

# Design Guidelines for Transit Supportive Communities



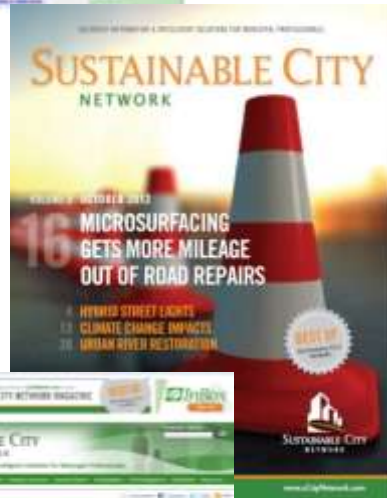
**Bryce Word**  
Special Projects Mgr.  
Pace Suburban Bus Services  
Bryce.Word@pacebus.com



**Tom Radak**  
Senior Project Manager  
Pace Strategic Services  
Tom.Radak@pacebus.com



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with Pace's Transit  
Supportive  
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# Transit Supportive Guidelines

For the Chicagoland Region



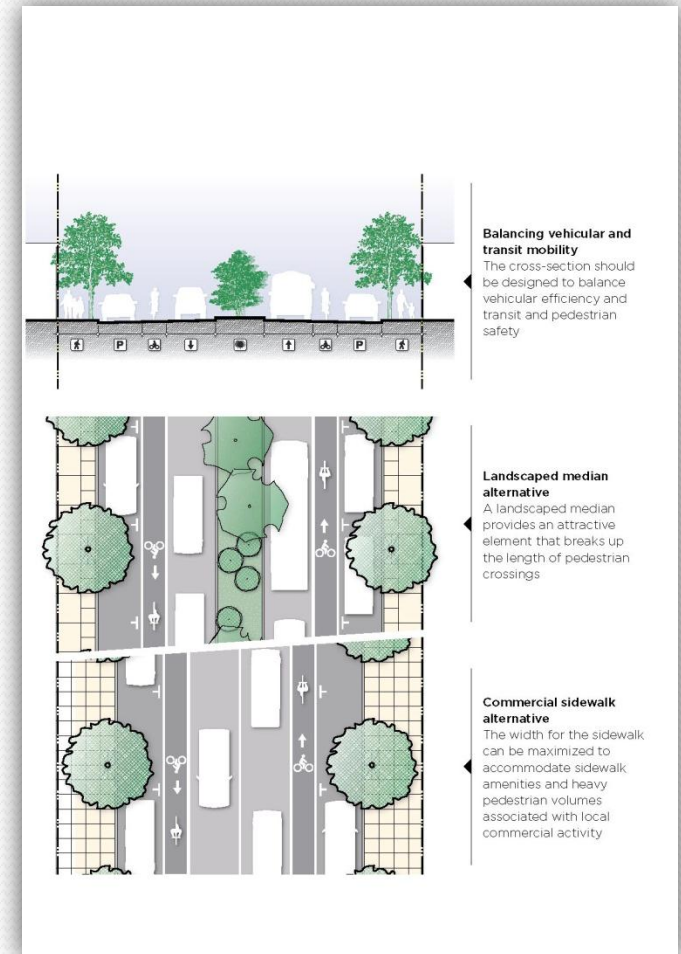
# Basics

- A how-to guide for transit and land use planning
- Help eliminate barriers to transit usage
- Define the role land use and development have on transit access
- Help developers, planners, elected officials, and transportation professionals work together to create transit supportive development



# Main Goals:

1. Aid municipalities and developers in design work
2. Encourage pedestrian-friendly land use with the reinvention of the DRAFT program
3. Work with communities from the very beginning /avoid hassle and expense of retrofitting
4. Plan smart infrastructure (which has a 20-50 yr lifespan) to include transit in the future
5. Encourage intelligent land use choices now will reduce congestion, emissions and delay in the future

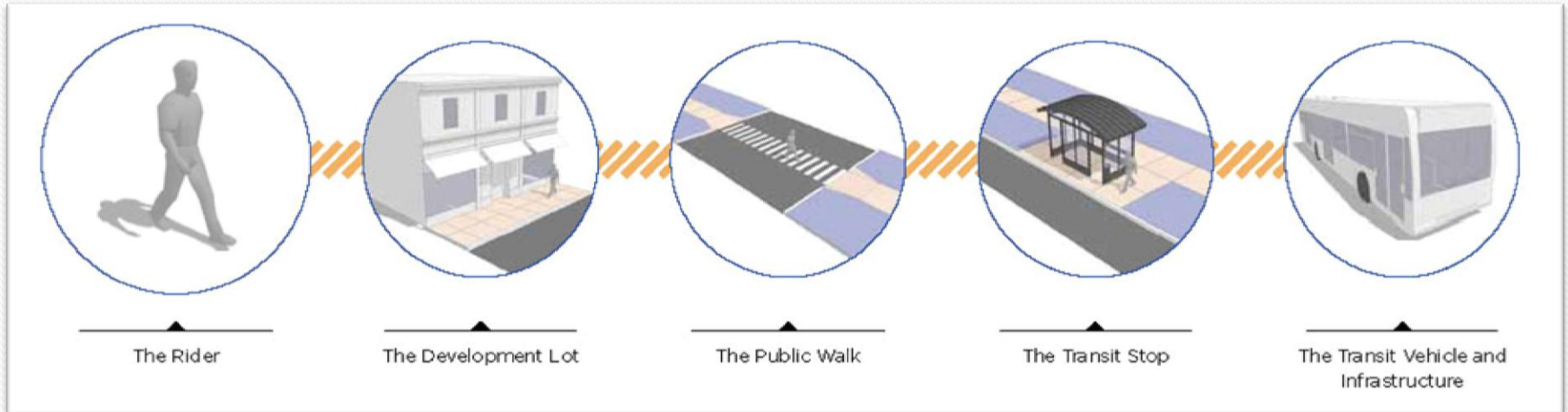


# Guidelines Process

- Two Steering Committees Formed
- Advisory consisting of Developers, Community Officials, CMAP, ATA, ComEd and COG's
- Technical consisting of Service Boards, RTA, CTA, Metra, IDOT and Tollway
- Meetings held throughout the process to help guide the study

# Defining Each Component of the Transit Trip

- The Rider
- The Development Lot
- The Public Walk
- The Transit Stop
- The Transit Vehicle and Infrastructure





# The Rider



Customer feedback drawn from:

- Pace CSI Survey
- White Papers
- Industry Best Practice
- Pace Focus Groups

Customer needs include:

- Safe, protected waiting area
- Comfortable seating
- Information

# The Development Lot



## Transit Friendly

- Ease of access for pedestrians
- Set near roadway
- Well maintained walkways (including snow removal)
- ADA accessibility
- Textured surfaces
- Provisions for shelters and pads

## Transit Prohibitive

- No walkways
- Set back from road
- No maintenance
- No ramps or curb cuts
- No pathway to bus loading area
- No space for bus stop
-

# The Public Walk



## Transit Friendly

- Sidewalks
- Crosswalks w/ pedestrian countdown signals
- Bike paths / racks
- Even surfaces
- Wayfinding signage
- ADA accessible curb ramps
- Well maintained pathways
- Protected from traffic

# The Transit Stop



## Transit Friendly

- Safe
- Comfortable
- Information available



## Transit Prohibitive

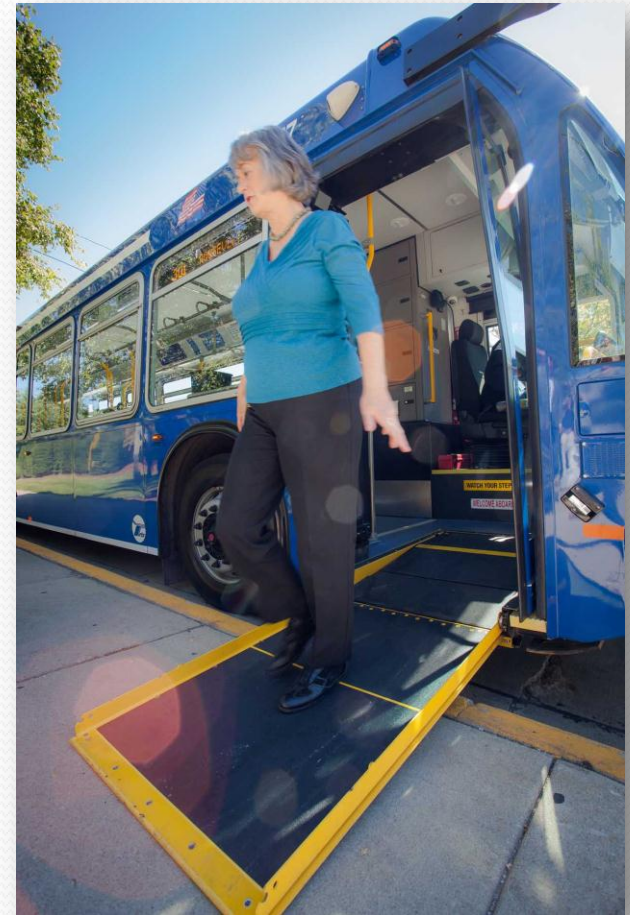
- Dimly lit or no lighting
- No shelter
- No signage or schedule

# The Transit Vehicle and Infrastructure



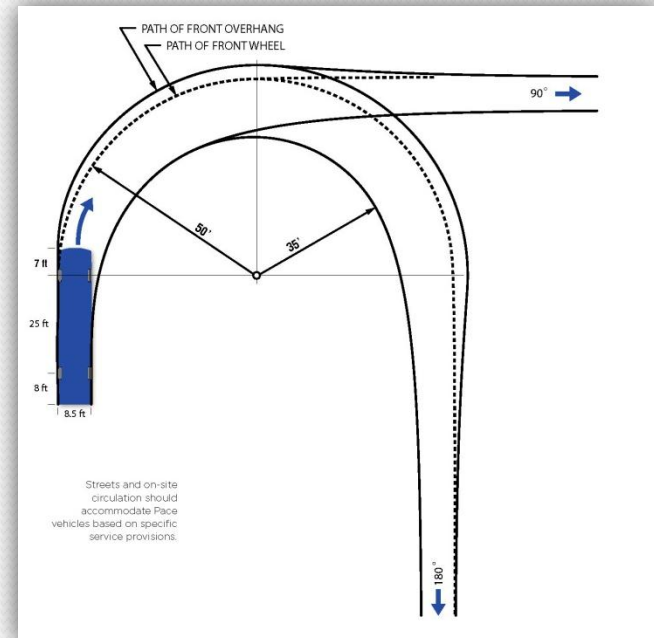
## Transit Friendly

- Wi-Fi
- Vehicle lifts
- Mobility securements
- Comfortable seating
- Stop announcements



# Technical Approach

- Infrastructure needs
- Land Use and density considerations
- Site design
- On-Site Transit Facilities



# Technical Approach – Service

- Vehicle and Service Characteristics
- Infrastructure Needs
- Facility Types

GUIDELINES FOR RACE INFRASTRUCTURE & FACILITIES

### BASIC BUS STOP AMENITIES

Waiting area amenities increase the safety, convenience, usability, and comfort of bus stops, and influence the overall attractiveness of public transportation. Bus stop locations that are designed with paved waiting pads, shelters, benches, lighting, windbreaks, route information, trash bins, bike racks, and, in some cases, pay stations and real-time arrival information, provide a comfortable, safe, and convenient waiting area for transit users. However, even when all these cannot be provided, each bus stop should provide basic amenities to the greatest extent possible.

All shelter areas and amenities should comply with ADAAG standards (United States Access Board, 2006).

In some cases, building lobbies can be designed as inferior waiting areas for transit users. These lobbies should be located within close proximity of a Pace bus stop and face the service area. Transit users should be able to view approaching buses for a 1000-foot distance. For passenger comfort, seating should be provided in the lobby.

Several factors influence the need for various stop amenities. High-ridership route transfer locations, stops with nearby healthcare facilities, and rapidly growing areas, for example, may indicate a need for targeted investment to improve passenger comfort and to draw additional transit users. In general, all new bus stops should be constructed with sufficient space to accommodate all of the amenities listed here, and Pace should be consulted to provide a recommendation regarding the appropriate amenities given specific local services.



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CHAPTER 6 - GUIDELINES FOR THE PRIVATE REALM

### SITE ACCESS AND CIRCULATION

Leaving the primary service corridor to serve private development is a potential barrier to providing efficient bus service. To minimize delays and traffic conflicts while servicing private development, the following principles should be followed.

- ▶ The on-site transit center should be located so that it is as close as possible to the streets on which the transit service operates. Property owners and designers should work with Pace to determine the best location.
- ▶ Access from the public street should be provided at logical entry points. These should provide a direct route for transit vehicles to the on-site transit center.
- ▶ To the extent possible, dedicated transit circulator lanes should be provided to enhance efficiency and minimize low-speed collisions with other vehicles.
- ▶ On-site pedestrian networks should connect the transit center to the public sidewalk and any surrounding uses. Raised crosswalks, unique pavers, bollards, lighting and/or signage should be used to delineate pedestrian paths where they cross parking aisles or internal streets.
- ▶ Roadway or parking lot segments used for on-site circulation should be designed to accommodate transit vehicles. Designers should work closely with Pace to determine the vehicles that could serve a given facility.



1 Bus vehicle access and circulation  
2 Passenger Boarding Area  
3 In-door Waiting Area

### TRANSIT FACILITY DESIGN

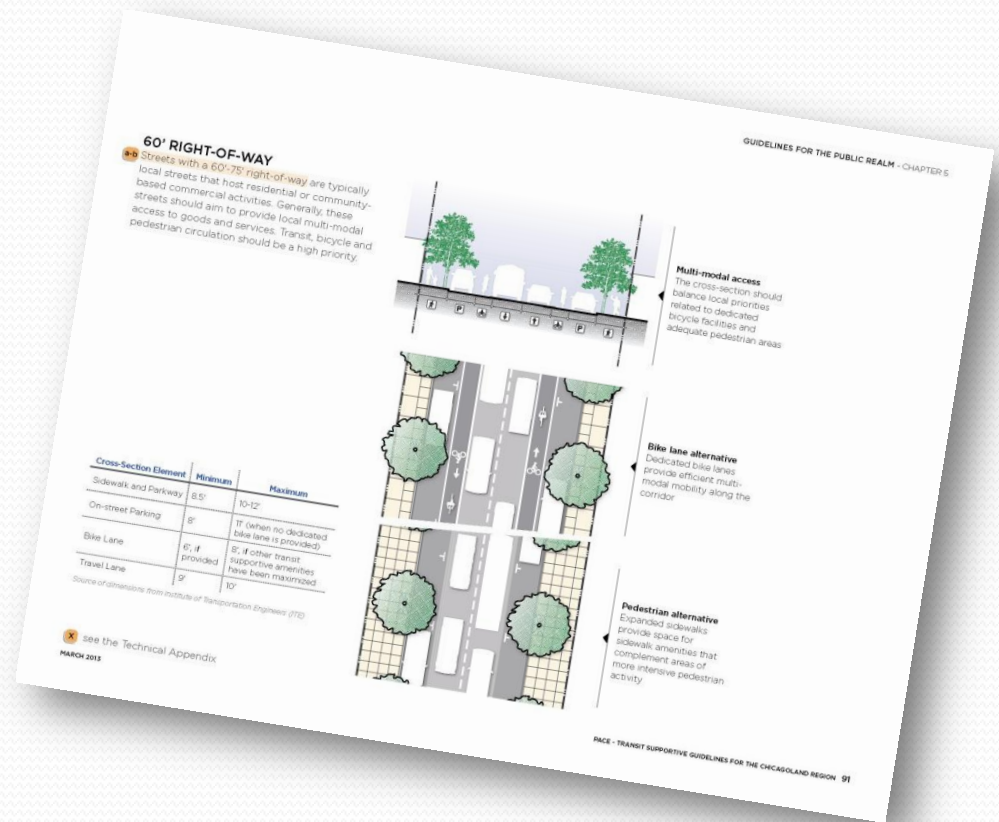
In order to provide the best possible transit service to local development, property owners should work closely with Pace to identify elements of the transit center design program. At a minimum, the design program must consider vehicle access between the private road network and transit center, vehicle stacking and storage areas, passenger loading and waiting areas, and basic amenities for rider comfort. Depending on the type of transit facility and intensity of service, additional amenities may be warranted, including an operator break area, enclosed bicycle lockers, fare card and restroom, information kiosks, etc. Since each location and information issues, Pace may vary based on local development issues. Pace should be consulted as to the extent of the design program and its specific application for a given site.

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# Technical Approach – Public Realm

- Street Network
- Pedestrian Network
- Traffic Calming
- Signage Information





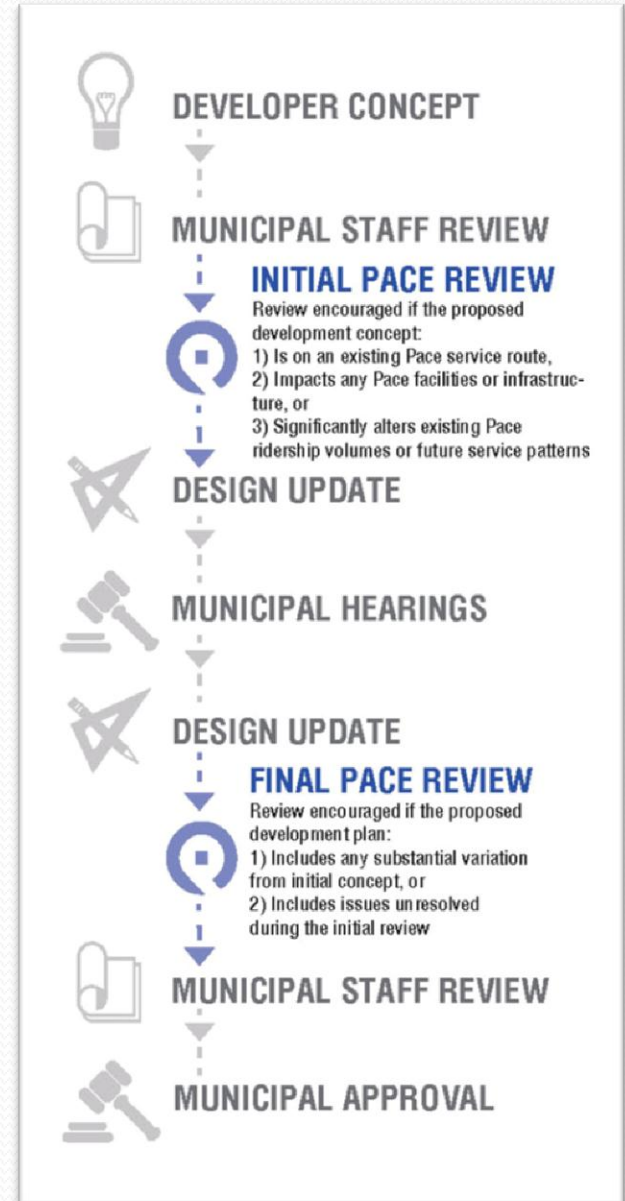
# Technical Approach – Private Realm

- Land Use Density
- Site Designs
- Access Management
- Building Designs
- On-site Transit Facility



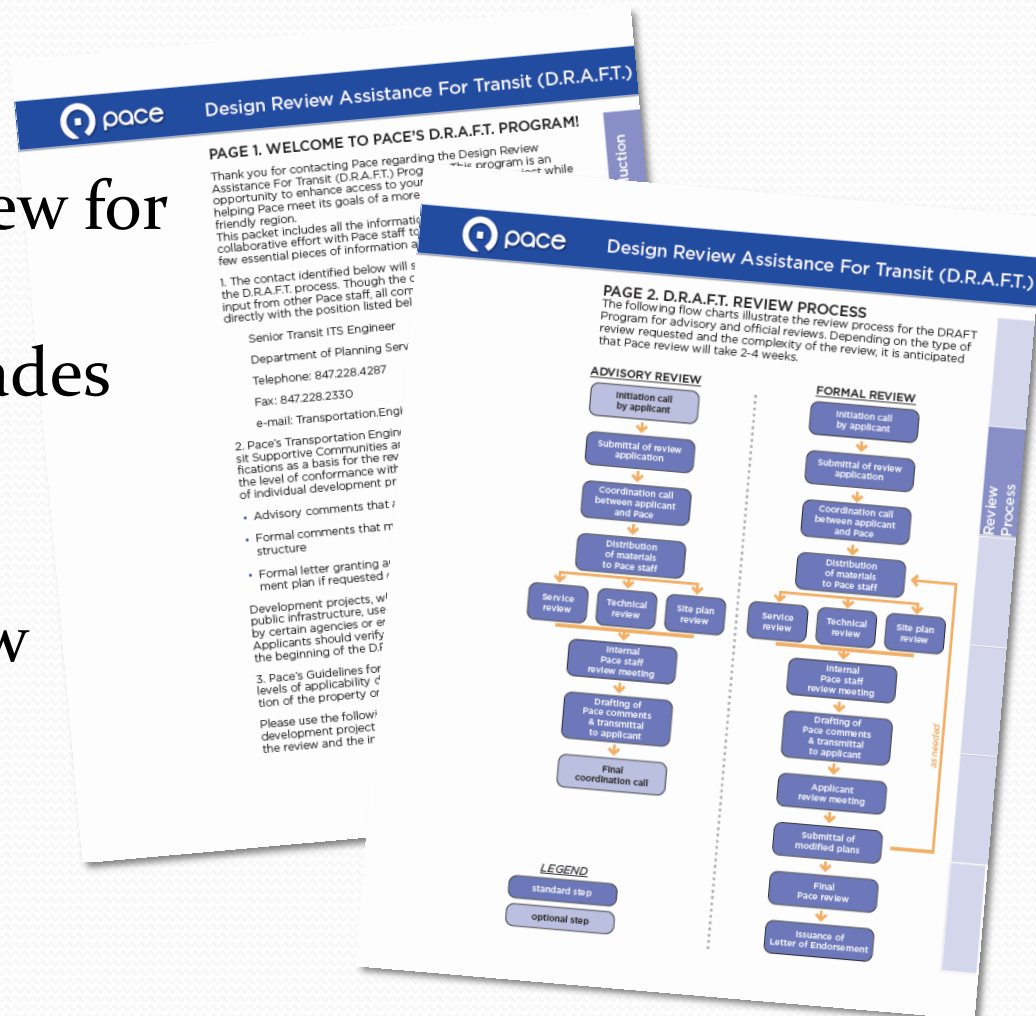
# Guideline Products

- Visual and engaging document
- Technical appendix including templates and examples
- Describes the Design Review Assistance For Transit (D.R.A.F.T.) program
- Microsite



# D.R.A.F.T. Review process

- Complimentary in-house technical review for development plans or public/municipal upgrades
- Relies on information typically submitted for municipal design review
- Application is available through guidelines website



### BUS TURNOUTS

**e** Bus turnouts consist of an entrance taper, a deceleration zone, a stopping zone, an acceleration zone, and an exit taper. They require the curb to be setback to bring the bus vehicle out of the flow of traffic, and can be used only at mid-block.

Bus turnouts do not block a travel lane during passenger loading and unloading and reduce the potential for rear-end collisions by allowing buses to turn out of the travel lane before decelerating ahead of the bus stop. Acceleration distance is provided ahead of the taper to allow the vehicle to merge back into traffic at higher speeds. Curb delineation also helps to guide the bus operator into the bus stop.

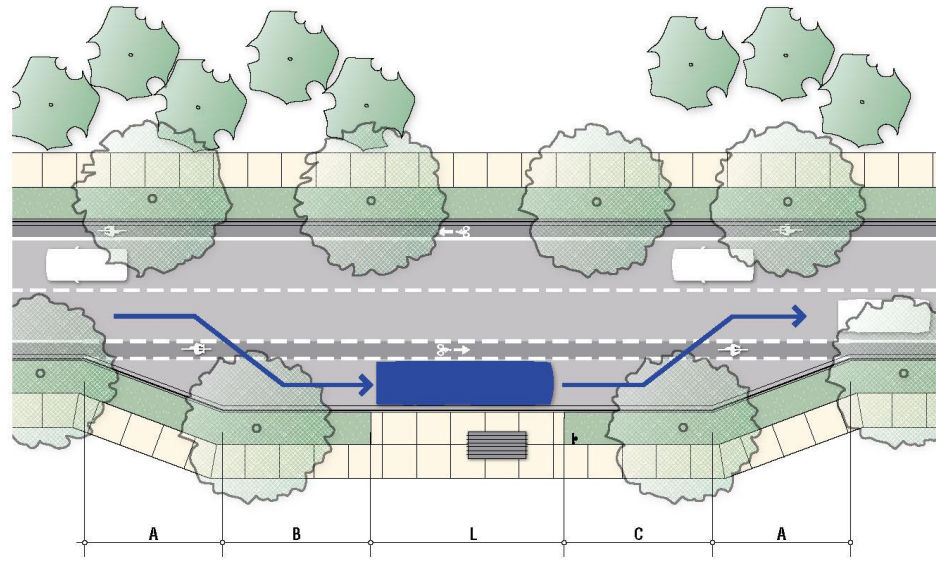
Bus turnouts typically have higher construction costs. They rely on otherwise unused pavement space for deceleration and acceleration. Bus turnouts remove more potential on-street parking space than bus bulbs, and create potential conflicts with cyclists if on-street bicycle lanes are provided.

**iii** According to IDOT's Bureau of Local Roads and Streets Manual, turnouts are most effective when:

- » Street provides arterial service with high speeds.
- » Bus volume is 10 or more during the peak hour.
- » Passenger volume exceeds 20 to 40 boardings per hour.
- » Average bus dwell time exceeds 30 seconds.
- » During peak hour traffic, there are at least 250 vehicles per hour in the curb lane.

**x** see the Technical Appendix

**x** see references (page iii)



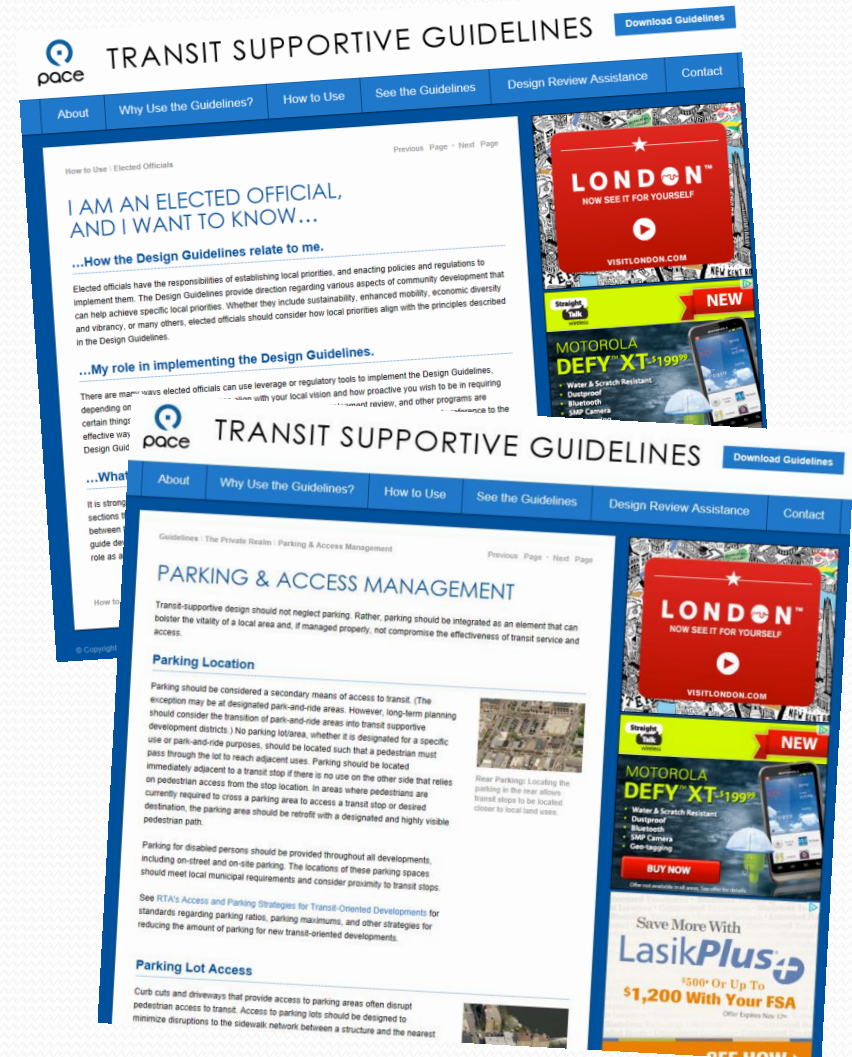
- » Buses expect to layover at the end of the trip.
- » Potential vehicular/bus conflicts warrant the separation of transit and other vehicles.
- » There is a history of traffic crashes and/or crashes involving pedestrians.
- » Right-of-way width is sufficient to prevent adverse impacts on pedestrian movements.
- » Curb parking is prohibited.
- » Sight distances prevent traffic from stopping safely behind the bus.
- » Appropriate bus signal priority treatment exists at the intersection.

Design Speed	Entering Speed	A Suggested Minimum Taper Length	B Minimum Deceleration Length	C Minimum Acceleration Length
30 mph	20 mph	150'	120'	50'
35 mph	25 mph	170'	185'	250'
40 mph	30 mph	190'	265'	400'
45 mph	35 mph	210'	360'	700'
50 mph	40 mph	230'	470'	975'

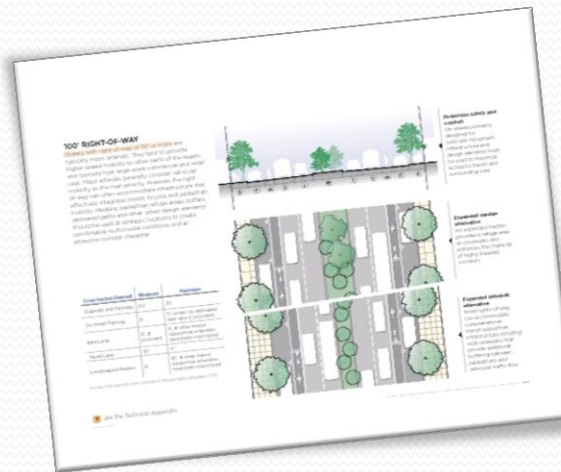
*Note: L=45' for each bus that needs to queue in the turnout. (See Section 4a for vehicle characteristics). Source: Bureau of Local Roads and Streets Manual, Special Design Elements, IDOT, pg. 41-4(6), 2008*

# Guidelines Website

- View guidelines by section or download complete file
- Explains how different audiences can use the guidelines
- Introduces the D.R.A.F.T. program



# Marketing & Communications



- Create awareness and encourage trial
  - Download guidelines and submit to DRAFT program
- Targets include elected officials, planners, developers, engineers, municipal professionals, economic development directors, and architects.

# Marketing & Communications

- Print ads
  - APA Magazine
  - Sustainable City Network Magazine
- Digital media
  - Banner ads on Crain's Chicago
  - This webinar
  - Other behaviorally and geographically targeted display banners

# Marketing & Communications

- Pace print and digital newsletters, social media
- 4800 Direct mail pieces
  - Targeting elected officials, engineers, planners, transportation directors, public works managers, etc.
- Still finalizing
  - Regional presentations
  - Giveaways
  - Event sponsorships
  - Other promotions



# Marketing & Communications

We wrote the book on land use planning for transit.



Get onboard with the Pace Transit Supportive Guidelines before your next project.

Great transit planning starts with the very first blueprint. That's why Pace has created the Transit Supportive Guidelines, to help you incorporate a transit-friendly future into your development plan right from the start. Pace also offers a Design Review Assistance For Transit (D.R.A.F.T.) Program, which provides complementary consultation from Pace transportation engineers. Be sure to take advantage of both of these resources for valuable planning advice and to ensure your private development or public infrastructure project meets industry standards.

Download your free copy of the Transit Guidelines today at [PaceBus.com/guidelines](http://PaceBus.com/guidelines).



We wrote the book on land use planning for transit.



Get onboard with the Pace Transit Supportive Guidelines before your next project.

Great transit planning starts with the very first blueprint. Pace created these Transit Supportive Guidelines to help you incorporate transit- and pedestrian-friendly design elements into your development plans right from the start. Those elements save you time, money, and hassle down the line. Pace also offers a Design Review Assistance For Transit (D.R.A.F.T.) Program, which provides complementary consultation from Pace transportation engineers. Be sure to take advantage of both of these resources for valuable planning advice and to ensure your private development or public infrastructure project meets industry standards.

Download your free copy of the Transit Guidelines today at [PaceBus.com/guidelines](http://PaceBus.com/guidelines).

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<Customer>  
<Address>  
<Address Line 2>  
<City Name, St 12345>

# Design Guidelines for Transit Supportive Communities



**Bryce Word**  
Special Projects Mgr.  
Pace Suburban Bus Services



**Tom Radak**  
Senior Project Manager  
Pace Strategic Services



**Maggie Daly Skogbakken**  
Marketing & Promotions Supervisor  
Pace Suburban Bus Services



**Adrienne Wuellner**  
Transit and Land Use Planner  
Pace Strategic Services



**Duane Mahone**  
Transportation Engineer  
Pace Strategic Services

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