

Prepared for:



Miami-Dade Transportation
Planning Organization

SW 152nd Street Mobility Solutions
Miami-Dade MPO GPC VI-5

SW 127th Avenue Connector Study

Prepared by:
ATKINS



**Miami-Dade Transportation
Planning Organization**

SW 127th Avenue Connector Study

MIAMI-DADE TPO GPC VI – WO 5

SEPT. 19, 2017

ATKINS

SW 152nd Street
Coral Reef Drive
MOBILITY SOLUTIONS



July 2017

Study Purpose

- ▶ Investigate the feasibility of a connection along SW 127th Avenue between SW 144th Street and SW 142nd Street
- ▶ Presently no connection across the CSX Railroad corridor



Looking northeast from SW 127th Avenue.

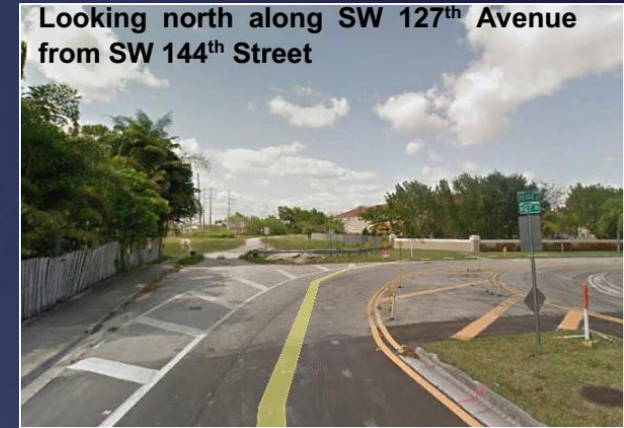


Study Area Setting

Looking south along SW 127th Avenue



Looking north along SW 127th Avenue
from SW 144th Street



Looking southwest from SW 127th Avenue.



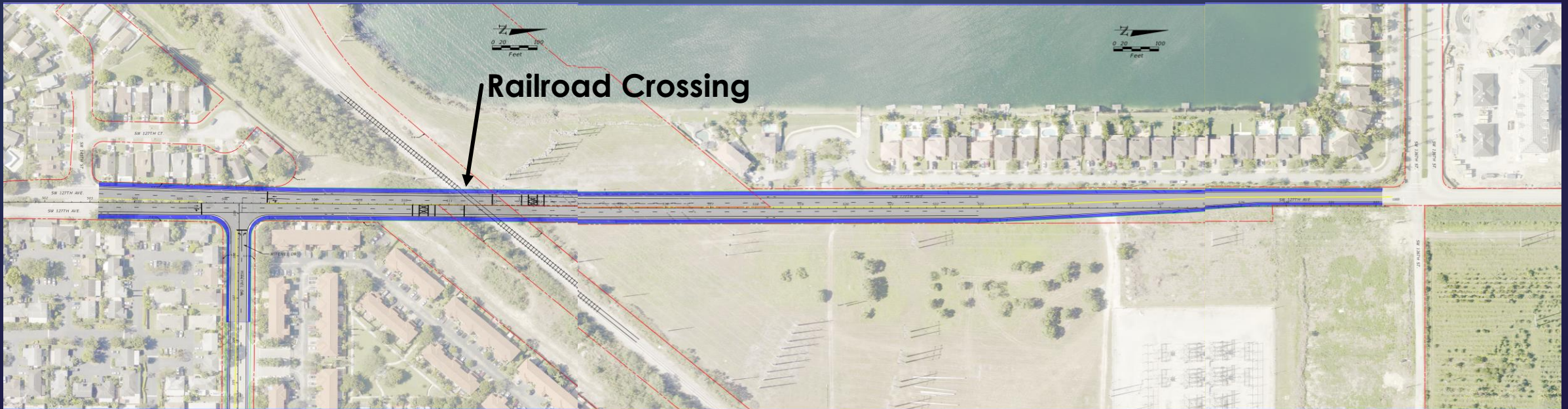
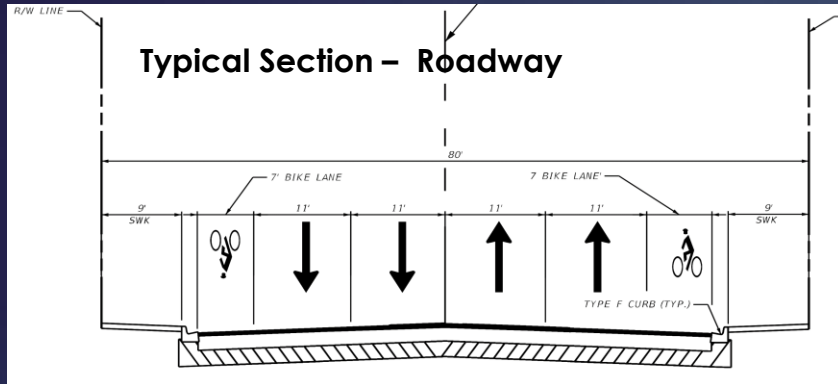
Looking south along SW 127th Avenue



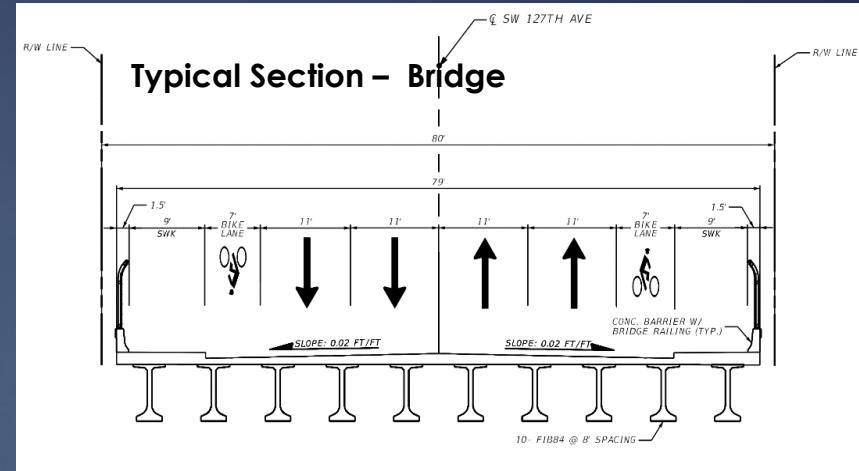
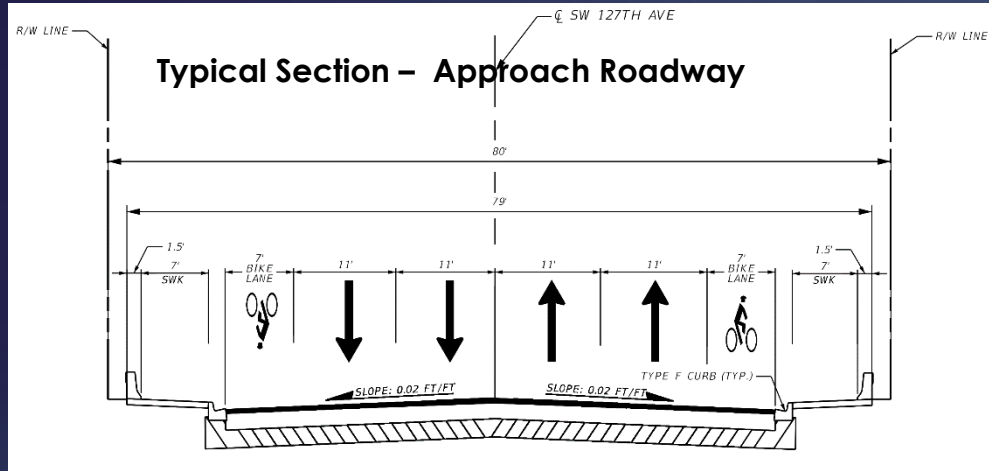
Alternatives Considered

- ▶ Alternative 1: At-grade Roadway
- ▶ Alternative 2: Overpass with 5% Grades
- ▶ Alternative 3: Overpass with 5% and 9% Grades

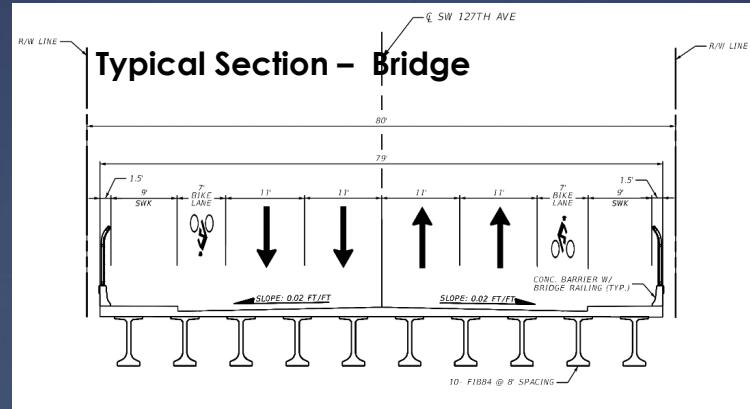
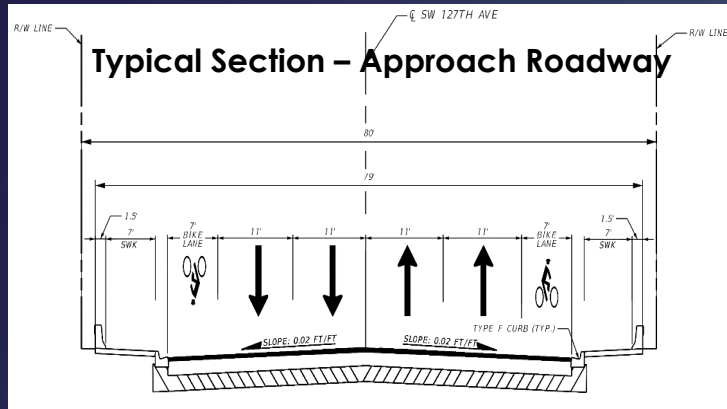
Alternative 1 - At-grade Connection



Alternative 2 – Overpass 5% Grades



Alternative 3 – Overpass 5% and 9% Grades



Conceptual Cost Estimates

- ▶ Alternative 1: At-grade Roadway \$ 4.9 million
- ▶ Alternative 2: Overpass with 5% Grades \$14.3 million
- ▶ Alternative 3: Overpass with 5% and 9% Grades \$13.6 million
- ▶ NOTES:
 - ▶ Conceptual capital cost estimate based on 2017 unit costs.
 - ▶ Includes allowance for powerline adjustments.
 - ▶ Includes 20% contingency.
 - ▶ Excludes right-of-way, environmental mitigation, permitting, underground utility relocation, engineering design, and construction administration services.

Alternatives Comparison

Alternative 1

At-grade Connection

- Capital Cost: \$4.9 million
- Railroad crossing needed
- No impacts to area traffic circulation
- No overhead power line relocation
- Access to proposed property plat not affected
- No apparent significant environmental issues
- No visual quality issues with retaining walls near residences

Alternative 2

Overpass - 5% Grades

- Capital Cost: \$14.3 million
- Railroad crossing avoided
- Impacts to area traffic circulation – no access from SW 144th Street
- Overhead power lines require relocation
- Access to proposed property plat would be affected
- No apparent significant environmental issues
- Possible visual quality issues with retaining walls near residences

Alternative 3

Overpass - 5% and 9% Grades

- Capital Cost: \$13.6 million
- Railroad crossing avoided
- Impacts to area traffic circulation – no access from SW 144th Street
- Overhead power lines require relocation
- Access to proposed property plat would be affected
- No apparent significant environmental issues
- Possible visual quality issues with retaining walls near residences

Alternatives Comparison Summary

▶ **Alternative 1 – At-grade Connection**

- ▶ About 1/3 cost of Alt. 1 and Alt. 2
- ▶ Requires new railroad crossing
- ▶ Compatible with proposed development access
- ▶ No overhead powerline relocations

▶ **Alternative 2 – Overpass with 5% Grades**

- ▶ About 3 times the cost of Alt. 1, similar in cost to Alt. 2
- ▶ No new railroad crossing required
- ▶ Not compatible with proposed development access
- ▶ Major overhead powerline relocations

▶ **Alternative 3 – Overpass with 5% and 9% Grades**

- ▶ About 3 times the cost of Alt. 1, similar in cost to Alt. 2
- ▶ No new railroad crossing required
- ▶ Not compatible with proposed development access
- ▶ Major overhead powerline relocations

Evaluation Factor	Alternative 1 At-grade Connection	Alternative 2 Overpass 5% Grades	Alternative 3 Overpass 5%/9% Grades
Capital Cost	↓	↑	↑
Railroad Crossing	✓	✗	✗
Development Access	✓	✗	✗
Powerline Relocations	✗	✓	✓

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