Meeting Format

» Questions?
  • Fill out a “Question Card” with your question and name (optional)
  • Questions accepted during and after presentation
  • All questions will read by staff following the presentation

» Comments?
  • Comment forms
  • Survey
Today’s Presentation
Framework for Path Forward
» Desired Downtown circulator system
» Preferred vehicle technology
» Initial steps for project development
Where are we in the process?

- Technology Assessment
- Policy Development/Skyway Advisory Group
- Skyway Modernization Program
- Project Development
- Design and Construction
Program Guidance

» Keep
  • Strengthen image and role as a Downtown circulator
  • Maximize use of existing infrastructure

» Modernize
  • Rehab or replace vehicles
  • Consider emerging technology

» Expand
  • Consider alternate modes
  • Serve new areas
  • Provide flexibility
System Plan Development

Understanding Downtown Mobility Needs
System Plan Development

» System Plan Input
  • Peer systems/research
  • Partner agency feedback
  • Downtown stakeholders
  • Community outreach

» Understanding Downtown Mobility
  • Where do people need to go?
  • Where is development occurring?
  • Where do we expand the system?
  • Desired system attributes?
System Plan Input

» Peer System Review
  • Miami MetroMover
  • Orlando (Lymmo, Disney)
  • Other areas (WV, Charlotte)

» Takeaways
  • Higher frequency
  • Span of service
  • Intermodal connections
  • Economic development
    o Direct connections to buildings
    o Public Private Partnerships
Stakeholder Outreach
System Plan Input

» Initial Agency/Stakeholder Feedback

• Needs broader reach
• Key areas may not be accessible
• Use road diets to capture transit lanes
• Interest in autonomous vehicle technology
• Concern about at-grade reliability, speed and capacity
System Plan Input

» Professional Societies

» Public Forum
  • Open House format
  • Multiple comment stations
  • Approximately 50 people in attendance
  • Positive feedback, focus on extensions “where people want to go”

» Skyway Advisory Group/Subcommittee
System Plan Input - Online Survey

1, 2, 3 Survey Responses Within 95 days

Service Input – What would make Skyway more useful to you?

Longer Hours – 34.0%
Longer Hours (Early) – 12.0%
Longer Hours (Late) – 34.6%
More Frequency – 30.3%

Weekends (Saturday) – 60.8%
Weekends (Sunday) – 48.1%
More Reliable Service – 18.4%

Cleaner – 18.7%
Safer – 19.8%

Goes Further (To More Destinations) – 72.6%
System Plan Input - Online Survey

1, 2, 3, 3 Survey Responses Within 95 days

Downtown Destinations

- Convention Center (36.0%)
- Hemming Park (67.7%)
- The Elbow (41.1%)
- The Landing (59.0%)
- Arena (56.0%)
- Baseball Park (50.3%)
- EverBank Field (70.5%)
- Former Metro Park (26.1%)
- Other (15.6%)

514 42.2%
704 57.8%
System Plan Input - Online Survey

1,233 Survey Responses Within 95 days

541 42.2%
704 57.8%

Extensions Priority

Sports Complex – 37.8%
Five Points – 22.3%
Brooklyn – 15.7%

Five Points – 21.0%
Brooklyn – 18.8%
Riverside Arts Market – 18.4%

San Marco – 20.8%
Riverside Arts Market – 20.5%
Brooklyn 17.3%
Desired System

Ultimate Urban Circulator

» Utilizes investment in Skyway
» Connects employment, residential, retail and entertainment
» High frequency and reliable service
» Flexible and context sensitive
  • Capacity to handle peak event loads
  • Operate elevated or at street level
  • On demand and point to point capacity
Existing Skyway
Existing Skyway - Neighborhoods

- Downtown
- Springfield
- LaVilla
- Mixon Town
- Riverside/Avondale
- Brooklyn
- San Marco
- Southbank
- St. Nicholas
Existing Skyway - Development

Brooklyn

JRTC

Shipyards

Amphitheater

The District
Skyway System Expansion
Ultimate Urban Circulator

- Frequent & Flexible
- Economic Driver
- System Connectivity
- Phased Implementation
Vehicle Technology Options

What is the vehicle of the future?
Technology Considerations

» What is the best vehicle to achieve desired system?

» What should be done with the existing vehicle?

» What are options to use the existing “Guidebeam” or remove it?

» Is there a vehicle that can run on the existing structure and then go down to the street level?
Infrastructure Considerations

Maximize use of existing infrastructure (Bay St – looking west)

Integrate with development (i.e. Miami)

Expand use of area under guideway (i.e. Miami)
Street Level Considerations

» System Power Supply
  • Third rail or overhead catenary
  • Charging stations

» Guideway or Transit Lane
  • Dedicated right-of-way
  • Conflicts at crossings (pedestrian, auto, bike)

» Connectivity with elevated sections
  • Infrastructure for ramp
  • Transfers between two systems
Vendor Meetings
Vendor Input

» Representative Modes
  • Automated People Mover/Monorail/Cable
  • Personal/Group Rapid Transit
  • Autonomous vehicles

» Limited interest in vehicle overhaul

» Only certain vehicles can operate on elevated structure as-is or with modifications

» Challenges for extensions at street level
Vehicle Replacement Options

1. Replace with similar vehicle on guidebeam

2. Replace with a new vehicle – remove the guidebeam

3. New Technology – Autonomous Vehicles
Option 1 – Same type of vehicle
Option 2 – New vehicle
Option 3 – Autonomous Vehicles
Technology Evaluation Criteria

» Frequency
» Transition Impacts
» Operational Flexibility
» Proven Technology
» Operates At-Grade
» Operates Elevated

» Speed
» Capacity
» Cost
» Maintainability
» Reliability
Vehicle Replacement Options

1. Replace with similar vehicle on guidebeam

2. Replace with a new vehicle – remove the guidebeam

3. New Technology – Autonomous Vehicles
Preferred Vehicle Technology

Autonomous Vehicle (AV)

» Flexible
  • Operates at street level or elevated
  • Operations
    o High Frequency and high capacity
    o Potential for on demand
    o Point to point service

» Cost effective

» Best approach for extensions

» Technology rapidly developing

» Unique opportunity for deployment of AV
Autonomous Vehicle Examples

» Ultra Global
» Local Motors
» Navya
» EasyMile
» 2getthere
Ultra Global

- 4 passengers / 25 mph
- Personal Rapid Transit
- ULTra Pod
  - Heathrow Airport, London
  - Amritsar, India
- http://www.ultraglobalprt.com/
Local Motors

- 12 passengers / 25 mph
- IBM Watson; 3-D printing
- National Harbor Maryland
- Pilots in DC, Miami, and Las Vegas
- [https://localmotors.com/olli/](https://localmotors.com/olli/)
Navya

• 15 passengers / 28 mph
• Inductive charging
• Ann Arbor, MI
• http://navya.tech/?lang=en
Easymile

- 10-12 passengers
  - 6 seated
  - 6 standing
- Maximum speed 25 mph (40 km/hr)
- Darwin, Australia
- http://easymile.com/
2getthere

- Personal Rapid Transit
  - 4-6 passengers
  - Masdar City

- Group Rapid Transit
  - 16-24 passengers
  - Rivium Business Park

- 3rd generation GRT
  - 8 seats/16 standees
  - Max speed - 37 mph
  - Asia, and Middle East

- http://www.2getthere.eu/
Path Forward - Next Steps
Next Steps

» State of Good Repair

» Community Outreach

» Project Development
  • Development of preferred technology
  • Operational enhancements
  • System expansion
Project Development

» Development of preferred technology
  • Vehicle selection
  • Development of operating system
  • Infrastructure assessment
  • AV pilot
Project Development

» Operational enhancements to expand hours of service

» System expansion from existing Skyway
  • Five Points to Sports Complex
  • Rosa Parks to UF Health/Shands
  • San Marco Station to Medical Complex
  • Riverplace Station to The District
  • Kings Ave Station to San Marco/Commuter Rail Connection
Five Points to Sports Complex
Bay Street Corridor
Bay Street

On-Street Parking

Sidewalk

Sidewalk

Reversible Traffic Lanes
Bay Street Concept

- Sidewalk
- Multi-Use Path
- Sidewalk
- Reversible Traffic Lanes
- Dedicated Transit Corridor
Bay Street Concept

Looking East Along Bay Street

- Reversible Traffic Lanes
- Dedicated Transit Corridor
- Future Development / Riverwalk
- Sidewalk
- Multi-Use Path

JTA Skyway Modernization Program
River Crossing

* Conceptual Rendering
Ultimate Urban Circulator (U²C)
We Want Your Feedback

» Questions?
  • Fill out a “Question Card”

» Comments?
  • Complete a Comment Form
  • Complete a Survey
  • Meet one-on-one with Project Team Staff
  • Online survey will be open through Friday, January 20
  • New survey during next phase of the project
Thank you!

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