

District One Rail Traffic Evaluation Study

Workshop
January 28, 2009

www.fdotrailtrafficevaluation.com

FDOT Rail Traffic Evaluation



Agenda

- Introductions
- Update on Preliminary Findings
 1. Identify Impacts / Potential Mitigation
 2. Evaluate Freight Routing
 3. Passenger Rail Feasibility Assessment
- Next Steps
- Questions

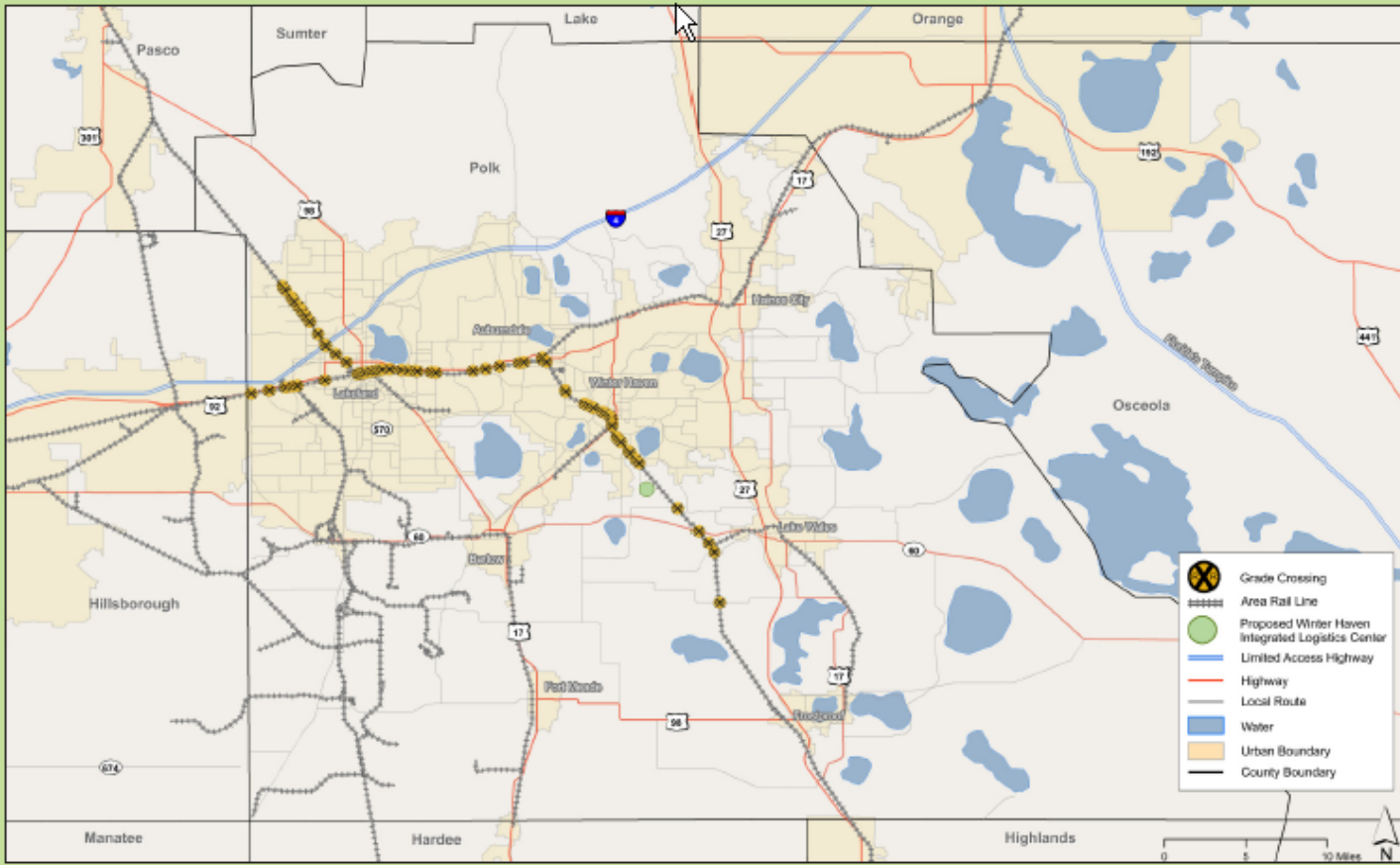


Traffic Impacts and Potential Mitigation



Study Area

Grade Crossing Overview



Source: FDOT, Polk TPO, ESRI Data



Existing Conditions

- 75 Locations Evaluated
 - Obtained 2008 Traffic Counts
 - Established AADT
 - Performed Level of Service (LOS)
 - Mid Day
 - Peak Hour
 - Projected Traffic Using Polk County Model
 - 2010
 - 2020
 - 2030

Existing Conditions

- Evaluated Train Data
 - Daily Train Movements
 - Average Train Length
 - Train Speeds at Grade Crossings
 - Percentage of Peak Hour and Mid Day Trains

Base Condition

- 2030 Without Additional Freight Movements
 - Grew Traffic to year 2030 (Polk County Model)
 - Trains Remained at 2008 Levels
 - Freight
 - Amtrak
 - Performed LOS Analysis
 - Developed Operating Conditions
 - Daily
 - Mid Day
 - Peak Hour

2030 Analysis

- 2030 Grade Crossings with Freight Forecasts
 - Incorporated Forecasted Train Movements
 - Further Adjusted Capacity Standard
 - Re-analyzed Roadway Operating Conditions
 - Compared to Base Condition
 - Determined Impacts to LOS.

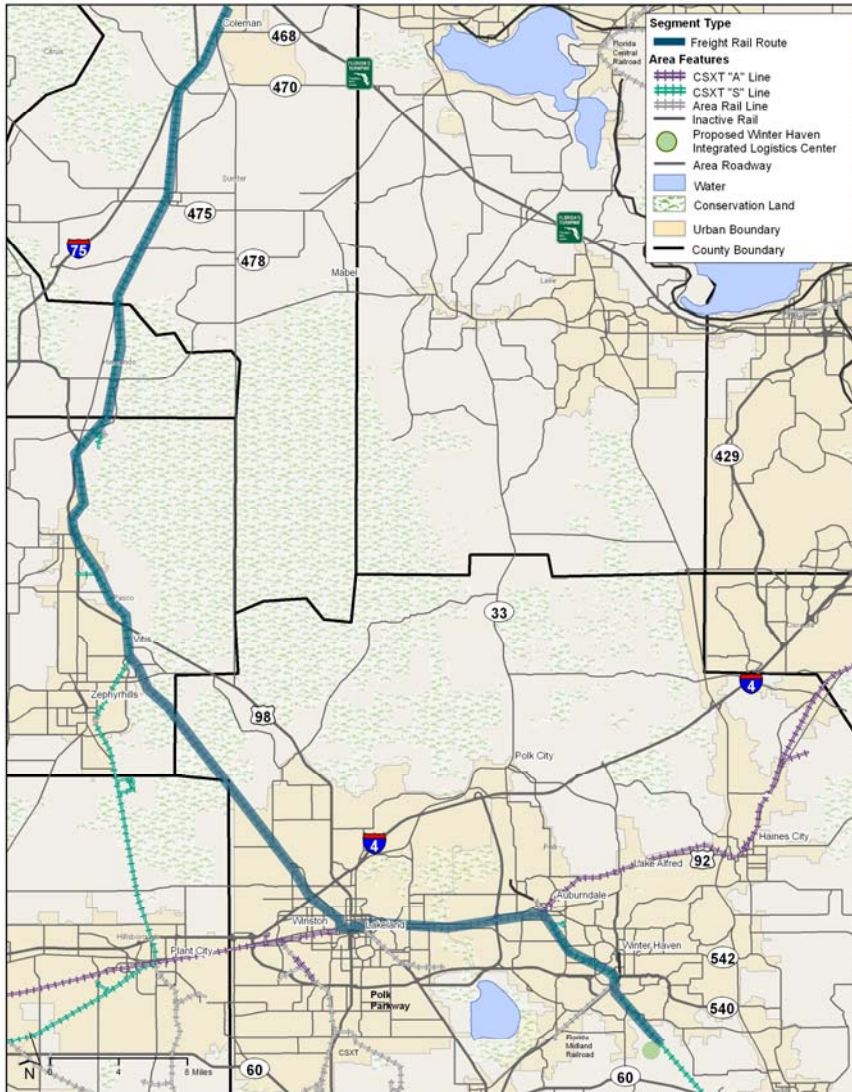
Findings

- 3 Locations Will Experience Level of Service Changes in 2030
 - 10th Street (Lakeland)
 - Level of Service D to F
 - Lake Shipp Drive (Winter Haven)
 - Level of Service D to E
 - McKean Street (Winter Haven)
 - Level of Service D to F

Freight Rail Routing



Current Plan

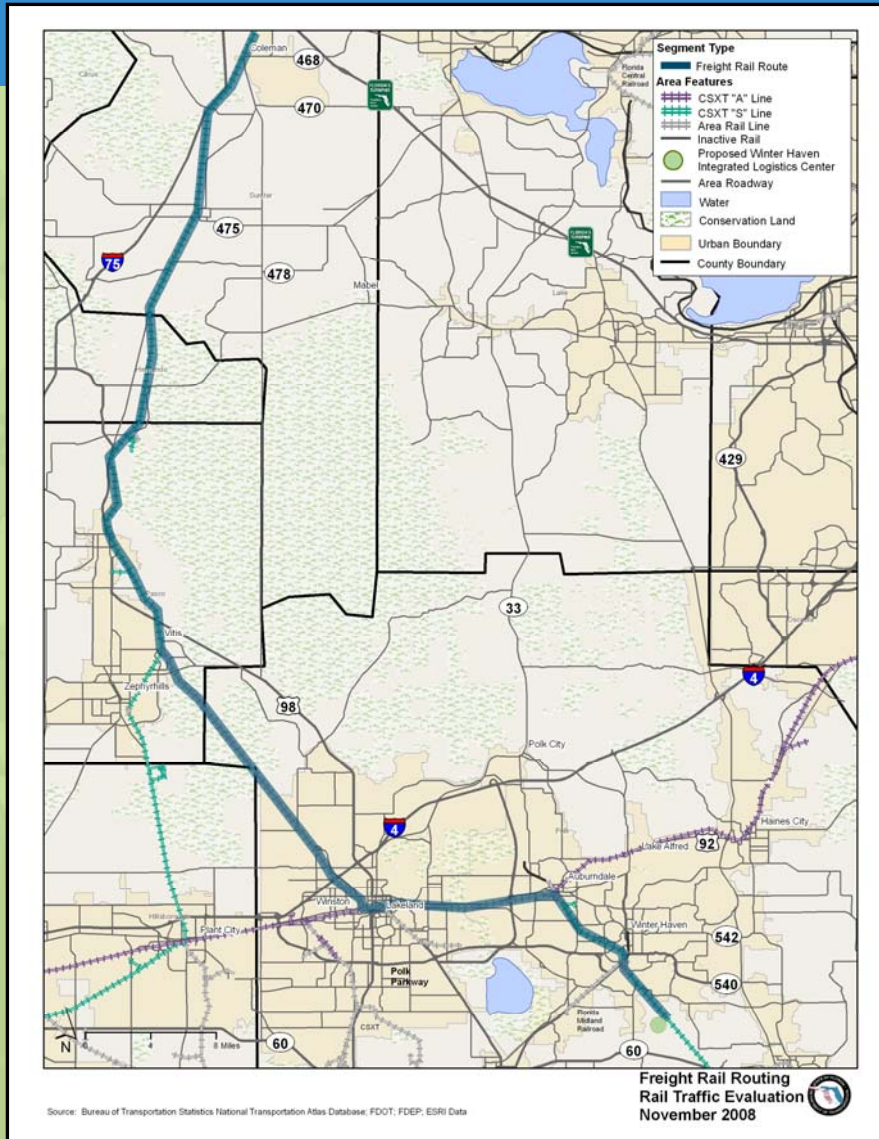


Freight Rail Routing
Rail Traffic Evaluation
November 2008

Source: Bureau of Transportation Statistics National Transportation Atlas Database; FDOT, FDEP, ESRI Data

- Total Mileage - 79
- ROW Needed - 0
- Grade Crossings
 - 107 (Existing)
- Adjacent Developed Areas
 - Lakeland
 - Auburndale
 - Winter Haven

Current Plan



Advantages

- No ROW Acquisition
- Uses Existing Rail Corridor
- Quiet Zone – downtown Lakeland
- Operating Improvements - Lakeland

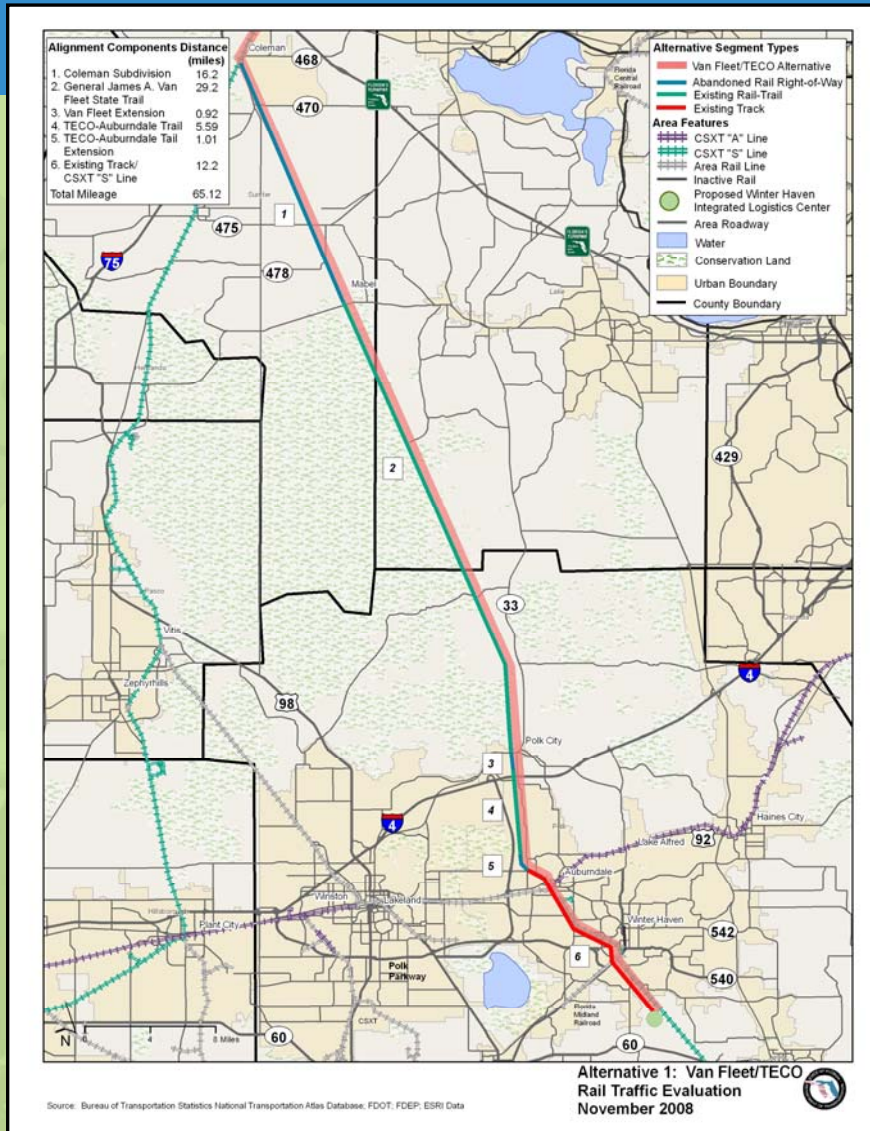
Disadvantages

- Freight Traffic – downtown Lakeland
- 2010/2011 Increase by 4 Trains
- 2030 Forecast Additional 7 Trains

Alternatives Under Evaluation



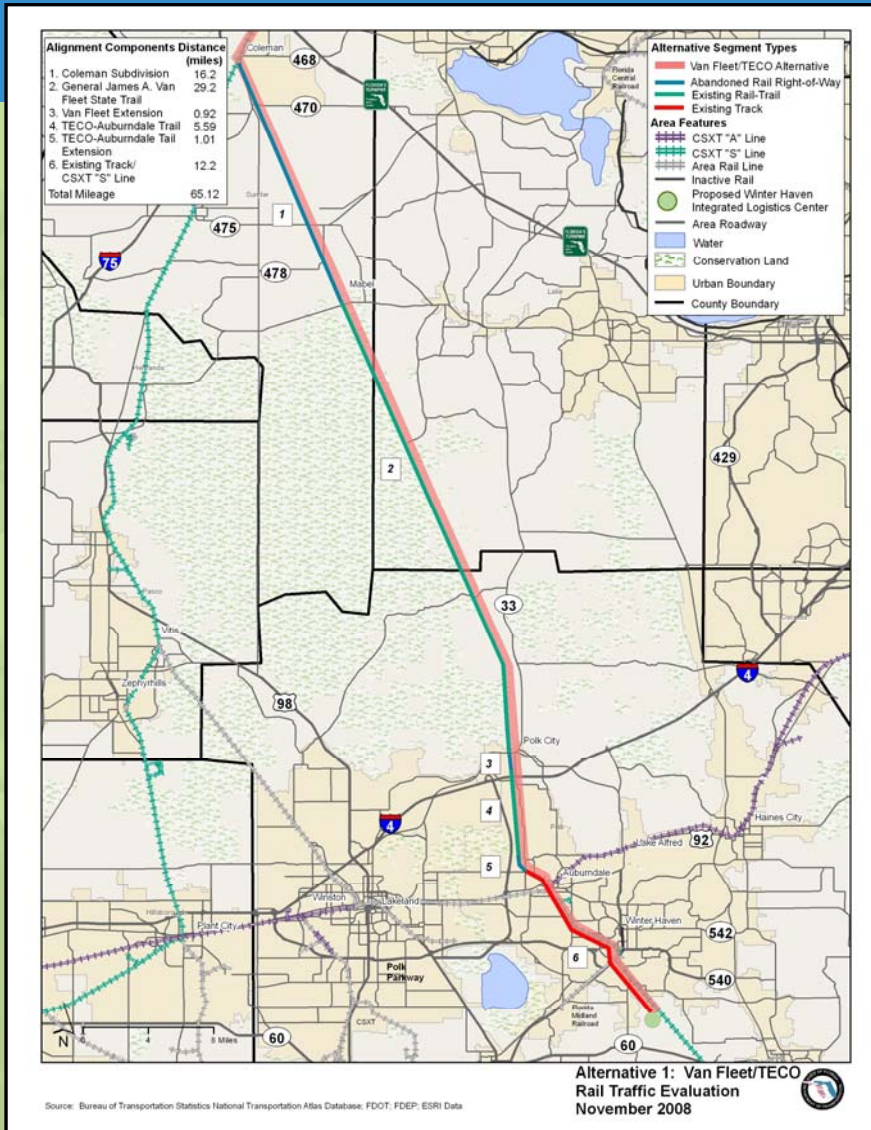
Alternative 1: Van Fleet/TECO



- Total Mileage - 65
- ROW Needed – 53 Miles
- Grade Crossings - 60
 - 26 (Existing)
 - 34 (New)
- Adjacent Developed Areas
 - Auburndale
 - Winter Haven

Source: Bureau of Transportation Statistics National Transportation Atlas Database; FDOT; FDEP; ESRI Data

Alternative 1: Van Fleet / TECO



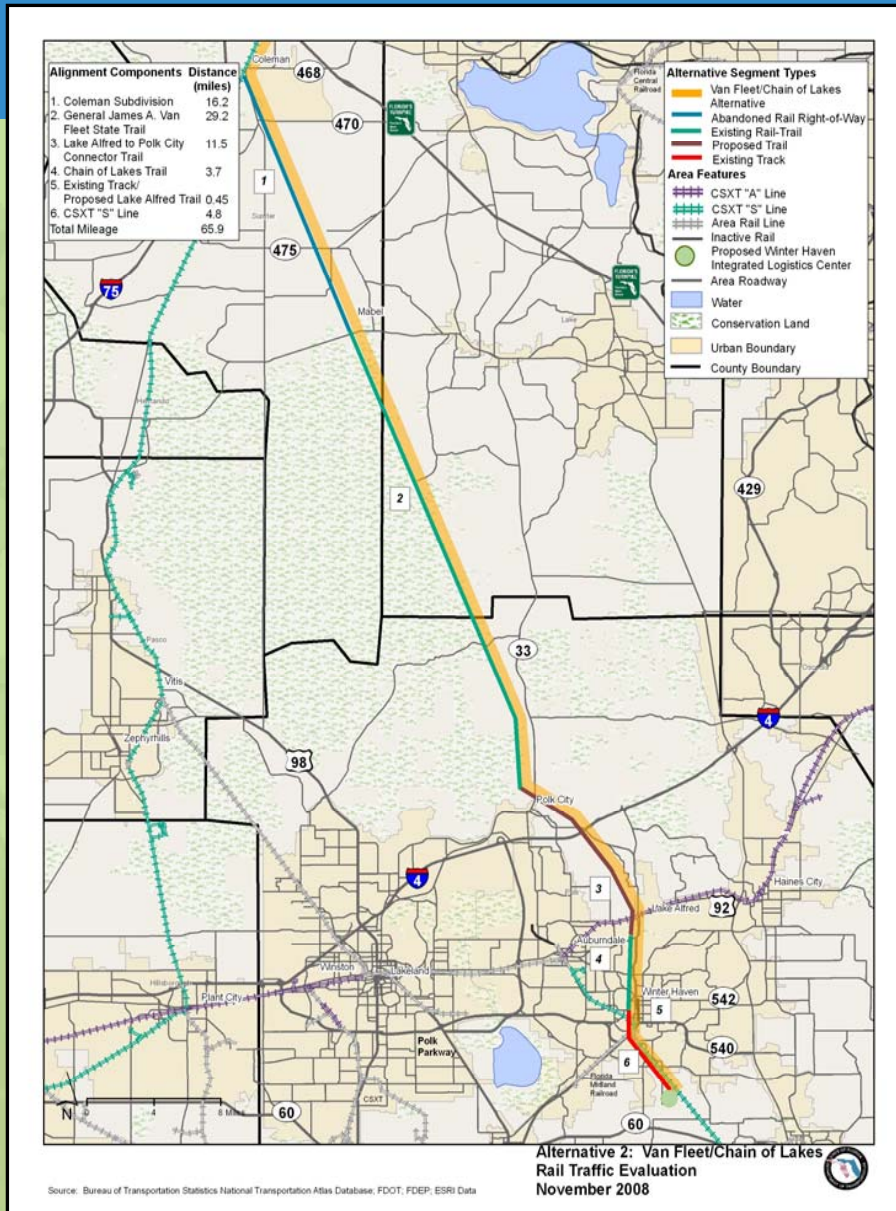
Advantages

- Shorter Travel Distances
- Lower Operating Costs
- Less Grade Crossings
- Some Future Trains Rerouted from downtown Lakeland

Disadvantages

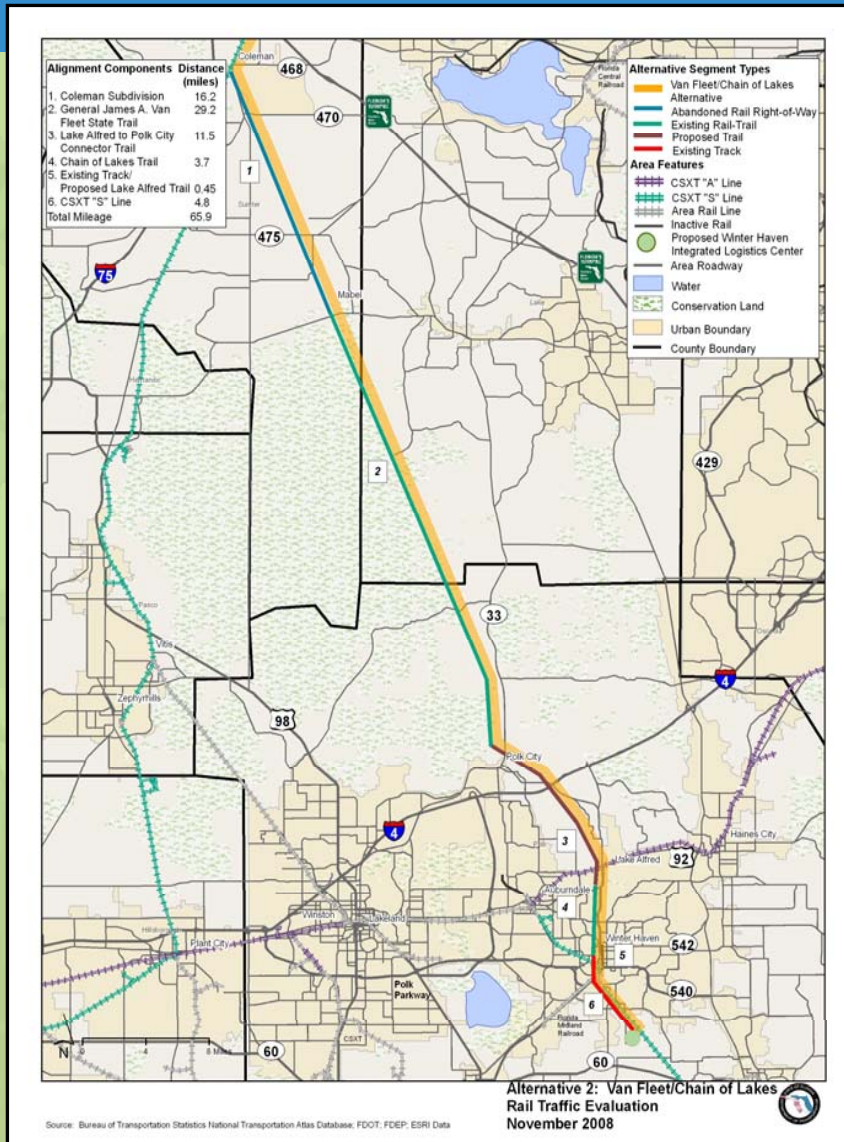
- Extensive ROW Acquisition
- Higher Infrastructure Needs
- Grade Separations
- Significant Environmental Challenges
- Parkland Impacts – Florida Forever
 - Van Fleet / TECO Trails
 - Lake Myrtle Park / Sports Complex

Alternative 2: Van Fleet/Chain of Lakes



- Total Mileage - 66
- ROW Needed – 61 Miles
- Grade Crossings - 71
 - 11 (Existing)
 - 60 (New)
- Adjacent Developed Areas
 - Auburndale, Winter Haven

Alternative 2: Van Fleet/Chain of Lakes



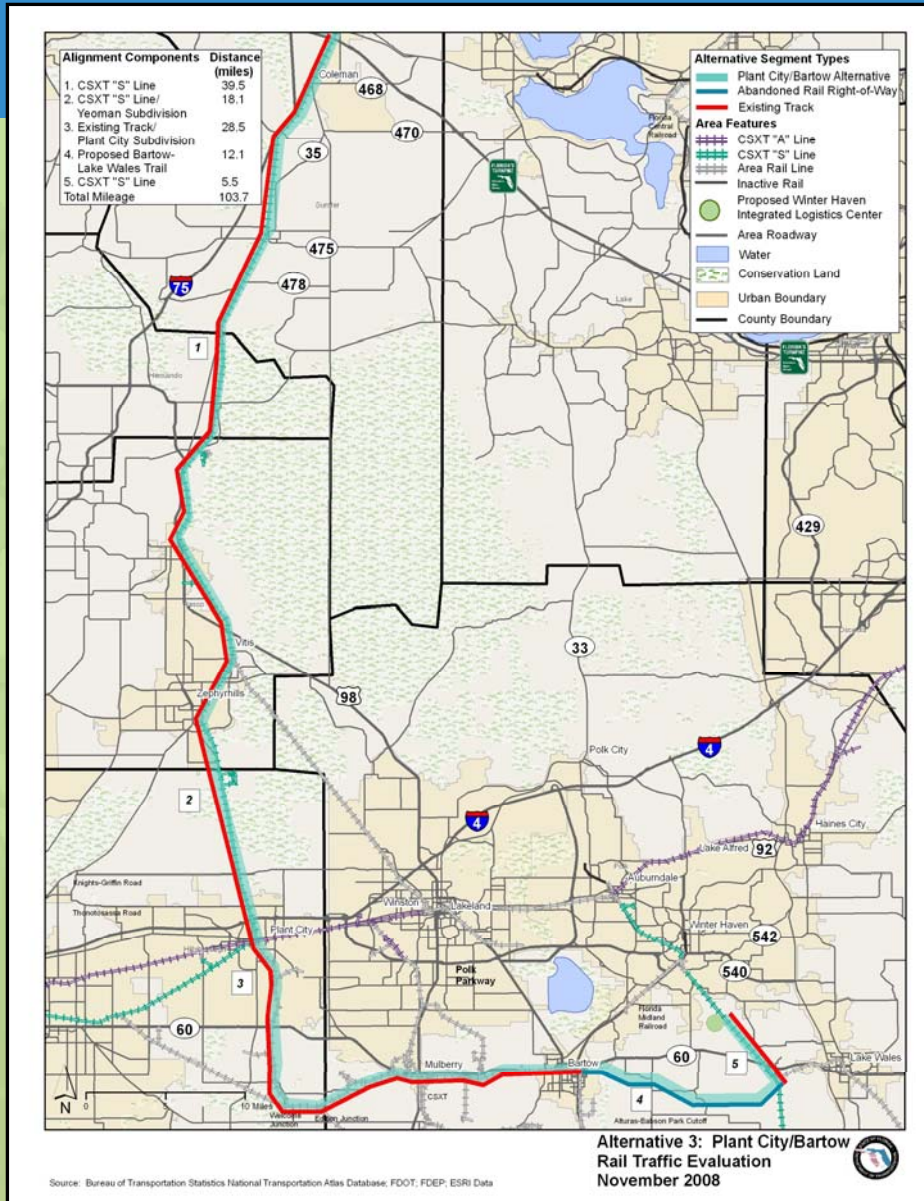
Advantages

- Shorter Travel Distances
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Disadvantages

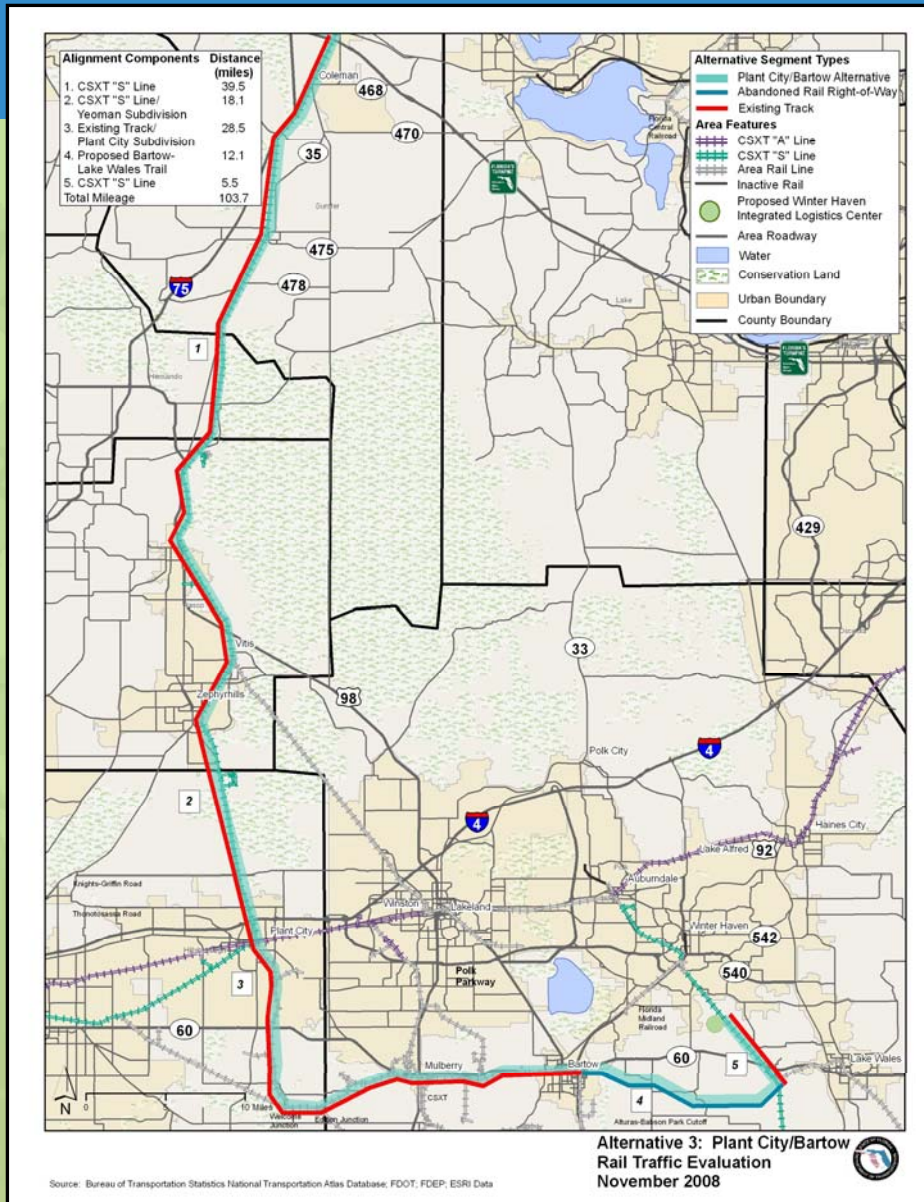
- Extensive ROW Acquisition
- High Infrastructure Needs
- Grade Separations
- Significant Environmental Challenges
- Parkland Impacts – Florida Forever
 - Van Fleet / TECO Trails
 - Chain of Lakes Trail

Alternative 3: Plant City/Bartow



- Total Mileage - 104
- ROW Needed – 12 miles
- Grade Crossings - 179
 - 166 (Existing)
 - 13 (New)
- Adjacent Developed Areas
 - Plant City, Bartow

Alternative 3: Plant City / Bartow



Advantages

- Some Future Trains Rerouted from downtown Lakeland
- Moderate ROW Acquisition

Disadvantages

- Longer Travel Distances
- Higher Operating Costs
- CSX Operational Concerns
- High Infrastructure Needs
- Grade Separations
- More Grade Crossings
- Complex Operating Environment
 - Plant City
 - Bone Valley Phosphate Trains

Alternative 4: Winston/Bartow



Source: Bureau of Transportation Statistics National Transportation Atlas Database; FDOT, FDEP, ESRI Data

Alternative 4: Winston/Bartow
Rail Traffic Evaluation
November 2008

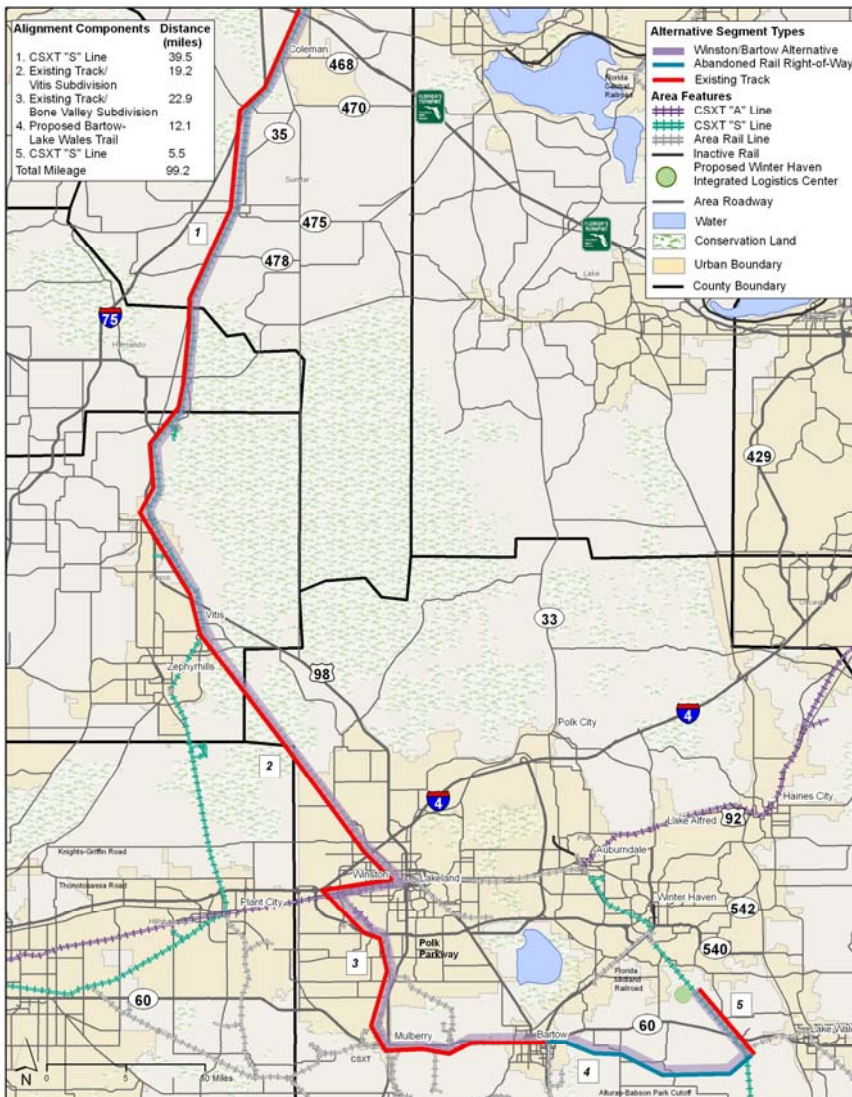


- Total Mileage - 99
- ROW Needed – 12 miles
- Grade Crossings - 128
 - 115 (Existing)
 - 13 (New)
- Adjacent Developed Areas
 - Bartow

FDOT Rail Traffic Evaluation



Alternative 4: Winston/Bartow



Alternative 4: Winston/Bartow
Rail Traffic Evaluation
November 2008

Source: Bureau of Transportation Statistics National Transportation Atlas Database; FDOT, FDEP, ESRI Data

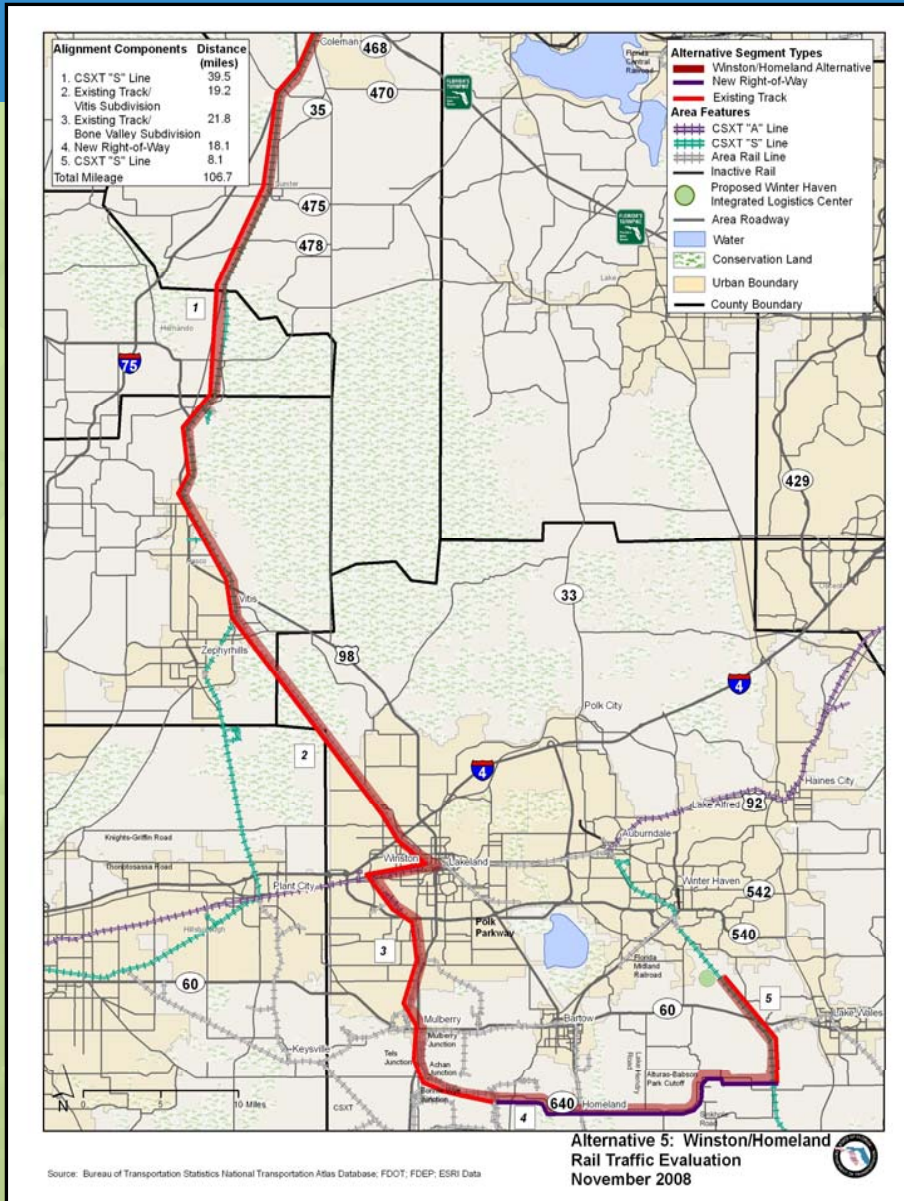
Advantages

- Some Future Trains Rerouted from downtown Lakeland
- Moderate ROW Acquisition

Disadvantages

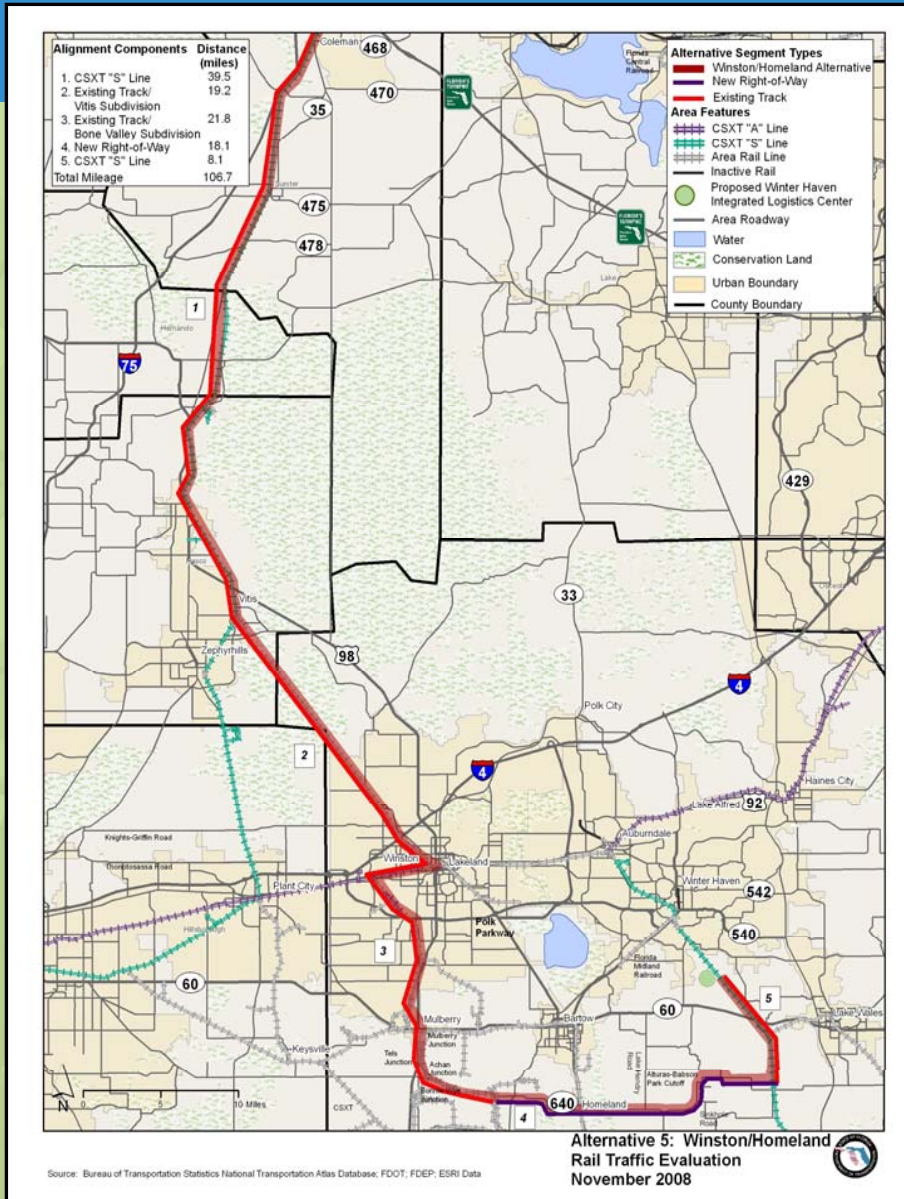
- Longer Travel Distances
- Higher Operating Costs
- CSX Operational Concerns
- High Infrastructure Needs
- Grade Separations
- More Grade Crossings
- Complex Operating Environment
 - Winston Yard / Bone Valley

Alternative 5: Winston / Homeland



- Total Mileage - 107
- ROW Needed – 18 miles
- Grade Crossings - 115
 - 100 (Existing)
 - 15 (New)
- Adjacent Developed Areas
 - Homeland, Alturas

Alternative 5: Winston / Homeland



Advantages

- Some Future Trains Rerouted from downtown Lakeland
- Moderate ROW Acquisition

Disadvantages

- Longer Travel Distances
- Higher Operating Costs
- CSX Operational Concerns
- High Infrastructure Needs
- Grade Separations
- More Grade Crossings
- Complex Operating Environment
 - Winston Yard / Bone Valley

Common Issues - All Relocation Alternatives

- Freight Continues to Operate Through Downtown Lakeland
 - Local trains continue to operate on the “A” and “S” Lines
 - Through trains would divert to an alternate route
- Infrastructure Improvements Still Required on “S” Line
- Shifts Community Impacts
 - Auburndale, Winter Haven, Bartow, Mulberry, Plant City
- Significant Infrastructure Costs
- Property Acquisition Required
- Significant Environmental Challenges

Passenger Rail Feasibility



Passenger Rail Alternatives Tested (2030)



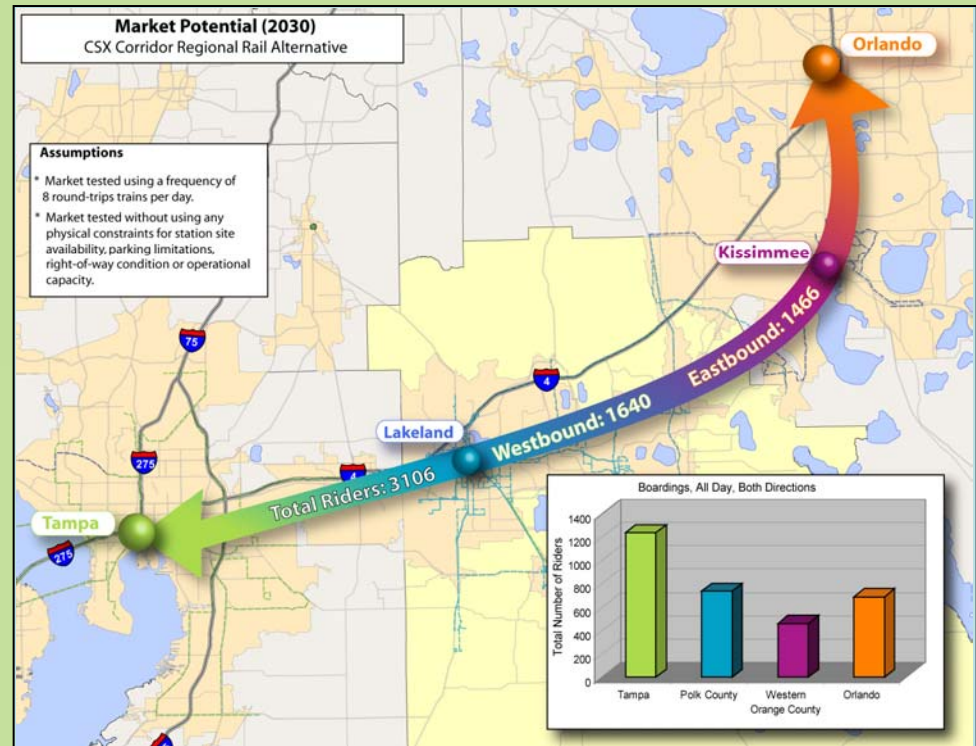
CSX Corridor Regional Rail Alternative

Opportunities

- Existing rail right-of-way
- Existing rail stations
- Serves established town centers

Challenges

- Coordination of freight and passenger service
- Coordination with SunRail service



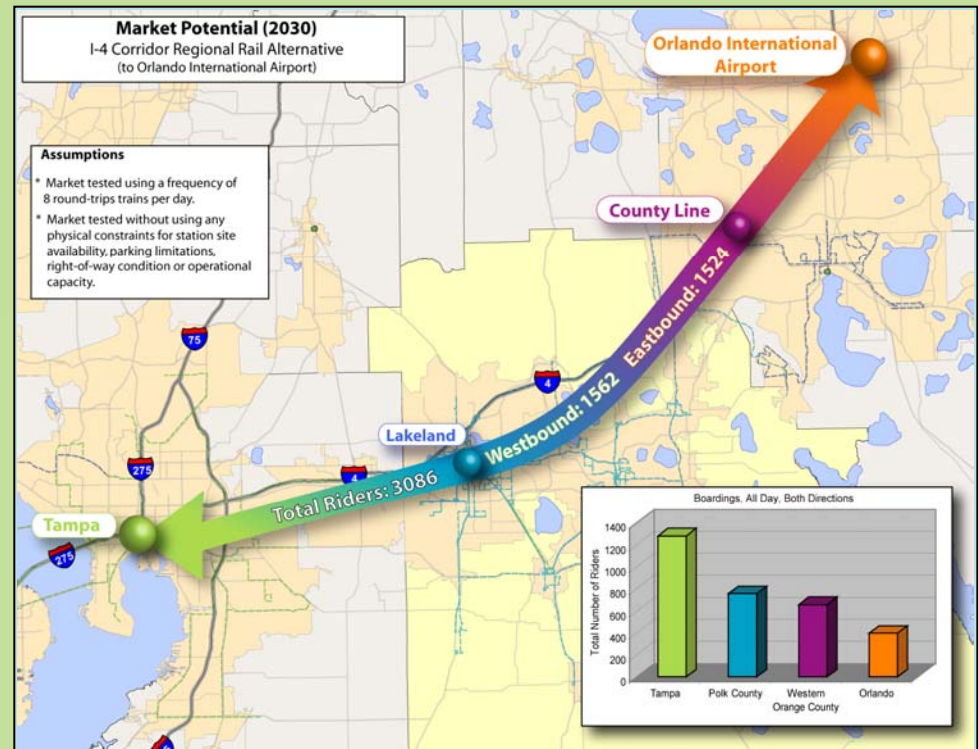
I-4 Airport Regional Rail Alternative (to Orlando Central Business District via CSX)

Opportunities

- Median of I-4 has been reserved for high-capacity transit service
- Potential for regional park & ride
- Existing rail right-of-ways to Tampa and Orlando downtowns

Challenges

- Sections along I-4 could be isolated from established communities
- Connect I-4 median into downtown Orlando and Tampa
- Coordination with freight and passenger service
- Extensive capital investment required



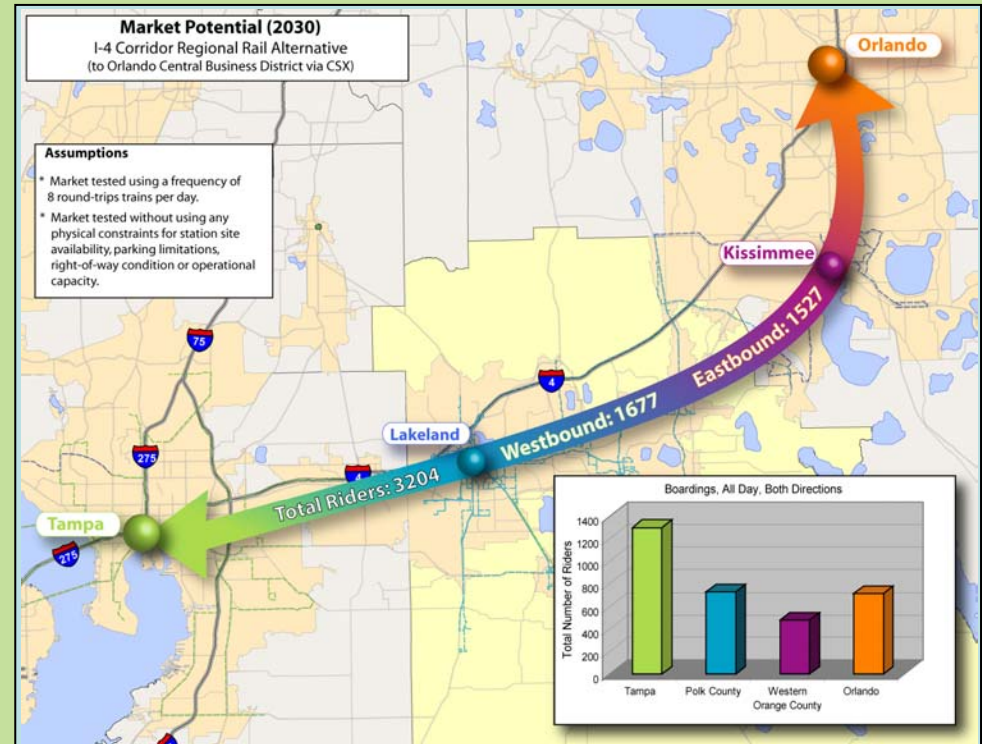
I-4 Corridor Regional Rail Alternative (to Orlando Airport)

Opportunities

- Median of I-4 has been reserved for high-capacity transit service
- Potential for regional park & ride

Challenges

- Sections along I-4 could be isolated from established communities
- Right-of-way acquisition between I-4 and the airport
- Coordination with passenger and freight rail



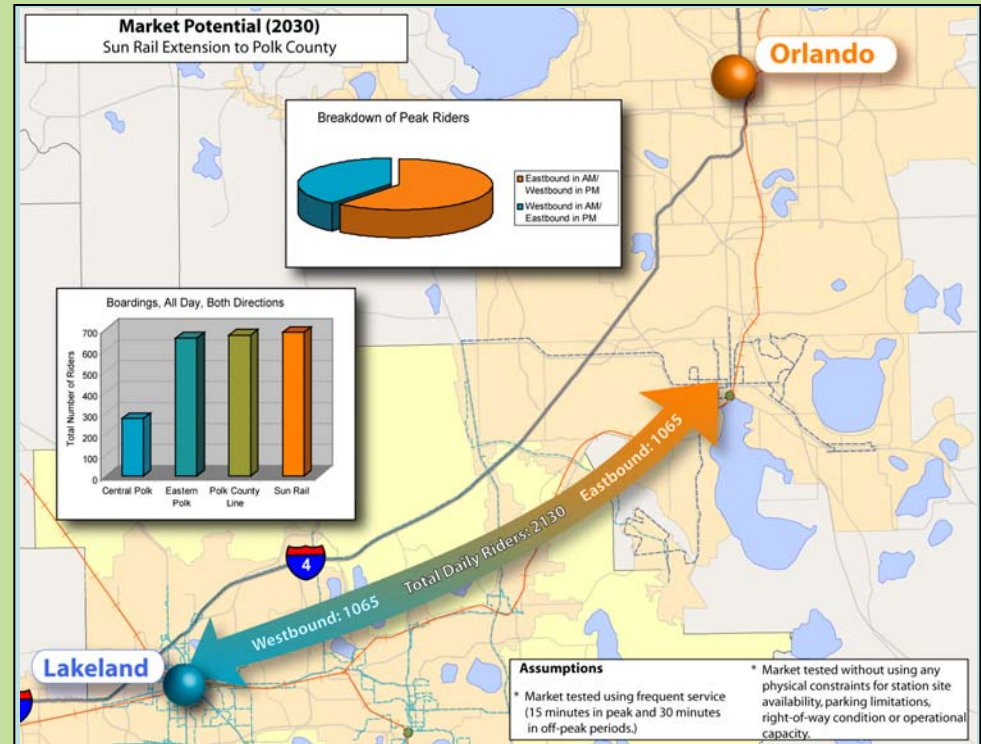
SunRail Extension to Polk County

Opportunities

- Existing rail right-of-way
- Builds off investment in SunRail systems, expanding regional benefits

Challenges

- Coordination with freight and passenger service
- Coordination with proposed SunRail operations
- Grade crossings



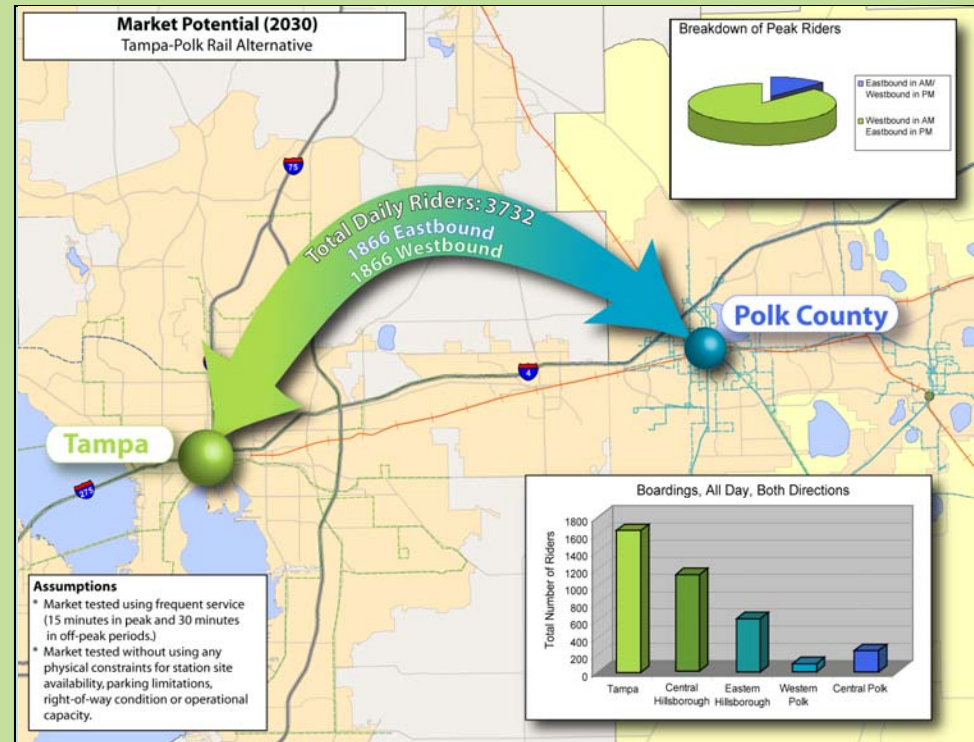
Tampa-Polk Alternative

Opportunities

- Existing rail right-of-way
- Existing rail stations

Challenges

- Coordination with freight and passenger service
- Coordination with ongoing TBARTA studies
- Grade crossings



Schedule & Outreach



Schedule & Outreach

■ Schedule

- Summer/Fall 2008 - Data Collection & Preliminary Analysis
- Winter 2009 – Technical Results
- February 2009 – Final Workshop
- March 2009 – Study Complete

■ Opportunities to Be Involved

- Attend Workshops & Talk with the Study Team
- Visit Website www.fdotrailtrafficevaluation.com for Updates
- Provide Comments at Tonight's Meeting

Contact The Team

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