BEST:
Michigan Avenue

Open House
Thursday, October 8, 2015

RTA
REGIONAL
TRANSIT AUTHORITY
OF SOUTHEAST MICHIGAN

Agenda

1. Project Update
2. Purpose of the Open House
3. The Need for Transit Investment
4. The Initial Alternatives
    a. Evaluation Criteria
    b. Evaluation Results
5. The Detailed Alternatives
6. What's Next?

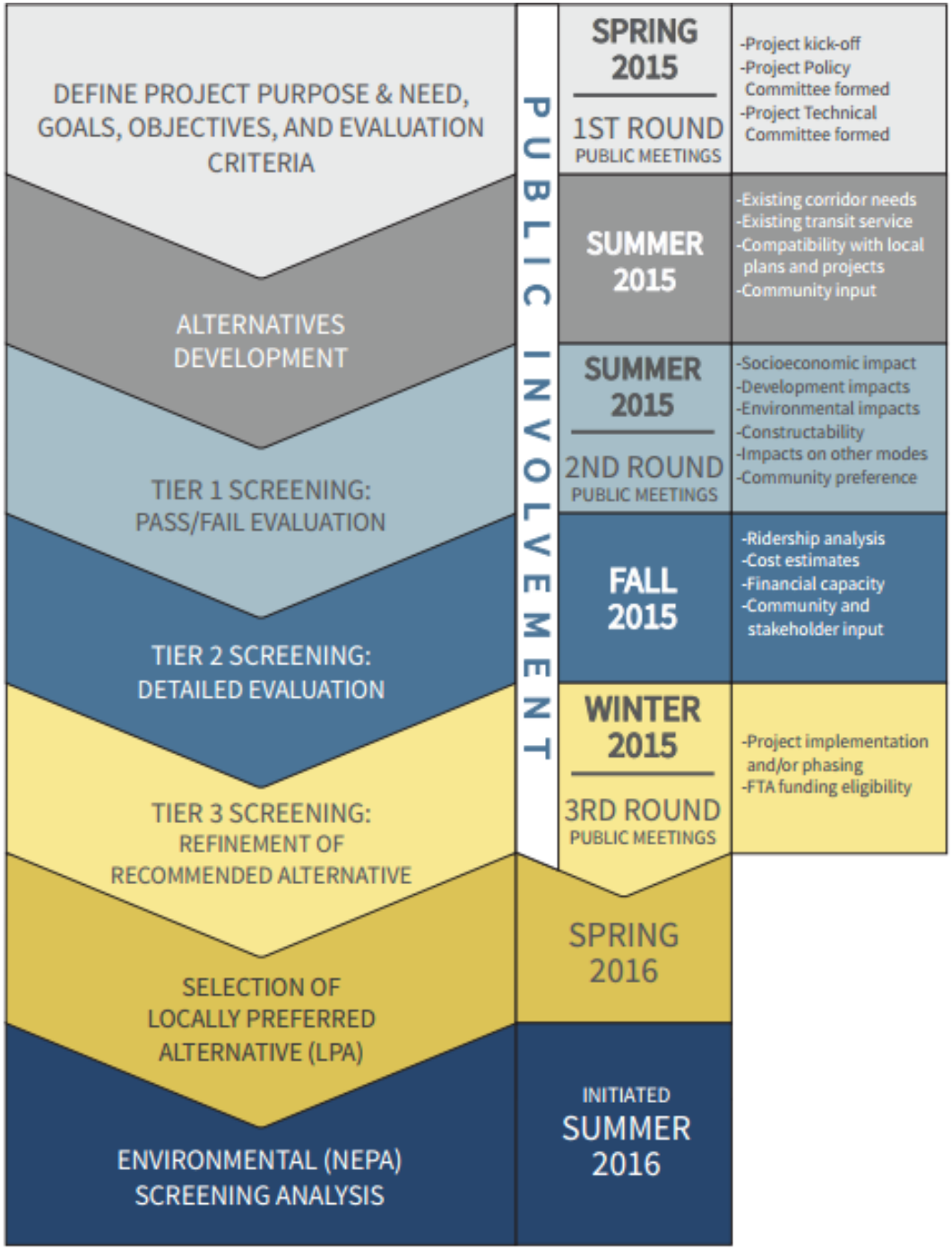
Project Update

BEST: Michigan Avenue Corridor

RTA

Study Process and Schedule

We are here →



RTA

Purpose of the Open House

Purpose of the Open House

- **Review and provide feedback on the evaluation of the initial alternatives**
  - Qualitative analysis
  - Identified alternatives to study in more detail
- **Review and provide feedback on the detailed alternatives**
  - Vehicles
  - Routes
  - Station locations
  - Lane operations (transit-only vs. in traffic)
- **Learn about how to stay involved**

The Need for Transit Investment

The Need for Transit Investment

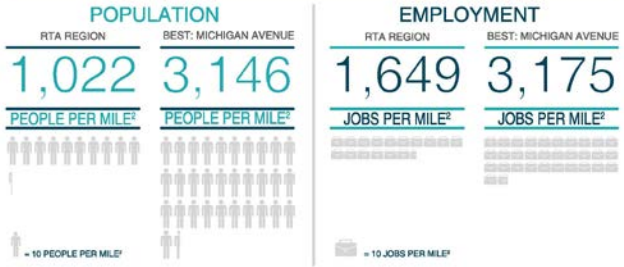
need: Provide Effective Service

Current travel times from Downtown Detroit to Detroit Metro Airport

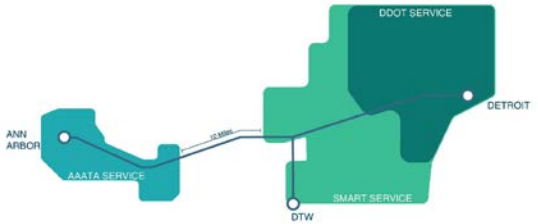
30 MIN
TRAVEL TIME BY CAR

120 MIN
TRAVEL TIME BY BUS

need: Serve Concentrations of Population and Employment

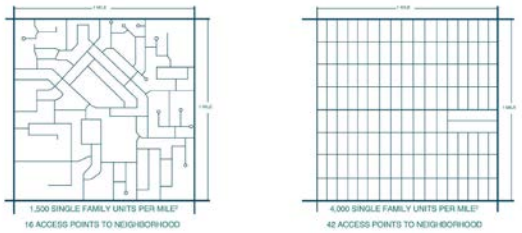


need: Enhance Connectivity



need: Support Community Vision

High quality transit allows for a more efficient use of land and vice versa



need: Connect Key Destinations

Project Goals

- ✓ Increase the efficiency, attractiveness and utilization of corridor and regional transit for all users
- ✓ Improve multi-modal connectivity between activity centers
- ✓ Enhance connectivity of the corridor to the regional transportation network
- ✓ Support community vision for growth
- ✓ Contribute to regional equity, sustainability, and quality of life
- ✓ Develop and select an implementable and community-supported project

RTA

The Initial Alternatives

The Initial Alternatives: Vehicles

No Build

Commuter Rail

Light Rail

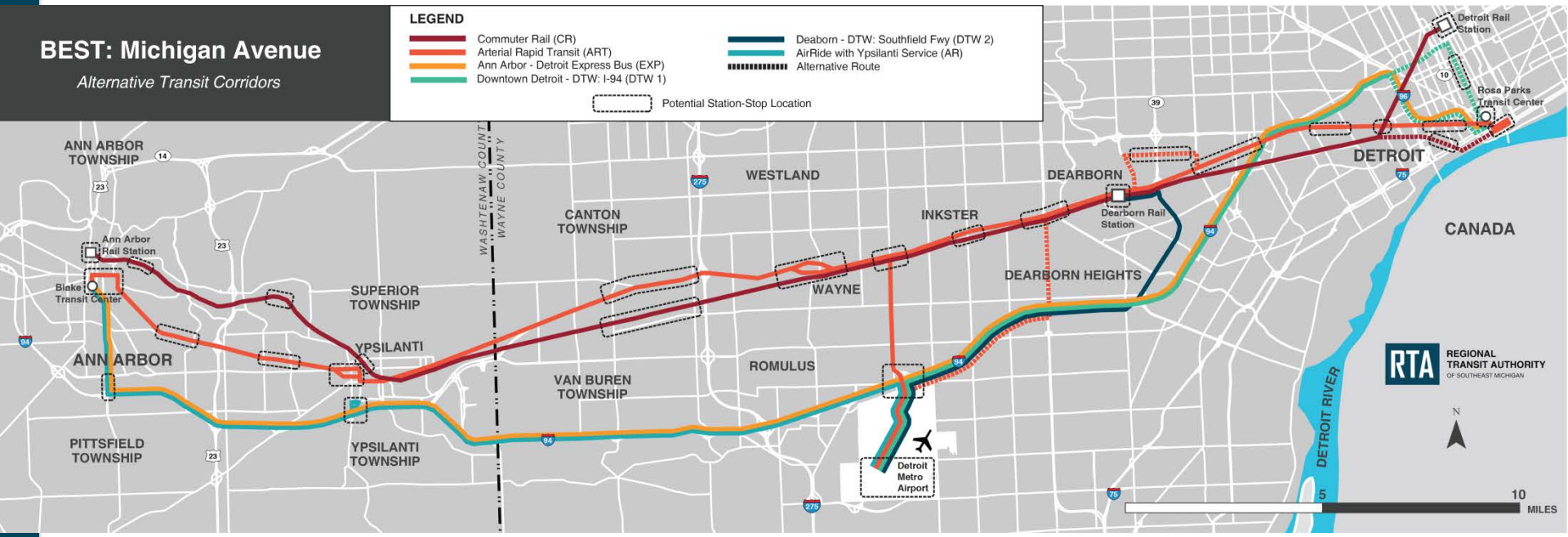
Streetcar

Premium BRT

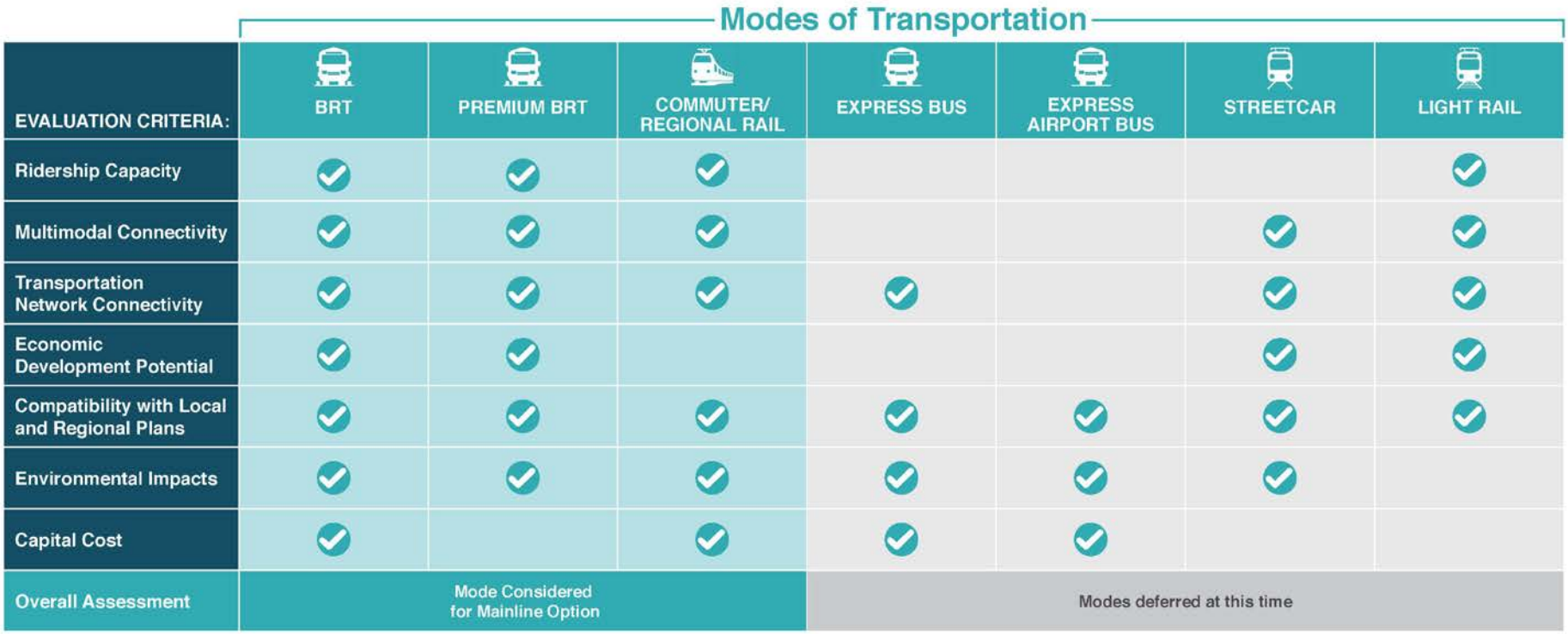
BRT

Express Bus

The Initial Alternatives: Routes



Evaluation of Initial Alternatives: Results



	Modes of Transportation						
EVALUATION CRITERIA:	BRT	PREMIUM BRT	COMMUTER/ REGIONAL RAIL	EXPRESS BUS	EXPRESS AIRPORT BUS	STREETCAR	LIGHT RAIL
Ridership Capacity	✓	✓	✓				✓
Multimodal Connectivity	✓	✓	✓			✓	✓
Transportation Network Connectivity	✓	✓	✓	✓		✓	✓
Economic Development Potential	✓	✓				✓	✓
Compatibility with Local and Regional Plans	✓	✓	✓	✓	✓	✓	✓
Environmental Impacts	✓	✓	✓	✓	✓	✓	
Capital Cost	✓		✓	✓	✓		
Overall Assessment	Mode Considered for Mainline Option			Modes deferred at this time			

✓ = This mode performed well against the evaluation criteria

= Mode considered for mainline option

Source: BEST: Michigan Avenue Tier 1 Analysis Report

RTA

The Detailed Alternatives

BRT, Premium BRT and Commuter / Regional Rail

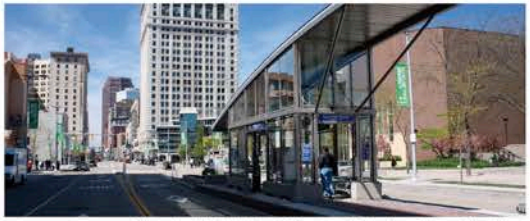
	BRT	PREMIUM BRT	COMMUTER/REGIONAL RAIL
How much will it cost?	$2M - $12M per mile	$12M - $35M per mile	$2.5M - $30M per mile
Where would transit lanes be located?	Vehicles mixed with traffic and some exclusive transit lanes	More exclusive transit lanes	Existing rail lines
Where would stations be located?	Side of the street	Center of the street	At existing train/Amtrak stations and possible new locations
What types of stations?	Smaller with a roof for weather protection	Larger with a roof and walls for weather protection	Large enclosed stations
What amenities would be available at stations? *(ticket vending machines, real-time "next bus" information, WIFI, bicycle parking, seating, etc.)*	Some amenities at stations	More amenities at stations	Similar to Premium BRT

ex. BRT

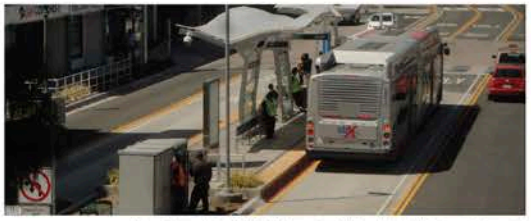
Kansas City MAX BRT | Source: Urban Indy

Grand Rapids Silver Line | Source: CITE

ex. Premium BRT



Cleveland HealthLine | Source: Flickr User Thom Sheridan



San Bernadino SBX | Source: Flickr User theTransitjournal

ex. Commuter/Regional Rail

Sounder Commuter/Regional Rail | Source: wikiwand.com

Austin DMU Commuter/Regional Rail

RTA

What Makes BRT "Rapid"?

Pre-board Ticketing

PRE-BOARD TICKETING
HealthLine, Cleveland, OH

Raised Platforms = Faster Boarding

LEVEL BOARDING
The Silver Line - Grand Rapids, MI

PLATFORM DESIGN
HealthLine - Cleveland,OH

Exclusive Transit Lanes

EXCLUSIVE BRT LANE
Boston, MA

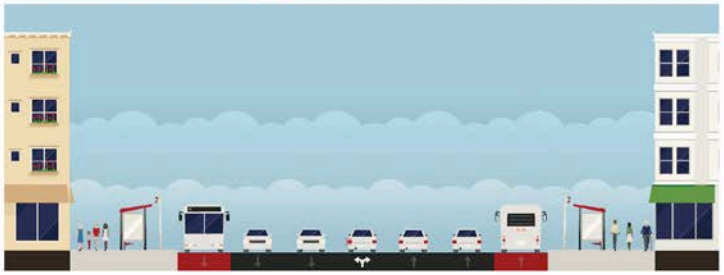
EXCLUSIVE TRANSIT LANE
Minneapolis, MN

SEPARATE TRANSIT LANE IN MEDIAN
Eugene, OR

RTA

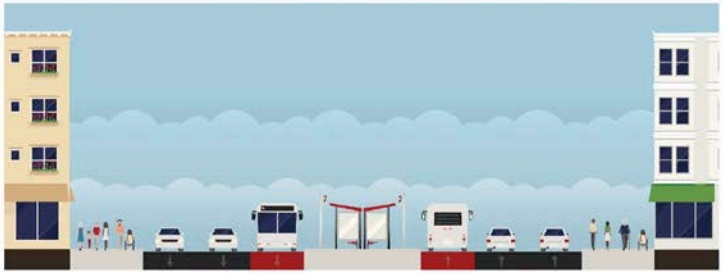
Where will transit fit in the street?

Side Running



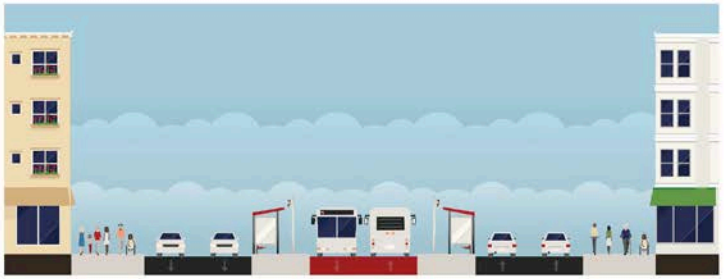
PROS
More familiarity among transit users with side running operations
More space on sidewalk at stations for amenities / waiting users
Less impact to center turn lanes / medians
Less left-turn restrictions
CONS
Less reliable than center running
More conflict between right-turning automobiles and local buses

Center Running (Left Lane)



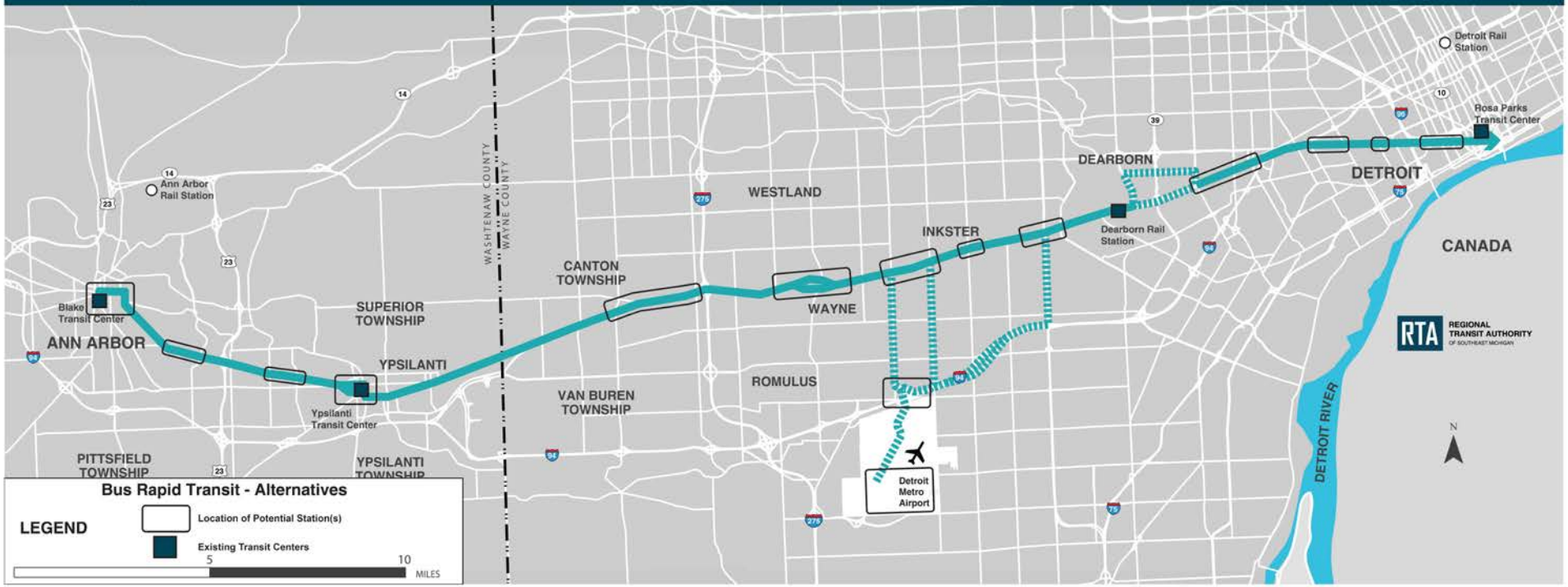
PROS
More exclusive through delineation or possible curb separation
More visible, shared island platform stations
More refuge for pedestrians crossing the street
Less capital cost than center running (median) option
Less left-turn restrictions
CONS
More conflict with left-turning automobiles
More expensive than side running

Center Running (Median)



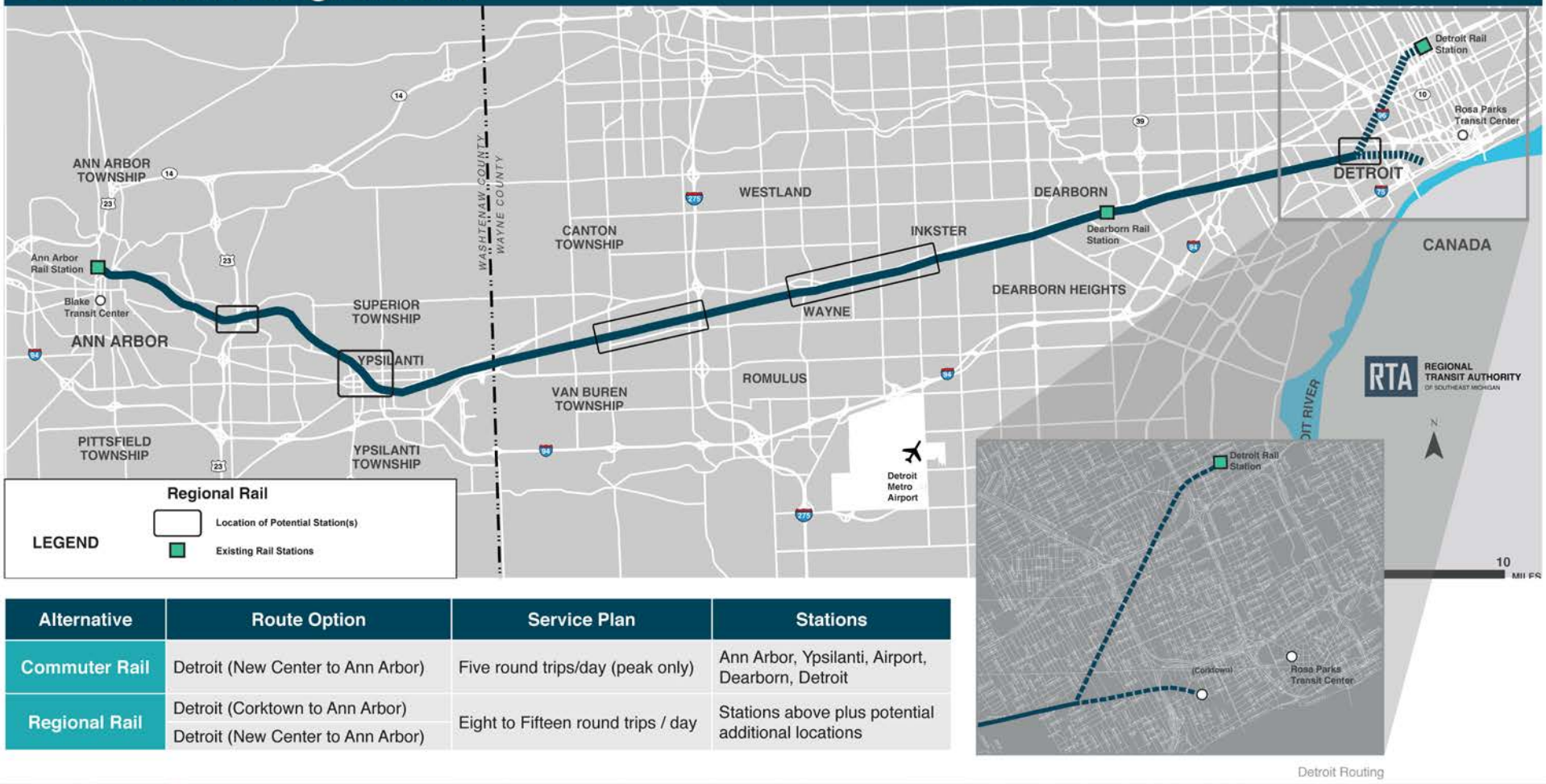
PROS
Most reliable
More exclusive through physical separation (median) from traffic
More visible, split platform stations
More refuge for pedestrians crossing street
CONS
Less conflict with left-turning automobiles
More expensive than side running and center running (left lane) options

Bus Rapid Transit



Alternative	Route Option	Service Plan	Stations
Bus Rapid Transit	Detroit to Ann Arbor	Every 10 minutes (peak) Every 15 minutes (off-peak)	Every 1/2 mile to 1 Mile
	Detroit to Metro Airport		
Bus Rapid Transit Premium	Detroit to Ann Arbor		
	Detroit to Metro Airport		

Commuter and Regional Rail



Alternative	Route Option	Service Plan	Stations
Commuter Rail	Detroit (New Center to Ann Arbor)	Five round trips/day (peak only)	Ann Arbor, Ypsilanti, Airport, Dearborn, Detroit
Regional Rail	Detroit (Corktown to Ann Arbor) Detroit (New Center to Ann Arbor)	Eight to Fifteen round trips / day	Stations above plus potential additional locations

Detroit Routing


14th Street and
Michigan Avenue,
Corktown, Detroit
BUS
ONLY


Schaefer Road
and Michigan
Avenue, Dearborn

Dearborn Rail Station, Dearborn

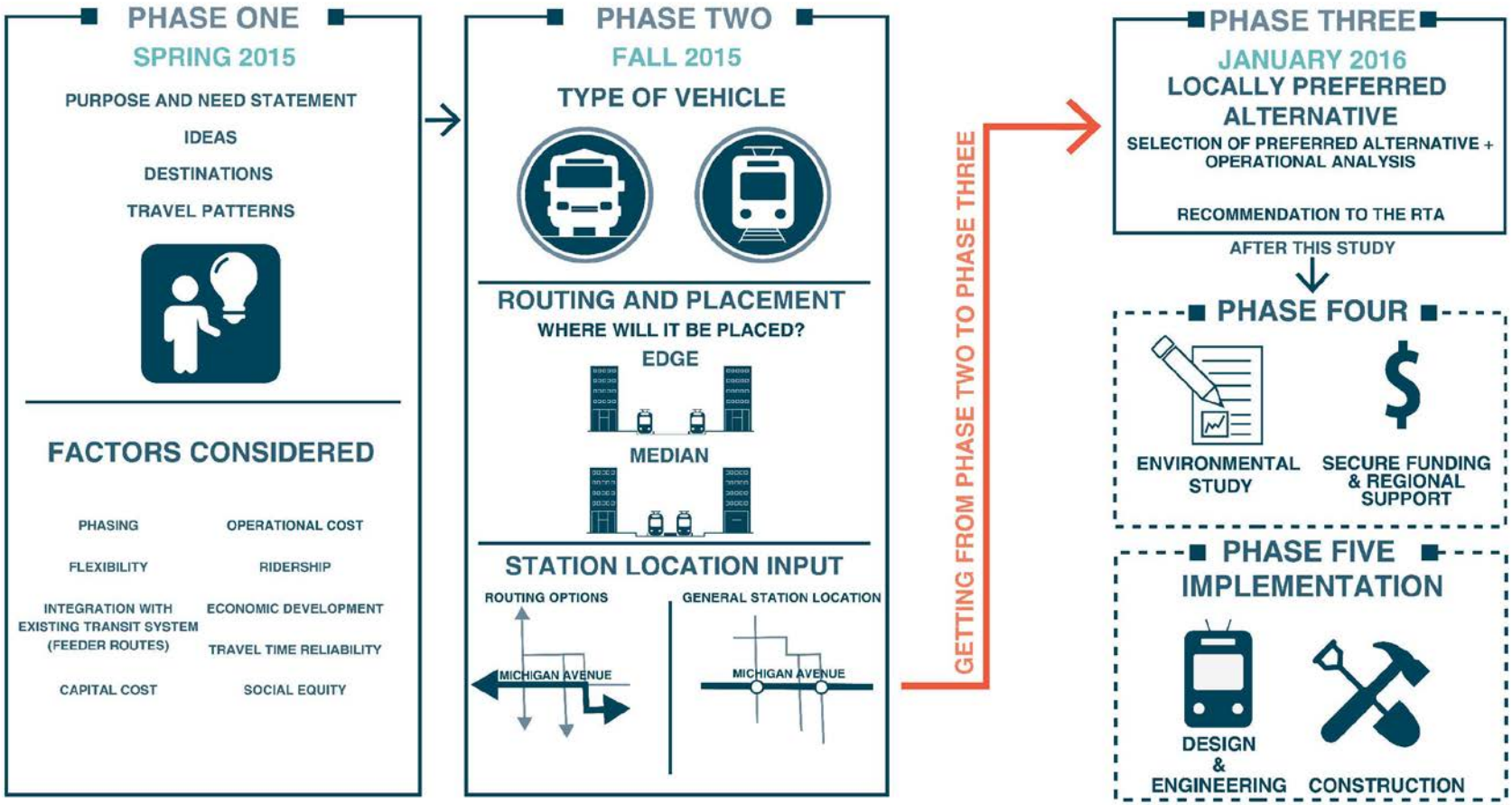

Downtown Wayne
DOWNTOWN
ONLY
BUS


Depot Town,
Ypsilanti
SIDETRACK
MITRAIN


Huron Street,
University of
Michigan,
Ann Arbor

What's Next?

What's Next?


PHASE ONE
SPRING 2015
PURPOSE AND NEED STATEMENT
IDEAS
DESTINATIONS
TRAVEL PATTERNS
FACTORS CONSIDERED
PHASING
OPERATIONAL COST
FLEXIBILITY
RIDERSHIP
INTEGRATION WITH EXISTING TRANSIT SYSTEM (FEEDER ROUTES)
ECONOMIC DEVELOPMENT
TRAVEL TIME RELIABILITY
CAPITAL COST
SOCIAL EQUITY
PHASE TWO
FALL 2015
TYPE OF VEHICLE
ROUTING AND PLACEMENT
WHERE WILL IT BE PLACED?
EDGE
MEDIAN
STATION LOCATION INPUT
ROUTING OPTIONS
MICHIGAN AVENUE
GENERAL STATION LOCATION
MICHIGAN AVENUE
GETTING FROM PHASE TWO TO PHASE THREE
PHASE THREE
JANUARY 2016
LOCALLY PREFERRED ALTERNATIVE
SELECTION OF PREFERRED ALTERNATIVE + OPERATIONAL ANALYSIS
RECOMMENDATION TO THE RTA
AFTER THIS STUDY
PHASE FOUR
ENVIRONMENTAL STUDY
SECURE FUNDING & REGIONAL SUPPORT
PHASE FIVE
IMPLEMENTATION
DESIGN & ENGINEERING
CONSTRUCTION

Evaluation of Detailed Alternatives

Transit service effectiveness
(including transit connectivity to major destinations, travel time savings)

Estimated ridership

Land use and economic development benefits

Impacts to other transportation
(traffic, parking and pedestrians)

Potential social, community and environmental impacts

Cost (to build and operate the project)

RTA

RTA

OF SOUTHEAST MICHIGAN