Tampa Bay Express Lanes (TBX) and Intermodal System
Express Bus in Tampa Bay Express Lanes Study
Express Bus in Tampa Bay Express Lanes

Best Practices

26 Projects first identified (across the U.S.) Narrowed to 5 for study

Conducted Interviews with Agencies:
- Metro Transit: I-35W in Minneapolis, MN;
- Broward County Transit: 95 Express in Miami-Dade, FL
- Metropolitan Transit Authority: Katy Freeway (I-10) in Houston, TX
- San Diego Association of Governments: I-5 Corridor in San Diego, CA
- Metropolitan Transportation Authority: Silver Line (I-110 & I-10) in Los Angeles, CA
Best Practices
METRO ORANGE LINE; MINNEAPOLIS, MN
• 16-miles, 10 stations on I-35W
  ➢ 2 located in highway median
• BRT service
  ➢ Managed lanes,
  ➢ Bus-only shoulders,
  ➢ Transit guideway in downtown Minneapolis
  ➢ HOV ramp bypass lanes
  ➢ Short segments of mixed traffic

• Important Lessons
  ➢ Crossing general purpose lanes is difficult
  ➢ Interagency coordination for maintaining stations
  ➢ Sidewalk connectivity to stations (i.e., 66th St./I-35W)
  ➢ Growing demand for park & ride lots
  ➢ Buses cannot “leapfrog” other buses, impacting service

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Best Practices
95 EXPRESS; MIAMI-DADE, FL
• Two-phases (Phase I in 2012, Phase II in 2015)
• 22-mile High Occupancy Toll (HOT) lanes
• Express bus shares HOT with vehicles
• No station access; bus exits at interchange
• Important lessons
  ➢ Transit-focus helped secure Urban Partnership Agreement (UPA) grant
  ➢ Significant increase in transit use
  ➢ Average daily speed increased 300%
Best Practices
Katy Freeway; Houston, TX

- 12-miles on I-10 corridor
- Opened April 2009
- Bus service
  - Operate in HOV managed lanes with vehicular traffic
  - One park & ride lot and one Transit Center
- Looking to expand and connect corridor to downtown Houston
- Important Lessons
  - Parking demand greater than supply
  - Slip ramps entering/exiting HOV managed lanes not intuitive for drivers

Sources: Harris County Toll Road Authority (top); Google Maps (bottom)
**Best Practices**

**I-15; SAN DIEGO, CA**

- 20-miles on I-15 corridor
- BRT service began 2013
- 7 Stations on interstate
  - 5 on side of highway; direct access ramps
  - 2 within the median

**Important Lessons:**
- Not enough parking
- Who has priority at park and ride lots: carpools or BRT users?

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**Best Practices**

**SILVER LINE; LOS ANGELES, CA**

- 26 miles total; 11 miles HOT on I-110, 15 HOT on I-10
- 5 stations within corridors
- Travel speeds operate above 45 mph 100% of time

**Important Lessons**
- Difficulty connecting to stations not on interstate
- No dedicated lanes on local streets
- Lack of seamless connection affects travel times
SUMMARY OF IMPORTANT LESSONS

• Projects are incremental & require collaboration
• Provide ample parking
• Consider station width to allow bus passing
• Provide a variety of station types
• Evaluate design of slip ramps for easy access
• Ensure travel times and guarantee minimum average speeds

Express Bus in TBX Lanes

SCREEN 1 - Connections

Purpose:
What are the best routes for connecting key destinations?

Key Decisions:
— Which routes move riders quickly between destinations?
— Which routes serve the most riders?

Six Alternatives to Three:
— Time Study Area corridors
— Three routes per corridor
— Consistent station spacing, allowing greatest amount of access
— Consistent service frequency

Evaluation Criteria

Express Bus in TBX Lanes

SCREEN 2 - Stations

Purpose:
Where are the best locations for BRT stations?

Key Decisions:
— Which stations provide the best access to key destinations?
— What is the right balance between regional express service and total number of stations?

Three Alternatives to One:
— One corridor
— Three corridors that test the number and feasibility of varying station locations
— Consistent service frequency

Evaluation Criteria

PREFERRED OPTION

Purpose:
Which alternative is preferred and what are the implementation considerations?

Key Decisions:
— Are the operating costs reasonable?
— How much capital investment is required?
— How feasible is implementation?
— What are the benefits of implementation?

Refine Preferred Options:
— One corridor
— Test varying levels of capital investment
— Refine service frequency to improve cost effectiveness

Evaluation Criteria
Express Bus in TBX Lanes

COMMUNICATIONS:
• Management Team
  ➢ FDOT District Seven, Hillsborough MPO, Pinellas MPO
  ➢ Monthly Meetings
• Stakeholders
  ➢ Policy (FDOT, Hillsborough and Pinellas MPO Boards/Committees)
  ➢ Implementation (HART, PCPT, PSTA and TBARTA)
  ➢ Community and Agency
    (Greater Tampa Chamber, New North Transportation Alliance, St. Petersburg Chamber, Tampa Bay Partnership, Tampa Bay Regional Planning Council, Tampa Downtown Partnership, Tampa International Airport and Westshore Alliance)

COORDINATION AND PRESENTATIONS:
• Met with transit agencies in January and February
  ➢ Developed and Comment on Alternatives
  ➢ Meet again in May
• Recent Presentations:
  ➢ HART Policy Committee
  ➢ TBARTA CAC
  ➢ MPO Committees
  ➢ ACPT and TMA