

Bicycle and Pedestrian Safety Action Plan

for the Broward Metropolitan Planning Organization

Advocacy Team Meeting #2
September 20, 2016

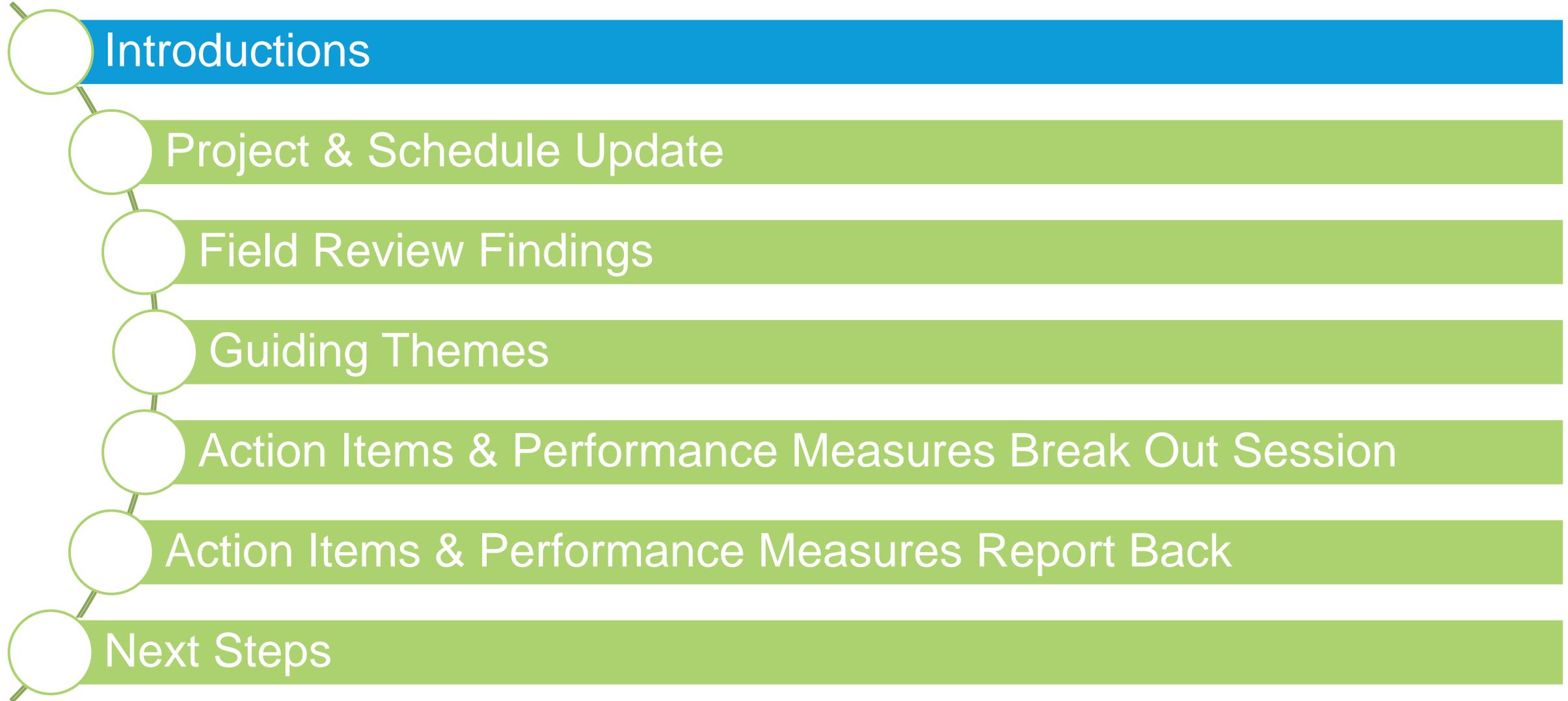


Bicycle & Pedestrian
SAFETY ACTION PLAN

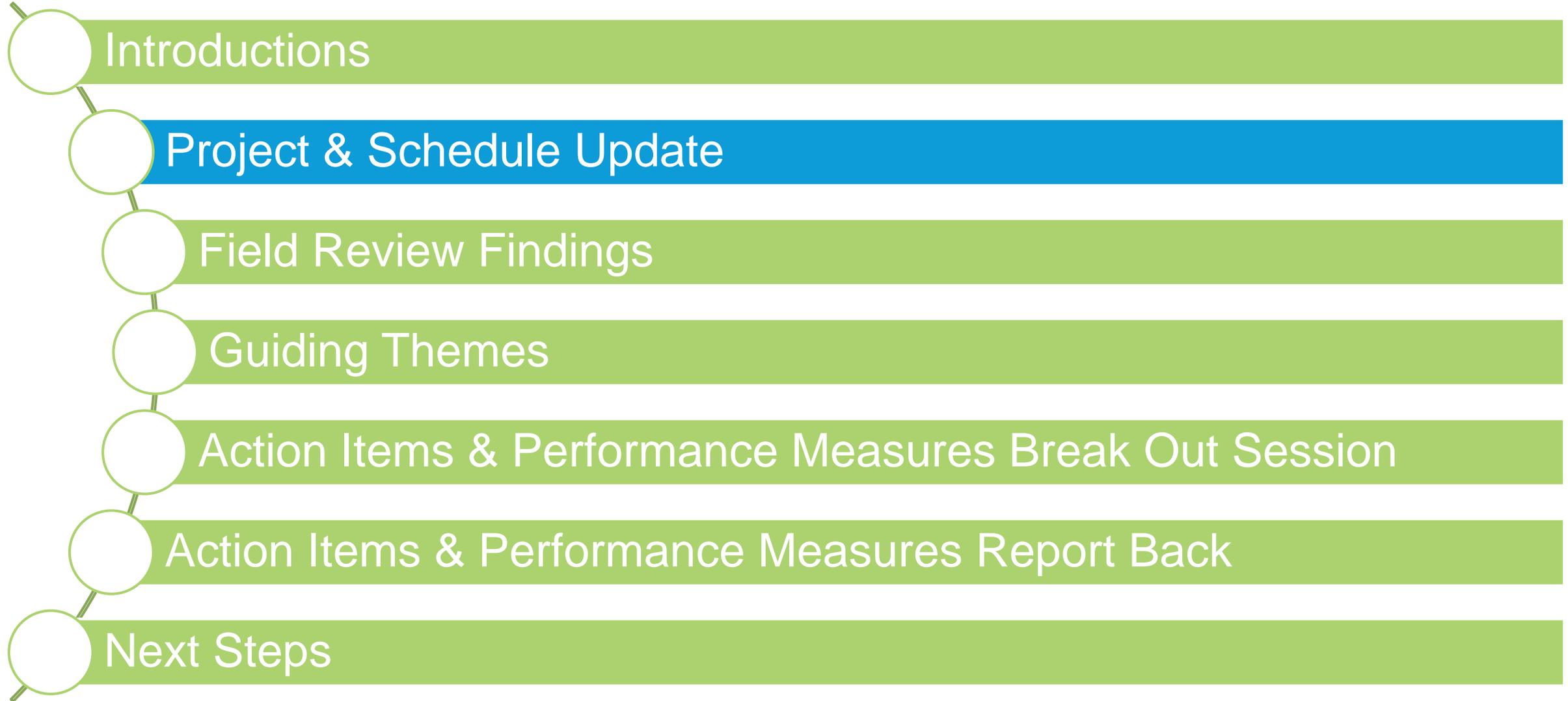
Agenda

-
- Introductions
 - Project & Schedule Update
 - Field Review Findings
 - Guiding Themes
 - Action Items & Performance Measures Break Out Session
 - Action Items & Performance Measures Report Back
 - Next Steps

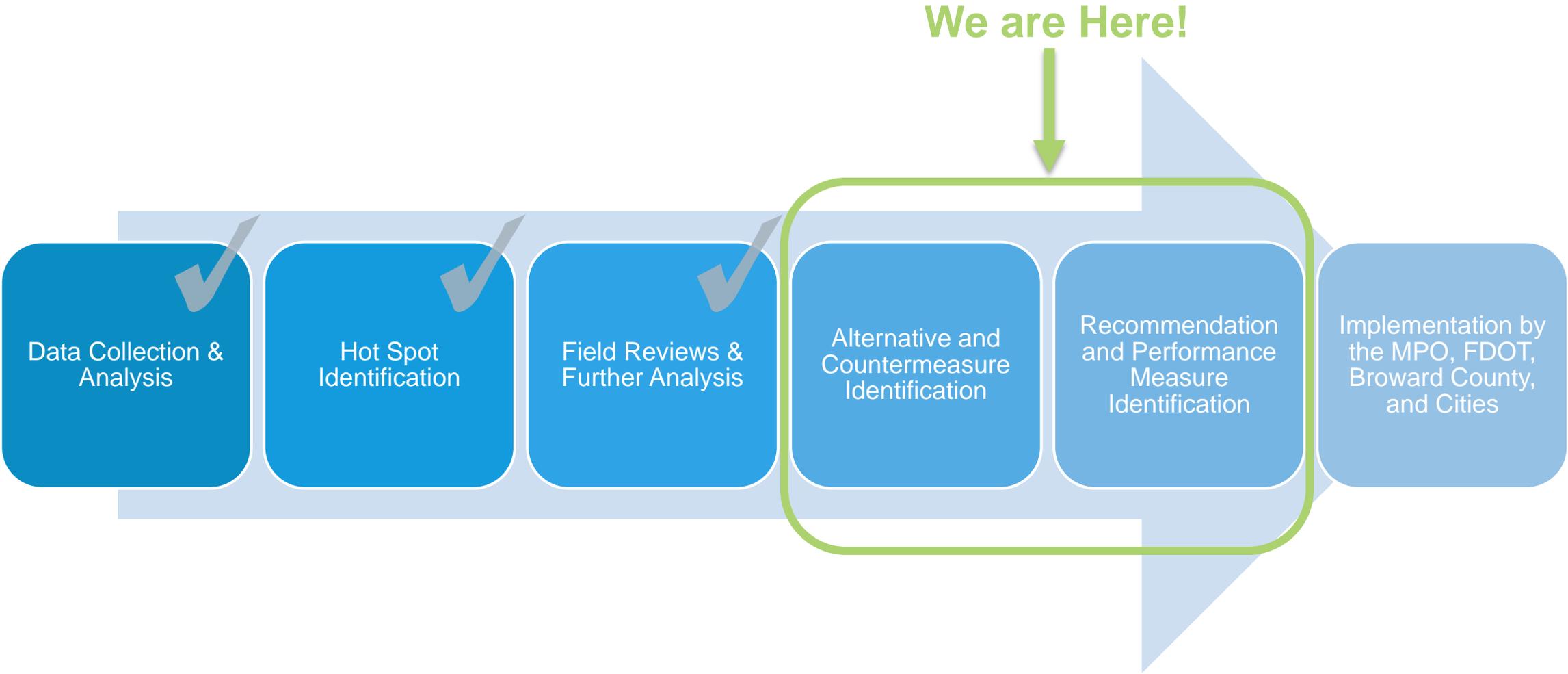
Agenda



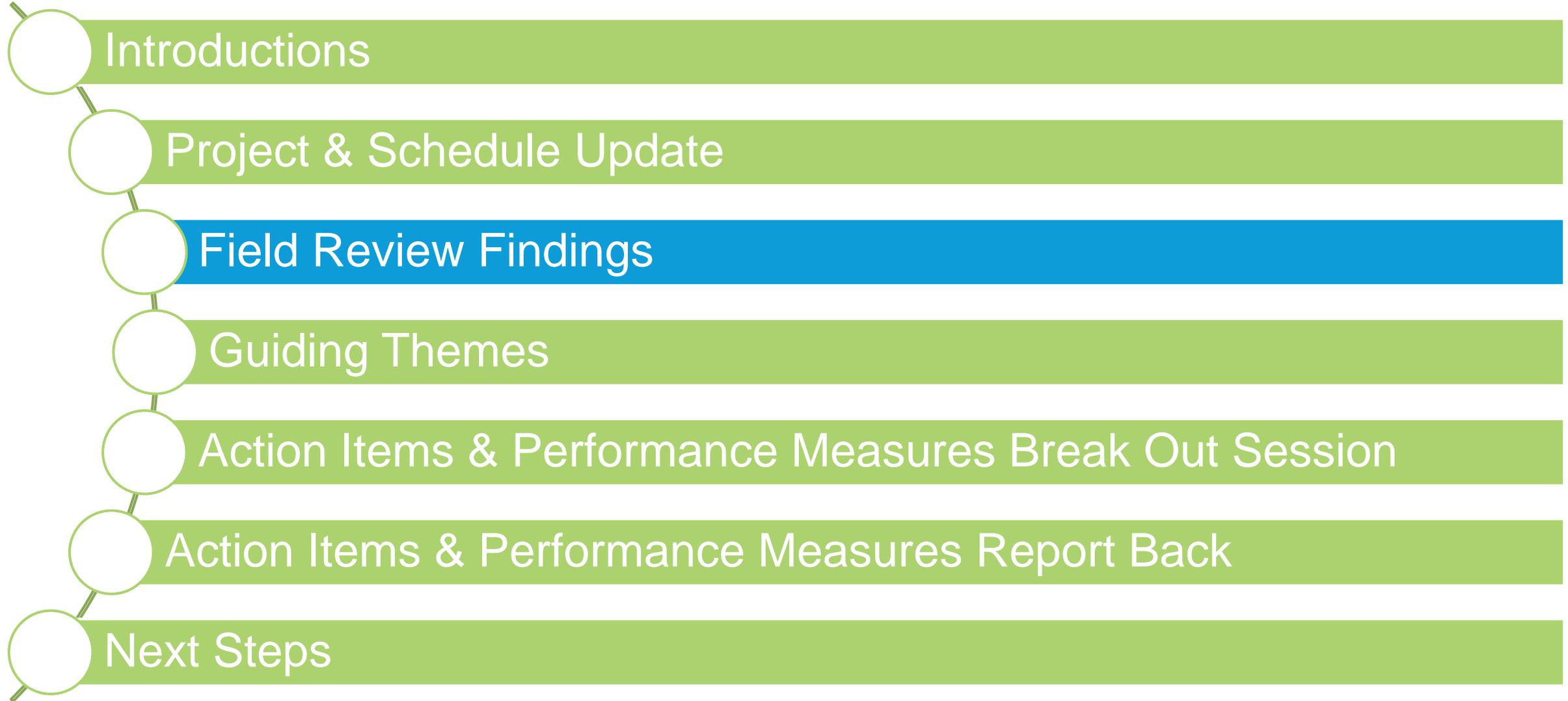
Agenda

- 
- Introductions
 - Project & Schedule Update
 - Field Review Findings
 - Guiding Themes
 - Action Items & Performance Measures Break Out Session
 - Action Items & Performance Measures Report Back
 - Next Steps

Project & Schedule



Agenda

- 
- Introductions
 - Project & Schedule Update
 - **Field Review Findings**
 - Guiding Themes
 - Action Items & Performance Measures Break Out Session
 - Action Items & Performance Measures Report Back
 - Next Steps

**THE DEMONSTRATION SITES WERE
CHOSEN AS REPRESENTATIVE
EXAMPLES OF CONDITIONS IN
BROWARD COUNTY FOR USE IN
IDENTIFYING SYSTEMIC ISSUES**

Demonstration Sites and Types

Example Site Location

Equivalent Site Type

Hallandale Beach Blvd
(NE 4th Ave to NE 26th Ave)

Beach Access Corridor (BAC)

Sunrise Blvd
(NE 13th Ave to Middle River)

Urban Corridor (UC)

Broward Blvd at Andrews Ave

Urban Intersection (UI)

Oakland Park Blvd
(NW 84th Ave to Atrium West)

Suburban Corridor (SC)

Oakland Park Blvd at SR 7

Suburban Intersection (SI)

Samplings intended to represent all municipalities within the County

Type BAC

BEACH ACCESS CORRIDOR DEMONSTRATION SITE Hallandale Beach Boulevard from NE 4th Avenue to NE 26th Avenue



STUDY AREA | 1.30 Miles



ROADWAY CHARACTERISTICS



Hallandale Beach Boulevard Looking West

The corridor has a three lanes in each direction. It has intermittent right- and left-turn lanes. It also has a heavily landscaped median and both pedestrian and vehicular lighting. The corridor has 5' - 7' sidewalks and 4' - 5' marked bike lanes. The posted speed is 35 MPH. The land uses mainly consist of new and/or well kept auto-oriented shopping centers set behind large surface parking lots.

CRASH DATA - 2010 TO 2015

26 Pedestrian

62 Bicycle

1 Fatal 0 1

81 Injury 25 56

6 Property Damage Only 1 5

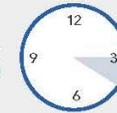
16% Occurred in Non-Daylight Lighting Conditions

Peak Crash Time Periods

20%



10%



6% Involved Alcohol and/or Drugs

Peak Crash Months

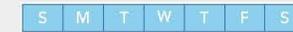
35%

Occurred in January, June, & August

Peak Crash Days of the Week

35%

Occurred on Monday & Thursday



FIELD REVIEW OBSERVATIONS

- Narrow Bike Lanes
- Bicyclists Riding on Sidewalks
- Objects Blocking Sidewalks
- Frequent Driveways
- Poorly Marked Driveway Crossings
- Faded Pavement Markings
- ADA Noncompliant Sidewalks and Ramps
- Missing Crosswalks
- Lack of Bicycle Markings at Conflict Areas
- Skewed Intersection Geometry
- Poor Drainage
- Out of Date Pedestrian Signal Signage
- Obstructed Views at Crosswalks
- Long Signal Times



Objects Blocking the Sidewalk



Narrow Bike Lanes & Faded Markings



Bicyclists in sidewalks and Poorly Marked Driveway Crossings



Missing Pedestrian Crosswalks



Poor Visibility Due to Vegetation



ADA Non-compliance

Type UC

URBAN CORRIDOR DEMONSTRATION SITE Sunrise Boulevard from NE 13th Avenue to Middle River



STUDY AREA | 1 Mile



ROADWAY CHARACTERISTICS



Sunrise Boulevard Looking West

The corridor has a three lanes in each direction. It has intermittent right- and left-turn lanes. It also has median with intermittent landscaping, cobra style vehicular lighting, and dynamic message signs. The corridor has 5' - 7' sidewalks and no marked bike lanes or paved shoulders. The posted speed is 35 MPH. The land uses are redeveloping; new buildings front the street while older buildings and shopping centers are set behind large surface parking lots.

CRASH DATA - 2010 TO 2015

26 Pedestrian

19 Bicycle

3 Fatal
41 Injury
1 Damage Only

3
22
1

0
19
0

47%
Occurred in Non-Daylight Lighting Conditions

Peak Crash Time Periods

11%



16%



13%
Involved Alcohol and/or Drugs

Peak Crash Months

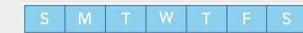
44%

Occurred in April, June, & October

Peak Crash Days of the Week

52%

Occurred on Tuesday, Friday, and Saturday



FIELD REVIEW OBSERVATIONS

- No Bike Lanes
- Bicyclists Riding on Sidewalks
- Objects Blocking Sidewalks
- Narrow Sidewalks
- ADA Noncompliant Sidewalks and Ramps
- Missing Crosswalks
- Lack of Crossing Opportunities
- Illegal Mid-Block Crossings
- Frequent Driveways
- Poorly Marked Driveway Crossings
- Inattentive Drivers (Especially at Driveways and Intersections)
- Vehicles Blocking Crosswalks
- Lack of Shade/Shelter
- Lack of Bicycle Markings at Conflict Areas
- Poor Drainage
- Too Much/Poor Signage
- Long Signal Times



Objects Blocking the Sidewalk



Flooding Blocking Crossing



Bicyclists In sidewalks



Missing Pedestrian Crosswalks



Vehicle in Crosswalk



Pedestrians Crossing Outside of Crosswalk

Type UI

URBAN INTERSECTION DEMONSTRATION SITE Broward Boulevard at Andrews Avenue



STUDY AREA | Intersection Study



ROADWAY CHARACTERISTICS



Broward Boulevard has three lanes in each direction and Andrews Avenue has two lanes in each direction. Both roads are divided with intermittent right- and left-turn lanes. At the intersection, each leg has left turn lanes. The roads have cement or lightly vegetated medians and cobra style vehicular lighting. The corridor has 6' or wider sidewalks and no marked bike lanes, although Broward Boulevard has paved shoulders that could potentially be widened and converted into bike lanes in the future. The intersection is located in the most urban part of Fort Lauderdale and is surrounded by high rise, mixed use buildings arranged in a generally walkable manner.

CRASH DATA - 2010 TO 2015

33 Pedestrian

22 Bicycle

1 Fatal
45 Injury
9 Property Damage Only

1
26
6

0
19
3

49%
Occurred in Non-Daylight Lighting Conditions

Peak Crash Time Periods

11%



14%



18%
Involved Alcohol and/or Drugs

Peak Crash Months

35%

Occurred in March & November

Peak Crash Days of the Week

56%

Occurred on Tuesday, Friday, and Saturday



FIELD REVIEW OBSERVATIONS

- Illegal Mid-Block Crossings
- Inattentive Drivers (Especially at Driveways and Intersections)
- Vehicles Blocking Crosswalks
- Speeding/Aggressive Driving
- ADA Noncompliant Sidewalks and Ramps
- No Bike Lanes
- Missing/Faded Crosswalks
- Lack of Crossing Opportunities
- Objects Blocking Sidewalks
- Broken/Out of Date Pedestrian Signage and Signals
- Poor Pedestrian Access to Adjacent Development
- Wide Intersection/Excessive Pavement/Wide Turn Radius
- Lack of Bicycle Markings at Conflict Areas
- Long Signal Times
- Poor lighting

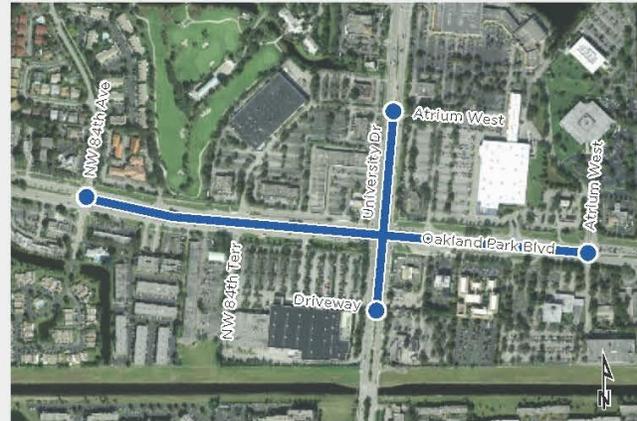


Type SC

SUBURBAN CORRIDOR DEMONSTRATION SITE Oakland Park Boulevard from NW 84th Avenue to Atrium West



STUDY AREA | 1 Mile



ROADWAY CHARACTERISTICS



Oakland Park Boulevard Looking East

The corridor has a three lanes in each direction. It has intermittent right- and left-turn lanes. There are access roads in some areas as well. It also has median with intermittent landscaping. The corridor has 5' - 6' sidewalks separated from the roadway; and while there are no marked bike lanes, it does have paved shoulders that could potentially be widened and converted into bike lanes in the future. The posted speed is 45 MPH. The land uses generally consist of auto-oriented shopping centers and big box retail set behind large surface parking lots.

CRASH DATA - 2010 TO 2015

28 Pedestrian

9 Bicycle

- 1 Fatal
- 34 Injury
- 2 Property Damage Only
- 0 Pedestrian
- 26 Bicycle
- 2 Pedestrian
- 1 Bicycle
- 8 Bicycle
- 0 Bicycle

51% Occurred in Non-Daylight Lighting Conditions

Peak Crash Time Periods

13%



18%



0% Involved Alcohol and/or Drugs

Peak Crash Months

30%

Occurred in June & December

Peak Crash Days of the Week

46%

Occurred on Thursday & Friday 27%



FIELD REVIEW OBSERVATIONS

- Illegal Mid-Block Crossings
- Inattentive Drivers (Especially at Driveways and Intersections)
- Vehicles Blocking Crosswalks
- Speeding/Aggressive Driving
- ADA Noncompliant Sidewalks and Ramps
- No Bike Lanes
- Missing/Faded Crosswalks
- Lack of Crossing Opportunities
- Objects Blocking Sidewalks
- Broken/Out of Date Pedestrian Signage and Signals
- Frequent Driveways
- Poorly Marked Driveway Crossings
- Wide Intersection/Excessive Pavement
- Lack of Bicycle Markings at Conflict Areas
- Long Signal Times
- Poor lighting



Excessive Pavement Width



Poor Lighting at Night



Faded Pavement Markings



Illegal Mid-Block Crossing



Out of Date Pedestrian Signage



High Speed Turn Lane to Driveway

Type SI

SUBURBAN INTERSECTION DEMONSTRATION SITE Oakland Park Boulevard at SR 7



STUDY AREA | Intersection Study



ROADWAY CHARACTERISTICS



Oakland Park Boulevard Looking West

Oakland Park Boulevard and SR 7 are each 6 lane, divided roads with intermittent right- and left-turn lanes. At the intersection, each leg has dual left turn lanes and right turn lanes. The roads have cement or lightly vegetated medians and cobra style vehicular lighting. The corridor has 6' sidewalks and no marked bike lanes, although SR 7 has paved shoulders that could potentially be widened and converted into bike lanes in the future. The intersection is surrounded by large shopping centers with big box stores and out parcel development set behind expansive surface parking lots.

CRASH DATA - 2010 TO 2015

46 Pedestrian

17 Bicycle

1 Fatal
49 Injury
13 Property Damage Only

1
37
8

0
12
5

32%
Occurred in Non-Daylight Lighting Conditions

Peak Crash Time Periods

13%



11%



8%
Involved Alcohol and/or Drugs

Peak Crash Months

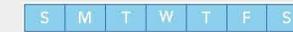
35%

Occurred in January, February, & August

Peak Crash Days of the Week

23%

Occurred on Friday



FIELD REVIEW OBSERVATIONS

- Illegal Mid-Block Crossings
- Inattentive Drivers (Especially at Driveways and Intersections)
- Vehicles Blocking Crosswalks
- ADA Noncompliant Sidewalks and Ramps
- No Bike Lanes
- Bicyclists Riding on Sidewalks
- Lack of Crossing Opportunities
- Objects Blocking Sidewalks
- Narrow Sidewalks
- Frequent Driveways
- Poorly Marked Driveway Crossings
- Poor Pedestrian Access to Adjacent Development
- Lack of Shade/Shelter
- Lack of Bicycle Markings at Conflict Areas
- Long Signal Times
- Buses Bunching and Stopped in Road
- Broken/Out of Date Pedestrian Signage and Signals



Pedestrians Crossing Mid-Block



Bicyclists in Sidewalk



Vehicle in Crosswalk



Wide Driveway



Poor Connectivity to Destinations



Poor ADA Compliance

Agenda

-
- Introductions
 - Project & Schedule Update
 - Field Review Findings
 - Guiding Themes
 - Action Items & Performance Measures Break Out Session
 - Action Items & Performance Measures Report Back
 - Next Steps

Types of Plans

Vision



Inspirational document or statement that defines a desired future.

Master Plan



Identifies and defines the ultimate desired network of facilities and treatments to achieve the vision.

Action Plan



Identifies strategic institutional changes needed to achieve the vision and how those changes can be accomplished.

LRTP



Identifies and categorizes projects and programs by time frame and funding sources.

Corridor Study



Identifies context sensitive improvements and projects for a corridor.

Safety & Operational Study



Identifies design, operational, maintenance, and other implementable projects to improve a study area based on a specific safety or operational issue.

From Goals to Guiding Themes

A-Team Original Six Goals

Design roads for users of all ages and abilities

Identify and designate bicycle and pedestrian priority areas

Educate all road users on the rights and responsibilities of all modes

Ensure that transit and land use decisions support bicyclists and pedestrians

Build consensus and improve collaboration among partners

Increase enforcement of laws related to pedestrian and bicycle safety

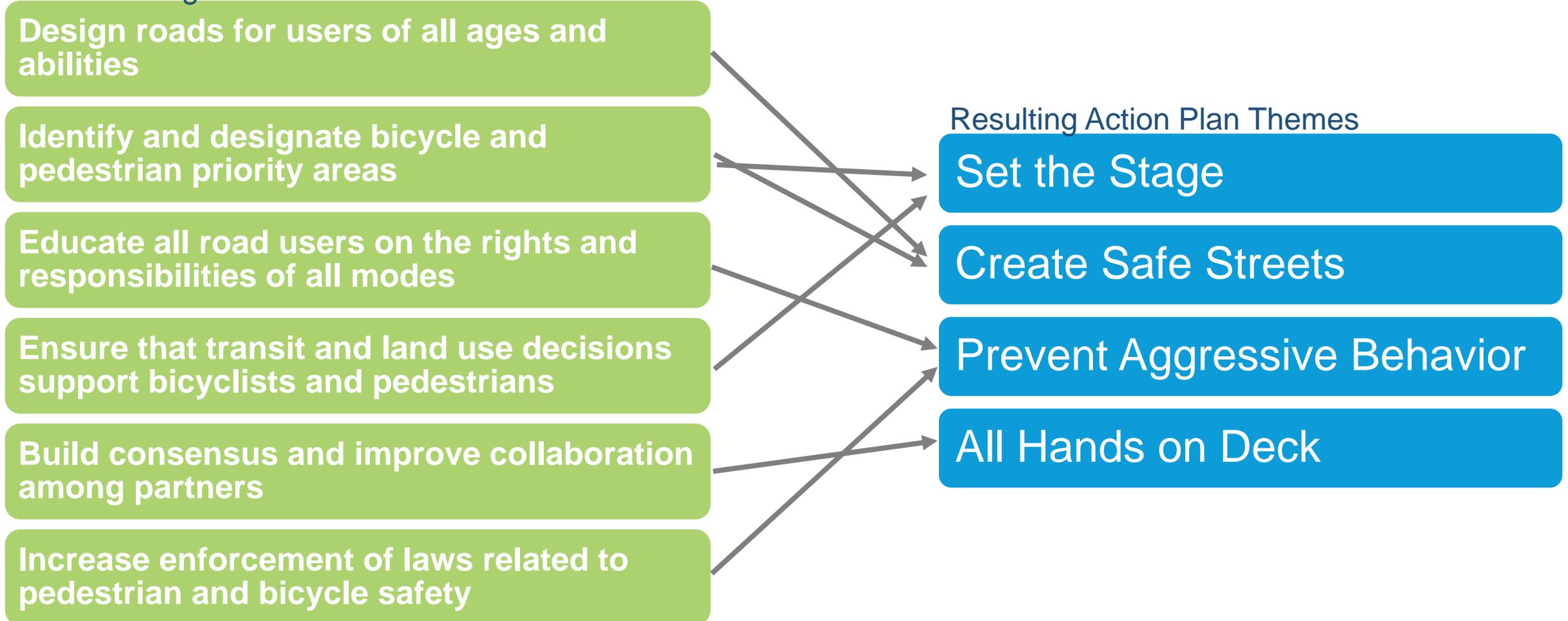
Resulting Action Plan Themes

Set the Stage

Create Safe Streets

Prevent Aggressive Behavior

All Hands on Deck



Guiding Themes

Set the Stage

Enact transportation and land use plans and policies to better support multimodal transportation.

Create Safe Streets

Implement complete streets projects and evaluation measures that go beyond a focus on vehicles and prioritize walking, bicycling, and riding transit.

Prevent Aggressive Behavior

Enhance training of law enforcement officers on pedestrian and bicycle issues, conduct targeted enforcement, and take legal action.

All Hands on Deck

Coordinate decision makers and find and support advocates to move forward an agreed upon vision for pedestrian and bicycle safety.

Agenda

-
- Introductions
 - Project & Schedule Update
 - Field Review Findings
 - Guiding Themes
 - Action Items & Performance Measures Break Out Session
 - Action Items & Performance Measures Report Back
 - Next Steps

Breakout Group Activity: Action Items

Issue

Description of system wide issues either observed or seen through data.

Theme

Related guiding theme

Category

General category of issues

E's

Related 5 E's

Action Item

Description of system wide action items based on professional judgment, research, and national best practices

Lead Agency

Identified Lead Champions

Support Agencies

Identified supporting Champions

Breakout Group Activity: Performance Measures



Example
Dashboard
Seattle, WA

Breakout Group Activity

Group 1

Create Safe Streets

Group 2

Set the Stage

Group 3

Prevent Aggressive Behavior
& All Hands On Deck

45 Minutes!

Agenda

-
- Introductions
 - Project & Schedule Update
 - Field Review Findings
 - Guiding Themes
 - Action Items & Performance Measures Break Out Session
 - Action Items & Performance Measures Report Back
 - Next Steps

Agenda

-
- Introductions
 - Project & Schedule Update
 - Field Review Findings
 - Guiding Themes
 - Action Items & Performance Measures Break Out Session
 - Action Items & Performance Measures Report Back
 - Next Steps

Next Steps

1. Summarize the A-team's feedback and incorporate into the overall BPSAP
2. Present to the MPO's Committees and Board on Nov. 16th and Dec. 8th
3. Prepare the draft BPSAP document
4. Hold final A-Team meeting to gather final thoughts and determine post BPSAP next steps in early 2017
5. Present to the MPO's Committees and Board in Spring 2017 for final adoption