

GUIDELINES FOR PICKUP SERVICE

Pickup
by CapMetro



I. INTRODUCTION

Purpose

CapMetro connects our community by providing people with quality transportation choices. CapMetro's Pickup service framework reflects the goals and objectives of the agency's Strategic Vision Alignment.

CapMetro establishes goals, objectives and desired outcomes for innovative mobility services focused on increasing community mobility and access to opportunity through the Pickup service. The framework guides the design, operational attributes and success measures of each Pickup service zone beginning after the general zone location has been identified. The framework does not function as a methodology for analyzing the region for potential zones nor for zone launch prioritization. Future service zone identification follows the same processes as CapMetro's MetroBus, MetroRapid, MetroExpress and MetroRail route planning.

Pickup is an emerging type of public transportation that does not follow the mold of traditional transit. CapMetro is at the forefront of this new type of service delivery, as such we will continue to evaluate and build upon the Pickup Service Framework document as this type of service matures. CapMetro staff will review the Pickup service framework regularly in anticipation of each Service Plan Update to ensure alignment with goals, objectives and resource availability.



This allows an opportunity to revise content based on recent experience and best practices.

CapMetro Innovative Service Guiding Principles:

- 1) Increase Access to the transit system and opportunities throughout the community.
- 2) Expand Transit Coverage by serving transit gaps and other underserved areas.
- 3) Increase Equity through access to mobility for underserved communities.
- 4) Drive Innovation through expanding the reach of public transit.
- 5) Maintain Financial Sustainability for CapMetro.
- 6) Promote Environmental Sustainability.

Overview

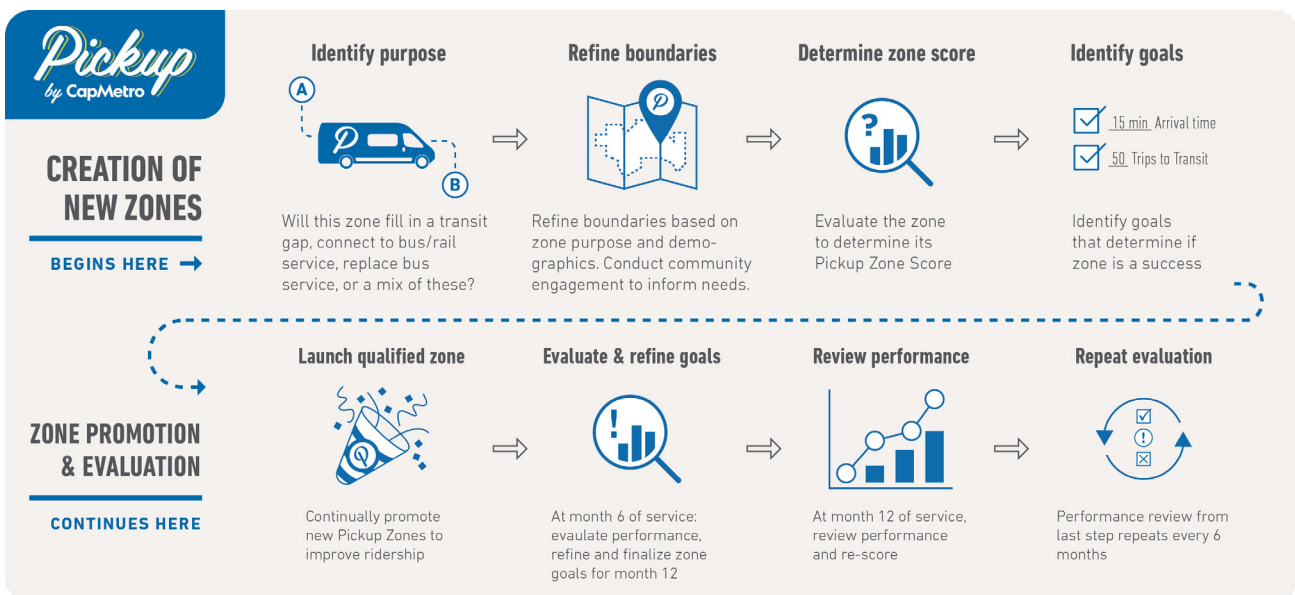
The framework for Pickup service provides guidance for (1) refining new service zone boundaries and (2) evaluating the success of each zone based on zone-specific performance measures that take into consideration the unique attributes of each individual zone. The process will include a large and ongoing public engagement effort designed to uniquely tailor each zone to meet the localized need of the community. Every zone will have unique and diverse measures because, just like our neighborhoods, no two zones are exactly alike.

Determining New Service Zone Boundaries: Service framework incorporates transit planning factors when determining boundaries including, but not limited to, existing access to transit, ridership, partnership opportunities, public engagement, residential and employment density, land use, geographical barriers, proximity to activity centers and a multitude of localized demographics. Design criteria of Pickup zones require staff to define service attributes such as zone size, destinations served, fleet size, service span and ideal customer wait time.

Measuring Zone Performance: Once a Pickup zone boundary is established, the framework requires an individualized analysis to identify how each zone is to be evaluated for success. Each zone will have unique performance measures established based on zone characteristics, operational constraints, stakeholder input and overall program goals. This Pickup service framework is to be used flexibly with special attention paid to the needs of the neighborhoods being served. The framework uses a methodology based on three specific areas of measure:

- Community Characteristics: Measures directly impacting members of the community
- Service Quality: Operational effectiveness measures
- Sustainable Use of Public Resources: Financial and environmental indicators

The complete process is outlined in detail later in this document, but an overview of the process is depicted here:



II. THREE CORE PURPOSES OF OPERATION

Pickup service typologies are used to organize services according to their core purpose. In other words, what is the transportation challenge that the zone is attempting to solve?

There are three distinct purposes for CapMetro Pickup zones as outlined in this section.

Zones may fit neatly within only one of these typologies or they may have attributes of more than one. Identifying the purpose of the zone helps to develop a framework by which to set operational policies and service performance standards that align with the zone purposes.

Operational Service Typologies

Flexible alternative to less-used bus routes:

Sometimes a full-sized bus is not always a good fit. This typology can provide flexible transit service where traditional bus service is underperforming and not successfully meeting the community need. Often a good solution for low-volume areas that can't support the operation of a full-sized bus.

Transit option for communities where a service gap exists: A service gap represents a geographical area that does not have access to transit. This could be due to many reasons such as geographic barriers, low density land use, fragmented street network, lack of affordable options from the private sector or many other reasons. Pickup may be a good fit in a gap area if there is a measurable need for transit.

Connect customers to the larger transit network: Used specifically to address first-mile/last-mile transportation needs, connecting riders to and from a fixed-route transit stop, transit station or mobility hub. Allows for more entry points into the larger CapMetro system and utilizes Pickup to do the short connector trips so that the buses and trains keep running at maximum efficiency.




Alternative to underperforming bus service: Bus route replacement service

A zone created to fill in for poor-performing bus service is considered a Bus Route Replacement Service. Pickup allows for more flexibility and can offer improved frequency with 15-minute or less service in these areas. Pickup can often provide better overall service to customers in these areas with this right-sized solution.

Bus route replacement zones should consider the previous bus route's span of service, ridership trends, origins/destinations and equity factors. Bus route replacement zones may need to be different in size and geography to expand the coverage of transit beyond the previously underperforming bus. Community engagement in the directly impacted area is important to assist in defining zone boundaries and performance measures.

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Pickup zones embody one or more of these purposes:

-  Flexible alternative to less-used bus routes
-  Transit option for communities where a service gap exists
-  Connect customers to the larger transit network

Transit option for communities where a service gap exists: Gap Service

Transit coverage gap service is designed to increase mobility in a specific geographical area with minimal or nonexistent transit service. These areas have some public demand for transportation services but cannot support full-scale fixed-route bus service. A transit coverage gap frequently exists due to infrastructure challenges such as street or sidewalk network connectivity, naturally occurring barriers, or areas that have experienced recent growth but still cannot support full-scale bus service yet. The transit coverage gap service type does not apply to areas where Pickup is used to replace fixed-route transit service (see bus replacement service).

Gap service is designed to provide good mobility within the zone to connect passengers to services and opportunities such as jobs, healthcare or groceries. Measuring these types of connections, depending on the unique needs of the zone, may be of higher importance within this zone typology.

Over time, residential and employment densities may change within a Pickup zone to levels that are more akin to fixed-route service standards. Density changes along with trends in ridership and long-term service planning may also signal the transition of a Pickup service zone to a fixed-route bus service.

Connect customers to the larger transit network: First-Mile/Last-Mile Service

A First-Mile/Last-Mile zone is designed to connect people on either side of a transit system trip with their origin or destination. This type of service is most effective when connecting transit users to high-frequency service like the bus or train. Pickup operating considerations for First-Mile/Last-Mile zones include a relatively higher volume of passenger trips ending or beginning at transit stops or stations. This is a measure of high importance within this zone typology whereas it may not be as critical in other zones.

Riders will transfer to or from other transit service, so quick response times and coordinated schedule information are important for service attractiveness. These zones should consider mirroring the span of the connecting transit service when reasonable. Peaks in demand may occur in conjunction with infrequent or commuter-based transit services. In these cases, a Pickup zone may also have elements of gap service to transport customers when peak service is not running.

Operating policies that reduce the likelihood of a missed transfer will help improve service attractiveness. For example, CapMetro could stage a Pickup vehicle at the stop or station during the p.m. peak to minimize wait time for passengers connecting to the Pickup service.

Multiple Operational Typologies within a Zone

Pickup zones are not limited to one operational typology as listed above. Service within a given Pickup zone may take on a hybrid form that consists of multiple operational types. The combination of multiple zone types integrated within one Pickup zone increases the complexity for establishing performance measures. For that reason, these service standards and guidelines are to be used flexibly with special attention paid to the needs of the neighborhood) being served.

III. GUIDELINES FOR ZONE DEVELOPMENT AND IDENTIFICATION

Once a zone's service typology is identified the rough geographic outline of the service zone boundaries must then be refined. Appendix A provides guidance for Pickup zone design that will inform how boundaries are adjusted and refined. The guidelines outline basic concepts where Pickup service may work most efficiently and effectively when applied according to each service operational type. However, situational deviations from these guidelines will likely occur when and where analysis, public engagement feedback and expert consensus deem necessary or logical. Common characteristic details of Pickup zone identification may include these and other considerations:

- Land use characteristics
- Residential and employment density
- Demographic and socioeconomic characteristics
- Destinations and activity centers
- Roadway and sidewalk network
- Unserved areas without public transit
- Existing transit ridership levels
- Proximity to the larger transit system
- Span of existing transit service



IV. PERFORMANCE MEASURES FOR ZONE EVALUATION

CapMetro strives to provide high quality Pickup service with a focus on measuring success through community, performance, and sustainability. To ensure each Pickup zone is meeting expectations, each zone is evaluated with performance measures that fall within one of these three focus areas.

Every zone is different and as unique as the communities they serve; so too are the measures used to define the success of each zone. Some measures, such as a 15 minute or less response time, are a common across all zones. Others, such as the number of connections to a specific route, would be an example of zone-specific community measure. More detailed explanations of these three focus areas may be found at the end of this section.

Metrics are reviewed and established independently for each zone through analysis of the zone characteristics, demographic information, community feedback and incorporating the unique operational considerations of the zone.

New Zone Performance

New service zones are implemented on a trial basis for at least 12 months. Each zone is evaluated mid-term at the 6-month mark and then once again at the 12-month mark. This 12th month evaluation identifies if the zone will be continued in full operation, retain its trial status, or be discontinued. Zones are not considered operationally mature until they are in service for at least 10 months, so it is important to give a zone the full 12 months before it is discontinued.

Performance metrics are initially established for each zone before they are launched. These performance measures are based on the zone typology, demographics, community goals, zone size and all other available information. Zones are evaluated at the 6-month mark, the 12-month mark and in perpetuity every 6 months for the life of the zone.

6-month evaluation: The first major evaluation of the zone performance is triggered at 6 months of service. The zone's performance measures will be reviewed and refined along with operational adjustments to improve overall zone performance. This is the opportunity to get feedback from stakeholders and make adjustments to the zone with the objective of helping it become an effective and successful zone by the time it reaches the 12th month evaluation. The sixth month evaluation concludes with finalizing the performance metrics that will used for the evaluation at month 12.



12-month evaluation: New services should meet minimum standards within 12 months because the zones are considered “mature” by that time. When a zone reaches 12 months of operation a performance review is conducted, and a performance classification is determined. Zone classifications are as follows:

- **Good Standing:** The zone achieves a score of 60 points or higher. The zone is considered successful but is still subject to minor adjustments and refinements to continuously improve the service.
- **Adjustment needed:** Zone score between 41 and 59. This zone remains in trial basis with the aim to bring it into good standing. This score requires immediate corrective action to improve zone performance. If a zone remains in trial basis for 18 months or more it will be recommended for discontinuation during the next service change.
- **Recommend for Discontinuation:** Zone score of 40 points or less is automatically placed into consideration for discontinuation of service during the next service change.

Ongoing Evaluation: Mature zones that have been in place for longer than twelve months will continue to receive a performance evaluation at least every six months for the life of the zone. It is important to have regular evaluations of all zones. The region is changing and so too are the transportation needs of the community, therefore zone planning and design must be nimble and responsive. Pickup zones should be evaluated in real-time as information is made available resulting in routine small adjustments to ensure the highest quality service. In some cases, a well-performing zone may be removed and upgraded to a high-capacity fixed-route service.

Zone Evaluation – Performance Measures

Performance measures are included but not limited to the items outlined within this section of the document. These measures are organized into three larger categories of Community, Performance and Sustainability.

- **Community Characteristics:** Measures directly impacting members of the community
- **Service Quality:** Operational effectiveness measures
- **Sustainability:** Financial and environmental indicators

The matrix on the next page contains a starting point of common measures but is not an exhaustive list and is subject to change based on community engagement local needs. Measures will often vary based on the zone attributes. For example, a zone may aim to address a food desert in a specific area. In that example an important element under the Community category would be the volume of trips connecting customers to grocery or other food stores.

Community Characteristics	Measures/KPI	Criteria	Point Values	Max Points Available
	Population Age 65 and Over	Zone compared to overall population demographics (2019 Block Group used: 9.2 Service Area Average)	<div style="border: 1px solid green; padding: 5px;"> Baseline of service area metrics begins at midpoint of 3 points. For every 20% above service area average, the zone scores an extra point. For every 20% below the average the zone loses a point. These service averages will need to be adjusted as new yearly ACS/Census data is published. </div>	5
	Zero Car Households	Zone compared to overall population demographics (2019 Block Group used: 5.1% Service Area Average)		5
	Median Household Income	% meeting affordable housing requirements, compared to overall population demographics (2019 Block Group used: \$85,471 Median Household Service Area Average)		5
	Households in Poverty	Zone compared to overall population demographics (2019 Block Group used: 10.13% Service Area Average)		5
	Minority Population	Zone compared to overall population demographics (2019 Block Group used: 26.7% Service Area Average)		5
	Essential Services (Medical, Grocery, School, Shopping, Affordable Housing)	Serve significant destination needs within the service zone not served by local bus		1/2 Point is awarded for each type of service contained within a zone
			COMMUNITY CHARACTERISTICS MAXIMUM TOTAL POINTS AVAILABLE:	30

Service Quality	Measures/KPI	Criteria	Point Values	Max Points Available
	On Time performance (15 min or less wait time)	% of trips that meet this 15 min or less threshold. (92% or better OTP ideal)	An increase in 2% OTP increases 1 point	10
	Square Mileage: Urban zone	Ideal = 3 square miles in-town or smaller	Points drop as size increases above 3 Sq Mi.	10*
	Square Mileage: Suburban + zone	Ideal = 6 square miles suburban or smaller	Points drop as size increases above 6 Sq Mi.	
Ridership: Passenger per hour	Riders per service hour (4 passengers per hour or more is an ideal benchmark)	Each Increase of 0.5 pax/hr. increases score 1 point	10	
			SERVICE QUALITY MAXIMUM TOTAL POINTS AVAILABLE:	30

Sustainability	Measures/KPI	Criteria	Point Values	Max Points Available
	Cost Effectiveness	Pre-designated generalized cost per passenger trip (Based on zone experience)	Lower cost per passenger = higher the score. (\$15/ passenger is the median with 5 points)	10
	MetroAccess Customers using Pickup	% in zone using Pickup (Based on zone experience)	Higher % of MA users on Pickup = Higher score. (5% is the median and scores 5 points)	10**
	Mobility impaired passengers Transported	% of disability assistance request trips (Based on zone experience)	Higher % of mobility impaired users = Higher score. (2.5% is the median with 5 points)	
Shared Rides	% of trips shared with other passengers (Based on zone experience)	Higher % of shared rides = Higher zone score. (30% is the median and scores 5 points)	10	
			SUSTAINABILITY MAXIMUM TOTAL POINTS AVAILABLE:	30

Keep	60 plus	TOTAL COMBINED SCORE MAX POSSIBLE: 90 * Measure would be either for an in-town zone or a suburban plus zone. ** Total of 10 points split between two measures unless a zone has no MetroAccess customers. In that case mobility impaired passengers would account for all 10 points.
Adjust	41 - 59	
Discontinue	40 or less	

V. SERVICE CHANGE PROCESS

Major service changes to Pickup zones may be implemented as a response to the outcome of a zone's routine evaluation. Pickup service changes could include major zone boundary adjustments, adjustment to operating hours/days or in some cases an elimination of the zone. Major adjustments to service zones shall coincide with fixed-route service change timelines and follow the same process.

Potential corrective actions

New Pickup services should meet minimum standards within one year. Mature zones shall be evaluated and every six months for the life of the zone. Each zone will be classified based on its ability to meet the zone's established performance metrics. Zones are measured on a point system based on a total of 90 available points.

- **Good Standing:** The zone achieves a score of 60 points or higher.
- **Adjustment needed:** Zone score between 41 and 59.
- **Recommend for Discontinuation:** Zone score of 40 points or less.

Zones scoring less than 60 points shall be considered for a series of potential corrective actions, including schedule adjustments, zone modifications or elimination of the zone in its entirety. Zone elimination is considered if evaluation metrics are consistently underperforming with minimal likelihood for sufficient improvement.

Major service adjustments will follow the service change process used for bus and rail services. The steps in the process for developing major customer-impacting Pickup zone changes that add greater than 1/4 square mile to the existing zone or result in significant service hour adjustments are outlined below. Smaller adjustments to service boundaries and hours are routine and will be done administratively as needed.

Proposal development

- Service report outlining deficiencies
- Review of customer and operator input specific to the zone
- Initial zone adjustment concepts developed for consideration
- Customer Outreach
- Concept refinement and cost estimates
- Community outreach (riders, general public, advisory committees, etc.)
- Public notification and board approval

APPENDIX A. ZONE BOUNDARY CONSIDERATIONS

Appendix A explains general planning elements considered when designing and refining Pickup service zone boundaries. These elements are not meant to serve as a comprehensive list of all planning elements used in this framework. These outline common concepts CapMetro considers when developing efficient and effective Pickup zones boundaries. Elements may have a higher or lower importance to a specific zone when applied depending to the zone's service operational type. Situational deviations from these guidelines will likely occur when and where analysis, community feedback and expert consensus deem necessary or logical.

Unservd areas

Pickup service zones can help provide coverage in gap areas not already covered by CapMetro fixed-route service. CapMetro should analyze unserved areas for residential densities and trip attractors that would be feasible for a Pickup service zone to provide a transit solution to the area. Not all unserved areas will have enough potential riders to justify a Pickup zone.

Ridership levels

Pickup service zones can replace unproductive fixed routes or segments of fixed routes as ridership levels at bus stops are observed over time and low productivity is determined by fixed-route service standards.

Complementing the fixed-route system

Pickup service zones should complement the existing CapMetro system. Pickup is intended to increase the reach of the transit system in most zones and therefore must never compete with the bus or rail services for riders. A Pickup zone with well-designed boundaries will have fixed-route bus or rail stops located at the periphery of the zonal boundary in order to encourage connections into the larger system.

Residential and employment density

Residential and employment density are primary influences on transit demand. CapMetro's service coverage guidelines for fixed-route service reflect industry standards for minimum density needed to support cost effective transit service. Pickup's density standards will often be lower than fixed-route standards for residential densities and employment-contiguous densities.

Pickup service zones will fill in service areas not already identified and served for fixed-route service. Residential densities in the Pickup zone generally average at least 5 people per acre. Population density will vary by zone based on the specific purpose for each zone. In rare instances Pickup service zones may be created in rural communities and are likely to have population densities lower than 5 people per acre.

Land use

Fixed-route service is generally provided in areas with more mixed-use, commercial, institutional and high-density residential land uses. Low-density residential land use types are less likely to generate sufficient fixed-route ridership and would be more effective for a Pickup zone to serve. Low-density land uses at the periphery of mixed-use and commercial land uses served by fixed routes are the most effective places for most Pickup zone typologies.

Destinations and activity centers

Pickup service zones should strive to serve multiple destinations within the zonal boundaries. Activity centers may include destinations and transit attractions such as grocery stores, retail centers, employment sites, educational institutions, colleges, healthcare institutions, clinics, social service agencies, libraries or other community resources. Depending on a zone's identified purpose, these points may be used to track travel to certain destination types as a percentage of the overall completed trips.

Demographic and socioeconomic characteristics

Many CapMetro riders rely on transit as their lifeline to employment, educational opportunities, medical facilities, shopping and other activities. Like fixed-route service guidelines, CapMetro should pay particularly close attention to areas with the following characteristics for Pickup service zones and overall transit service:

- Households without access to an automobile exceeding 10% of total population
- Older adult population (65 years of age and older) exceeding 10% of total population
- Average household income below 50% of regional median income
- Households without access to an automobile exceeding 4% of total population



Older Adults and People with Disabilities

Pickup service zones within the CapMetro service area should focus on areas with at least 10 percent of residents who are older adults or persons with disabilities. Information on people with disabilities is limited and doesn't exist in an exhaustive geographic dataset, so it is important to evaluate other sources such as facilities specifically serving people with disabilities, community engagement feedback and MetroAccess eligible customer locations.

Household income

Pickup service zones within the CapMetro service area should focus on areas with a median household income below the regional average.

Zone size and obstacles

Pickup zones should be designed to operate as effectively as possible to minimize travel time while maintaining access to key destinations. Ideally, Pickup zones within urban and dense suburban areas will be around 3 square miles or less. Pickup zones in rural or disconnected areas may be larger with 6 square miles as the maximum zone size that should be pursued. Zones should be sized so that overall travel time for the longest trips during heavy traffic does not exceed 20 minutes for a given rider.

Natural and manmade boundaries can affect zone boundaries. Major highways or congested arterials frequently create inefficiencies when intersecting through a zone and should therefore be avoided when possible. Large greenbelts or long railroad lines with no vehicle crossings should not bisect a zone if it significantly increases travel time or distance.

Fleet availability

Zones should have a fleet allocated to them based on the availability to serve most customers within 15 minutes from the time of the trip request. All vehicles should be wheelchair accessible to ensure equivalent service for wheelchair users.

Service span

Service span refers to the hours that service is available. Service span guidelines vary by zone typology and level of retail activity, transit connections or even nightlife in the neighborhood. Consistent hours and days for service are important for encouraging ridership. Service spans of no less than five weekdays a week supports travel for traditional full-time employment and education.

Pickup service zones should have a minimum service span of 12 hours on weekdays. The set span of service should be cognizant of connections to bus and rail transit as well as unique community needs. If a Pickup zone is deemed to generate sufficient ridership on Saturdays, the minimum span of service should be set to eight hours for Saturdays.



APPENDIX B. SERVICE STANDARD PERFORMANCE MEASURE SUMMARY SAMPLE

Operational Typology Chart

The measures below outline the most common performance measures that should be identified for each Pickup zone. The value of each performance measure may differ from zone to zone based on many factors including geography, density, community expectations and many other factors discussed within this framework document. Additional measures may be added to individual zones based on other factors or priorities the zone is designed to address (e.g., health outcomes, access to fresh food, connections to employment, reduction in single-occupant vehicle use, reduction in carbon emissions, etc.). Recommended minimum values for some performance metrics have been established for use across all Pickup zones in an attempt to maintain high-quality service system-wide.

Ridership - The most basic of performance measures. It is unique for each zone and is most commonly measured as a daily, weekly or monthly number. This goal **is established** to account for seasonal fluctuations, holidays, bad weather days and more. This goal may need frequent **increases** as a zone's popularity grows but should not be adjusted to accommodate declining zone popularity.

Returning Riders - An indication of great service can sometimes be seen in the number of repeat or returning customers. CapMetro will track the number of unique riders in each Pickup zone and consider riders that take at least 4 trips per month (two round trips) as returning riders. Areas with a high number of visitors and tourists will typically not have this goal incorporated in their evaluation. But it will likely be included in the performance evaluation measures for areas with regular commuters or employment centers.

Customer Trip Rating - Pickup customers have the option to rate trips and leave feedback, providing CapMetro with an easy mechanism to gather customer feedback. Each Pickup trip can be rated on a 1 to 5 scale, with 5 being the most favorable and 1 being the least favorable. This is a straightforward way to gauge the community's satisfaction with the service. Unlike other measures with varying values for success, the goal for this metric in every zone is to achieve an average rating of 4 or higher.



Arrival Time - Timeliness of arrival is a critical measure of the quality and reliability of services. Pickup vehicles are considered on-time if at least 92% of the time the vehicle arrives at the requested pickup location within 15 minutes. 15 minutes response times simulate the service a customer expect on CapMetro's High-Frequency Network. Zones that fall below the guideline should be examined for running-time problems, traffic obstacles, construction, oversized zone, vehicle allocation, funding limitations or zone-design issues.

On-board Time - On-board time is an operational measure that helps evaluate the proper size of the Pickup zone as well as quality of service. 98% of Pickup trips should be completed with total customer ride time not to exceed 20 minutes.

Connections to Fixed-Route - Pickup zones designed to provide access to the larger transit network commonly include a measure of how many passenger connections are made with bus or rail transit service. Depending on the purpose of the zone this measure may be critical for zone success. There are various ways this can be measured depending on the zone characteristics. A common measure may be a certain percentage of Pickup trips in a zone transferring to the fixed-route system on a regular basis.

Completed Trips - Service is negatively impacted when trips are canceled, no-showed, not accepted, seats are unavailable or customers receive an app error. Each Pickup zone will have a goal outlining the percentage of requested trips that are completed. A general goal for this metric is typically 85% or higher. For non-completed trips, it is important to identify and resolve issues to improve a zone's completed-trip percentage

Shared-Rides - The ability of Pickup to combine trips to facilitate "shared ride" transit allows more people to travel using fewer vehicles. The higher percentage of shared rides allows more service to be utilized with fewer resources. The goal will be a pre-defined percentage of all rides that are shared with other customers. The goal percentage will vary based on zone characteristics such as density, service area size, or other influencing factors.

Cost Efficiency - Cost efficiency measures can span many different kinds of measures. Pickup's costs can most commonly be broken down by cost per hour/mile/passenger/etc. A cost per passenger is the most common goal used for pickup and will vary greatly for each zone. Cost efficiency typically gets better with strong ridership and good operational processes. Cost efficiency numbers only include the incremental hourly revenue service rate of the service provider and not the agency's fully burdened rate when possible. This method isolates costs that are directly influenced, controlled and managed by the daily operations. Pickup's cost efficiency will also be measured against the cost of providing equivalent fixed-route service in the zone with similar 15 minute headways. This metric will take a minimum of ten months after service begins for the zone to mature and the metric to stabilize.

Operating Effectiveness/Productivity - Operating effectiveness measures the number of passengers per revenue hour. Each Pickup zone will have a unique goal based on zone characteristics, but all should ideally achieve a minimum average of greater than 2 passengers per revenue hour. The goal for densely populated high-performing zones should be closer to 4.5 or more passengers per revenue hour.

ADA Paratransit Trip Shifting – This measures the number of trips taken by MetroAccess-eligible clients using Pickup service. Ideally, the creation of Pickup service zone would shift trips from the high-cost MetroAccess program to Pickup in order to improve cost efficiency while providing better same-day service to MetroAccess customers. This increases the sustainability of the entire system while providing a better level of service to our ADA customers.

Mobility Impaired Passengers – This can't always be measured accurately every time, but it is important to attempt to track and log. This is to measure the percentage of customers using the wheelchair lift or requiring a higher level of mobility assistance. Measure is based on lift use and app function, so it is not 100% accurate and should be used with caution.

Safety – Safety is a key element to the sustainability of all zones. Safety is measured in many ways including vehicle collisions, passenger incidents, close calls and more.

Additional metrics for consideration based on zone purpose include:

- Community Equity Metrics: Access to jobs, healthcare, food, opportunities, etc.
- Performance measures: App usage, vehicle deadhead, non-revenue hours per zone, trips requiring no intervention, etc.
- Sustainability Measures: Reduction in CO2 emissions, reduction of SOVs, electric vs gas, etc.

