



Pace passengers waiting to board a bus.

## A-4 Service Standards Framework

Initiative: Implement a service standards framework to guide service characteristics, performance, and local transit propensity.

IMPLEMENT  
NOW

implement  
later

further  
investigate

Supports Goals:

Accessibility, Equity, Productivity, Responsiveness, Adaptability,  
Collaboration, Environmental Stewardship, Fiscal Solvency, and Integrity

### CONTEXT

Given the diversity of development patterns, density, land-use and socioeconomic characteristics across the region, Pace provides a variety of transit services intended to tailor service to demand.

To address this diversity of land uses, *Driving Innovation* calls for Pace to implement a Service Standards Framework. This framework will enable Pace to make decisions regarding allocation of services using an updated and consistent set of definitions of expected service levels and standards for performance. These standards will ensure that transit service decision-making is objective, transparent, equitable and aligned with agency goals.

Service standards will also aid in selecting the type of service most suitable for specific areas based on a measurable set of demand scoring metrics. In addition, the framework will re-establish service performance targets and a process for evaluating and executing proposed service changes.

### PEER AGENCIES' BEST PRACTICES

The best practices of several peer agencies were considered during the development of this plan. This included topics such as evaluating route deviations, documenting service change practices, and tying service categories to demand levels. Influential agencies include Seattle's King County Metro, Portland's TriMet, Austin's Capital Metro, and the CTA.



***Service standards help to ensure that the transit service decision-making is objective, transparent, equitable and aligned with agency goals.***



## ACTION ITEM 1 Establish New Service Categories, Update Title VI Policy

Pace has a broad range of service types to accommodate a diverse region. A concise classification system and standards and expectations for each service type will be developed to accommodate this constantly changing variety. These categories will be used for both evaluating routes and setting appropriate levels of service. *Driving Innovation* calls for Pace to combine and simplify its two existing classification systems to facilitate internal decision-making.

### Existing Title VI Program Categories <sup>4</sup>

Pace currently uses a set of nine route categories updated in 2016 to establish fixed-route service standards for the purposes of its required Title VI program:

- Core Line
- Primary Line
- Secondary Line
- Local Connector
- Regional Connector
- Regular Express
- Bus on Shoulder Express
- Reverse Commute Shuttle
- Traditional Commute Shuttle

### Existing Performance Categories

Pace currently uses a set of five route categories developed in 2008 for benchmarking, evaluating performance, and reporting analytics for fixed-route services:

- CTA Connector
- Suburban Link
- Express Service
- Intra-Community
- Commuter Link

<sup>4</sup> Title VI refers to the Civil Rights Act of 1964 that protects people from discrimination based on race, color, and national origin in programs and activities receiving federal financial assistance.



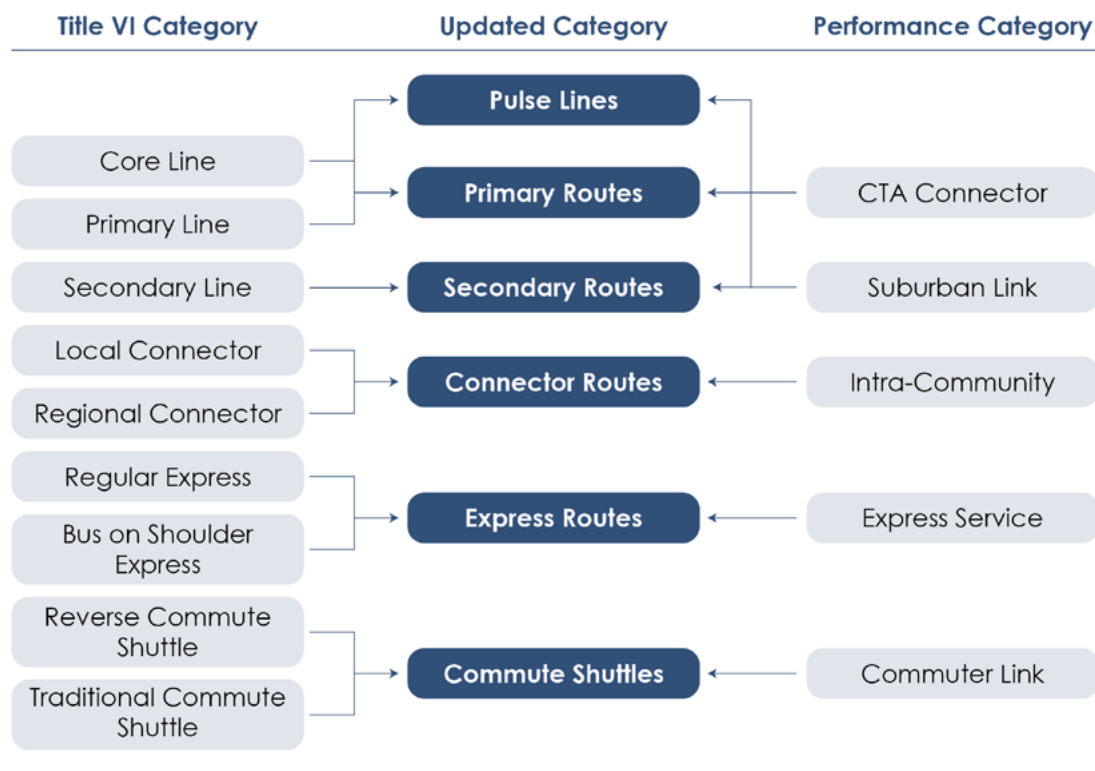


Figure 2: Updated Pace Fixed-Route Service Categories

The six fixed-route categories in the center column of Figure 2 show the proposed new service classifications for fixed route services and illustrate how these services have been consolidated.

The new service categories and performance standards will be used for all service development, performance monitoring, and public reporting purposes. This will require that Pace update its internal service evaluation process, Title VI Policy, and performance assessment to reflect the new categories.

The following pages provide an illustration of how Pace may establish and implement a Service Standards Framework in conjunction with these new service categories.

## Step 1

### Establish measurable criteria for each service category.

- 1a. **Transit Propensity** - Establish transit propensity score ranges and assign to each service category. See illustration on next page for more information on the proposed process.
- 1b. **Service Standards** - Establish minimum thresholds for each service standard and assign to each service category.

## Step 2

### Re-assign routes into service categories based on transit propensity.

Each existing Pace route will be assigned to a service category. This assignment will be based on the route's transit propensity score. Each category will have a score range. Score ranges may overlap, to allow some flexibility for determining the level of investment in any particular route, and to allow additional qualitative assessment given that every community or geographic area may have unique characteristics that influence transit use beyond what can be measured quantitatively.

## Step 3

### Evaluate route conformity to each standard and adjust service characteristics or propensity scoring as needed.

While some routes may feature service characteristics and amenities that match within the desired service standards for the route's respective category, many may have some area for improvement or other adjustment to meet minimum standards.

Pace will use the initial results of this analysis to target and prioritize service changes, schedule updates, passenger amenities, bus stop designs and other adjustments to meet the set standards.

Much of this work may be undertaken with the proposed Network Revitalization & System-wide Restructuring Initiative .

## Step 4

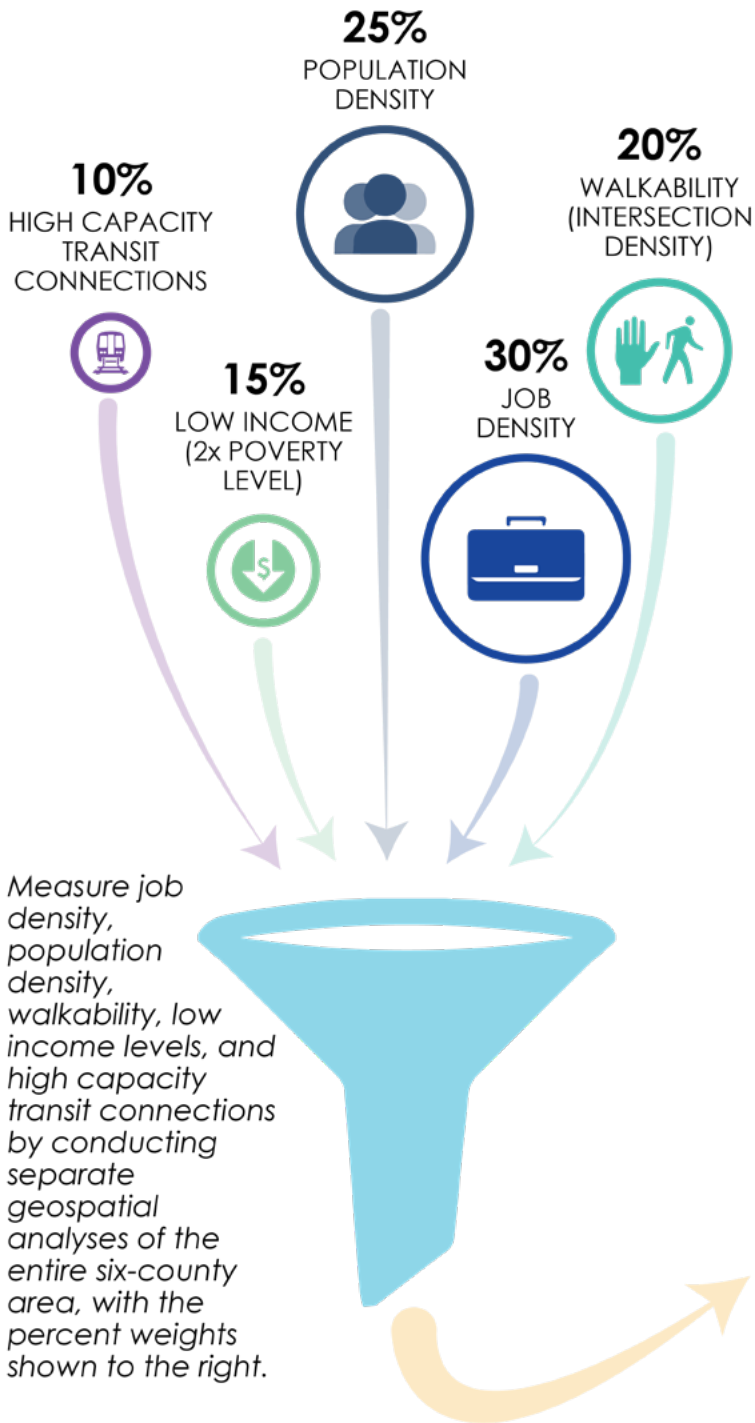
### Monitor and compare transit propensity against actual performance.

Beyond the transit propensity and service standards measures, route performance metrics will continue to serve an important function in assessing whether routes are achieving a level of success that is commensurate with the financial investment.

See illustration in the following pages for more information on how performance will be measured.

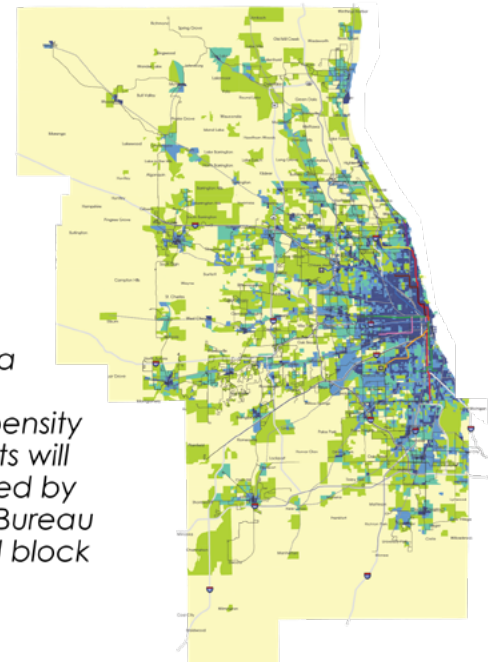
# Step 1a

## Illustration



Assess each route by stop, averaging results of within a 1/4 mile radius of each stop.

Use the average score to assign the route into the associated service category.



Merge the results into a composite transit propensity map. Results will be organized by US Census Bureau established block level units.



# Step 1b

## Illustration

For each of the proposed service categories of Pulse Line, Primary Routes, Secondary Routes, Connector Routes, Express Routes and Commute Shuttles, a minimum threshold will be evaluated and set for each criteria.

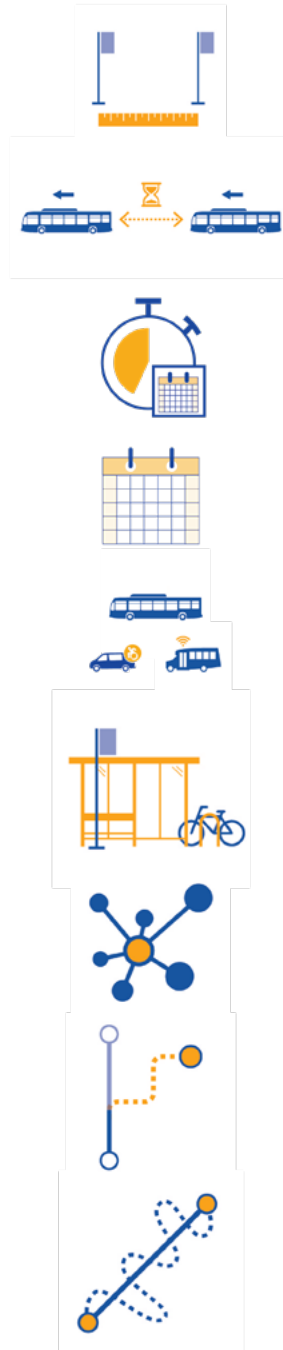
Finalized thresholds will then become the formal standard for each Pace service type.

For both existing and future Pace fixed-route services, each of the criteria shown on the right will be evaluated and recorded.

A similar process will be developed for Non-Traditional service types as well, including Paratransit, On Demand, Vanpool and Dial-a-Ride.

Routes with criteria that do not meet minimum standards will be evaluated and prioritized for further development, moved into a lower service category, or otherwise addressed to achieve targets.

This overall process will require substantial coordination with other Driving Innovation initiatives and external outreach activities.



### Stop spacing

Distance between stops.

### Peak Period Headways

Frequency of buses during rush hour.

### Service Span by Day Type

Hours of operation.

### Day Type in Service

Weekday, Saturday, Sunday.

### Vehicle Type

Large bus, small transit vehicle, van, etc.

### Amenities

Sign pole, shelter, street furniture, bicycle racks, real-time information, etc.

### Network Connectivity

Opportunities to transfer to other services.

### Route Deviation

Number of instances trips serve alternate destinations.

### Route Directness

Percentage of alignment along a single, continuous segment of road.



### On-time Performance

All Pace bus routes operate using a published route schedule, indicating trip arrival and/or departure times. Pace will continue to monitor early, late and on-time trips to identify where schedule adjustments may be needed per route.



### Crowding

Sometimes referred to as 'load factor', crowding on buses can degrade service on-time performance, increase travel times, and create undesirable customer experiences. Pace will continue to monitor trips with crowding issues and address accordingly.



### Productivity

This is the measure of how many passengers a route serves per hour of service provided. The higher the number, the more productive a route. Pace will continue to strive for high levels of productivity while balancing other performance metrics.



### Farebox Recovery

Productivity is closely related to farebox recovery; the more passengers that load onto a vehicle, the higher the productivity and thus the fare payments collected. Higher farebox recovery helps to achieve Pace's goal of financial solvency and highest and best use of public funds.



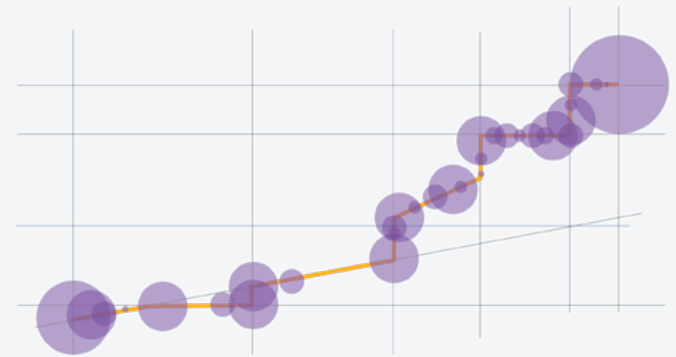
### Customer Experience

While much information can be gleaned from sources of data that are automatically generated using modern technology systems, Pace is equally interested in what it's customers think of the the service. The agency employs regular and robust customer survey efforts, as well as multiple means of collecting suggestions, complaints, questions, comments and other feedback.

This information is regularly used to assess service improvements and will continue to be a key component in ensuring service is planned, communicated and operated to the satisfaction of the people who are using it.

### Ridership by Stop Location

One of the most direct methods of determining if routes are achieving the highest potential will continue to be an assessment of stop-level ridership patterns. Moving forward, this information can be compared against route-level transit propensity measures.



Above - An illustration of stop-level ridership for a bus route. The size of the dots is scaled to the amount of ridership.



## ACTION ITEM 2 Development and Testing

### SCENARIO TESTING

In developing *Driving Innovation*, Pace assessed several test scenarios to understand the dynamics and impacts of shifting routes between proposed service categories. These hypothetical assessments were based purely on upgrading frequencies, spans or other key service indicators of all routes in an existing category, and did not account for any changes to alignment, stops or other individualized criteria for routes.

As such, much more assessment and testing will be required to derive scenarios that are more closely aligned with transit propensity and other regional needs and desires.

As Pace moves toward fully detailing and implementing a service standards framework, the outcomes of additional scenario testing will be instrumental to other initiatives, such as the A-5 Network Revitalization & System-wide Restructuring initiative.

### PROPOSED SERVICE CHANGE PROCESS

The proposed Service Standards Framework will also entail a more formalized process for developing, implementing, evaluating, and changing services. New services would be developed carefully to align with minimum levels of service, design guidelines, and Pace's Title VI/Environmental Justice policies. New services would also go through a trial period, after which performance would be evaluated like any existing service. After evaluation, routes failing service performance standards would undergo a service change evaluation process to attempt to improve performance.

***Pace will continue to strive for high levels  
of productivity while balancing other  
performance metrics.***





## P-2 | Potential COVID-19 Impacts

The effect of COVID-19 and Illinois stay-at-home orders has had a significant impact on Pace ridership across all of the agency's services, which was down by as much as 67 percent during March and April of 2020, then steadied later on through 2020 and early 2021 to about 50 percent.

Since the beginning of the pandemic and stay-at-home orders, Pace has reduced service levels on multiple fixed routes throughout the system. Reductions were targeted to services that were serving extremely low or non-existent levels of passengers. Examples includes Pace's previously popular I-55 Bus-on-Shoulder service, Metra BNSF Line feeder shuttles, school trips on regular routes and others where appropriate.

These temporary service changes allowed additional equipment to be allocated to other routes that continue to carry larger passenger volumes, which aided Pace in providing passengers with additional social distancing as fewer passengers could be aboard any given trip.

Looking ahead, Pace will carefully monitor ridership levels and performance metrics in the coming years to determine if previous service levels should be reinstated on individual routes, or if ridership does not rebound consider how to attract riders back, or in some cases make reductions permanent.

The network of services that emerges post-COVID-19 will form the basis of Pace routes to be evaluated with a new Service Standards Framework, as well as the network that the agency will build upon for pursuing the longer-term strategic vision of *Driving Innovation*.



### ACTION ITEM 3 Adapt and Adopt Service Standards Framework

Once Pace's Service Standards Framework is fully developed and analyzed it should be adopted and formally implemented. Key to this process is community and stakeholder engagement to build consensus for the framework and adapt it based on customer feedback.

Clear service standards are also valuable to manage expectations from Pace's community stakeholders. Not every community should have a Pulse line, for example — standards would show that Pulse service is appropriate along densely developed urban corridors. For lower-density communities, the service standards would suggest context-appropriate types of service that might include coverage-focused models. In the long term, these standards may also help communities determine how to shape land use policies, zoning codes, form-based codes, or other development guidelines to support graduated levels of future transit service.

### ACTION ITEM 4 Standards for Express Service to Popular Destinations

Pace's Express Service to Popular Destinations connects customers to a range of special events, including professional sports and concerts. These special services provide a convenient way for event attendees to avoid traffic and parking. However, special services also require significant effort to coordinate. In addition, customer demand for these events is quite challenging to predict – some event destinations are popular enough to fill buses to capacity, while others may see marginal demand.

Because of the one-off nature of these services, evaluating their effectiveness may require a more customized set of standards. These may be based on ridership, vehicle capacity, community partnerships and federal guidance. Pace will continue operating special event services that experience strong customer demand.

