OVERVIEW/HISTORY OF RTD FARE STRUCTURE AND PASS PROGRAMS AND PLANNED SYSTEM WIDE FARE STUDY AND EQUITY ANALYSIS

This white paper provides background and history on RTD's current fare structure and pass programs since 2000, as well as a planned path forward for evaluating future changes to RTD fares. This paper is divided into four sections:

1. History of RTD Fare Boundaries Structure Pre- and Post-FasTracks (2000—present)
2. RTD Pass Program Study (2017—2018)
3. RTD Fare and Fare Related Developments since 2019
4. Overview of Planned System Wide Fare Study and Equity Analysis

1. History of RTD Fare Boundaries Structure Pre- and Post-FasTracks (2000—present)

Fare Structure Pre-FasTracks (20002—2013)

Prior to the opening of the Southwest Corridor in 2000, distance-based fares only applied to buses. Local, Express, and Regional fares applied to buses depending on the type of service and the distance traveled. The original light rail line, between I-25/Broadway and 30th/Downing Stations was a short enough distance that only a local fare applied. When the Southwest Corridor opened, many trips that were previously made by an Express bus were then made by light rail and it was determined that those trips should pay the higher Express fare.

The solution to this was a fare boundary at Hampden Avenue. Any trip crossing Hampden Avenue, between Oxford-City of Sheridan Station and Englewood Station, would be charged an Express fare. This made trips from Littleton-Mineral, Littleton-Downtown, and Oxford-City of Sheridan Stations to Downtown Denver an Express fare, as they had previously been on Express buses. While this fare boundary was easy to understand, it penalized short trips by requiring an Express fare for a one-station trip between Oxford-City of Sheridan and Englewood Station, the same as the fare between Littleton-Mineral Station and Downtown Denver.

The Hampden Avenue fare boundary stayed in effect until the opening of the Southeast Corridor in 2006. The expansion of the system along with the shortcomings of the existing fare boundary led to the implementation of fare zones for the light rail system. With the Southeast Corridor extending to Lincoln Avenue in Douglas County, some trips were more akin to Regional bus trips and a four-zone fare structure was implemented. Trips within one or two zones were a Local fare, three zones were an Express fare, and four zones were a Regional fare. This had the effect of matching bus fares to rail trips in the Express and Regional fare categories as well as allowing short trips that cross fare zones without penalty.

Fare Structure Post-FasTracks (2013—present)

The original fare zones were applied to the first FasTracks line to open, the W Line, in 2013. Due to the nature in which the W Line operated, with slower speeds and parallel to high-quality bus service, there were many concerns raised about the fare system after the W Line opened. Some buses were reinstated to provide cheaper and faster trips under the existing fare structure.

The impending opening of the A Line in 2016, along with concerns regarding RTD fares, led to calls for a comprehensive study of RTD's fares. In 2015, a fare study commenced with the goal of simplifying fares and making fares more equitable. Initial recommendations from the fare study were to eliminate fare zones on rail and only charge higher fares for non-stop Express bus services. All-stop Regional buses such as the FF1 branch of the Flatiron Flyer would be the Local fare, while Express buses such as the FF2 branch and routes with long non-stop portions would charge a higher fare. RTD Board members and transit advocates saw this proposal as inequitable as, potentially, a trip from Boulder to Lone Tree could be made for the same local fare as a trip from Capitol Hill to Downton Denver. In addition, when RTD tested a flat fare (without zonal differences), the fare level necessary to meet revenue targets was so high that it was found to result in a disparate impact and disproportionate burden on protected populations.

This led to the development of the fare structure that was implemented in 2016 and remains in effect today. Fare levels were simplified into three categories: Local, Regional, and Airport. This reduced the number of regular fare zones from four to three but also added a new zone at Denver International Airport. Zone A remained the same in the new fare structure; Zone B was extended to include more stations and help balance parking demand; and Zone C included all remaining stations, including those from the eliminated Zone D. Customers traveling in one or two zones continue to pay the Local fare; customers traveling in three zones pay the Regional fare; and any trip to or from Denver International Airport, regardless of distance, on the A Line, SkyRide, or Express bus is an Airport fare. The Express fare category was eliminated at this time, though the new Regional fare level was a decrease from the previous Regional fare and bus routes previously in the Express category were moved to the Local or Regional category based on their non-stop distance traveled.

The boundary between Zones B and C, and thus a Local and Regional fare to Downtown Denver, is 9.5 miles from Union Station. It is important to note that the fare zones are concentric circles centered on Union Station. This allows fares to be applied in a uniform manner across the District and not penalize customers for the sometimes-indirect routes taken by rail lines. For example, while the Wheat Ridge-Ward Station on the G Line is 11 miles by rail from Union Station, the rail line travels north for approximately 3.5 miles before turning southwest to reach the end of the line and the straight-line distance is only 7.5 miles from Union Station, making it a Local fare.

The 9.5-mile distance being the maximum one can travel on a local fare, except on the R Line, is also applied to Regional and Express buses in determining the fare for specific stop pairs. Trips of greater than 9.5 miles are charged a Regional fare while other trips are charged a Local fare. This applies in the limited- or express-stop portion of the routes where stops are spaced farther apart, and speeds are faster. For example, the Flatiron Flyer traveling east from Boulder begins its Regional portion at US 36/Table Mesa Station; boardings occurring prior to this stop have their fare calculated as if they started at US 36/Table Mesa Station so that even though a customer rode on the slower, local portion of the Flatiron Flyer for a few miles before US 36/Table Mesa Station, the 9.5 mile distance does not begin until that station. This 9.5-mile distance is also critical for appropriately pricing bus trips as there are Regional and Express buses that do not travel to Downtown Denver and could not use the same fare zones as rail.

The R Line is a special case for rail in that it lies entirely within Zones B and C, while traveling more than 22 miles. Given it only travels in two zones, has slower travel speeds, the potential difficulty of fare enforcement, and the suburb-to-suburb connections provided, it was determined that the R Line

should be a Local fare for the entire trip regardless of length. Transfers between the R Line and other lines destined for Downtown Denver require a Regional fare from R Line stations in Zone C.

2. RTD Pass Program Study (2017—2018)

RTD has a long history of implementing transit pass programs and discount fares. RTD's long established pass programs include EcoPass, Neighborhood EcoPass, and College Pass. In addition, RTD has had half fares as regulated by the Federal Transit Administration for Seniors (65 years of age or older), persons with disabilities, and Medicare recipients; as well as a discount for children and youth *(Please note that the requirement to pay a fare starts at age 6. Prior to this study, the discount was 50% and applied to children/youth enrolled in elementary, middle, and high school).* Historically, RTD also has had a non-profit program offering fare media to qualified non-profits at reduced prices.

The scope of the 2015 Fare Study did not directly address pass programs or other discount fare programs. As a result of extensive feedback from stakeholders during the 2015 Fare Study process, RTD initiated the Pass Program Study in 2017 to take a robust look at RTD pass programs and discount fares.

Scope of the Pass Program Study

The general scope of the study was as follows:

- Revisit and refine goals for each pass program
- Refine pricing and administration of each program
- Recommend policy revisions

The Board-adopted guiding principles for the group were as follows:

- Brand loyalty
- Convenience
- Cost-effectiveness
- Equitable access
- Increased ridership
- Meet strategic budget plan targets
- Revenue certainty
- Simplifying customers-operator interactions

Stakeholder Engagement

The primary source of stakeholder engagement was through the Pass Program Working Group (PPWG). The PPWG members were selected by the Chair of the RTD Board in consultation with the General Manager/CEO. The selections were informed by a process that included interviews with over 50 stakeholders. The selection criteria included the desire to bring diverse perspectives to the PPWG, and included pass users, customers who do not use passes, business interests and advocacy groups. The selections were also intended to provide a seat at the table for people and organizations covering a wide range of additional criteria including economic status, race gender, age and ability, as well as for their connection to region-wide interest groups/constituencies and the ability to bring a big-picture view of the pass program and fare structure questions. All PPWG meetings were open to the public with the opportunity for members of the public to address the group. Organizations that participated on the PPWG are shown in the table below.

Denver Regional Mobility and Access Council (DRMAC)	Denver Regional Council of Governments (DRCOG)	Regional Air Quality Council (RAQC)
RTD Citizen Advisory Committee	Inter-Neighborhood Cooperation	Northeast Transportation Connections
University of Colorado	Transit Alliance	Downtown Denver Partnership
Metro Chamber of Commerce	Denver Public Schools	Boulder County
Denver Public Works	RTD Staff	City of Boulder
United for a New Economy	North Area Transportation Alliance	Boulder Chamber of Commerce
CDOT	Mile High Connects	Denver Mayor's Office of Children's Affairs

One issue that was raised early by the PPWG was the concept of establishing a low-income fare program. This issue was raised during the 2015 Fare Study by the Affordable Fares Task Force that was established by Mile High Connects.

Recommendations

The PPWG recommended the following:

1. *Low-Income Program* – 40% discount for incomes at or below 185% of federal poverty level.
2. *Youth* – 70% discount for 19 and under; free for 12 and under.
3. *EcoPass* – retain EcoPass Program, regularly update Service Level Areas (SLAs), and price EcoPasses to reflect updated SLAs at full, adult, non-discounted fare for the trips in each SLA group. Allow three years to phase in price increases.
4. *Neighborhood EcoPass* – retain Neighborhood EcoPass Program, update pricing to reflect full value (including applicable discounts) of trips, while reducing barriers to entry. Allow three years to phase in price increases.
5. *CollegePass* – retain program, update pricing to reflect the full value of trips. Allow three years to phase in price increases.
6. *Not-for-Profit Program* – Provide 3-hour pass and day passes to not-for-profits at discounts corresponding to low-income, senior/disabled, and youth passes.
7. *FlexPass and MyRide* – Retain FlexPass program, but with no discount. Eliminate MyRide card discount.
8. *Transfers* – Eliminate transfers; institute a 3-hour time limit for each single-fare trip. *(Note for the purposes of this memo: Customers would still be allowed to transfer to another route, but the requirement to travel in one direction would go away).*
9. *Day and Monthly Pass* – continue day pass, priced at 2x the applicable base fare, and the monthly pass priced at 38x the applicable base fare. When technologically feasible, recommend day pass transition to automatic fare cap when paying by smart card.
10. *Contract Pricing* - RTD must only create contracts that embed the discounts and pricing described above; must reject contract proposals that seek to alter qualifications or create greater discounts.

11. *Ease of Accessing Pass Programs and Discounts* – remove barriers to access including researching possibility of allowing anyone to add funds to another's smart card and ensuring that low- income, young people and other groups receiving discounts have access to the best available technology and fare media.

12. *Implementation* – link timing of increase in fares to start-up date of recommendations for pass program changes; start the programs and increase simultaneously. Convene a working group to support implementation of the eleven prior recommendations.

3. **RTD Fare and Fare Structure Related Developments Since 2019**

The RTD Board approved revisions to RTD's fare structure and pass programs in September 2018 which were implemented in 2019. The implementation of the new fare and pass program changes were largely based on recommendations from the Pass Program Study, but some adjustments were made as part of the staff evaluation, public input and board approval processes. In addition, there have been several developments associated with RTD fares since 2019 related to fare collection technology and responses to local and world events.

Implementation of the Current Fare Structure in 2019

The fare structure that was approved in September 2018 increased the base fare and incorporated the following recommendations of the PPWG in full:

- *Low-Income Program* – implemented the LiVE income-based fare discount program;
- *EcoPass, Neighborhood EcoPass and CollegePass* – implemented recommendations regarding pricing and program rules;
- *Transfers* - replaced one-way transfers with timed 3-hour passes; and
- *Contract Pricing* – implemented recommendation.

RTD implemented the following recommendations with some adjustments:

- *Youth* - implemented youth fares based on age rather than K-12 school enrollment and a higher youth discount, but did not implement free rides for children ages 12 and under due to enforcement challenges;
- *Not-for-Profit Program* - kept the Program in place and applied the stated discount percentages but discontinued the day pass option because paper day passes were discontinued universally. In addition, the monthly pass is not a fare product that is available with the income-based fare discount;
- *FlexPass and MyRide* - discontinued discounts for employers and employees utilizing the FlexPass program, but kept the MyRide discount in place, at a slightly lower amount;
- *Day and Monthly Pass* - continued the day and monthly pass options at the stated pricing but did not implement an automated fare cap due to technology limitations; and
- *Ease of Accessing Pass Programs and Discounts* - RTD's current smart card system does not allow to add funds to another one's smart card outside of a defined household-size account. However, it has become possible for organizations to issue mobile tickets to someone else's mobile account. The ability to add stored value funds to someone's account is planned to be available sometime after transitioning stored value to an Account-Based Ticketing (ABT) system in the beginning of 2022. The stored value will be accessible through a smartphone or transit card.

In addition, RTD discontinued the ValuPass option (discount for pre-paying for 12 monthly passes), and slightly lowered the discounts for 10-ride tickets to mirror the lowered MyRide discount. RTD implemented most of these changes on January 1, 2019. Due to the time required to implement a brand-new fare program, RTD implemented the income-based fare discount in July 2019.

Expanding Pass Program Phasing from Three to Five Years

Based on discussion with institutional customers that were significantly impacted by the change in pricing methodology for pass programs, such as the University of Colorado at Boulder, the phase-in period for the programs was extended from three years to five years in June 2019. During this phase-in period, increases to contract prices in the first four years are capped at 20 percent of prior year pricing. Note there is no annual cap for price decreases.

Implementation of the LiVE Program

The LiVE income-based fare discount program was implemented on July 29, 2019. Interested customers apply online through the State's Program Eligibility and Application Kit (PEAK) benefits website which is associated with other income qualified assistance programs. Applicants who have a household income of 185% of the federal poverty level or lower, are between the ages of 20 and 64, and live in the RTD District, will be approved through the system or by Denver Human Services and receive a LiVE Discount proof of eligibility card (identification card) that entitles them to use the 40% discounted LiVE fare products.

Nonprofit Program Rules

Governmental and nonprofit organizations enrolled in the RTD Nonprofit Program purchase RTD tickets and passes in bulk. Most organizations give them to their clients for free, but organizations can charge up to cost. The 2019 fare structure changed the fare product and pricing options available to these organizations, as well as eligibility determination for the organizations' low-income clients.

Prior to 2019, organizations were able to buy full fare and Discount 10-ride ticketbooks, day pass books, and monthly passes at a 50% reduced price. This 50% price reduction for already discounted fares (at the time - seniors, individuals with disabilities, and youth) went away in January 2019. Organizations started to pay the same price for these tickets as individual customers who purchase the tickets directly from RTD. Since RTD universally eliminated day pass books due to low demand, the remaining paper ticket/pass options for the nonprofit program are 10-ride ticketbooks and monthly passes.

Governmental and nonprofit organizations were still allowed to buy full fare tickets for their low-income clients at half price until the end of 2019 to allow for a transition period after LiVE program implementation. Up to then, eligibility determination was done by the organization, based on broad guidelines provided by RTD, and customers could not get an income-based discount when purchasing tickets themselves. Starting in January 2020, the nonprofit tickets for low-income clients transitioned to LiVE rules. Organizations can buy LiVE 10-ride tickets at the 40% LiVE discount for their clients who are enrolled in the LiVE program.

Enhanced Fare Collection Technology

Mobile Ticketing Options

At the time of the fare structure approval in September 2018, RTD only offered day passes on mobile ticketing. Since then, the agency has expanded the selection to include 3-hour and monthly passes and

has introduced fare products with the youth and LiVE discounts. RTD started utilizing the "partner portal" functionality that allows organizations to issue mobile tickets to its employees, students, or clients, with RTD only charging for tickets that are used. RTD also carried out integrations of the mobile ticketing system with Uber, Transit, and Lyft; and will integrate with an app that will be used for scheduling FlexRide services. This allows customers to purchase all ticket types that are available in the RTD-branded app in these third-party apps. RTD is currently working on functionality that will allow customers to buy mobile tickets with cash at RTD sales outlets.

FlexPass and Online Store

RTD retired the outdated online store and point of sale (POS) systems in the spring of 2020 and replaced them with the Square ordering and payments system. RTD discontinued the FlexPass program (an ordering mechanism for monthly passes used by customers who received free or subsidized monthly passes through their employer) at the end of 2020 when the contract with the vendor expired. RTD directed employers to online ordering of passes, issuing monthly passes through the mobile ticketing partner portal, or other options such as benefit administration providers.

Account-Based Ticketing

RTD is working on adding account-based ticketing functionality to the JustRide platform that it currently uses for mobile ticketing. This is planned for January 2022. With this new technology, RTD will be able to replace the current smart card system that is at end of life. The account-based system will offer higher convenience to customers. These advantages will be accessible through smartphones as well as physical cards. The account-based ticketing system will give RTD the flexibility to offer new programs such as fare capping or loyalty programs, as well as additional options for institutional customers and community partners. The system will also provide some flexibility to take advantage of other technological developments, for example integrating with contactless payment technology.

Response to World and Local Events

COVID Response

In response to the pandemic, RTD instituted rear door boarding and suspended fare collection from April 5, 2020 through June 30, 2020. RTD offered exchanges or refunds to customers who had already purchased April monthly passes and re-issued unused mobile tickets that expired during the period when fare collection was suspended. In addition, RTD extended the validity period for 2020 10-ride and Access-a-Ride ticketbooks through 2021.

RTD issued pro-rated refunds or credits to organizations participating in the Business EcoPass, Neighborhood EcoPass, and CollegePass programs. For the 2021 contract year, employers and neighborhoods were able to delay the start of their contract and pay a pro-rated price based on the number of months. In response to remote work due to the pandemic, RTD is also allowing employers to exclude employees who work remotely rather than requiring them to cover all employees at a location.

N-Line Promotional Fare Pilot

A 6-month promotional fare pilot on the North Line (N-Line) was implemented from September 28, 2020 to March 27, 2021. This pilot was initiated based on interest from local jurisdictions and stakeholders along the N-Line corridor who expressed concern about the impact differing fares within the corridor could have on customers. The pilot was intended to evaluate the impact of fares on

customer demand and was approved by the RTD Board in November 2019, prior to the COVID pandemic. During the pilot period, trips from all N-Line stations to RTD's fare zone A, even those greater than 9.5 miles distance from Denver Union Station, were priced at a local fare. This also affected the pricing for travel to many other stations. After the pilot program ended in late March 2021, trips from/to the two northernmost stations of the line to fare zone A and most other stations were priced at the Regional fare, consistent with the 9.5-mile distance fare boundary to Union Station for the rest of the system. Since there is no historic data for this new line, RTD has not yet been able to establish if the promotional fare resulted in a gain in customers. RTD will evaluate in the fall of 2021, after 6 months of experience following the regular fare policy. Note that challenges associated with the pandemic occurring during the pilot period will need to be accounted for in determining the overall impacts.

<u>Semester Pass Pilot for Auraria Higher Education Center</u>

Due to the pass program pricing methodology introduced in 2019 (based on actual utilization and the full fare value of trips taken, subject to a 5-year phase-in period), the price for Auraria Higher Education Center's (AHEC) CollegePass contract had increased every year, and it was becoming more difficult for the campus to cover the costs through student transportation fees. The pandemic further highlighted the issue since classes were held remotely and many of the campus staff worked remotely. Rather than enrolling in the CollegePass and EcoPass programs that would cover all students and staff, the campus was looking for an opt-in option. RTD offered a semester pass for Auraria students and staff at a reduced price, valid January - June 2021. Since this is a fare pilot program, this offer cannot be extended without a fare equity analysis.

4. <u>Overview of Planned System Wide Fare Study and Equity Analysis</u>

As RTD continues to deal with ongoing impacts of the COVID-19 pandemic, there is a strong interest from a variety of stakeholders for RTD to re-evaluate its current fare structure. In response to this feedback, staff have developed a preliminary plan to conduct a new comprehensive fare study and fare equity analysis. The process for this study will be initiated in the summer of 2021 and is expected to take a minimum of 18-months to complete because of the comprehensive nature of data collection and analysis as well as the need for a robust customer and stakeholder engagement process. The process will be consistent with guidance from the Federal Transit Administration (FTA) and will include a comprehensive fare equity analysis of any proposed fare changes.

The proposed tasks for this comprehensive fare study and fare equity analysis include:

1. Conduct an onboard ridership survey (or equivalent) to have updated ridership data as required by FTA
2. Review RTD's existing fare structure to determine issues that need to be addressed as part of any fare change
3. Review peer agency fare structures to determine best practices and applicable new innovations for RTD to consider
4. Identify alternative fare structures and pass programs modifications to test and evaluate for ridership, revenue and other impacts
5. Develop evaluation methodology to test and evaluate alternative fare structures including methodology consistent with FTA guidance on Title VI Fare Equity Analysis

6. Conduct a comprehensive evaluation of alternative fare structures and pass program modifications

7. Develop recommended changes to RTD fare structure and pass programs based on the comprehensive analysis completed in Task 6

8. Conduct a comprehensive public involvement process throughout the study to gain extensive input and feedback from RTD customers, stakeholders and RTD employees

   a) The process will include a robust community engagement plan focusing on historically underrepresented and diverse communities, such as black, indigenous and people of color (BIPOC) communities, individuals with lower incomes, youth and senior communities, and other Title VI-protected populations

9. Prepare a final report summarizing the analysis, recommendations and feedback learned through the study process

A draft proposed schedule for the comprehensive fare study and equity analysis, including preparation of a detailed scope of work and consultant procurement, is identified in the table below.

Date	Activity

May 2021	• Kickoff dialogue with Board of Directors
	  - Recommendations from previous fare studies/PPWG
	  - Financial opportunities and considerations

June – July 2021	• Conduct internal staff and external community engagement, focused on customers and key stakeholders, to shape scope of work
August – September 2021	• Develop and advertise scope of work
October – November 2021	• Select consultant and execute notice to proceed • Finalize Board direction for fare revenue assumptions and targets
January 2022 – October 2022	• Conduct data collection, analysis, and develop recommendations • Conduct comprehensive community and stakeholder outreach including extensive Board involvement and input
October – November 2022	• Board decision making and approval of fare equity analysis
2022/2023 (6 months)	• Fare change start up/prep work/back of office
2023	• Implementation