



# Bus Stop Usability Study



# Key Team Members

- ▶ **Irving N. Taylor, Project Manager**
- ▶ **Doug Lynch, GIS & QA/QC**
- ▶ **Greg Curtin, BSMS Application Development**
- ▶ **John Taylor, BSMS Application Development**
- ▶ **Chester Britt, Outreach**
- ▶ **Mike Han, Bus Stop Standards**
- ▶ **Saul Melara, Data/Application Design**

# Improving the Quality of Bus Service in LA County

- ▶ **Transit planning**
- ▶ **ADA compliance**
- ▶ **Construction management**
- ▶ **Condition assessments**
- ▶ **Security**
- ▶ **Simulation modeling**
- ▶ **Stakeholder consensus**

# Helping Metro Achieve its Objectives

- ▶ **Ensure usable Bus Stop Management System (BSMS)**
- ▶ **Direct Metro participation**
- ▶ **Stakeholder participation**
- ▶ **Inter-operator usability**
- ▶ **Inter-departmental usability**
- ▶ **Quantify existing conditions**

# BSMS Usability Features

- ▶ **Device independent**
- ▶ **Extensible**
- ▶ **Ease of Use**
- ▶ **Adaptable**
- ▶ **Supports Metro objectives**

# Putting It All into Practice

## ➤ **Prioritize Bus Stops**

## ➤ **Complete Needs Assessment**

- Lock-in Metro BSMS requirements
- Identify Other Stakeholder Requirements

## ➤ **Refine Project Methodology**

## ➤ **Validation Process**

- Initial Bus Stop Sample (1%)
  - Test process/systems/usability
  - Metro acceptance
- Second Test Sample (5%)
  - Test process/systems/usability
  - Metro acceptance

# Bus Stop Passenger Usability Elements

- ▶ **Develop precise measurements: sidewalks, curb ramps, etc.**
- ▶ **Identify existing amenities: shelters, benches, signage, etc.**
- ▶ **Develop unique geo-location data for each stop**
- ▶ **Identify any existing barriers at a bus stop**

# Potential Results

- ▶ **Identify ADA factors**
- ▶ **Identify improvement opportunities**
- ▶ **Improved capacity to provide customer information**
- ▶ **Ability to monitor physical changes over time**
- ▶ **Improved coordination between operators based on common data and stop identifiers**
- ▶ **Improvement in quality of bus service experience**



# Preparing for the Inventory Process

- ▶ **Recruit and train project personnel**
- ▶ **Field test equipment**
- ▶ **Initiate stakeholder engagement**
- ▶ **Identify key project participants**
- ▶ **Develop work schedules**

# Completion of Field Survey

## ➤ Following sample surveys

- Complete bus stop inventory
  - Phase 1 – 30%
  - Phase 2 – 32% Stops
  - Phase 3 – 32% Stops

## ➤ Roll-out to Metro

## ➤ Metro acceptance

## ➤ Project completion

# Model Outcomes

