OKEECHOBEE BLVD & SR 7
MULTIMODAL CORRIDOR STUDY

HIA Working Group #4

February 8, 2022

PALM BEACH Transportation Planning Agency

Meeting Overview

- Introduction
- Study Update
- HIA Progress
- Review of Assessment, Recommendations, and Report
- Step 5: Monitoring & Evaluation Plan
- Timeline & Next Steps

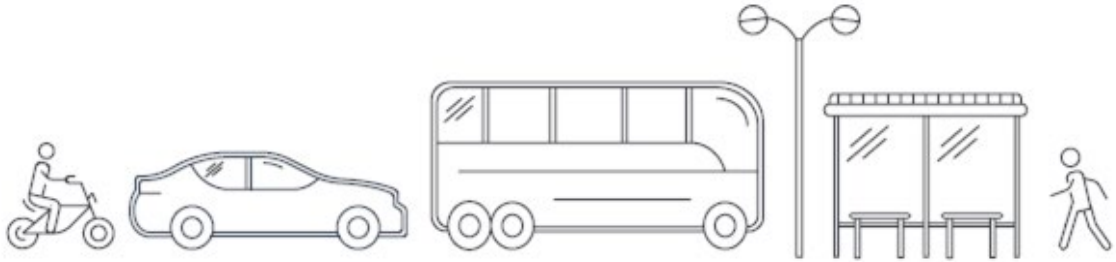
Study Components

- Land Use & Economic Development Analysis
- Transit Analysis
- Roadway Analysis
- Health Impact Assessment
- Public & Stakeholder Engagement

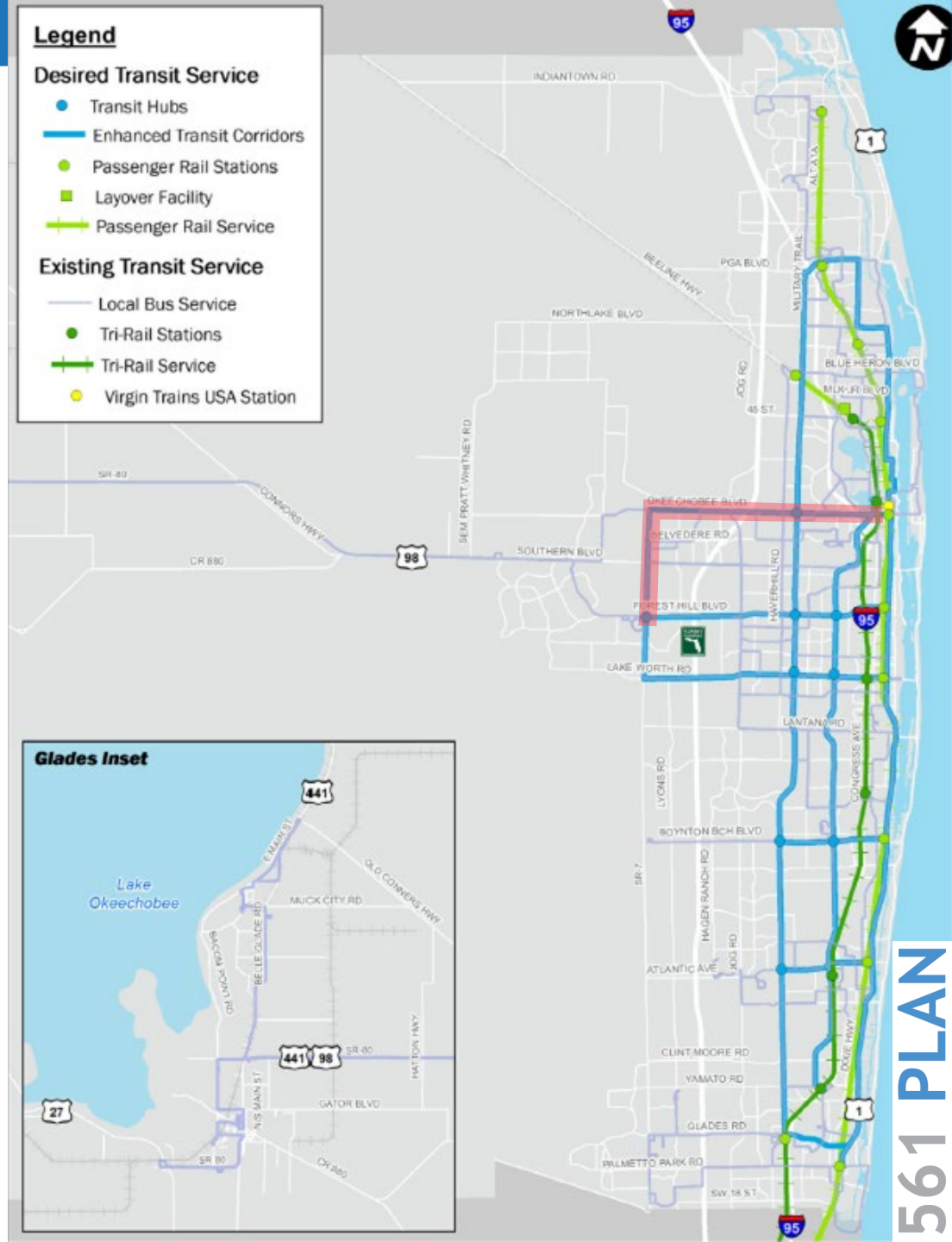
Study Purpose

Evaluate & Recommend Alternatives

- Pedestrian + Bicycle Facilities
- Transit Service
- Transit Supportive Land Uses
- Single Occupancy Vehicles



Safe - Efficient - Connected



Public Open House

Mon, Mar 21 | Online Open House

3rd Public Outreach Event - Recommended Alternative Open House

RSVP

Time & Location

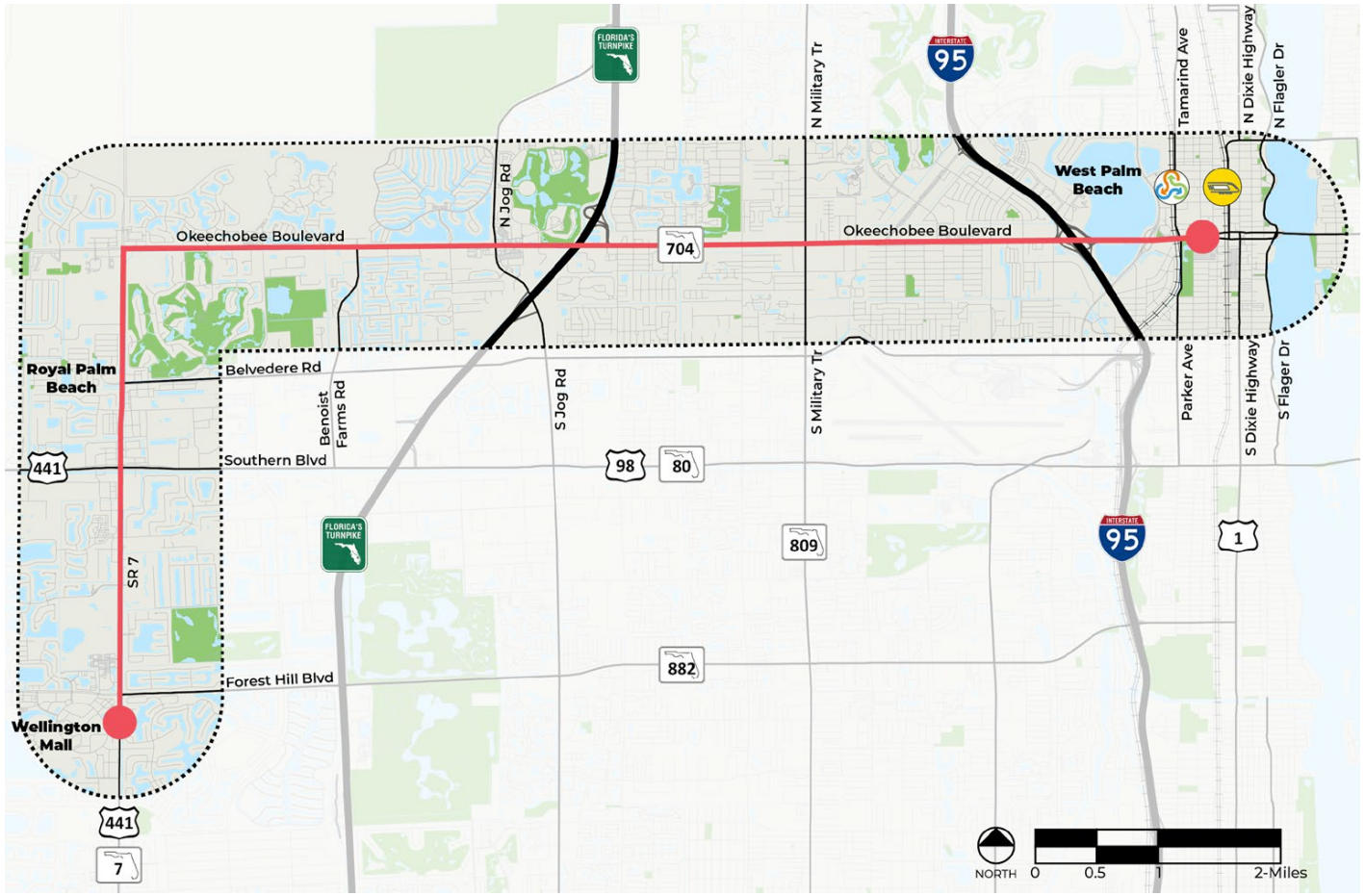
Mar 21, 12:00 PM
Online Open House

Upcoming (Virtual) Public Open House going live on Friday, March 21st at 12:00pm

Available at PalmBeachTPA.org/Okee

Health Impact Assessment

The HIA is a process that ***analyzes*** and ***quantifies*** how a policy or investment influences people's health.



HIA Steps

1. **Screening** – Evaluate project & its value based on screening criteria.
2. **Scoping** – Define scope of investigation, research questions, and methodology for the HIA.
3. **Assessment** – Assess impacts of proposed alternatives and specify direction and magnitude of impacts.
4. **Recommendations** – Create recommendations in line with health promotion strategies.
5. **Reporting & Monitoring** – Present HIA to the community and evaluate the impacts on decision-making process.

Meeting #1
June 29th, 2021

Meeting #1 / #2
June 29th, 2021
August 18, 2021

Meeting #2 / #3
August 18, 2021
November 30th, 2021

Meeting #3 / #4
November 30th, 2021
February 8th, 2022

Meeting #4
February 8th, 2022

Stages adapted from Human Impact Partners, 2011

Transportation-Alternative Health Analysis

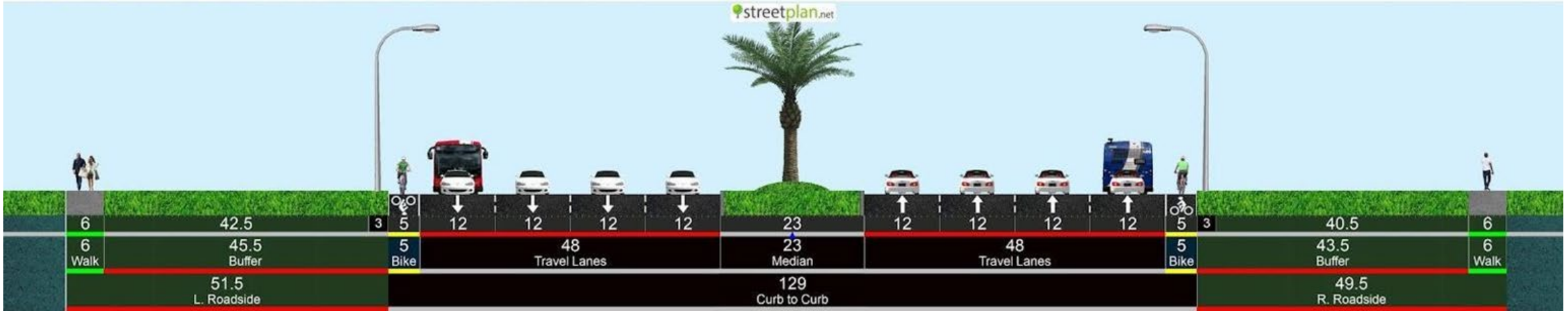
Category	Transportation-Alternative Health Analysis Factors
Air Quality & Resilience	• Ridership shifts • Chronic diseases associated with air quality (heart disease, stroke, lung cancer) • Bicyclist perceived safety • Pedestrian perceived safety & exposure to vehicle emissions • Emissions levels • Availability of green spaces
Physical Activity	• Number of individuals meeting daily exercise requirements related to public-transit use • Sidewalk width • Chronic diseases associated with physical activity (heart disease, cancer, dementia, diabetes, stroke) • Ambient stress among bicyclists • Aesthetic appeal related to construction • Duration of aesthetic impacts related to construction • Pedestrian safety & activity levels
Road Safety	• Bicyclist exposure to roadway • Pedestrian exposure to roadway from the sidewalk • Bicyclist risk of injury & buffer type • Vehicle speeds • Risk of road traffic fatalities • Time & exposure for pedestrians crossing the roadway • Road capacity & congestion • Transit-accessibility

Transportation-Alternative Health Analysis Scoring

- Scores indicate the magnitude and the direction of health impacts
  - Each Transportation-Alternative design element was graded as supported by literature

Transportation-Alternative Health Analysis Scale	-2	-1	0	1	2
Transportation -Alternatives Health Analysis Scale Description	Impact on health is negative –	Impact on health is somewhat negative -	Impact on health is neutral -/+	Impact on health is somewhat positive +	Impact on health is positive + +

No-Build/No Action



Air Quality & Resilience: -1.14

- ➢ Existing ridership, pedestrian, and bicycle activity levels
- ➢ Rates of heart disease, stroke, and lung cancer associated with air quality
- ➢ Bicyclist perceived safety
- ★ Pedestrian exposure to vehicle emissions
- ➢ Emissions levels
- ● Availability of green spaces

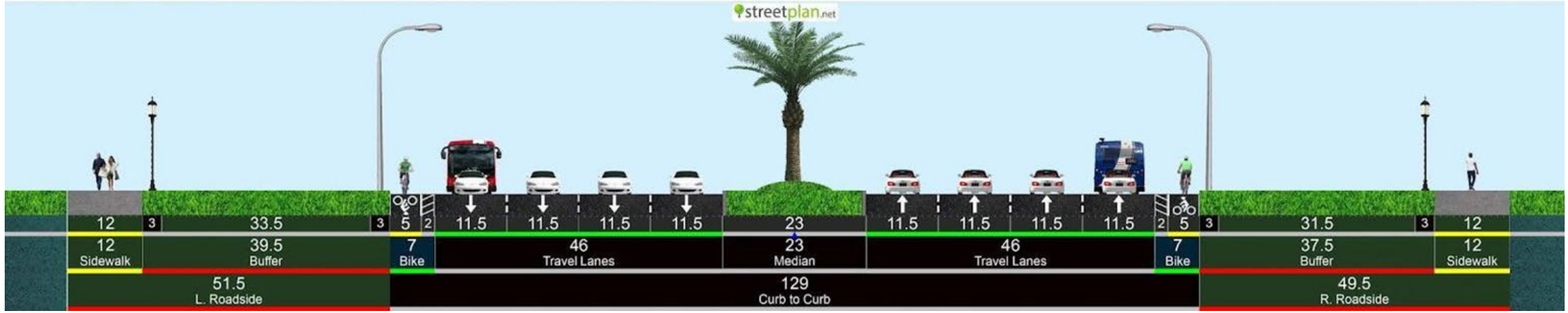
Physical Activity: -0.86

- ➢ Number of individuals meeting daily exercise requirements
- ➢ Sidewalk width
- ➢ Rates of heart disease cancer, dementia, diabetes, and stroke
- ➢ Ambient stress among bicyclists
- ● Aesthetic appeal related to construction & duration of impacts
- ★ Pedestrian safety from buffer setback

Road Safety: -0.50

- ➢ Bicyclist exposure to roadway
- ★ Pedestrian exposure to roadway from the buffer setback
- ➢ Bicyclist risk of injury & buffer type
- ➢ Vehicle speeds
- ★ Risk of road traffic fatalities
- ➢ Time & exposure for pedestrians crossing the roadway
- ★ Curbside available transit

Mixed Traffic with Limited Bus Stops



Air Quality & Resilience: -1

- ➢ Ridership changes
- ➢ Efficiency of transit in reducing emissions
- ➢ Chronic diseases associated with air quality
- ➢ Bicyclist perceived safety & activity
- ★ Pedestrian exposure to vehicle emissions
- ● Availability of green spaces

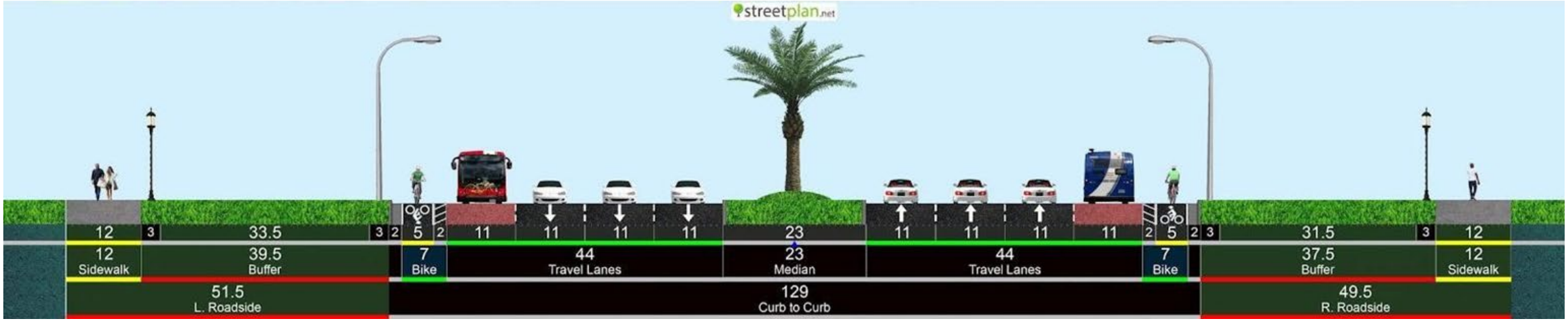
Physical Activity: -0.14

- ➢ Number of individuals meeting daily exercise requirements related to public-transit use
- ★ Sidewalk width
- ➢ Chronic diseases associated with physical activity
- ➢ Ambient stress among bicyclists
- ● Aesthetic appeal related to construction & duration of impacts
- ★ Pedestrian safety from buffer setback

Road Safety: 0.75

- ★ Bicyclist exposure to roadway
- ➢ Pedestrian exposure to roadway from the sidewalk
- ★ Bicyclist risk of injury & buffer type
- ★ Vehicle speeds
- ★ Risk of road traffic fatalities
- ● Time & exposure for pedestrians crossing the roadway
- ★ Curbside available transit

Business Access and Transit Curbside Lane



Air Quality & Resilience: 0

- ➢ Ridership changes
- ● Efficiency of transit in reducing emissions
- ● Chronic diseases associated with air quality
- ➢ Bicyclist perceived safety & activity
- ● Pedestrian exposure to vehicle emissions
- ● Availability of green spaces

Physical Activity: -0.14

- ➢ Number of individuals meeting daily exercise requirements related to public-transit use
- ★ Sidewalk width
- ● Chronic diseases associated with physical activity
- ➢ Ambient stress among bicyclists
- ● Aesthetic appeal related to construction & duration of impacts
- ➢ Pedestrian safety from buffer setback

Road Safety: 1.5

- ★ Bicyclist exposure to roadway
- ➢ Pedestrian exposure to roadway from the sidewalk
- ★ Bicyclist risk of injury & buffer type
- ★ Vehicle speeds
- ★ Risk of road traffic fatalities
- ★ Time & exposure for pedestrians crossing the roadway
- ★ Curbside available transit

Curbside Dedicated Lane Bus Rapid Transit (BRT)

Air Quality & Resilience: 1

- ★ Ridership changes with BRT
- ★ Efficiency of transit in reducing emissions
- ★ Chronic diseases associated with air quality
- ★ Bicyclist perceived safety & activity
- ➢ Pedestrian exposure to vehicle emissions
- ● Availability of green spaces

Physical Activity: 0.71

- ● Number of individuals meeting daily exercise requirements related to public-transit use
- ★ Sidewalk width
- ★ Chronic diseases associated with physical activity
- ★ Ambient stress among bicyclists
- ● Aesthetic appeal related to construction & duration of impacts
- ● Pedestrian safety from buffer setback

Road Safety: 0.63

- ★ Bicyclist exposure to roadway
- ➢ Pedestrian exposure to roadway from the sidewalk
- ★ Bicyclist risk of injury & buffer type
- ➢ Vehicle speeds
- ➢ Risk of road traffic fatalities
- ★ Time & exposure for pedestrians crossing the roadway
- ★ Curbside available transit

Center Platform Dedicated BRT

Air Quality & Resilience: 0.86

- Ridership changes with BRT
- Efficiency of transit in reducing emissions
- Chronic diseases associated with air quality
- Bicyclist perceived safety & activity
- ➢ Pedestrian exposure to vehicle emissions
- ➢ Availability of green spaces

Physical Activity: 0.43

- ★ Number of individuals meeting daily exercise requirements related to public-transit use
- ★ Sidewalk width
- ★ Chronic diseases associated with physical activity
- ★ Ambient stress among bicyclists
- ➢ Aesthetic appeal related to construction & duration of impacts
- ★ Pedestrian safety from buffer setback

Road Safety: 0.38

- ★ Bicyclist exposure to roadway
- ➢ Pedestrian exposure to roadway from the sidewalk
- ★ Bicyclist risk of injury & buffer type
- ➢ Vehicle speeds
- ➢ Risk of road traffic fatalities
- ★ Time & exposure for pedestrians crossing the roadway
- ➢ Must cross the roadway to access transit

Center Platform Dedicated Light Rail Transit (LRT)

Air Quality & Resilience: 1

- ★ Ridership changes with LRT
- ★ Efficiency of transit in reducing emissions
- ★ Chronic diseases associated with air quality
- ★ Bicyclist perceived safety & activity
- ➢ Pedestrian exposure to vehicle emissions
- ➢ Availability of green spaces

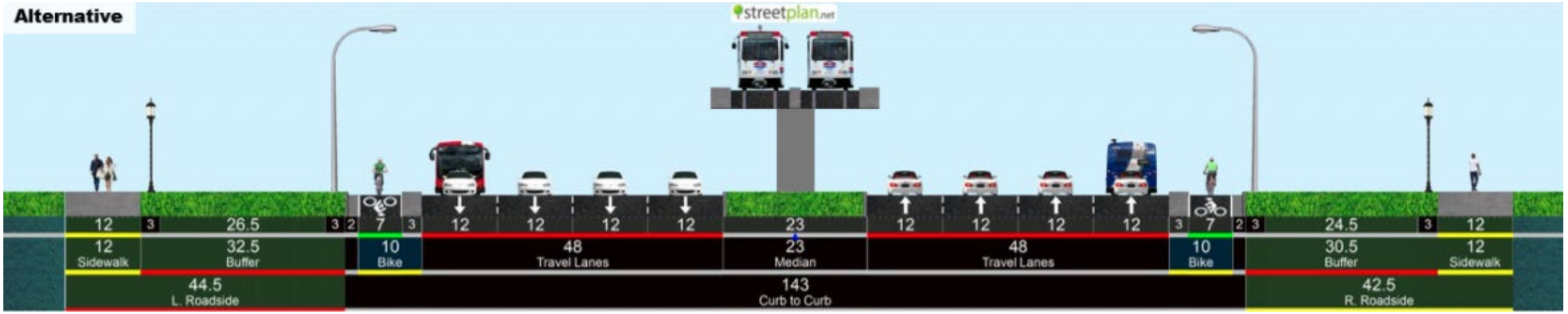
Physical Activity: 0.71

- ★ Number of individuals meeting daily exercise requirements related to LRT use
- ★ Sidewalk width
- ★ Chronic diseases associated with physical activity
- ★ Ambient stress among bicyclists
- ➢ Aesthetic appeal related to construction & duration of impacts
- ★ Pedestrian safety from buffer setback

Road Safety: 0

- ★ Bicyclist exposure to roadway
- ➢ Pedestrian exposure to roadway from the sidewalk
- ★ Bicyclist risk of injury & buffer type
- ➢ Vehicle speeds
- ➢ Risk of road traffic fatalities
- ★ Time & exposure for pedestrians crossing the roadway
- ➢ Must cross the roadway to access transit

Elevated Grade Separated LRT



Air Quality & Resilience: 1.57

- ★ Ridership changes with LRT
- ★ Efficiency of transit in reducing emissions
- ★ Chronic diseases associated with air quality
- ★ Bicyclist perceived safety & activity
- ➢ Pedestrian exposure to vehicle emissions
- ★ Availability of green spaces

Physical Activity: 0.86

- ★ Number of individuals meeting daily exercise requirements related to LRT use
- ★ Sidewalk width
- ★ Chronic diseases associated with physical activity
- ★ Ambient stress among bicyclists
- ➢ Aesthetic appeal related to construction & duration of impacts
- ★ Pedestrian safety from buffer setback

Road Safety: -0.50

- ★ Bicyclist exposure to roadway
- ➢ Pedestrian exposure to roadway from the sidewalk
- ★ Bicyclist risk of injury & buffer type
- ➢ Vehicle speeds
- ➢ Risk of road traffic fatalities
- ➢ Time & exposure for pedestrians crossing the roadway
- ➢ Must cross the roadway to access transit

Transportation-Alternative Health Analysis Scoring Matrix

Proposed Alternative	Air Quality Resiliency	Physical Activity	Safety	Total Score	Rank
No Build	-1.14	-0.86	-0.5	**-0.83**	7
Mixed Traffic w/ Limited Stops	-1	-0.14	0.75	**-0.13**	6
BAT Curbside Lane	0	-0.14	1.5	**0.45**	5
Curbside Dedicated-Lane BRT	1	0.71	0.63	**0.78**	1
Center Platform Dedicated-Lane BRT	0.86	0.43	0.38	**0.56**	3
Center Platform Dedicated-Lane LRT	1	0.71	0	**0.57**	2
Elevated Grade Separated LRT	1.57	0.86	-0.5	**0.48**	4

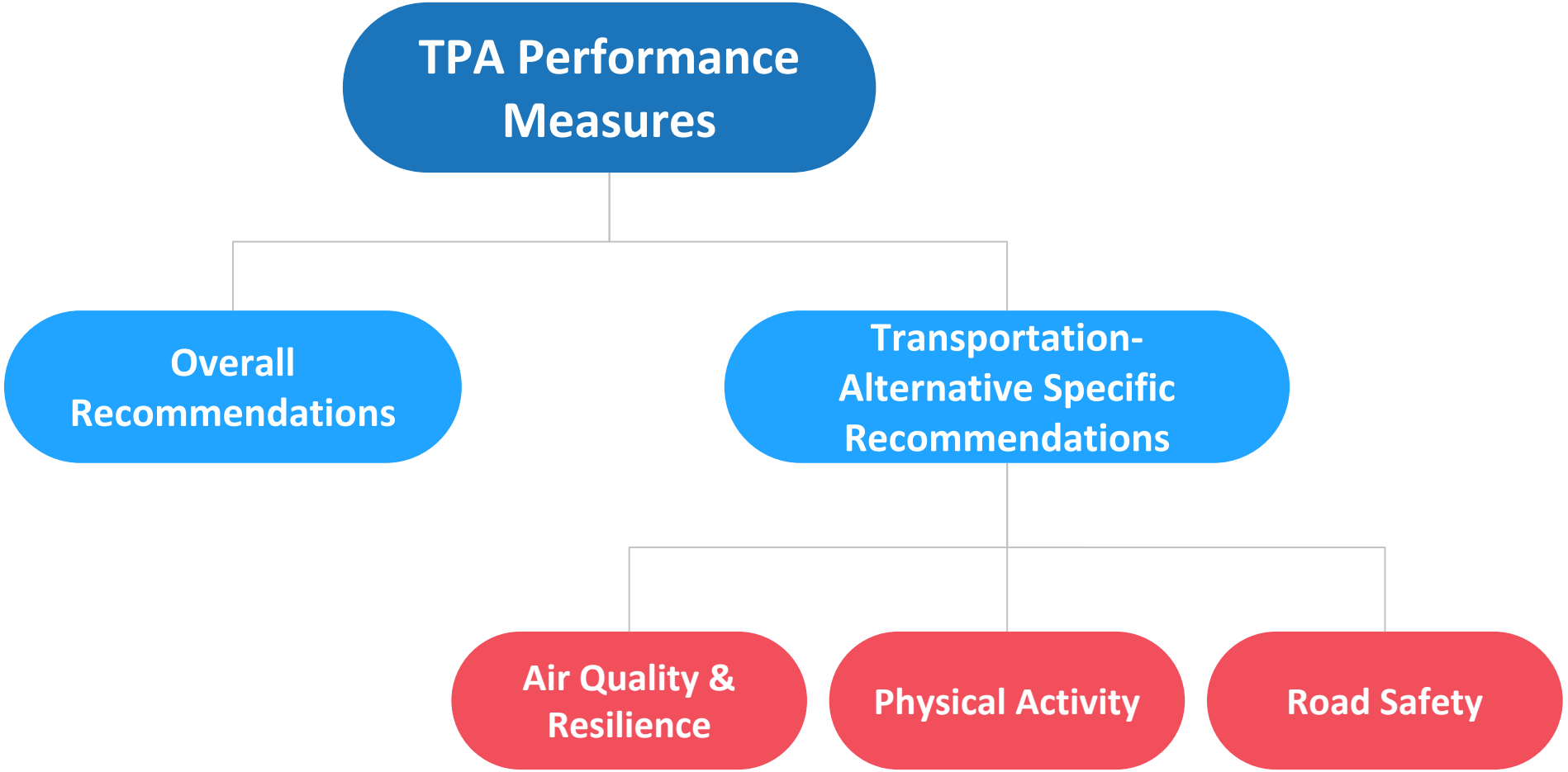
Overall Recommendations

1. Connectivity for equitable access to healthy living
2. Performance Measures to achieve health equity
3. Transportation investments to achieve health equity
4. Crosswalk enhancements
5. Architectural ITHIM mechanism
6. Additional health analysis: CBA & forecasting of long-term health impacts
7. Safe Systems
8. Conscious construction practices
9. Green spaces
10. Invest in an air monitoring system

Monitoring & Evaluation Plan

- **Goal:** to track the impact of HIA findings and recommendations on the selection and implementation of a specific multimodal transportation alternative
  a. Identify indicators and variables aligned with TPA Performance Measures to be evaluated
- 2-pronged approach
  a. Overall recommendations
  b. Alternative-specific recommendations
     - Air Quality & Resilience
     - Physical Activity
     - Road Safety

Monitoring & Evaluation Plan



Timeline and Next Steps

PALM BEACH
Transportation
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Next Steps

Upcoming Events:

- February 2022
  - Final HIA Report will be released
- March 2022
  - 21st - 3rd Public Open House
- April 2022
  - Final recommendations presented to TPA Committees and Board

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