



# Embracing usability and accessibility

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- Chicago-based, **full-service consulting** firm
- Serve mostly local city and county-level governments
- Midcamp core sponsor
- **Hiring!**



## Premier suburban transit provider

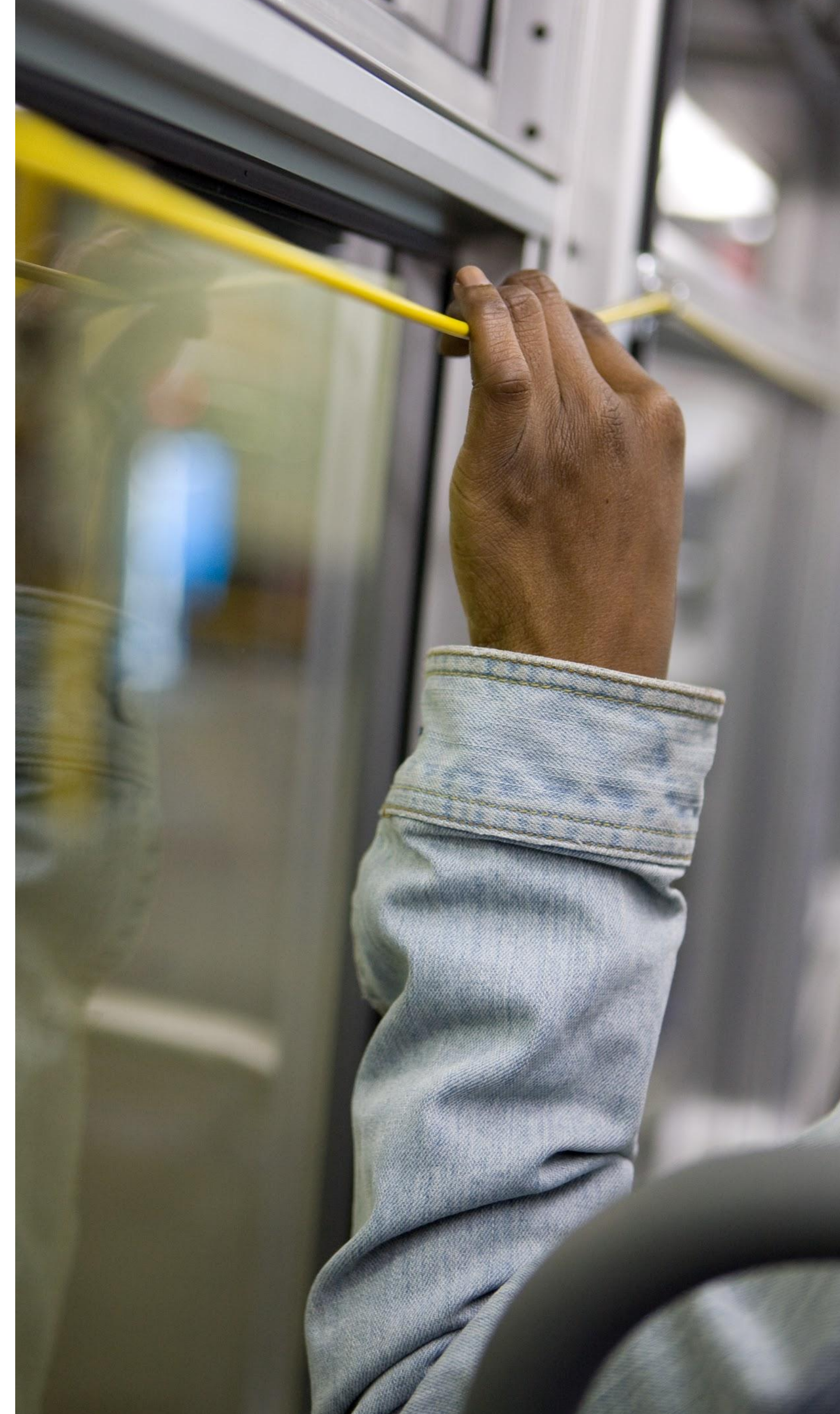
- Transit options for **284 municipalities** in **6 counties**
- More than **100,000 daily riders**
- Fixed & express routes, **ADA paratransit**, & ridesharing

# Today's Agenda

- **User Testing:** prepping, observing, results
- **Accessibility Testing:** testing, devices, results
- **Prototyping:** intentions, coding, producing



# Design for many users

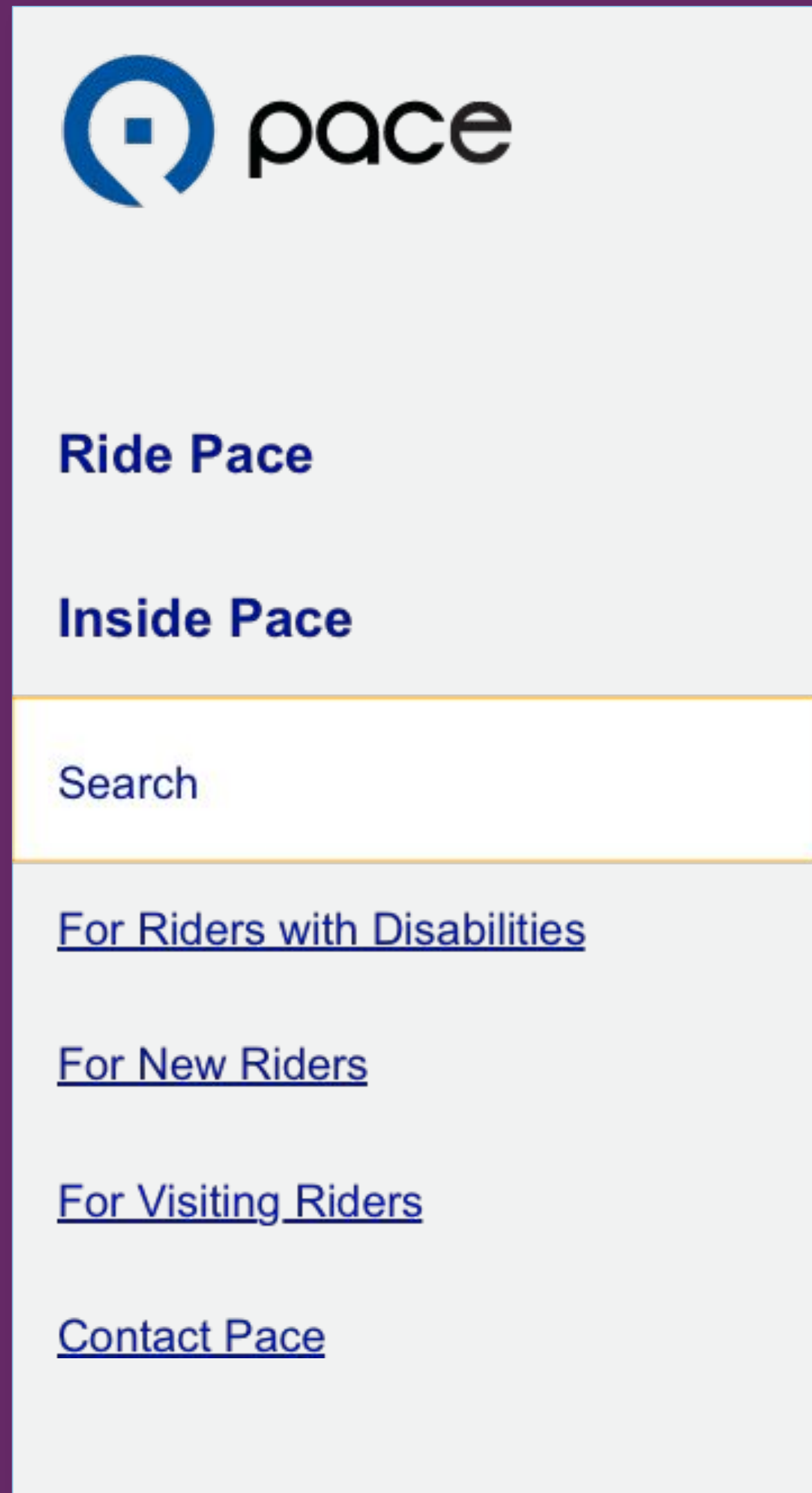


# User groups

- **New** riders
- **Regular** riders
- **On-demand** riders
- **Riders with disabilities\***
- **Engaged community** members

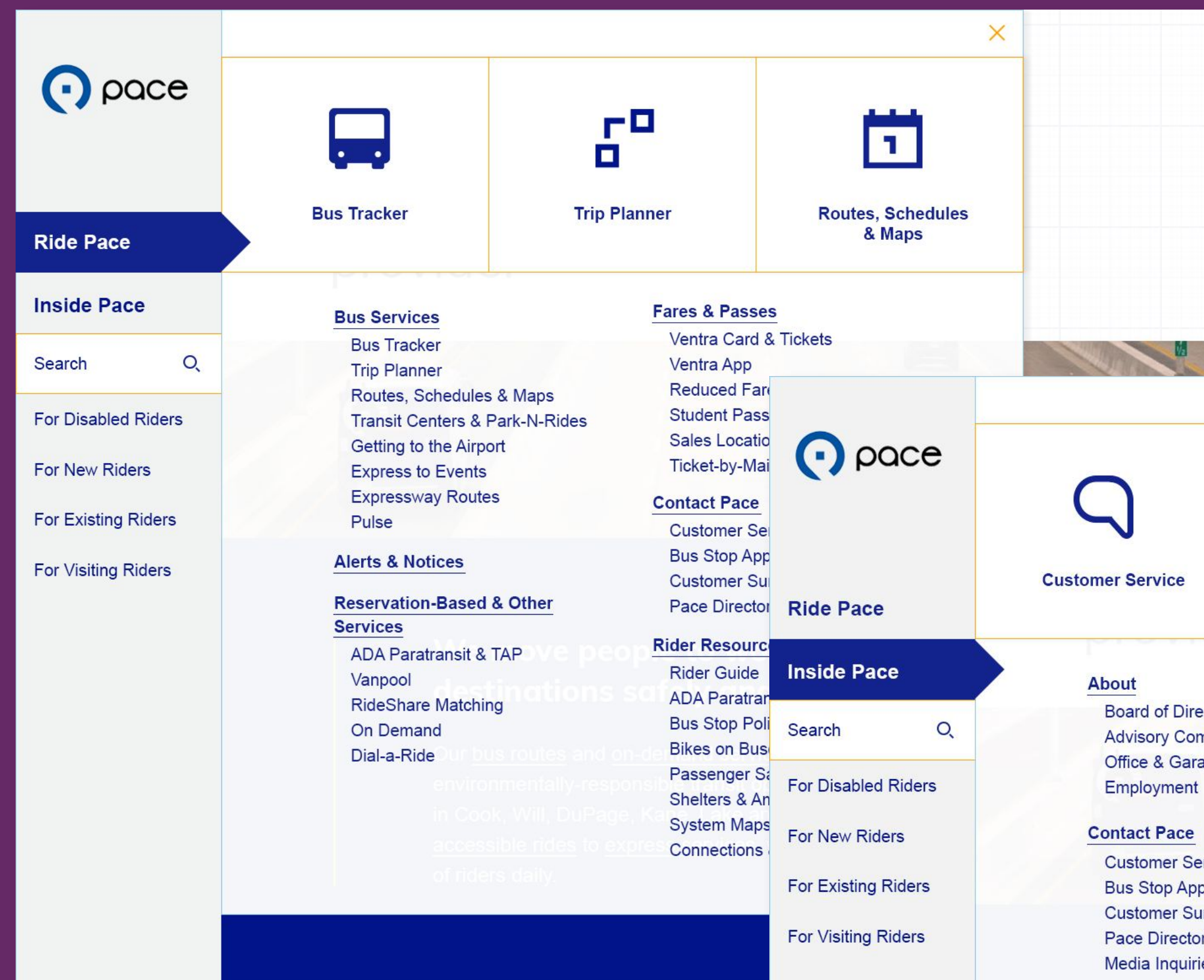


# Proposed main menu

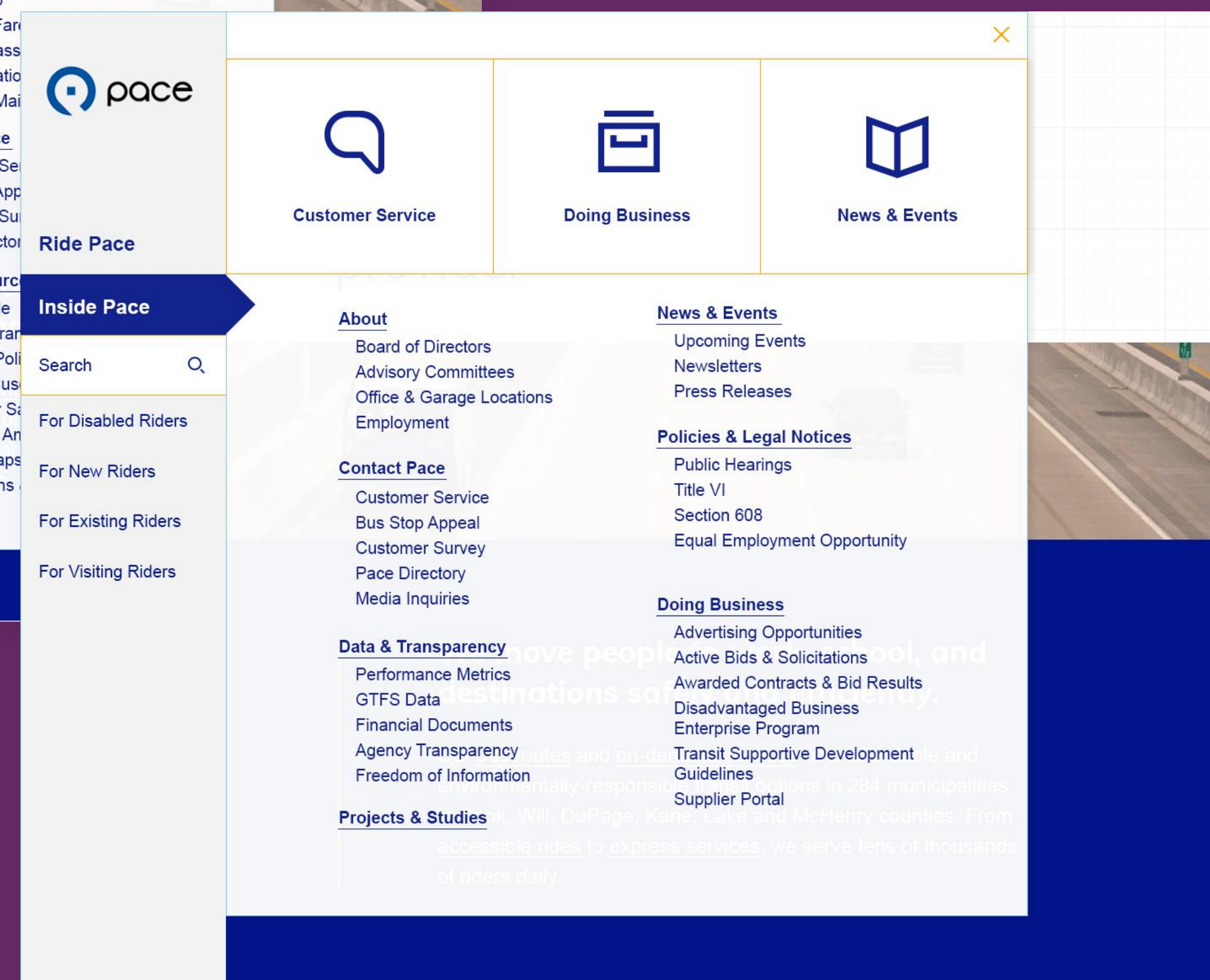


*Image caption:* Proposed main menu design





*Image caption: Proposed main menu design when “Ride Pace” menu is open*

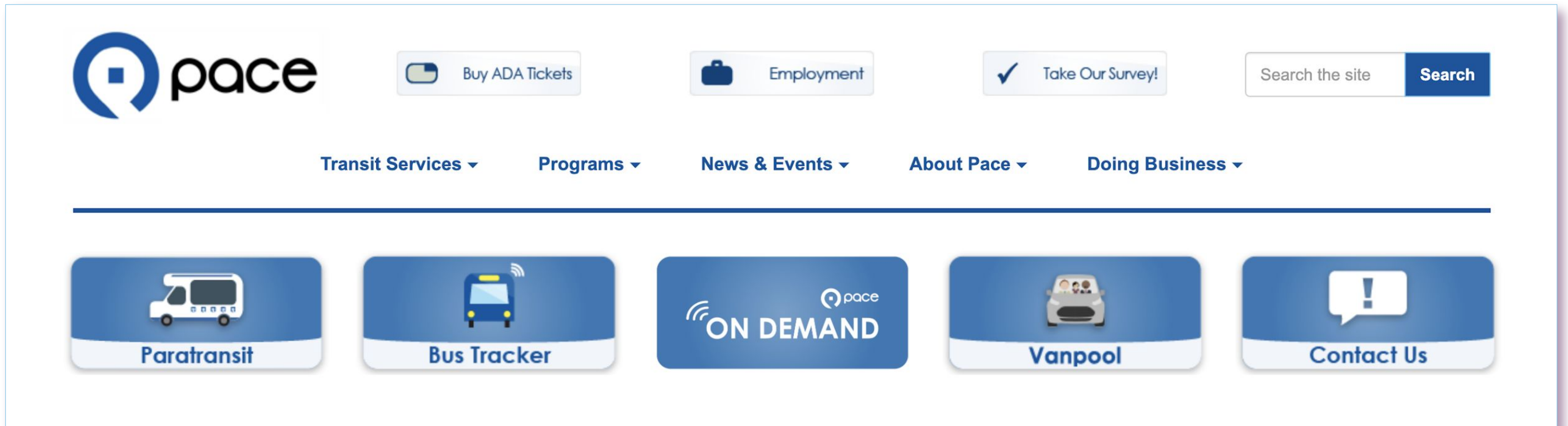


*Image caption: Proposed main menu design when “Inside Pace” menu is open*

### Active menu featured:

- 3 “call-out” links
- Full secondary & tertiary menu

# Previously @ pacebus.com



The screenshot shows the top section of the pacebus.com website. On the left is the 'pace' logo. To its right are four utility buttons: 'Buy ADA Tickets' (with a ticket icon), 'Employment' (with a briefcase icon), 'Take Our Survey!' (with a checkmark icon), and a search bar with the text 'Search the site' and a 'Search' button. Below these are five main navigation menu items: 'Transit Services', 'Programs', 'News & Events', 'About Pace', and 'Doing Business', each with a downward arrow. A horizontal line separates this from a row of five large blue buttons: 'Paratransit' (with a white van icon), 'Bus Tracker' (with a blue bus icon and a signal wave), 'ON DEMAND' (with a white signal wave icon and the 'pace' logo), 'Vanpool' (with a white car icon), and 'Contact Us' (with a white speech bubble icon containing an exclamation mark).

# User test the main menu

- **Ensure** proposed structure met user expectations
- **Align** stakeholders on main menu terminology



# Before testing

- **Specified user groups** for testing
- **Identified task scenarios** for each user group
- **Determined** qualitative & quantitative metrics

\*Client maintained responsibility for participant recruitment & spacial logistics

| Audience   | Can the user...  | Scenario   |
|------------|--|--|
| New riders | CONTEXT<br>Your niece is in her high school's show choir and has invited you to attend her spring performance of <i>The Sound of Music</i> . |  |
|            | Navigate to the trip planner   | You know your trip will:<br>Begin at <b>Union Station</b> (225 S Canal St., Chicago, IL 60606)<br>End at <b>Notre Dame High School</b> (7655 W Dempster St., Niles, IL 60714).<br><br>Please show me how you would plan this trip.   |
|            | Find fare information  | You have identified <i>Pace Bus Route 250</i> as the route to get you to your niece's performance. Tell me how much the trip will cost, roundtrip.   |
|            | Find available services  | You have missed the 250 bus to your niece's performance. Does Pace offer services other than the bus that may be able to get you there?<br><br>*User only needs to identify that other services exist and does not need to plan a trip using other services, however a page with listings of On Demand municipalities may help prevent confusion in testing. |
|            | Find timetable   | Please show me where you would go to find service times.   |

Image caption: Example of task scenarios and context for a specific user group.

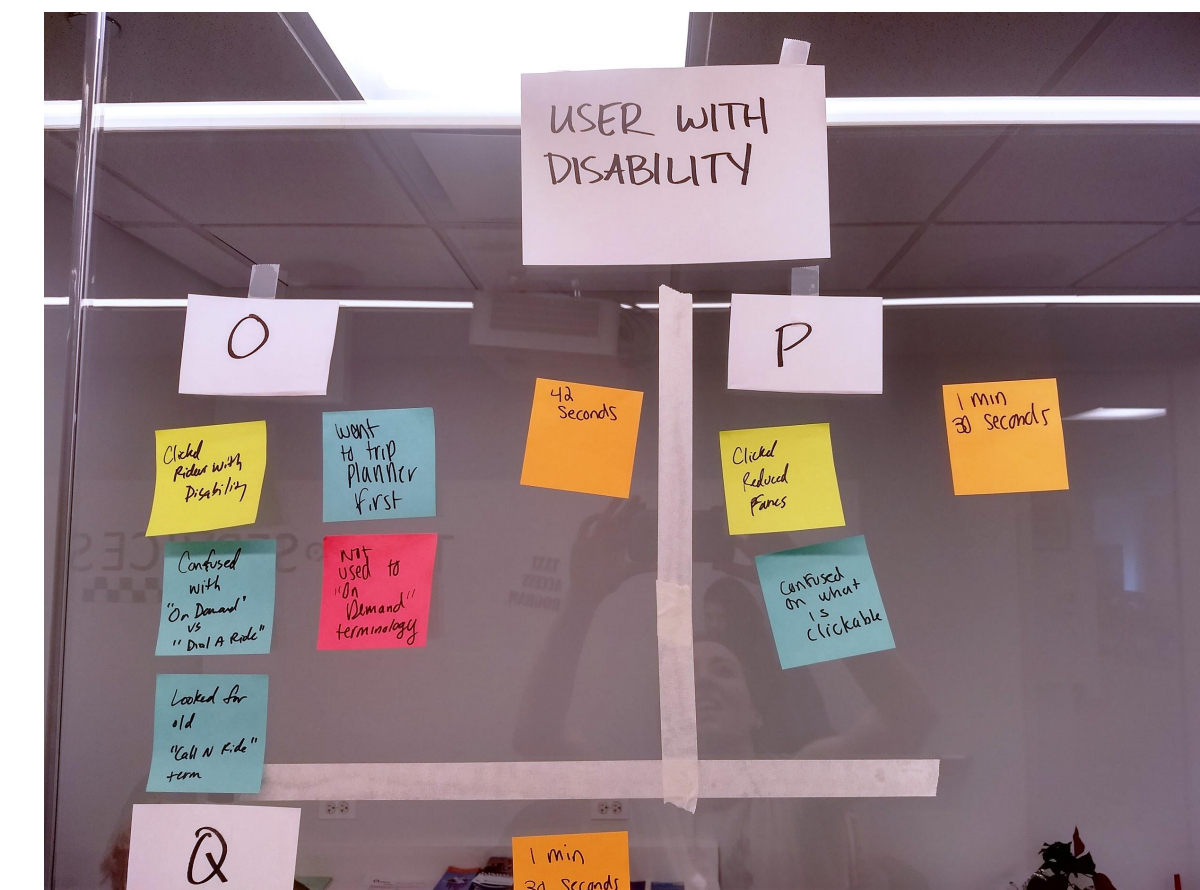
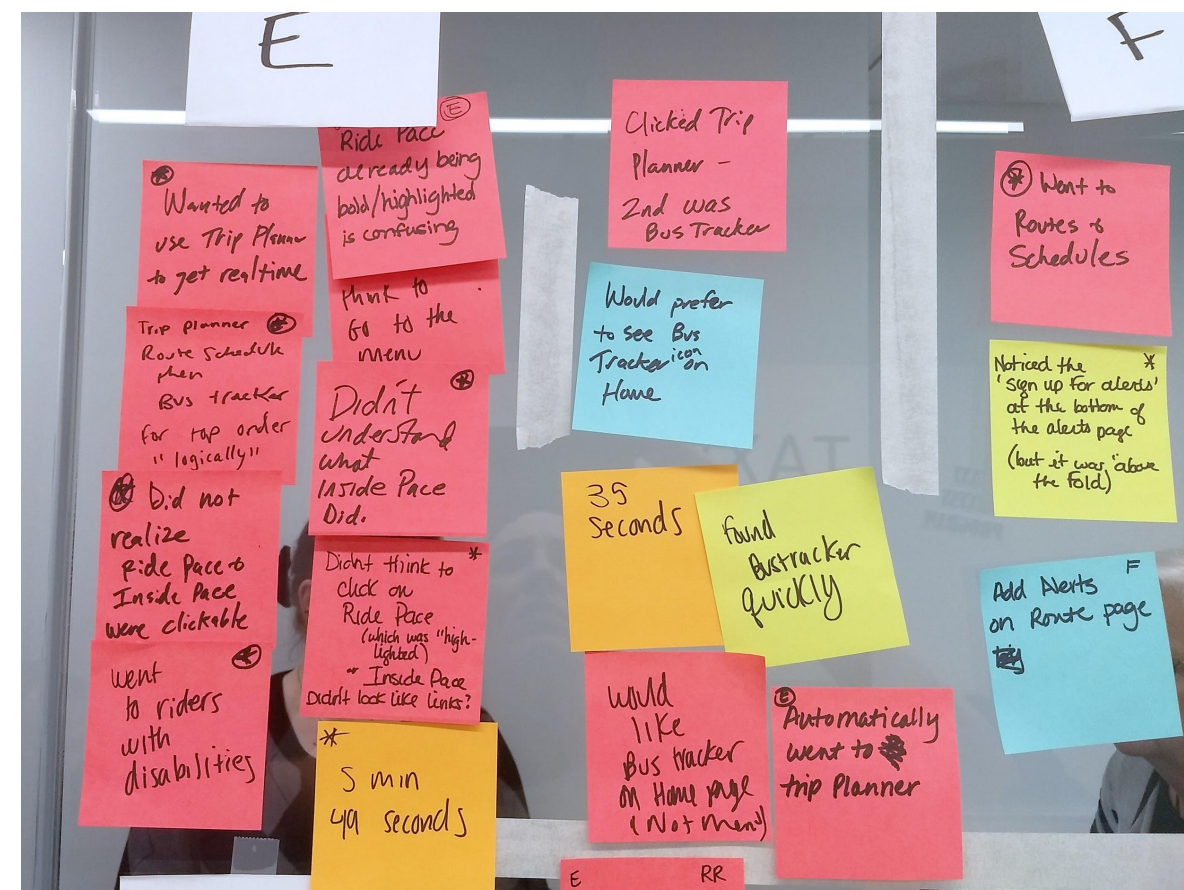
# During testing

- 6 test participants
- **InVision** prototype
- **Each test** ran approximately 20 minutes
- 6 observers



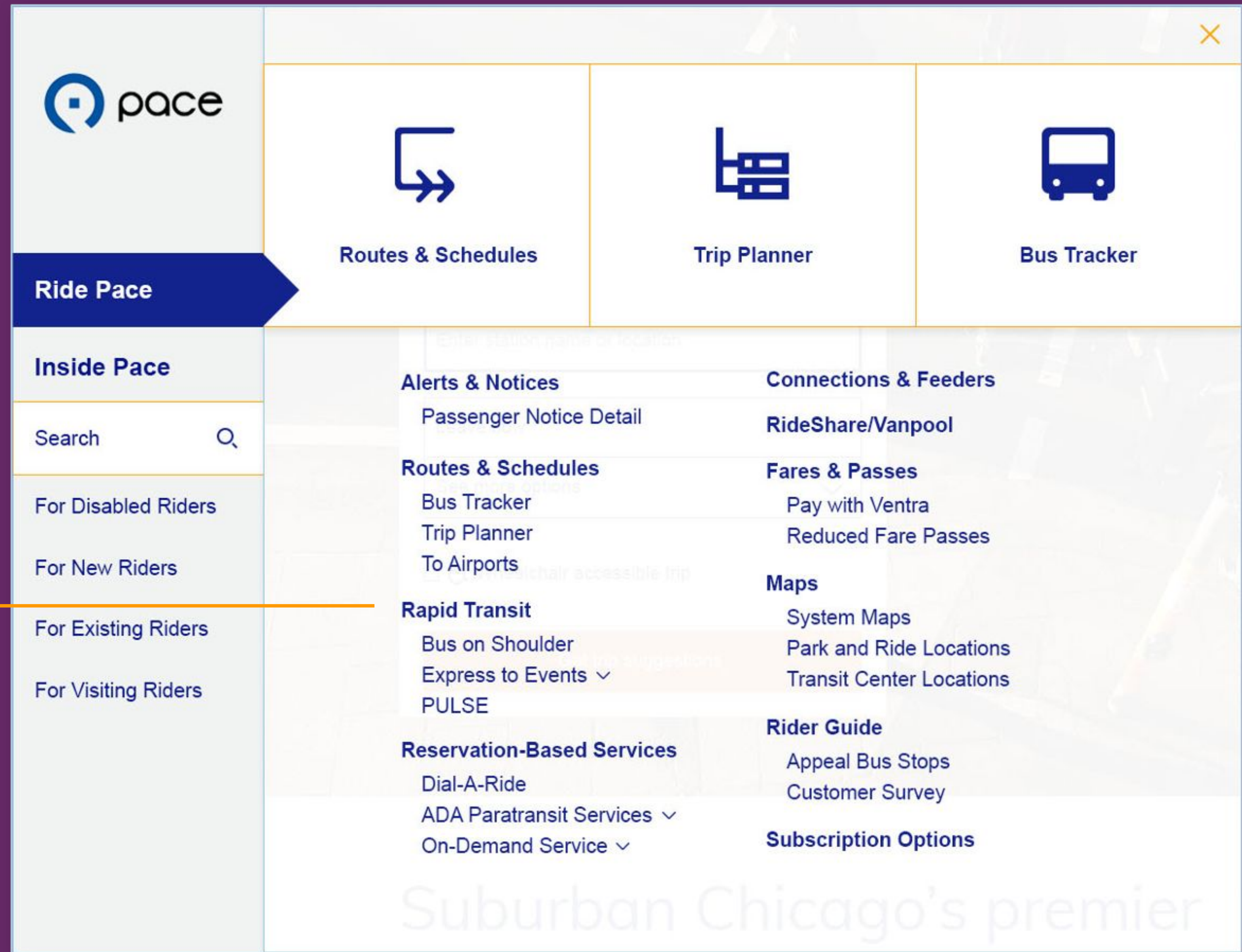
# Results

- **Ride Pace vs Inside Pace** worked!
- Users generally approved of **terminology**
  - Actionable design feedback





# Before



Test participants said they did not know they could click on parent items in the menu.





# After

We underlined menu links to make them look “clickable”.

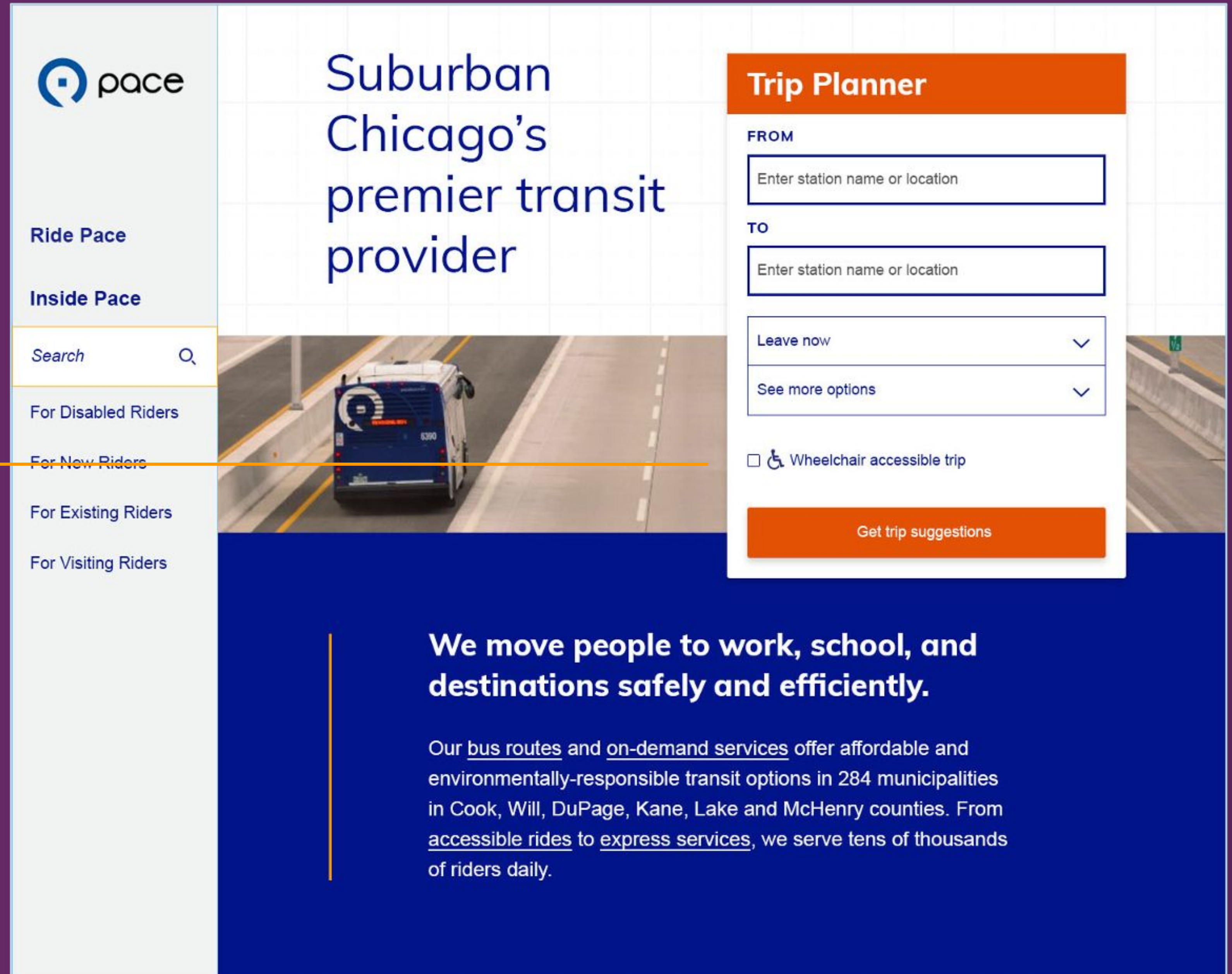
midcamp.org

The screenshot displays the Pace website interface. On the left is a vertical navigation menu with the Pace logo at the top. Below the logo is a blue arrow button labeled "Ride Pace". Underneath is a section titled "Inside Pace" containing a search bar and four menu items: "For Disabled Riders", "For New Riders", "For Existing Riders", and "For Visiting Riders". The main content area is divided into three columns. The top row features three large icons: a bus for "Bus Tracker", a map with an arrow for "Trip Planner", and a calendar for "Routes, Schedules & Maps". Below these are three columns of text links. The first column, under the heading "Bus Services", lists: Bus Tracker, Trip Planner, Routes, Schedules & Maps, Transit Centers & Park-N-Rides, Getting to the Airport, Express to Events, Expressway Routes, and Pulse. The second column, under "Fares & Passes", lists: Ventra Card & Tickets, Ventra App, Reduced Fare, Student Passes, Sales Locations, and Ticket-by-Mail Program. The third column, under "Contact Pace", lists: Customer Service, Bus Stop Appeal, Customer Survey, and Pace Directory. At the bottom of the main content area, under the heading "Rider Resources", are: Rider Guide, ADA Paratransit Service Guide, Bus Stop Policy, Bikes on Buses, Passenger Safety, Shelters & Amenities, System Maps, and Connections & Transfers. The text "Alerts & Notices" and "Reservation-Based & Other Services" are also present but have no links listed under them.



# Before

The Trip Planner received prominent real estate and the most visual emphasis on the homepage.





# After

Users wanted  
different tools  
on the homepage.

The screenshot shows the Pace website homepage. On the left is a navigation menu with the Pace logo at the top, followed by 'Ride Pace', 'Inside Pace', a search bar, and links for 'For Disabled Riders', 'For New Riders', 'For Existing Riders', and 'For Visiting Riders'. The main content area features the headline 'Suburban Chicago's premier transit provider' above a photo of a blue bus. To the right of the photo are three highlighted service boxes: 'Bus Tracker REAL-TIME STATUS' (orange), 'Routes, Schedules & Maps' (yellow), and 'Trip Planner POINT A TO POINT B' (light blue). At the bottom, a dark blue banner contains the text: 'We move people to work, school, and destinations safely and efficiently. Our bus routes and on-demand services offer affordable and environmentally-responsible transit options in 284 municipalities in Cook, Will, DuPage, Kane, Lake and McHenry counties. From accessible rides to express services, we serve tens of thousands of riders daily.'



# Test for accessibility





# Determine level of compliance

- **Web Content Accessibility Guidelines (WCAG)**
- **A vs AA** Compliance Comparison report
- **AA** requirements assessed by development, QA, and design team
- **Concluded** on level A compliance with AA components





# Accessibility User Test

[midcamp.org](http://midcamp.org)





# Preparing for the accessibility tests

- Finding people with disabilities
- Scheduling test environment
- Setting up technology
  - Users' choice technology (BYOD)
  - Visual/audio for observing the tests





# Accessibility Testing Tasks

- **12 specific assignments**
  - How do I get there?
  - What time can I get there?
  - How much will it cost?





|                         |                      |                       |                            |                            |
|-------------------------|----------------------|-----------------------|----------------------------|----------------------------|
| User                    | <b>Jim</b>           | <b>Maurice</b>        | <b>Lilly</b>               | <b>Stephanie</b>           |
| Disability              | Legally Blind        | Legally Blind         | Intellectual Disability    | Intellectual Disability    |
| Desktop Technology Used | JAWS                 | JAWS                  | Desktop Monitors and Mouse | Desktop Monitors and Mouse |
| Mobile Technology Used  | iPhone Screen reader | Samsung Screen reader | N/A                        | N/A                        |
| Ease of Use (0-5)       | <b>4</b>             | <b>3</b>              | <b>2</b>                   | <b>3</b>                   |

# Results

- All users were able to complete each task
- Time-to-complete varied based on experience with technology



# The accessible Drupal prototype





## **Accessibility Demo – Dev Approach**

# **Make the code portable**



## Accessibility Demo - Dev Approach

# Respect scope, timeline, and budget

Stick to agreed-upon  
WCAG criteria

Save the rest for next  
project phase

# Tackle the complicated components

### Tabbed tables

Premium fixed-route

ADA Paratransit Service

Ventra and Student Passes

Several longer routes require a slightly higher fare. These routes include Routes 755, 850, 851, and 855, as well as our Express Service to Popular Destinations serving Wrigley Field, Guaranteed Rate Field, Soldier Field, and Six Flags Great America.

| Fare Type                                      | Regular | Reduced |
|--|---------|---------|
| Premium routes (with cash or Ventra)           | \$4.50  | \$2.25  |
| Pace single-ride transfer to premium routes *  | \$2.80  | \$1.45  |
| Pace regular pass transfer to premium routes * | \$2.50  | \$1.25  |

### Main menu



**Customer Service**



**Doing Business**



**News & Events**



# The (upcoming) live site

- **Port code** from prototype
- **Content** migration
- **Launch** April 2020!

**THANK YOU,  
QUESTIONS?**





# CONTRIBUTION DAY

Saturday 10am to 4pm

You don't have to know code to give back!  
<http://mid.camp/contrib>

New Contributor training 10am to Noon  
with **AmyJune Hinelino** of Kanopi Studios

# PLEASE PROVIDE YOUR FEEDBACK!

[mid.camp/6328](https://mid.camp/6328)