based on managing congestion and providing predictable and reliable travel time for people using all modes.

1. Lane utilization is a measure of the amount of through traffic in each of the through lanes (for each direction of travel) when there is more than one through lane. Typically, outside through lanes do not carry a proportional share of through traffic since right turning traffic conflicts with the through traffic in the outside travel lane.
2. For this study, lane utilization was observed in both directions using the City’s Miovision cameras at the 28th, 30th, Foothills, and 55th intersections. As expected, it was observed that the outside through lane does not carry an equal share of the through traffic along Arapahoe Avenue (see attached lane utilization figure). The through vehicle utilization of the outside lane varies by location, time of day, and direction, but typically ranges between 14% and 25%, NOT 33%. This is why the repurposing of the outside travel lane as a BAT lane will not reduce the through vehicle capacity by one third.

QUESTION: How will this plan impact in-commuters?

ANSWER: Depending on the approach, their travel times could be a bit longer, with longest travel times expected from the no-build scenario.

SHORT RESPONSE High housing costs in Boulder combined with a strong and growing job base have dramatically increased the level of in-commuting in recent years, the vast majority of whom drive alone.

The Boulder 2014 TMP update set a goal of reducing the number of trips made by one person driving alone in a car (a “single occupant vehicle,” or SOV) from approximately 80% to 60% of work trips for nonresidents.

As a result, all but the no-build options being considered for the East Arapahoe Transportation plan envision increased transit use and improved mobility options for people who bike and walk.

MORE INFORMATION Given the projected growth in travel demand and increased development along the East Arapahoe corridor between Boulder and Brighton, there is a need to develop high-frequency, high-quality transit in the area. The East Arapahoe Transportation plan is examining the western portion of the corridor between Folsom and 75th, but will entail close coordination with Boulder County’s SH 7 BRT Study and the Colorado Department of Transportation (CDOT) to proactively develop a holistic plan for the corridor.

QUESTION: Why are we looking at such major investments in bicycle infrastructure? That’s not how most people travel.

ANSWER: These improvements make cycling safer and more convenient for more people, which in turn can reduce the number of car trips.

SHORT RESPONSE Public outreach for the Boulder 2014 TMP indicated a high percentage of people are “interested but concerned” about riding a bicycle because they do not feel comfortable or confident sharing busy roads with motor vehicles.

Community input gathered for the East Arapahoe Transportation Plan further underscored this concern, emphasizing that much of Arapahoe Avenue does not feel safe or convenient for bicycles. Streetscape and facility improvements are needed to enhance safety for people riding bikes, particularly in areas where there are known conflict points.

MORE INFORMATION The existing multi-use path generally does not meet the needs of people commuting and traveling by bicycle for longer-distance trips along Arapahoe Avenue. These needs are similar to people driving along the corridor and include a direct, safe, and time-efficient route. There are several issues with using the multi-use path for longer-distance travel, including the lack of a continuous path on one side of the street and the lack of specialized treatments at intersections, where bicyclists must interact with pedestrians and turning vehicular traffic.

QUESTION: How does this plan address the first and last-mile problem?

ANSWER: By making it safer and easier to walk or bike and increasing the reliability of transit options.

SHORT RESPONSE If walking or biking to a transit stop is too far, or connections are limited, travelers tend to avoid transit. The first and last miles of a transit “trip” -- a journey from an origin to a destination -- can be challenging, especially in suburban communities and areas like East Boulder that were originally designed for motor vehicles.

By improving transit and bike and pedestrian mobility options in the area, we hope to reduce these problems.

MORE INFORMATION First-and-last-mile strategies help people comfortably, conveniently, and safely bridge these gaps with solutions like bike sharing, covered and secure bike parking, shuttle and car share services and mobility-on-demand services like Lyft or Uber.

Many of those issues are being reviewed in the East Arapahoe Transportation Plan and in Boulder County’s Arapahoe Road/SH 7 Mobility Improvement Studies.

QUESTION: Why will BRT on East Arapahoe be better than the JUMP today?

ANSWER: Depending on a final design, it can be a more convenient, reliable and desirable travel option.

SHORT RESPONSE Bus rapid transit, or BRT, can deliver people more quickly and conveniently through the corridor than the existing JUMP route. For example, BRT plans are presumed to have dedicated lanes and signal priority to speed trips, fewer stops than the existing JUMP service (and improved options for people to travel the first and last mile), and reduced time spent at bus stops.

MORE INFORMATION BRT options are projected to more than triple ridership (from an estimated 2,400 weekday boardings today to between 7,000 and 10,00) with service between Boulder and Brighton. Each of the BRT options reduce transit travel times in the corridor to within 1 to 3 minutes of auto travel in the eastbound PM peak.

QUESTION: How much is traffic expected to grow in the future?

ANSWER: We're considering forecasts of up to 20% traffic growth.

SHORT RESPONSE Two potential scenarios between now and 2040 are being considered – 0% traffic growth and 20% traffic growth. In either scenario, the intent is to increase the travel options that are available to people.

MORE INFORMATION If historic local traffic trends of relatively flat growth continue into 2040, and assuming the city is meeting its TMP goals, traffic volume along East Arapahoe should remain approximately the same as today (0% traffic growth scenario). If traffic grows as predicted by regional traffic forecast models, traffic volumes could increase as much as 20% along East Arapahoe (20% traffic growth scenario).

The East Arapahoe Transportation Plan is considering both scenarios as part of its longer view for the corridor.

QUESTION: How does plan fit with climate commitment?

ANSWER: We're making progress on community and regional climate goals, but falling short of community goals. To improve, we must continue to increase travel by walking, biking and transit.

SHORT RESPONSE Boulder has set a strong goal for reducing SOV car trips by 2035, and we are not on pace to meet that goal. Our transportation planning must do more to encourage people to take transit, bike and walk.

MORE INFORMATION: Improving travel options and reducing car traffic and the associated congestion in the corridor can take up to 3700 cars a day off the road. That's equivalent to all the parking garages in Downtown Boulder.

There are 2.5 million vehicle miles traveled (VMT) citywide as of 2015. This is 8% higher than 2012 (2.3 million) but 10% lower than the peak level in 2002 (2.8 million).¹ Under both options with bus rapid transit, VMT are expected to increase 5% or less – compared to a nearly 18% increase under the no-build and enhanced bus scenarios.

As a community, we are making good strides in some areas such as increase travel by walking, biking, and transit, but more progress is needed and we must also continue to address regional travel, particularly opportunities to enhance options for non-resident employees.

QUESTION: What is the city doing to address high crash areas now?

ANSWER: The city has a goal to eliminate serious injuries and fatalities through infrastructure improvements and public education.

SHORT RESPONSE The 2014 Transportation Master Plan established a new safety objective: Vision Zero – to eliminate serious injuries and fatalities resulting from traffic collisions. This objective reflects a national and worldwide approach to use a data driven, interdisciplinary approach to improving safety for people using all forms of transportation throughout the community.

Data from the 2016 Safe Streets Boulder report shows that the city’s fatal collision rate is well below the national average and the lowest among Colorado cities with comparable populations. However: A disproportionate number of bicyclists and pedestrians are involved in collisions that result in serious injuries or fatalities. While only 8 percent of all traffic collisions in the

City of Boulder involve a bicyclist or pedestrian, these collisions account for approximately 60 percent of serious injuries and fatalities.

MORE INFORMATION Nearly 90 percent of the 736 crashes that occurred along Arapahoe Avenue between 2012 and 2014 occurred at intersections, including most crashes involving pedestrian and bicyclists. Most crashes (90%) involved only motor vehicles and the majority of crashes (55%) were rear-end collisions.

Approximately 70% of the crashes occurred at four intersections: 28th Street, 30th Street, Foothills Pkwy, and 55th Street. These intersections also had the highest crash rates.

Arapahoe Avenue between 30th Street and 33rd Street experienced the highest number and rate of crashes between intersections, accounting for both traffic volumes and distance.

The highest number of crashes involving bicyclists occurred at Arapahoe Avenue and 30th Street. Thirteen of the crashes involving bicyclists (about 33%) involved conflicts between eastbound bicycles on the north-side multi-use path and vehicles turning right onto Arapahoe Avenue from driveways or side streets.

QUESTION: What is the timeframe for improvements?

ANSWER: This is a long-range effort intended to plan for the next 20+ years.

SHORT RESPONSE Our horizon year is 2040, knowing that implementation of a preferred concept plan will take many years to accomplish and will require a phased approach.

The next phase of the process will include developing a detailed preferred alternative or alternatives for the corridor.

MORE INFORMATION Once a preferred alternative is selected (anticipated in late 2017, early 2018), we will be developing a SHORT RESPONSE-, medium- and long-term action plan that will include infrastructure, transit service and programmatic investments to be put in place over the coming years.

QUESTION: How will this project affect my neighborhood? Won't it cause more cut-through traffic?

ANSWER: Making appropriate improvements, as opposed to the no-build scenario, should discourage people from straying from Arapahoe.

SHORT RESPONSE The combination of maintaining efficient traffic flow on Arapahoe with BRT service, and the competitive travel time advantage that Arapahoe already has, should continue to discourage neighborhood cut-through traffic in the project area.

MORE INFORMATION In coming to this conclusion City staff evaluated a number of factors as follows:

A detailed study of existing travel patterns on alternative east-west routes through the project area between Folsom Street and 75th Street was conducted using a network of 27 fixed and portable "Acyclica" readers to monitor existing automobile travel time. These readers allow staff to track travel time and use on alternative east-west travel routes that included portions of Arapahoe, Valmont, Baseline, S. Boulder, Cherryvale, 55th, Foothills, and US 36. This study concluded that motorists are typically good at finding the quickest travel paths, and diverting

through neighborhoods, such as along Cherryvale Road, did not save driving time. Arapahoe provided the fastest travel route for destinations in the corridor.

The analysis utilized the historic monitoring of travel along East Arapahoe that the City has been conducting for the past 30 years. Staff then applied level of service (LOS) and delay models to project the change in travel time over the next 20 years, with and without repurposing a travel lane for BRT. It was concluded that peak direction east-west travel along Arapahoe Road will be shorter in both the AM and PM peaks with side-running BRT service than in the No-Build alternative.

As stated earlier, the combination of maintaining efficient traffic flow on Arapahoe with BRT service, and the competitive travel time advantage that Arapahoe already has, should continue to discourage neighborhood cut-through traffic in the project area.

QUESTION: How many people in the corridor have EcoPasses?

ANSWER: Nearly 10,000 are distributed to employees within a half-mile of the corridor.

SHORT RESPONSE Seventy-nine businesses in the study area (within a half-mile of Arapahoe Avenue between Folsom and 75th Streets) participate in the Eco Pass program, providing transit passes for 8,762 employees.

MORE INFORMATION The top five of these employers that offer EcoPasses are the Boulder Valley School District, Boulder Community Health, Google, Rally Software Development, and Zayo Group, comprising 6,576 employees.

CU provides faculty and staff with an EcoPass and also makes a student pass available. There are approximately 7,900 faculty and 30,000 students that use the EcoPass. EcoPass programs are also available at the neighborhood level. Within the study area, the Peloton, Wellman Creek, Park East, and Rock Park participate in the EcoPass program, encompassing approximately 425 housing units.

QUESTION: How can you plan for transportation improvements without knowing what future land uses will look like?

ANSWER: All alternatives can adapt to future land uses, locally and regionally.

SHORT RESPONSE The project is being closely coordinated with Boulder Valley Comprehensive Plan update and future small area planning at 55th and Arapahoe and 29th Street area. All of our analysis is based on current zoning and planned land uses. All alternatives can adapt to future land uses, locally and regionally. Capacity – add more buses, change service, etc.

QUESTION: Won't all of this change when autonomous vehicles come on line?

ANSWER: In the time frame we're focused on, autonomous vehicles will only complement, not replace existing transportation options.

SHORT RESPONSE The City understands connected and autonomous vehicles are coming and is exploring how to work with existing and future technologies. Possibilities include creating designated spaces for people using designated modes -- AVs, shared use mobility, etc. -- which can transform over time.

MORE INFORMATION The city has a staff working group looking at "Advanced Mobility" including autonomous vehicles (AVs) and will be hosting a forum on this topic Oct. 18, 2017 so we are actively engaged with the issue. There has been extensive press coverage on the development of AVs and the potential safety, congestion reduction and improved mobility benefits of AVs; and we recognize that they will revolutionize transportation in the way other technologies have.

As with other technological changes, we also recognize that there will be unintended consequences from wide spread adoption of AVs, largely dependent on how they are deployed. Deployment in a shared fleet model has the potential to greatly reduce vehicle miles traveled, greenhouse gas emissions and congestion, which would be consistent with city goals. Deployed in a private ownership model, they have the potential for the opposite effect, including the specter of zero-occupant vehicles and increasing commute distances.

Consequently, the city's work is focused on developing policies to encourage the deployment of AVs consistent with our other community goals. This will likely mean high quality, main-line mass transit service with AVs providing much improved first and last mile access to that transit. As roadway space remains constrained, there is still the need to move more people on the existing roads while improving the speed and convenience of travel, and the combination of quality transit with AVs offers the greatest opportunity for that.

QUESTION: Why isn't a noise wall being considered along Arapahoe, particularly in the area of MacArthur?

ANSWER: Space limits, considerations about appearance, impacts on residents and the traveling public and cost considerations went into this decision.

SHORT RESPONSE If the noise barrier is simply a tall wall constructed on the right-of-way line, there would be significant impacts on the views and visual character of the corridor for both

residents and the traveling public. The cost of such a noise barrier is also a consideration in the funding choices that must be made.

MORE INFORMATION The construction of a noise barrier, most commonly combining a wall on top of an earthen berm to minimize the visual scale of the barrier, requires space or width within the right-of-way to allow its construction. The effectiveness of the noise barrier is also limited by its height. Space or width along the corridor is extremely limited within the existing or expanded right-of-way and this same space is also being considered for adding amenities for people walking, biking, or accessing transit in the Arapahoe corridor. In the vicinity of MacArthur, there is limited room to widen the right-of-way to accommodate both the mobility amenities and a noise barrier that includes a berm. As such, you're left only with a tall-wall option.

QUESTION: Why not light rail or commuter rail?

ANSWER: Projections don't envision the service demand to warrant the investment.

SHORT RESPONSE The East Arapahoe Corridor currently doesn't have density of demand to warrant commuter rail transit for local areas.

MORE INFORMATION The corridor does include a future Commuter Rail station (north of Arapahoe between 63rd St and Westview Drive)

QUESTION: Will these alternatives require the acquisition of additional right of way, and will that limit development or redevelopment potential on my property?

ANSWER: Yes, they could require more right of way.

SHORT RESPONSE Acquiring additional right of way could be handled through existing easements and in conjunction with sites that are redeveloping with plan to be mutually beneficial. The idea is for the East Arapahoe Transportation Plan to be incorporated over time.

QUESTION: How are we going to pay for all of this?

ANSWER: We hope to develop a final, consensus plan that will allow us to identify and pursue multiple revenue sources.

SHORT RESPONSE It's too soon to know the answer, but the larger-scale projects in the area (28th St. and US 36, for example) have all started out with planning processes that are used to build community consensus and to line up funding down the road.

MORE INFORMATION: We anticipate that East Arapahoe will require phasing and multiple sources of revenue: be they local, regional, state, federal, and/or private.

QUESTION: What sort of public outreach have you done?

ANSWER: Outreach efforts have been frequent and wide-ranging, both in person and online. Those will continue moving forward.

SHORT RESPONSE As of 2018, there have been more than 20 public events and meetings with businesses and neighborhood groups in the corridor.

MORE INFORMATION If you or someone you know would like more information, contact Jean Sanson, Senior Transportation Planner, at 303-441-4106 or via email:

SansonJ@bouldercolorado.gov

QUESTION: How do I get involved or stayed involved in the planning process?

ANSWER: Google East Arapahoe Transportation Plan and sign up for emails.

SHORT RESPONSE If your or someone you know would like more information, contact Jean Sanson, Senior Transportation Planner, at 303-441-4106 or via email:

SansonJ@bouldercolorado.gov

MORE INFORMATION You can also learn more about the project and sign up for email updates online at, <https://bouldercolorado.gov/goboulder/east-arapahoe-transportation-plan>