



MIAMI-DADE BICYCLE NETWORK



Protected Shared-Use Path on SR 90/SW 8 Street

from SR 997/Krome Ave./SW 177 Ave. to SR 825/SW 137 Ave.

May 2022





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Introduction

From February 2015 to March 2021, the Florida Department of Transportation (FDOT) District Six completed 12 projects that widened 36 miles of SR 997/Krome Avenue/SW 177 Avenue from two to four lanes with a 40-foot wide median. In addition to other roadway improvements, five of these projects included the construction of a new 19-miles long shared-use path. Called the Krome Path, this 10-foot wide paved and marked shared-use path creates a physically separated bicycle and pedestrian connection from SW 296 Street to SR 90/SW 8 Street/Tamiami Trail.

The Krome Path creates enhanced opportunities and a safe environment for active transportation in Miami-Dade County. However, most bicycle and pedestrian activity centers (i.e., origin-destination attractors) are located far away from SR 997/Krome Avenue/SW 177 Avenue, a roadway that has typically served the community as a freight corridor and alternate highway for commuters living too far west from SR 826/Palmetto Expressway or SR 825/SW 137 Avenue. Hence, FDOT initiated this planning and conceptual engineering feasibility study to connect bicycle and pedestrian activity centers on SR 90/SW 8 Street to the Krome Path.

Figure 1: SR 997/Krome Avenue/
SW 177 Avenue Projects

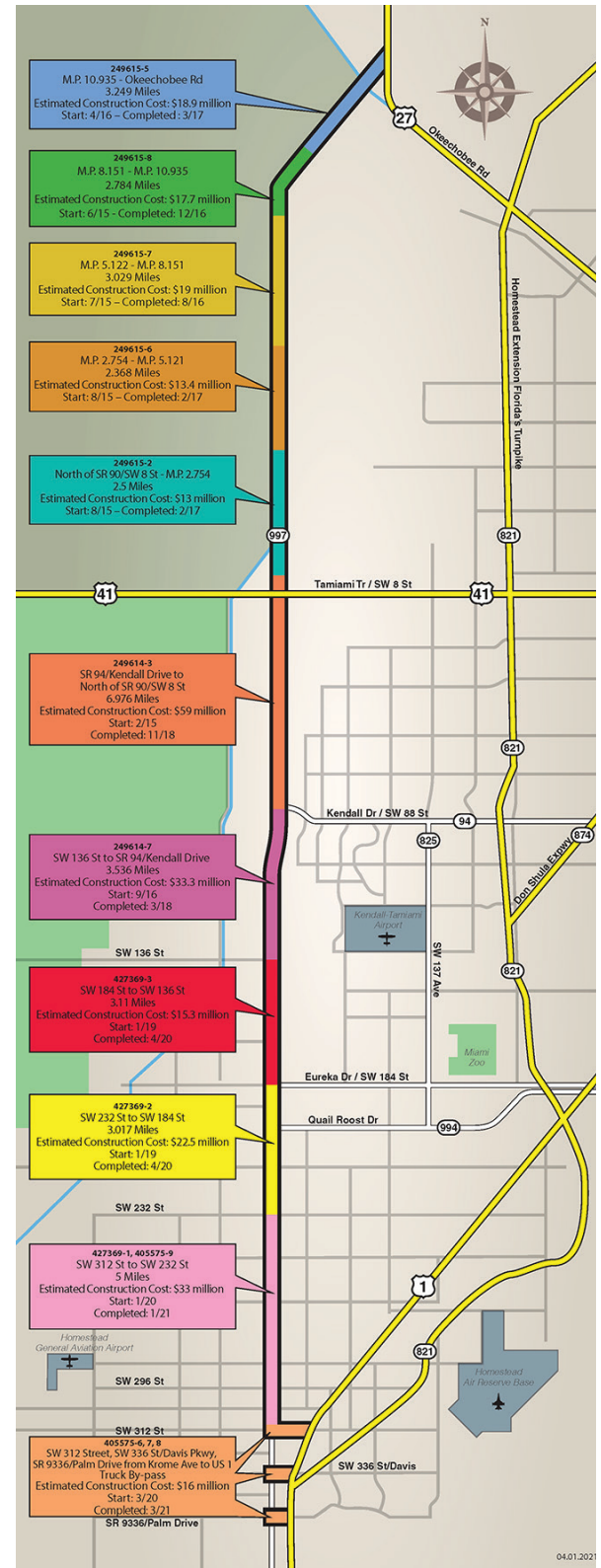


Figure 2: Krome Path (Source: The Miami Bike Scene 12/08/2021)



Figure 3 illustrates the study area. The study area is within unincorporated Miami-Dade County. From SR 997/Krome Avenue/SW 177 Avenue (MP 0.000) to milepost 2.021, SR 90/SW 8 Street is outside the Urban Development Boundary (UDB) and is a rural principal arterial. From milepost 2.021 to SR 825/SW 137 Avenue (MP 4.000), SR 90/SW 8 Street is an urban principal arterial.

Figure 3: Study Area

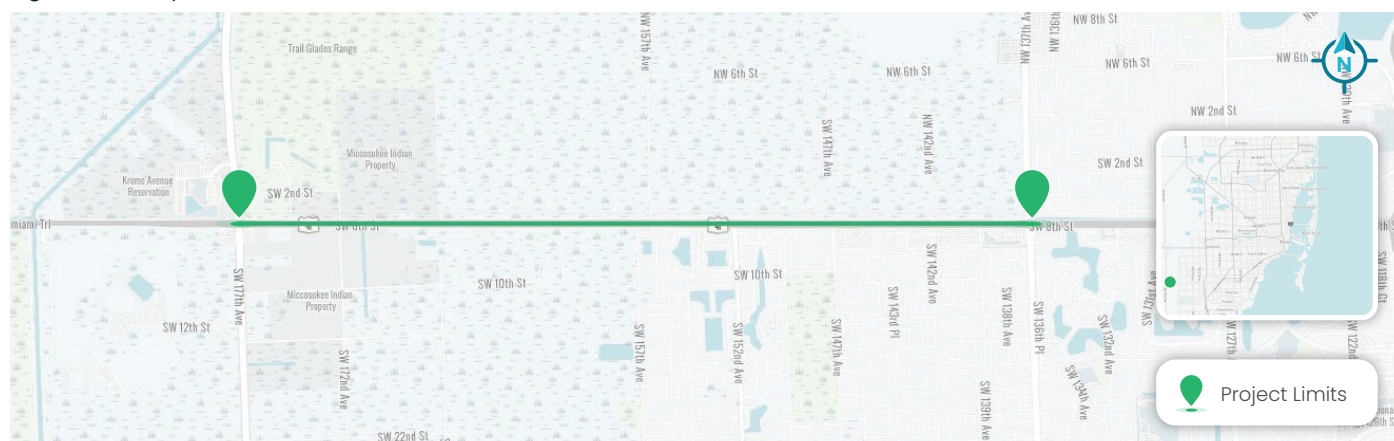
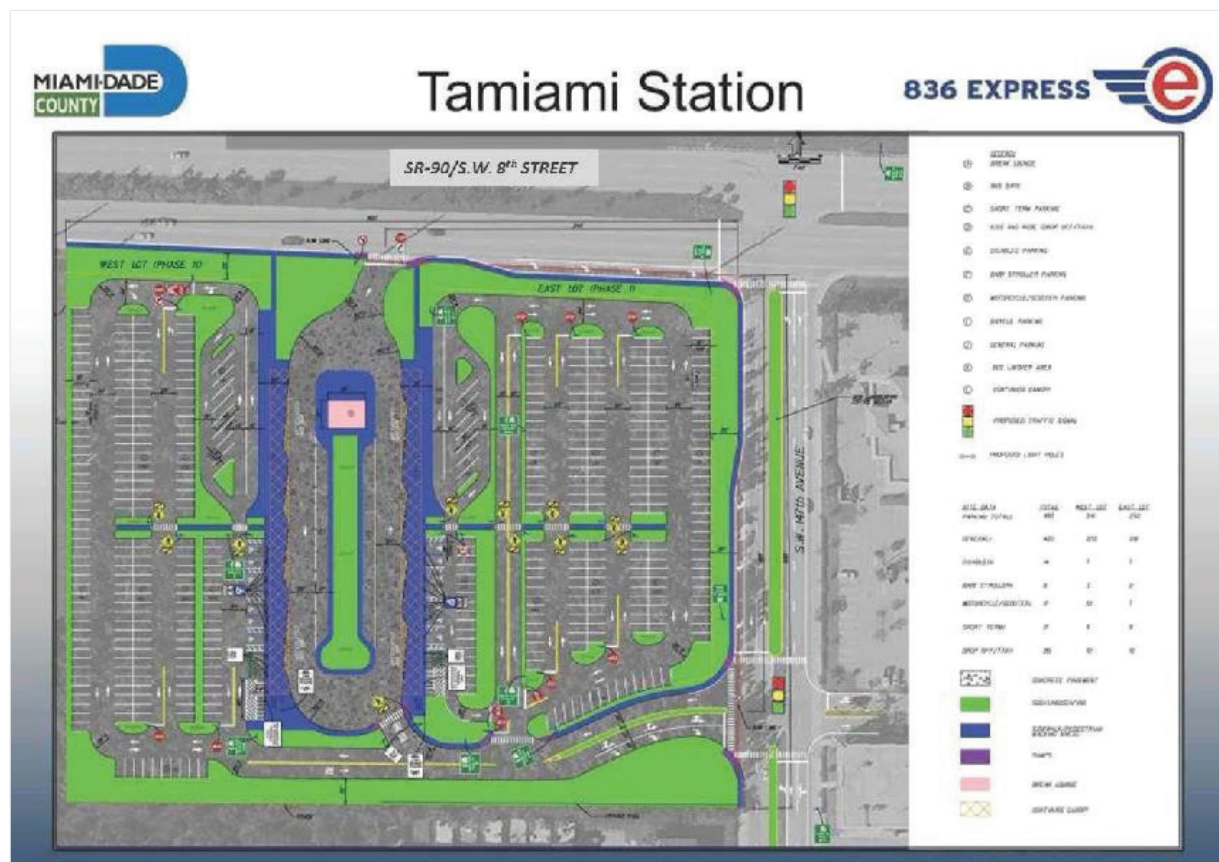


Figure 4: Tamiami Station Plan View



SR 825/SW 137 Avenue was chosen as the eastern logical terminus because it is the closest urban principal arterial east of SR 997/Krome Avenue/SW 177 Avenue and because the intersection with SR 90 includes commercial land uses that are bicycle and pedestrian generators. Within the study area, another suitable logical terminus is the upcoming Tamiami Station located on the southwest corner of SR 90/SW 8 Street and SW 147 Avenue. The 7.8-acre parcel is under construction and will become a critical terminal for the planned SR 836 Express Bus Service. This premium service prefigures the East-West Rapid Transit Corridor included in the Strategic Miami Area Rapid Transit (SMART) Plan. On February 16, 2016, the Miami-Dade Transportation Planning Organization (TPO) Governing Board unanimously approved a policy to set the advancement of rapid transit corridors and transit supportive projects as the County's highest priority. The SMART Plan also includes several Bus Express Rapid Transit (BERT) routes, of which the Flagler Corridor will also serve the Tamiami Station.

Along with building this station, the ongoing SR 836 Express Bus Service project includes new auxiliary/bus only lanes along SR 90/SW 8 Street to another new terminal, Panther Station, at the Florida International University. The Tamiami Station is planned to include eight bus bays and 493 parking spaces with main access via a two-way driveway on SW 147 Avenue. Another exit-only driveway will allow buses to turn right onto SR 90/SW 8 Street. The Tamiami Station is a great logical terminus because it provides intermodal connectivity and is an ideal public parking location for recreational bicycle riders intending to use the Krome Path. Figure 4 shows the plan view of Tamiami Station.

From SR 997/Krome Avenue/SW 177 Avenue to SW 157 Avenue (MP 2.021), SR 90/SW 8 Street has a rural typical section comprising four 12-foot wide general-purpose travel lanes, a 4-foot wide eastbound bicycle lane, a grass median ranging from 15-feet to 35-feet wide, 4-foot wide paved outside shoulder and 3-foot wide paved inside shoulder on the westbound direction, and 4-foot wide paved inside shoulder and 6-foot wide unpaved outside shoulders on the eastbound direction. From SW 157 Avenue to SW 147 Avenue (MP 3.017), SR 90/SW 8 Street has an urban typical section comprising two 12-foot wide westbound general-purpose travel lanes, two 11-foot wide eastbound general-purpose travel lanes, a 6-foot wide westbound bicycle lane adjacent to a guardrail, a 4-foot wide eastbound bicycle lane, a grass median ranging from 35-feet to 45-feet wide, 3-foot and 4-foot wide inside paved shoulders, and a 6-foot wide sidewalk on the eastbound direction with curb and gutter. From SW 147 Avenue to SR 825/SW 137 Avenue, SR 90/SW 8 Street has an urban typical section comprising two 12-foot wide general-purpose travel lane in each direction, one 12-foot to 14-foot wide outside general-purpose travel lane in each direction, curb and gutter, a grass median ranging from 19-feet wide to 30-feet wide, and a 6-foot wide sidewalk on the eastbound direction. Throughout the study area, SR 90/SW 8th Street is flanked by the Tamiami Canal on the north and a drainage swale on the south. From SR 997/Krome Avenue/SW 177 Avenue to milepost 2.021, SR 90/SW 8 Street has a speed limit of 55 mph. East of milepost 2.021, SR 90/SW 8 Street has a speed limit of 45 mph.



Purpose and Need

The purpose of this study is to create a safe link along SR 90/SW 8 Street from the existing Krome Path to the Tamiami Station and the surrounding communities. The objectives of this study are to:

1. encourage the utilization of public transportation to increase the throughput capacity of existing roadways by improving first-last-mile connections to the Tamiami Station,
2. increase the mobility options of residents, especially of vulnerable and disadvantaged populations, that benefit from affordable and accessible modes of transportation such as cycling and walking, and
3. ensure the safety of vulnerable road users through physical separation of any proposed bicycle and pedestrian facility, or facilities, especially on high-speed roadways (i.e., design speeds of 50 mph or greater per Florida Design Manual Chapter 210) such as SR 90/SW 8 Street.

The improvements evaluated in this study are consistent with published regional master plans and fulfill the need for system linkage, social demands and economic development, modal interrelationships, and safety.





Krome Path (Source: The Miami Bike Scene 12/08/2021)



Planning Consistency

The proposed improvements evaluated in this study are not included in the [2045 Long Range Transportation Plan \(LRTP\)](#) or the [2045 Bicycle and Pedestrian Master Plan](#). This project, however, is part of the historical Miccosukee Link alignment proposed in the Miami-Dade Greenways Master Plans. The proposed improvements are also included in the Tamiami Trail Corridor Study which FDOT began in October 2015. FDOT initiated the Tamiami Trail Corridor Study to evaluate conceptual alternatives that accommodate future travel demand along SR 90/SW 8 Street from SR 997/Krome Avenue/SW 177 Avenue to SW 122 Avenue. The study resulted in long-term and short-term recommendations. Long-term recommendations were proposed to be further evaluated in a Project Development and Environment (PD&E) Study. Short-term recommendations were proposed to move forward into design.

In September 2016, FDOT completed an action plan to program the various recommended improvements. Table 1 presents the recommended improvements from the Action Plan that fall within the study area.

Table 1: Tamiami Trail Corridor Study Action Plan Projects within the Study Area

Location	Description of Proposed Improvements	Term	Conceptual Cost Estimate	Status
From SW 157 Avenue to SW 149 Avenue	Modify existing typical section to provide an urban four-lane divided segment with raised landscaped median, curb and gutter, and closed drainage system. Relocate posted speed limit sign (45 mph) west of SW 157 Avenue.	Short	\$375,000	Completed
Intersection of SW 157 Avenue	Construct a signalized intersection with separate left turn and right turn lanes on the northbound approach. Construct acceleration lane for the northbound right turn movement merging into eastbound traffic.	Short	\$300,000	Signalization: Pending Acceleration Lane: Completed
Intersection of SW 152 Avenue	Extend the westbound dual left turn lanes to be approximately 700 feet long.	Short	\$100,000	Pending
Intersection of SW 147 Avenue	Construct signalized intersection in conjunction with Tamiami Station and extend the westbound dual left turn lanes to be approximately 625 feet long.	Short	\$300,000	Completed
Intersection of SR 825/SW 137 Avenue	Construct an additional eastbound left turn lane providing triple left turn lanes. Extend the westbound dual left turn lanes to be approximately 625 feet long each.	Short	\$2,600,000	Pending
From SW 142 Avenue to SW 67 Avenue	Adaptive Signal Control Technology (ASCT) Pilot Project	Short	\$50,000	Completed
From SR 825/SW 137 Avenue to SW 147 Avenue	Provide two Dynamic Messaging Systems (DMS) east of SW 147 Avenue and on SR 825/SW 137 Avenue north of SR 90/SW 8 Street. Provide a CCTV camera system with cameras at the intersection of SW 147 Avenue, SR 825/SW 137 Avenue, and on SR 825/SW 137 Avenue north of SR 90/SW 8 Street.	Short	\$500,000	Pending
Intersection of SR 825/SW 137 Avenue	Construct a single lane reversible flyover bridge at the intersection of SR 90/SW 8 Street and SR 825/SW 137 Avenue. The flyover will serve the eastbound to northbound movement during the AM peak period and southbound to westbound movement during the PM peak period.	Long	\$14,500,000	Pending
From SW 147 Avenue to SW 109 Avenue	Widen SR 90/SW 8 Street to provide an exclusive transit lane in each direction between Tamiami Station and Panther Station. Provide a bi-directional shared use path on the south side of SR 90/SW 8 Street from SR 997/Krome Avenue/SW 177 Avenue to the FIU Modesto A. Maidique campus.	Long	\$13,700,000	Pending

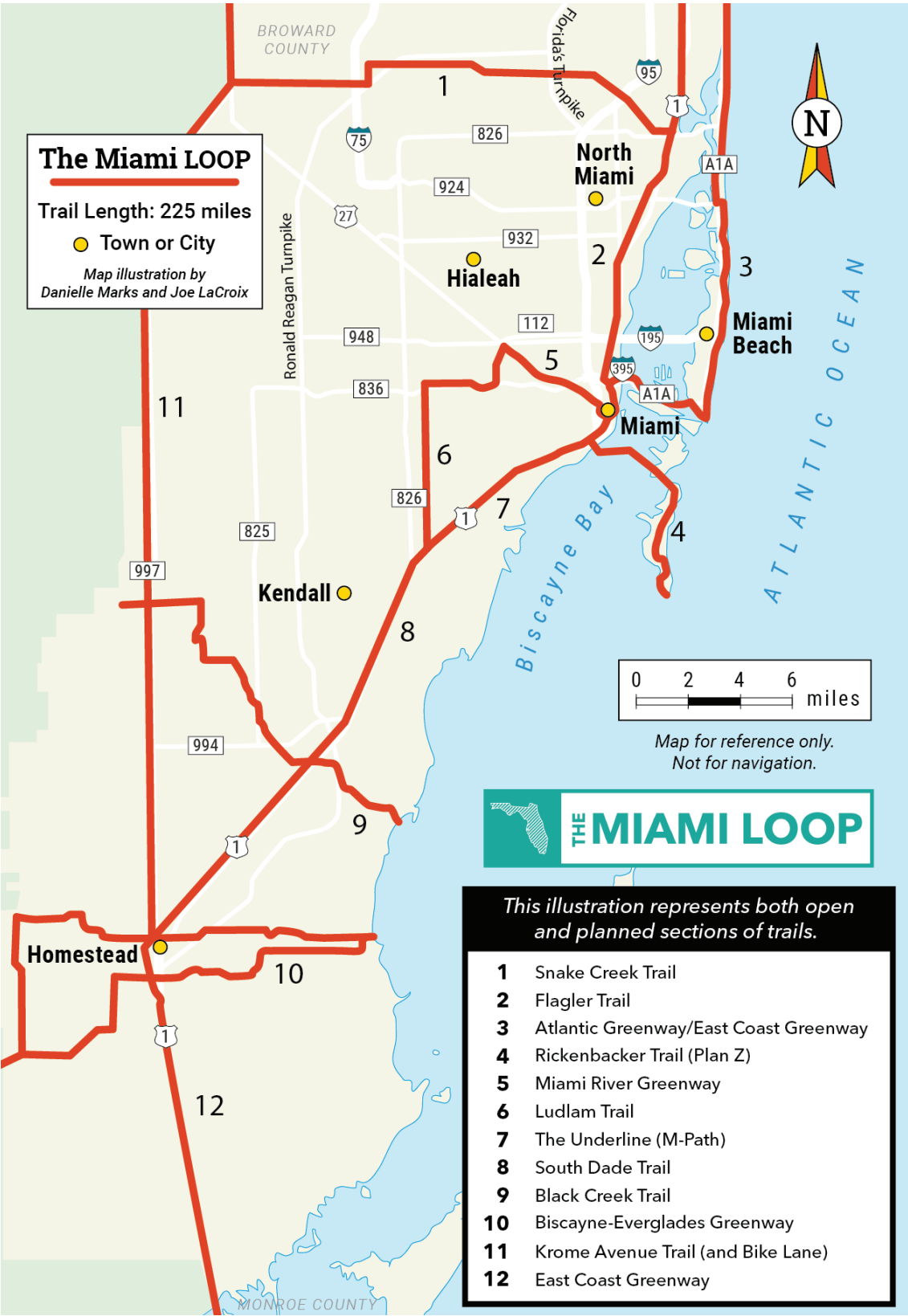


System Linkage

The Krome Path is part of the Florida Greenways and Trails System and the Miami LOOP, a bicycle network vision comprising 225 miles proposed by the Miami-Dade Trail Alliance. This study aims to determine the engineering and environmental feasibility of constructing a missing link in the local bicycle network that will enhance the Krome Path by increasing the access, convenience, and mobility of cyclists to the path via connections to public parking, transit, and retail and commercial land uses.

Furthermore, this link is significant to the existing and future public transportation network given the interrelationships between cycling, walking, and the existing and future transit services available at the upcoming Tamiami Station. The eastern terminus is also in close proximity to the upcoming FPL Linear Park/NW 136 Court north of the Tamiami Canal.

Table 1: Tamiami Trail Corridor Study Action Plan Projects within the Study Area





Social Demands and Economic Development

Appendix A includes the master site plan for a 12.56-acre future development on the corner of SR 90/SW 8 Street and SR 825/SW 137 Avenue. This proposed development will include 121,926 square feet of retail, 12,150 square feet of restaurant, 800 square feet of outdoor dining area, bicycle racks, and vehicle parking.

The bicycle and pedestrian facility, or facilities, analyzed by this study will enhance the ongoing land use changes in the study area by:

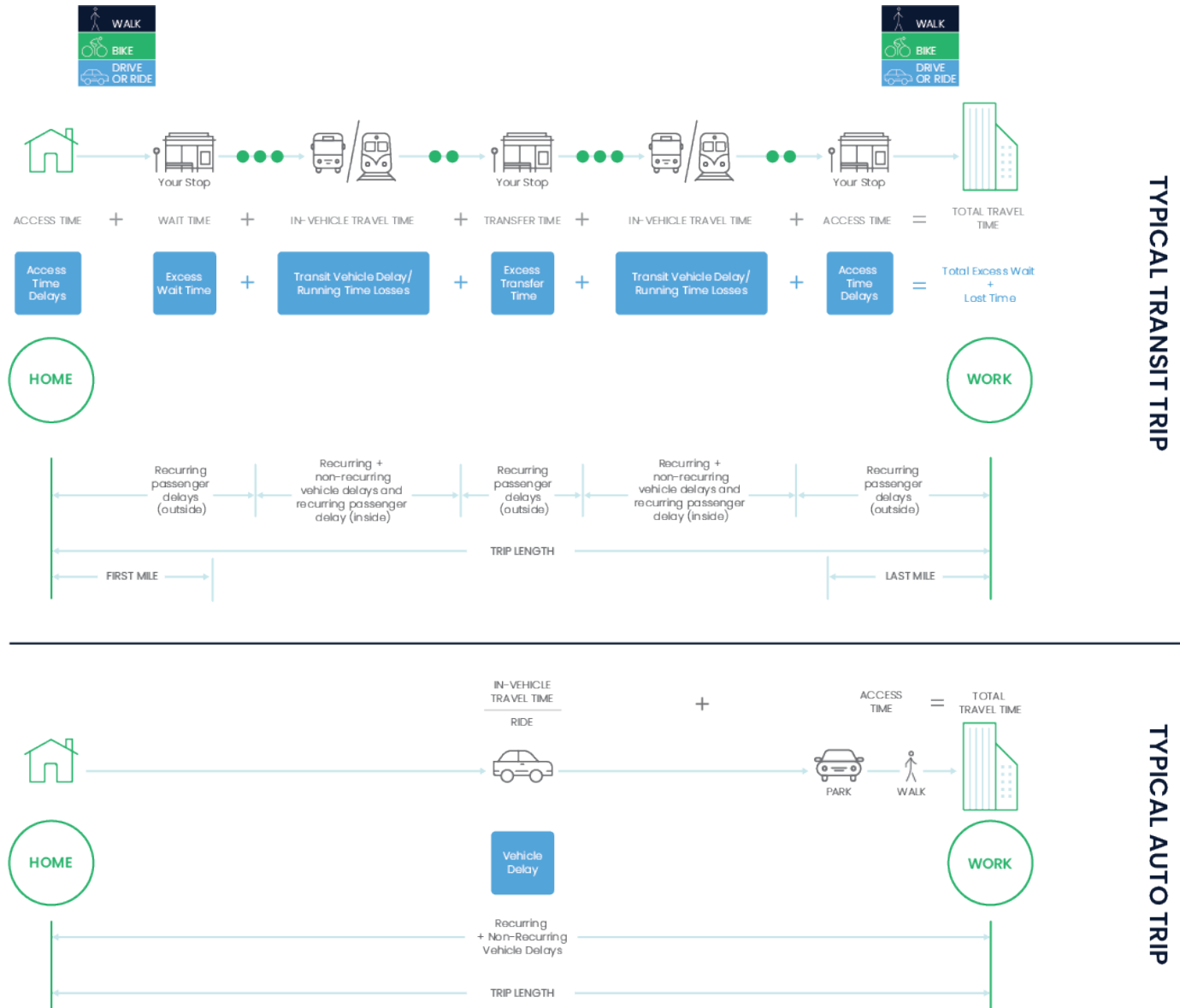
1. creating a new recreational facility,
2. connecting residents to an existing recreational facility (i.e., Krome Path), and
3. providing increased mobility options for commuters, specially to alternative modes of transportation such as micromobility and future premium transit.

Modal Interrelationships

In the [2011 Final Policy Statement on Eligibility of Pedestrian and Bicycle Improvements under Federal Public Transportation Law \(76 FR 52046\)](#), the Federal Transit Administration (FTA) determined that all pedestrian improvements located within half-mile and all bicycle improvements located within three miles from a public transportation stop or station have a *de facto* physical and functional relationship to public transportation. The intersection of SR 997/Krome Avenue/SW 177 Avenue and SR 90/SW 8 Street (i.e., western terminus of the study area) is approximately 3.00 air miles away from the upcoming Tamiami Station. Hence, the improvements analyzed in this study will improve the mobility of residents to existing and future transit services (i.e., SR 836 Express Bus Service, Flagler BERT Corridor, and East-West Rapid Transit Corridor).

Moreover, the proposed improvements will also improve residents' convenience in accessing public transportation. Cycling and walking are the most time-efficient and affordable modes of transportation to transfer to/from public transportation. Figure 6 illustrates the differences between a typical transit and automobile trip and highlights the many potential delays inherent to a typical transit trip. Without the ability to make low-cost and quick transfers, transit trips can easily become inconvenient and inaccessible.

Figure 6: Comparison of a Typical Transit and Auto Trip





Safety

FDOT District Six Safety Office is concluding a safety study for this segment of SR 90/SW 8 Street. This safety study was originated due to a recent fatality and consistent high crash frequencies in the study area over several years. The study team met with the Safety Office on October 18, 2021 to discuss potential safety solutions for the study area. The Safety Office noted that high truck traffic and high vehicle speeds are major concerns in the study area. Once completed, the safety study will include more details on the safety needs of the study area.



FDOT Vital Few

In accomplishing the vision and mission of FDOT, Florida Transportation Secretary Kevin Thibault, P.E. instructed the department to focus on three components that make up the FDOT Vital Few. These components (Improve Safety, Enhance Mobility, and Inspire Innovation) aim to serve the people of Florida by creating and maintaining a transportation network that is well planned, supports economic growth, and strives to be congest and fatality free. The improvements evaluated under this study aim to enhance mobility and safety through innovative design by accommodating non-motorized modes of transportation and users of all ages and abilities.



**IMPROVE
SAFETY**



**ENHANCE
MOBILITY**



**INSPIRE
INNOVATION**



Lane Departures

Lane departures represent
33% OF ALL **CRASHES**
— YET RESULT IN —
44% OF ALL **DEATHS**



Intersections

Florida saw a —————
26% INCREASE IN FATALITIES
& 3% DECREASE IN SERIOUS INJURIES
at intersections between
2015 AND **2019**



Pedestrians & Bicyclists

— Nationally, Florida had the —
**HIGHEST NUMBER OF
BICYCLIST FATALITIES**
— IN 2018 —
pedestrians accounted for more than
22% OF TRAFFIC FATALITIES
IN FLORIDA



Ongoing and Future Roadway Projects

The study area has one ongoing and one future roadway project that need to be taken into consideration when developing any proposed improvements.

FIN: 431635-7-52-01/WO #8

FDOT has begun construction at the intersection of SR 90/SW 8 Street and SR 825/SW 137 Avenue as part of a districtwide traffic operations pushbutton contract. This project involves:

- Reconstructing the existing traffic island of southbound SR 825/SW 137 Avenue to westbound SR 90/SW 8 Street
- Reconstructing the existing traffic median along southbound SR 825/SW 137 Avenue to eastbound SR 90/SW 8 Street
- Upgrading pedestrian and vehicle signal, signage, and pavement markings
- Repaving and restriping the roadway

Widening of NW 157 Avenue

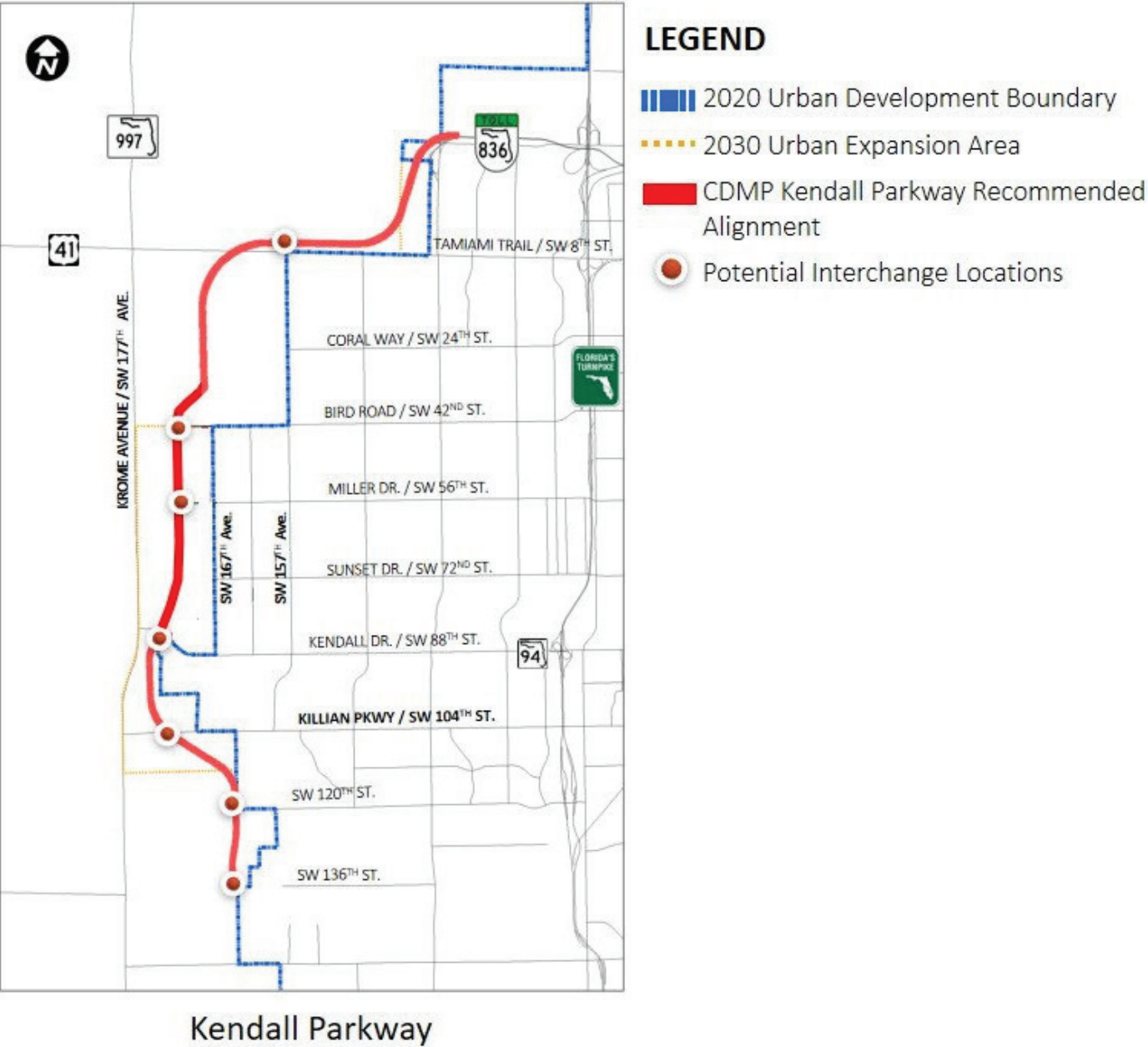
The widening from two lanes to four lanes of NW 157 Avenue, from SW 42 Street to SR 90/SW 8 Street, is included as Project 6 in the County's Long-Range Transportation Plan (LRTP) Priority I (2020 – 2025) project list, see page 196. This corridor is also included as Project 75 in the LRTP Priority I Bicycle and Pedestrian project list, see page 228, and the 2045 Bicycle and Pedestrian Master Plan, see page 200.

Kendall Parkway/SR 836 Extension

Included as Project 7 in the LRTP Priority II (2026 – 2030) project list, the Kendall Parkway project involves extending SR 836/Dolphin Expressway from the current terminus at the intersection of SR 825/SW 137 Avenue and NW 12 Street to SW 136 Street along an alignment located west of SW 167 Avenue. This project plans to create a new interchange with SR 90/SW 8 Street at SW 157 Avenue and recommends adding turn lanes and bicycle lanes to SR 90/SW 8 Street. Any future improvements on SR 90/SW 8 Street must include envelopes to accommodate any plan improvements included in the Kendall Parkway project.

The Miami-Dade Expressway Authority is conducting a Project Development & Environment Study to evaluate the potential social, natural, and environmental impacts of the Kendall Parkway. The first phase of the study concluded with the submission of the Alternative Corridor Evaluation Report which documents how multiple corridor alternatives and alignments were evaluated. The second phase resulted in recommended alternative which was presented at a Public Hearing that took place on December 13, 2018. **Appendix B** includes the recommended alternative.

Figure 7: Kendall Parkway Location Map



Alternative Designs Considered

A shared-use path on the south or north side of SR 90/SW 8 Street was considered to achieve the purpose of this study. Within the study area, SR 90/SW 8 Street is abutted by the Tamiami Canal and agricultural and vacant land use on the north. On the south side, SR 90/SW 8 Street has vacant and commercial land uses east of SW 157 Avenue, residential land uses between SW 157 Avenue and SW 147 Avenue, and commercial land use between SW 147 Avenue and SR 825/SW 137 Avenue. Urban developments on the north side of SR 90/SW 8 Street are restricted since it is outside the UDB. While the north side has less conflict points, the south side of SR 90/SW 8 Street was chosen as the preferred location for the proposed shared-use path given that it has adjacent urban development which generate and attract bicycle and pedestrian activity and provides a safer connection to the Krome Path by avoiding the need to cross the high-speed segment of SR 90/SW 8 Street.



Recommended Alternative

The recommended alternative proposes a shared-use path on the south side of SR 90/SW 8 Street from SR 997/Krome Avenue/SW 177 Avenue to the Tamiami Station at SW 147 Avenue. Tamiami Station was chosen as the eastern limit of the recommended alternative due to limited public right-of-way availability between SW 147 Avenue and SR 825/SW 137 Avenue.

The recommended alternative only modifies the eastbound half of the SR 90/SW 8 Street typical section and maintains existing conditions for the westbound direction. From SR 997/Krome Avenue/SW 177 Avenue to SW 157 Avenue, the proposed rural typical section comprises a 4-foot wide inside shoulder, two 12-foot wide general-purpose travel lanes, a 6.5-foot wide outside shoulder, curb and gutter Type E and guardrail, a 12-foot wide shared use path with 2-foot wide shoulders on each side, and a drainage swale. From SW 157 Avenue to SW 147 Avenue, the proposed urban typical section comprises a 4-foot wide inside shoulder, two 11-foot wide general-purpose travel lanes, curb and gutter Type F and guardrail, a 12-foot wide shared use path with 2-foot wide shoulders on each side, and a drainage swale.

The recommended alternative includes replacing crosswalks with shared-use path crossings comprising 6-foot wide Elephant's Feet crosswalks with green pavement markings for cyclist and 6-foot wide high-emphasis crosswalk markings at all crossroads and driveways along the proposed shared-use path. Along with utility and tree relocations, the recommended alternative includes ADA improvements such as curb ramp widening and detectable warning surfaces. Moreover, the recommended alternative includes an optional shared-use path bypass of the Pilot Truck Travel Center located on the southeast corner of the intersection of SR 997/Krome Avenue/SW 177 Avenue and SR 90/SW 8 Street. This proposed bypass connects to the Krome Path just south of the Pilot Truck Travel Center, utilizing available easements through private properties, and turns north into the proposed SR 90 shared-use path approximately 525 feet west of the SW 172 Avenue envelope (i.e., MP 0.510). The proposed bypass creates a safer condition for cyclists and pedestrians because it removes the conflict points created by the northbound SR 997/Krome Avenue/SW 177 Avenue to eastbound SR 90/SW 8 Street right turn and truck travel center driveway. **Appendix C** includes a plot of the recommended alternative.

Impacts of Recommended Alternative

The recommended alternative was reviewed via FDOT's Electronic Review Comments (ERC) system. Comments received concurred that the recommended alternative needs to be reevaluated during Preliminary Engineering to resolve potential issues identified by reviewers. These issues include:

- Proposed guardrail introduces an additional hazard to motorists. While the guardrail adds protection for bicyclists and pedestrians, an alternate design can consider placing the shared-use path closer to the right-of-way. This alternate design requires redesigning drainage features along SR 94/Kendall Drive.
- The study area is within the South Florida Urban Bat Area for the Florida bonneted bat, which is listed as an endangered species. Impacts to trees (trimming, removal, and relocations) and bridges within the project area would require a field review and coordination with the U.S. Fish and Wildlife Service (USFWS).
- The recommended alternative includes a potential alternate alignment south of the Pilot Truck Travel Center at the southeast corner of SR 94/Kendall Drive and SR 997/Krome Avenue. Reviewers noted this segment is outside FDOT's right-of-way and may therefore not be a viable alternate alignment.

Safety Performance

The recommended improvements are anticipated to improve safety conditions for cyclists and pedestrians in the study area given that these modes of transportation will have a dedicated and physically separated path. While the recommended alternative keeps the same travel configuration for motorized transportation, the recommended alternative reduces the clear zone width for errant vehicles. Guardrails are proposed to mitigate the reduction in clear zone width and to further increase protection for cyclists and pedestrians. Moreover, from SR 997/Krome Avenue to SW 157 Avenue, the recommended alternative reclassifies SR 90/SW 8 Street into a Transition Zone between rural and urban context classifications by adding curb and gutters. This allows for the exploration of implementing traffic calming techniques such as landscaping to slow down vehicles and increase safety for all road users.

Operational Performance

The recommended alternative will likely result in an increase of bicycle and pedestrian traffic along the study area since SR 90/SW 8 Street does not have any bicycle facilities east of SW 152 Avenue and since the recommended alternative provides a safer bicycle facility on SR 90/SW 8 Street west of SW 152 Avenue. Also, the recommended alternative provides path continuity between the Krome Path and the Tamiami Station. This may result in operational impacts to the cross streets and driveways south of SR 90/SW 8 Street due to increased controlled and uncontrolled delays from bicycle and pedestrian crossings.

Right-of-Way

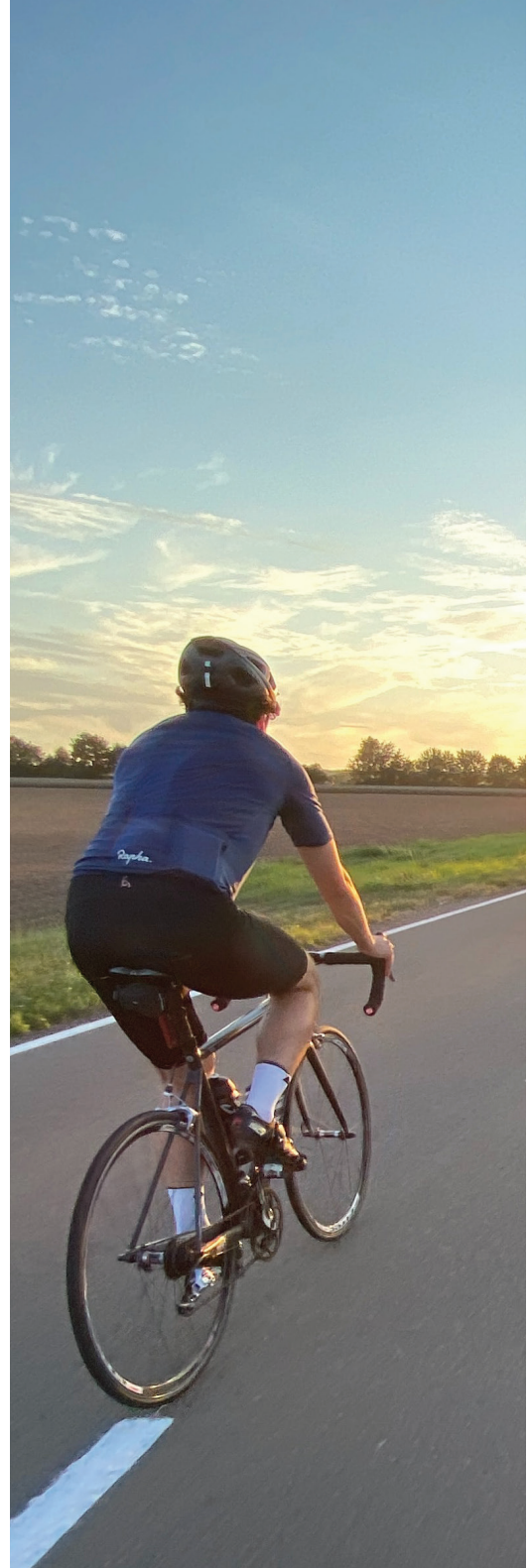
The recommended improvements do not impact existing right-of-way conditions.

Community and Environment

The recommended alternative does impact existing landscaping and drainage structures along the south side of SR 90/SW 8 Street. Relocated trees will have to be mitigated to reduce the impact of the proposed improvements. The recommended alternative modifies the existing swale and increases total impervious area, hence, stormwater and flood mitigations are required. Additionally, existing drainage structures will need to be relocated due to the construction of the proposed shared-use path. The proposed improvements are anticipated to increase community livability by providing a new recreationally facility and increasing the accessibility of commuting via more economical and low-to-no carbon emission modes of transportation.

Usability by all Modes of Transportation

The recommended alternative increases the usability of walking, cycling, micromobility, and public transportation in the study area by providing a new, dedicated path for non-motorized transportation and connecting commuters to the Tamiami Station.





Conceptual Cost Estimate

A conceptual cost estimate for the recommended alternative was developed using FDOT's Long Range Estimates and Master Pay Item lists for Area 13 (Miami-Dade County) and reflecting costs from February 1, 2021 to January 31, 2022. Statewide averages were used where applicable. Table 2 presents a summary of the conceptual cost estimates. **Appendix C** includes a detailed cost breakdown.

Table 2: Conceptual Cost Estimate

Protected Shared-Use Path on SR 90/SW 8 Street from SR 997/ Krome Ave/SW 177 Ave to SR 825/SW 137 Ave		
Alternatives	Recommended Route	Alternative Route Only (Behind SR 997 Gas Station)
Subtotal	\$2,657,466.95	\$314,038.11
Mobilization (7%)	\$186,022.69	\$21,982.67
Maintenance of Traffic (10%)	\$265,746.69	\$31,403.81
Utilities (2%) Utility work within FDOT ROW is not reimbursable, however, a percentage has been added to conservatively estimate any potential reimbursable utility work.	\$53,149.34	\$6,280.76
Lighting (10%)	\$265,746.69	\$31,403.81
Drainage (10%)	\$265,746.69	\$31,403.81
Design (10%) Design percentage assumed based on engineering judgement of the complexity of the project.	\$265,746.69	\$31,403.81
Geotechnical (15% of Design)	\$39,862.00	\$4,710.57
Survey (15% of Design)	\$39,862.00	\$4,710.57
CEI (8%)	\$212,597.36	\$25,123.05
Contingency (15%)	\$398,620.04	\$47,105.72
TOTAL (Rounded to Nearest Thousand)	\$4,651,000.00	\$550,000.00





Summary and Conclusion

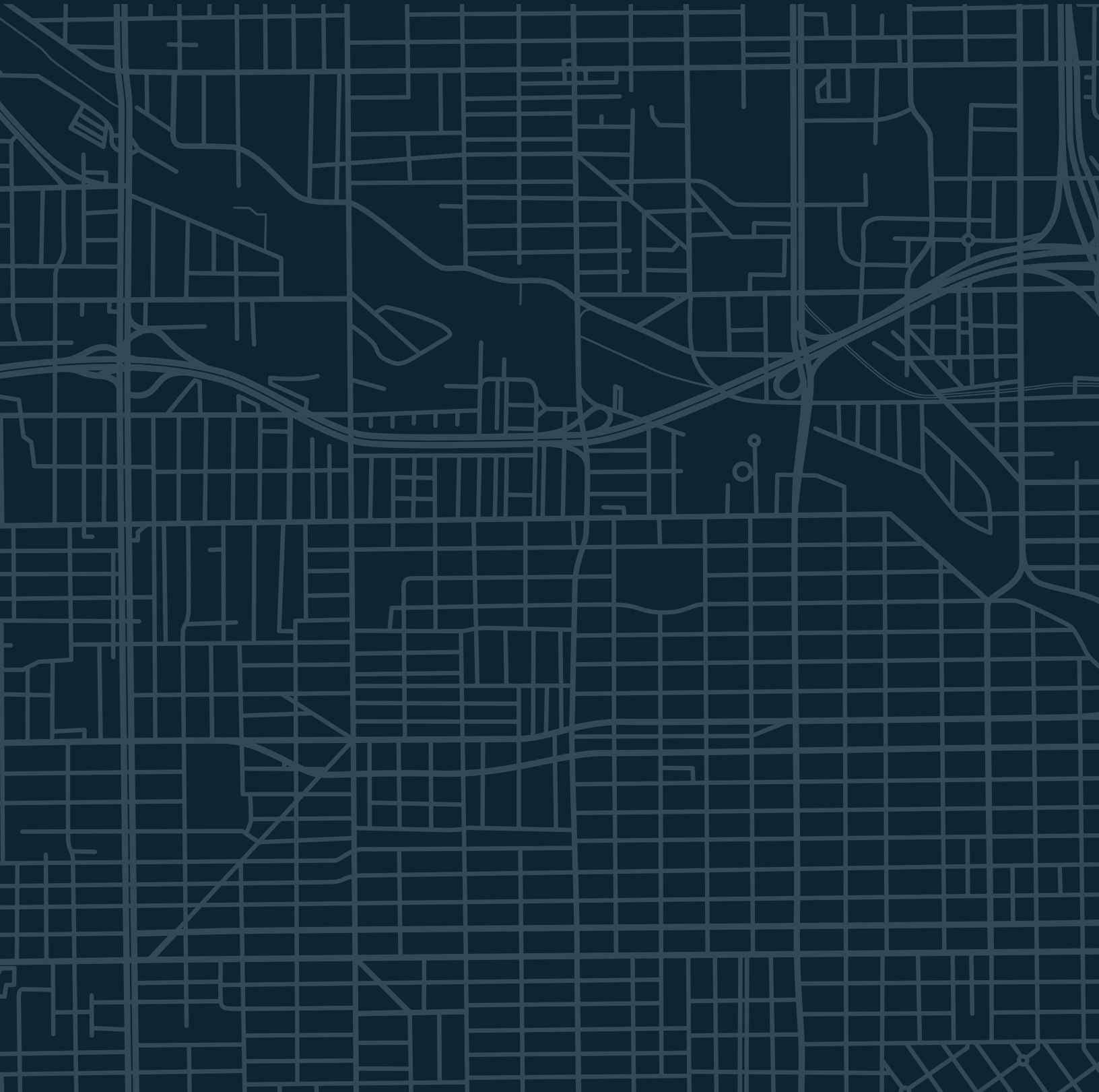
The recommended alternative proposes constructing a protected shared-use path along SR 90/SW 8 Street from SR 997/Krome Avenue/SW 177 Avenue to SR 825/SW 137 Avenue. This path is intended to create a safe link from the existing Krome Path to the brand new Tamiami Station in an effort to encourage the utilization of public transportation, and increase the mobility options of residents by providing increase safety and connectivity for vulnerable road users. The recommended alternative is consistent with published regional master plans and fulfills the need for system linkage, social demands and economic development, modal interrelationships, and safety. At a total cost of \$4,651,000, the recommended alternative includes an optional alternate route through private right-of-way for an additional \$550,000 that increases safety by reducing conflict with freight vehicles at the intersection of SR 90 and SR 997.







Protected Shared-Use Path on on SR 90/SW 8 Street

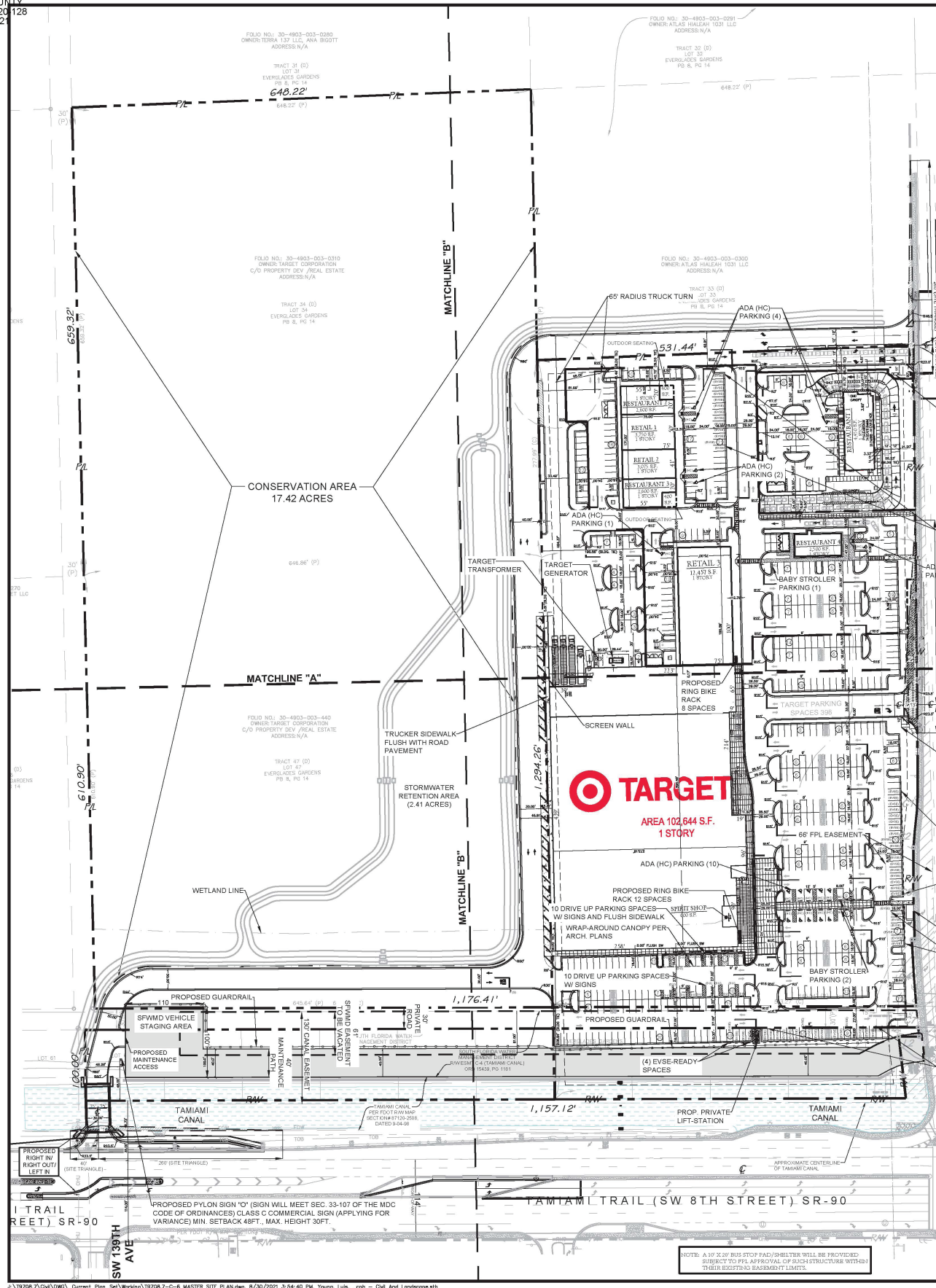




A

Appendix A

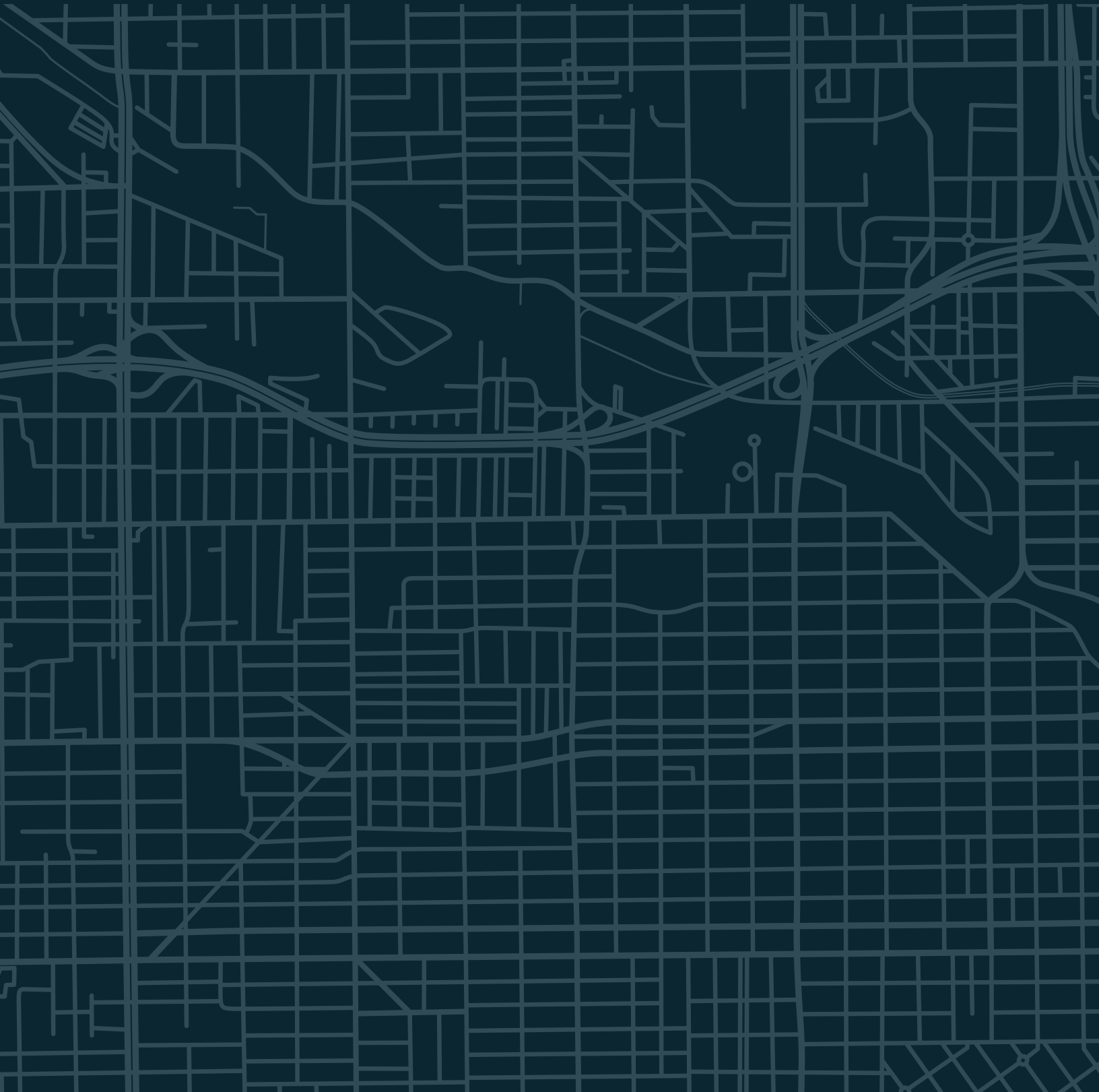
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PROCESS NO: Z20128
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BY: ISA



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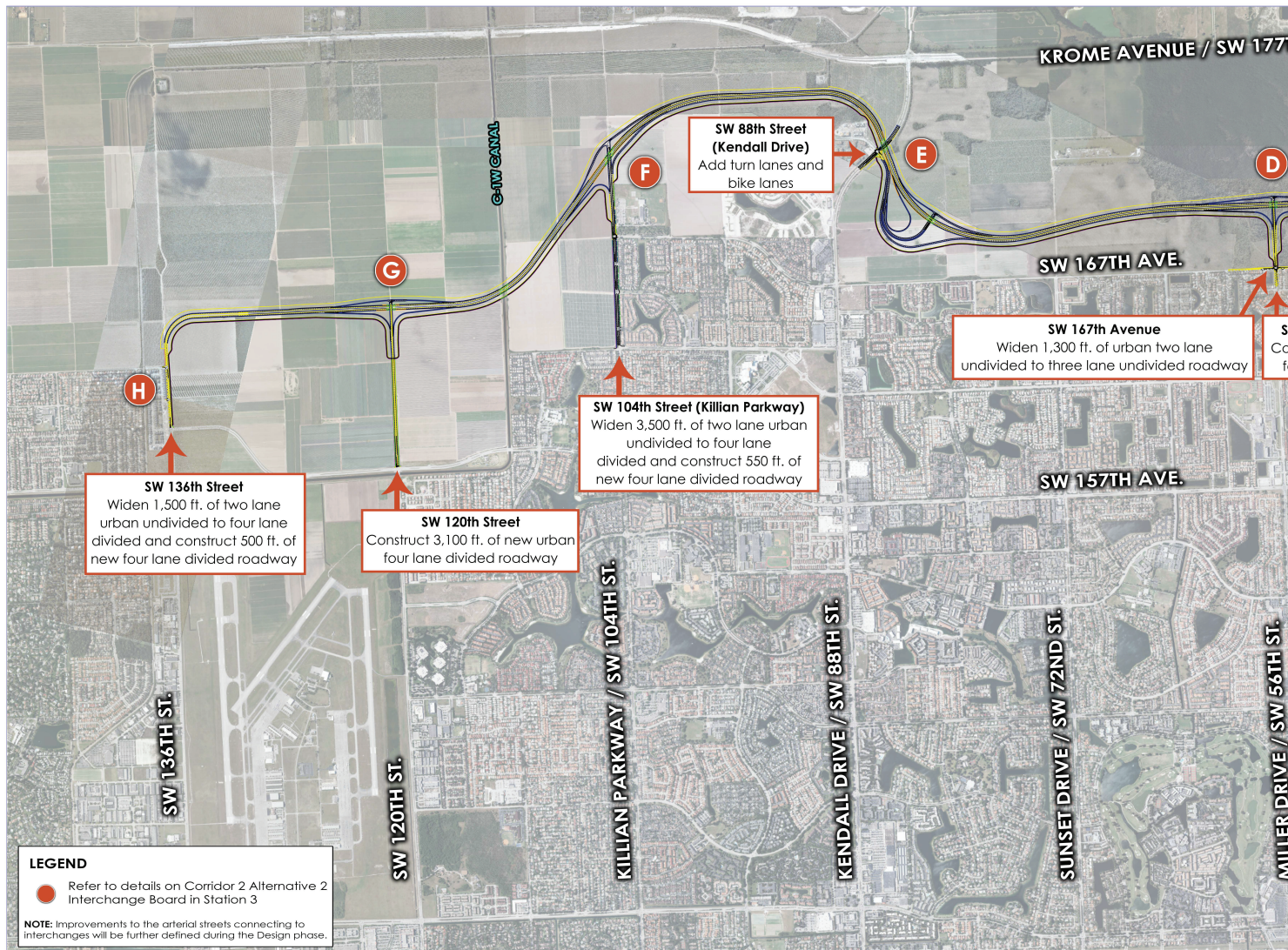
Protected Shared-Use Path on on SR 90/SW 8 Street





B

Appendix B



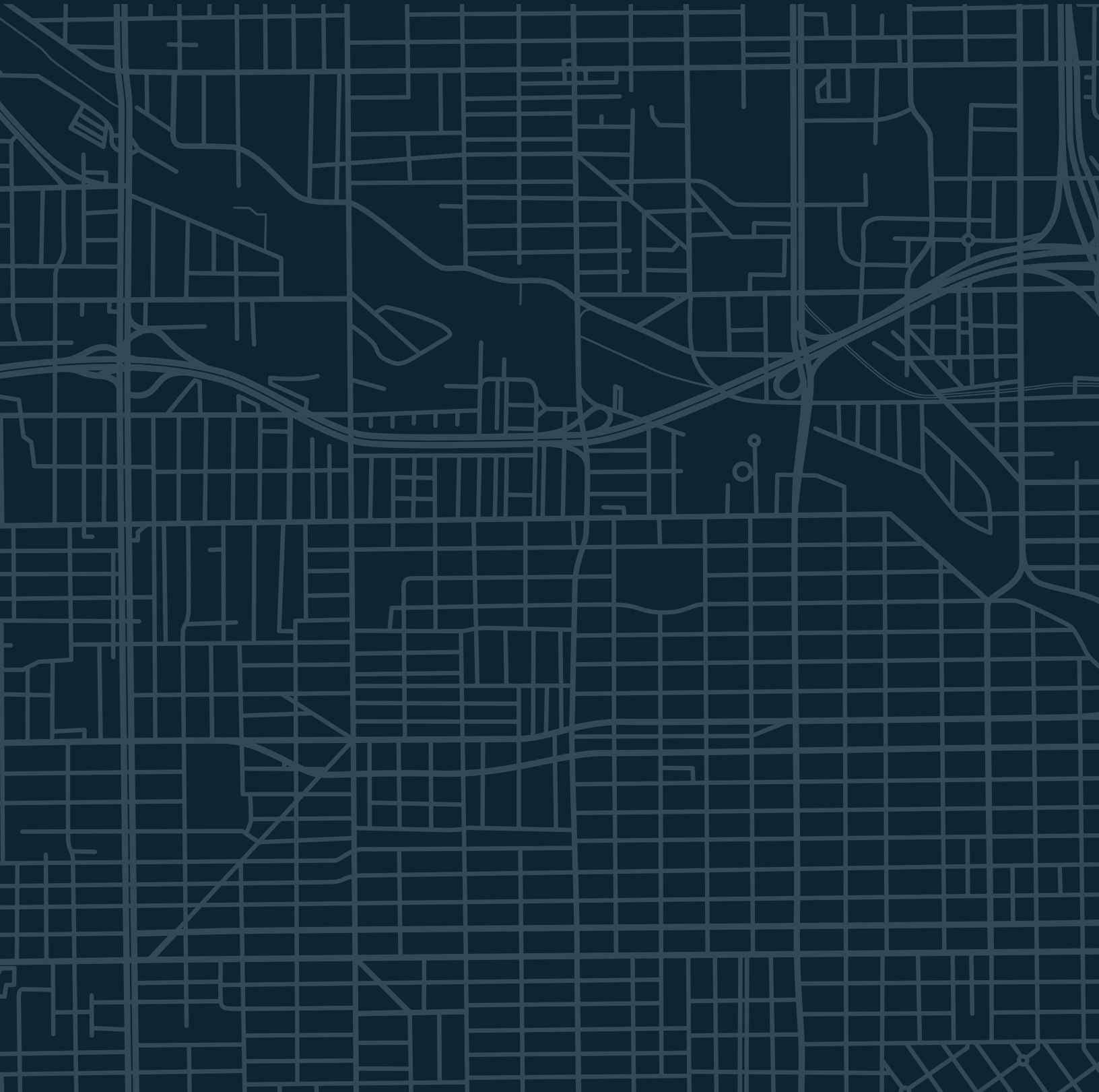


RECOMMENDED ALTERNATIVE

Public Hearing • December 13, 2018



Protected Shared-Use Path on on SR 90/SW 8 Street

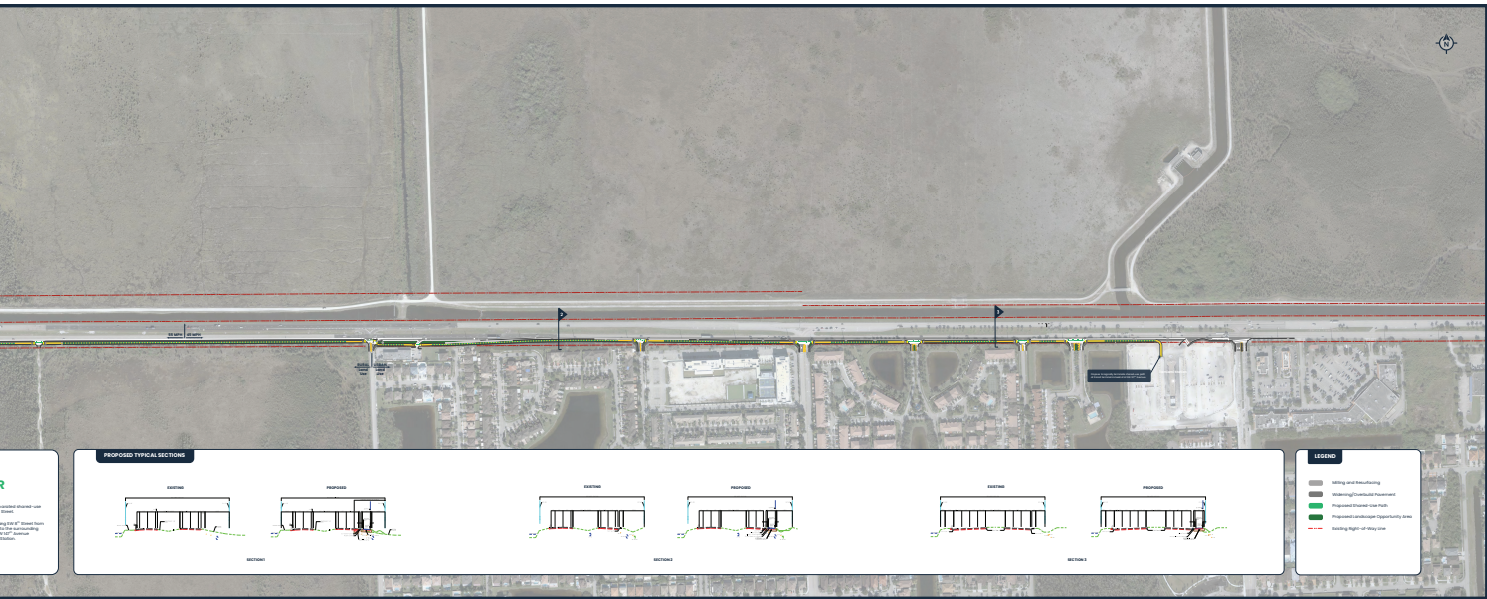




C

Appendix C







Protected Shared-Use Path on SR 90/SW 8 Street from SR 997/Krome Ave./SW 177 Ave. to SR 825/SW 137 Ave.		
Alternatives	Recommended Route	Alternate Route Only (Behind SR 997 Gas Station)
Subtotal	\$ 2,657,466.95	\$ 314,038.11
Mobilization (7%)	\$ 186,022.69	\$ 21,982.67
Maintenance of Traffic (10%)	\$ 265,746.69	\$ 31,403.81
Utilities (2%) Utility work within FDOT ROW is not reimbursable, however, a percentage has been added to conservatively estimate any potential reimbursable utility work	\$ 53,149.34	\$ 6,280.76
Lighting (10%)	\$ 265,746.69	\$ 31,403.81
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Survey (15% of Design)	\$ 39,862.00	\$ 4,710.57
CEI (8%)	\$ 212,597.36	\$ 25,123.05
Contingency (15%)	\$ 398,620.04	\$ 47,105.72
Total (Rounded to Nearest Thousand)	\$ 4,651,000.00	\$ 550,000.00

Protected Shared-Use Path on SR 90/SW 8 Street from SR 997/Krome Ave./SW 177 Ave. to SR 825/SW 137 Ave.**Recommended Route****Roadway**

Item Number	Item	Unit	Quantity	Unit Price	Amount	Source	Source Date
0104 18	Inlet Protection System	EA	34.00	\$ 183.89	\$ 6,252.26	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0110 1 1	Clearing & Grubbing	AC	9.11	\$ 10,178.04	\$ 92,754.28	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0110 4 10	Removal of Existing Concrete	SY	7051.11	\$ 16.41	\$ 115,708.73	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0120 1	Regular Excavation	CY	32692.89	\$ 4.49	\$ 146,791.07	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0160 4	Type B Stabilization (Share-Use Path)	SY	25210.22	\$ 0.78	\$ 19,663.97	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0285 701	Optional Base Group 01 (Share-Use Path)	SY	25210.22	\$ 15.22	\$ 383,699.58	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0327 70 1	Milling Existing Asphalt Pavement, 2" Avg. Depth	SY	25447.22	\$ 2.02	\$ 51,403.39	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0334 1 11	Superpave Asphaltic Concrete, Traffic A (Share-Use Path)	TN	3136.89	\$ 112.63	\$ 353,307.73	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0334 1 53	Superpave Asphaltic Concrete, Traffic C, PG 76-22	TN	728.29	\$ 123.11	\$ 89,659.99	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0337 7 83	Asphalt Concrete Friction Course, Traffic C, FC-12.5, PG 76-22	TN	378.38	\$ 148.42	\$ 56,159.41	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0400 0 11 1	Concrete Class NS, Gravity Wall Index 400-011 (For Shared-Use Path Thickened Edge)	CY	774.89	\$ 572.68	\$ 443,763.37	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0400 0 11 1	Concrete Class NS, Gravity Wall Index 400-011 (For Sidewalk Gravity Wall)	CY	14.81	\$ 572.68	\$ 8,484.15	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0515 4 2	Bullet Rail - Double Rail	LF	100.00	\$ 45.00	\$ 4,500.00	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0520 1 10	Concrete Curb & Gutter, Type F	LF	16002.00	\$ 22.41	\$ 358,604.82	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0520 2 4	Concrete Curb & Gutter, Type D	LF	1236.00	\$ 27.20	\$ 33,619.20	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0522 2	Concrete Sidewalk and Driveways, 4" Thick	SY	1317.11	\$ 38.75	\$ 51,038.06	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0527 2	Detectable Warnings	SF	717.00	\$ 27.69	\$ 19,853.73	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0536 1 1	Guardrail - Roadway, General TL-3	LF	13878.00	\$ 22.00	\$ 305,316	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0570 1 2	Performance Turf, Sod	SY	1856.22	\$ 2.49	\$ 4,621.99	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
523 1	Patterned Pavement, Vehicular Areas (Green Colored Pavement)	SY	246.00	\$ 117.00	\$ 28,782.00	historical-item-averages-2020	From 2020/01/01 to 2020/12/31
Subtotal					\$ 2,573,983.73		

Signing and Pavement Markings

Item Number	Item	Unit	Quantity	Unit Price	Amount	Source	Source Date
0710 11 101	Painted Pavement Markings, STD, White, Solid, 6"	GM	3.95	\$ 805.69	\$ 3,178.66	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0710 11 123	Painted Pavement Markings, STD, White, Solid, 12" for Crosswalk	LF	1504.00	\$ 0.44	\$ 661.76	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0710 11 125	Painted Pavement Markings, STD, White, Solid, 24" for Stop Line and Crosswalk	LF	1766.00	\$ 0.81	\$ 1,430.46	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0710 11 131	Painted Pavement Markings, STD, White, Skip, 10-30 or 3-9 Skip, 6" Wide	GM	0.02	\$ 347.41	\$ 6.51	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0710 11 141	Painted Pavement Markings, STD, White, 2-4 Dotted Guideline/6-10 Dotted Extension, 6"	GM	0.02	\$ 352.04	\$ 8.33	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0710 11 160	Painted Pavement Markings, STD, White, Message or Symbol	EA	13.00	\$ 40.51	\$ 526.63	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0710 11 170	Painted Pavement Markings, STD, White, Arrows	EA	18.00	\$ 25.11	\$ 451.98	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0710 11 201	Painted Pavement Markings, STD, Yellow, Solid, 6"	GM	1.09	\$ 872.76	\$ 947.97	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0710 11 224	Painted Pavement Markings, STD, Yellow, Solid, 18" Diagonals or Chevron	LF	126.00	\$ 0.78	\$ 98.28	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0710 11 241	Painted Pavement Markings, STD, Yellow, 2-4 Dotted Guideline/6-10 Dotted Extension, 6"	GM	2.22	\$ 363.04	\$ 807.21	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0710 90	Painted Pavement Markings, Final Surface	LS	1.00	\$ 16,763.19	\$ 16,763.19	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0711 11 123	Thermoplastic, STD, White, Solid, 12" for Crosswalk	LF	1504.00	\$ 1.62	\$ 2,436.48	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0711 11 125	Thermoplastic, STD, White, Solid, 24" for Stop Line	LF	302.00	\$ 3.33	\$ 1,005.66	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0711 11 141	Thermoplastic, STD, White, 2-4 Dotted Guideline/6-10 Dotted Extension, 6"	GM	0.02	\$ 1,343.80	\$ 31.81	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0711 11 160	Thermoplastic, STD, White, Message or Symbol	EA	13.00	\$ 84.79	\$ 1,102.27	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0711 11 170	Thermoplastic, STD, White, Arrows	EA	18.00	\$ 52.40	\$ 943.20	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0711 11 224	Thermoplastic, STD, Yellow, Solid, 18" For Diagonals and Chevrons	LF	126.00	\$ 2.32	\$ 292.32	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0711 11 241	Thermoplastic, STD, Yellow, 2-4 Dotted Guideline/6-10 Dotted Extension, 6"	GM	2.22	\$ 1,480.74	\$ 3,292.40	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0711 14 125	Thermoplastic, Preformed, White, Solid, 24" for High Emphasis Crosswalk	LF	1464.00	\$ 14.82	\$ 21,696.48	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0711 14 160	Thermoplastic, Preformed, White, Message	EA	13.00	\$ 341.29	\$ 4,436.77	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0711 14 170	Thermoplastic, Preformed, White, Arrow	EA	18.00	\$ 240.57	\$ 4,330.26	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0711 16 101	Thermoplastic, STD-Other Surfaces, White, Solid, 6"	GM	3.95	\$ 3,763.34	\$ 14,847.37	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0711 16 131	Thermoplastic, STD-Other Surfaces, White, Skip, 6", 10-30 Skip or 3-9 Lane Drop	GM	0.02	\$ 1,225.71	\$ 22.98	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0711 16 201	Thermoplastic, STD-Other Surfaces, Yellow, Solid, 6"	GM	1.09	\$ 3,833.83	\$ 4,164.21	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
Subtotal					\$ 83,483.21		

Signals

Item Number	Item	Unit	Quantity	Unit Price	Amount	Source	Source Date
0653 1 11	Pedestrian Signal, Furnish & Install Led Countdown, 1 Way	AS	0.00	\$ 836.57	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0653 1 12	Pedestrian Signal, Furnish & Install Led Countdown, 2 Ways	AS	0.00	\$ 1,112.15	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
Subtotal					\$ -		

Subtotal \$ 2,657,466.95



Protected Shared-Use Path on SR 90/SW 8 Street from SR 997/Krome Ave./SW 177 Ave. to SR 825/SW 137 Ave.
Alternate Route Only (Behind SR 997 Gas Station)

Roadway						
Item Number	Item	Unit	Quantity	Unit Price	Amount	Source
0104 18	Inlet Protection System	EA	0.00	\$ 183.89	\$ -	historical-item-averages-market-area-13
0110 1 1	Clearing & Grubbing	AC	1.12	\$ 10,178.04	\$ 11,383.47	historical-item-averages-market-area-13
0110 4 10	Removal of Existing Concrete	SY	0.00	\$ 16.41	\$ -	historical-item-averages-market-area-13
0120 1	Regular Excavation	CY	3608.81	\$ 4.49	\$ 16,203.58	historical-item-averages-market-area-13
0120 6	Embankment (Fill)	CY	0.00	\$ 14.42	\$ -	historical-item-averages-market-area-13
0160 4	Type B Stabilization (Share-Use Path)	SY	5413.22	\$ 0.78	\$ 4,222.31	historical-item-averages-market-area-13
0285 701	Optional Base Group 01 (Share-Use Path)	SY	5413.22	\$ 15.22	\$ 82,389.24	historical-item-averages-market-area-13
0327 70 1	Milling Existing Asphalt Pavement, 2" Avg. Depth	SY	0.00	\$ 2.02	\$ -	historical-item-averages-market-area-13
0334 1 11	Superpave Asphalt Concrete, Traffic A (Share-Use Path)	TN	893.18	\$ 112.63	\$ 100,599.05	historical-item-averages-market-area-13
0334 1 53	Superpave Asphalt Concrete, Traffic C, PG76-22	TN	0.00	\$ 123.11	\$ -	historical-item-averages-market-area-13
0337 7 83	Asphalt Concrete Friction Course, Traffic C, FC-12.5, PG 76-22	TN	0.00	\$ 148.42	\$ -	historical-item-averages-market-area-13
0400 0 11 1	Concrete Class NS, Gravity Wall Index 400-011 (For Shared-Use Path Thickened Edge)	CY	169.48	\$ 572.68	\$ 97,058.65	historical-item-averages-market-area-13
0400 0 11 1	Concrete Class NS, Gravity Wall Index 400-011 (For Sidewalk Gravity Wall)	CY	0.00	\$ 572.68	\$ -	historical-item-averages-market-area-13
0515 4 2	Bullet Rail - Double Rail	LF	0.00	\$ 45.00	\$ -	historical-item-averages-market-area-13
0520 1 10	Concrete Curb & Gutter, Type F	LF	0.00	\$ 22.41	\$ -	historical-item-averages-market-area-13
0520 2 4	Concrete Curb & Gutter, Type D	LF	0.00	\$ 27.20	\$ -	historical-item-averages-market-area-13
0520 6	Shoulder Gutter - Concrete	LF	0.00	\$ 21.15	\$ -	historical-item-averages-market-area-13
0522 2	Concrete Sidewalk and Driveways, 4" Thick	SY	0.00	\$ 38.75	\$ -	historical-item-averages-market-area-13
0527 2	Detectable Warnings	SF	0.00	\$ 27.69	\$ -	historical-item-averages-market-area-13
0536 1 1	Guardrail - Roadway, General TL-3	LF	0.00	\$ 22.00	\$ 0	historical-item-averages-market-area-13
0570 1 2	Performance Turf, Sod	SY	0.00	\$ 2.49	\$ -	historical-item-averages-market-area-13
523 1	Patterned Pavement, Vehicular Areas (Green Colored Pavement)	SY	0.00	\$ 117.00	\$ -	historical-item-averages-2020
Subtotal					\$ 311,856.31	

Signing and Pavement Markings						
Item Number	Item	Unit	Quantity	Unit Price	Amount	Source
0710 11 101	Painted Pavement Markings, STD, White, Solid, 6"	GM	0.00	\$ 805.69	\$ -	historical-item-averages-market-area-13
0710 11 102	Painted Pavement Markings, STD, White, Solid for Interchange and Urban Island, 8"	GM	0.00	\$ 1,111.13	\$ -	historical-item-averages-market-area-13
0710 11 123	Painted Pavement Markings, STD, White, Solid, 12" for Crosswalk	LF	0.00	\$ 0.44	\$ -	historical-item-averages-market-area-13
0710 11 124	Painted Pavement Markings, STD, White, Solid, 18" Diagonals or Chevron	LF	0.00	\$ 0.94	\$ -	historical-item-averages-market-area-13
0710 11 125	Painted Pavement Markings, STD, White, Solid, 24" for Stop Line and Crosswalk	LF	54.00	\$ 0.81	\$ 43.74	historical-item-averages-market-area-13
0710 11 131	Painted Pavement Markings, STD, White, Skip, 10-30 or 3-9 Skip, 6" Wide	GM	0.00	\$ 347.41	\$ -	historical-item-averages-market-area-13
0710 11 141	Painted Pavement Markings, STD, White, 2-4 Dotted Guideline/6-10 Dotted Extension, 6"	GM	0.00	\$ 352.04	\$ -	historical-item-averages-market-area-13
0710 11 160	Painted Pavement Markings, STD, White, Message or Symbol	EA	0.00	\$ 40.51	\$ -	historical-item-averages-market-area-13
0710 11 170	Painted Pavement Markings, STD, White, Arrows	EA	6.00	\$ 25.11	\$ 150.66	historical-item-averages-market-area-13
0710 11 201	Painted Pavement Markings, STD, Yellow, Solid, 6"	GM	0.00	\$ 872.76	\$ -	historical-item-averages-market-area-13
0710 11 202	Painted Pavement Markings, STD, Yellow, Solid for Interchange and Urban Island, 8"	GM	0.00	\$ 975.50	\$ -	historical-item-averages-market-area-13
0710 11 224	Painted Pavement Markings, STD, Yellow, Solid, 18" Diagonals or Chevron	LF	0.00	\$ 0.78	\$ -	historical-item-averages-market-area-13
0710 11 231	Painted Pavement Markings, STD, Yellow, Skip, 10-30 or 3-9 Skip, 6" Wide	GM	0.58	\$ 361.59	\$ 208.94	historical-item-averages-market-area-13
0710 11 241	Painted Pavement Markings, STD, Yellow, 2-4 Dotted Guideline/6-10 Dotted Extension, 6"	GM	0.00	\$ 363.04	\$ -	historical-item-averages-market-area-13
0710 90	Painted Pavement Markings, Final Surface	LS	0.00	\$ 16,763.19	\$ -	historical-item-averages-market-area-13
0711 11 102	Thermoplastic, STD, White, Solid for Interchange and Urban Island, 8"	GM	0.00	\$ 5,632.54	\$ -	historical-item-averages-market-area-13
0711 11 123	Thermoplastic, STD, White, Solid, 12" For Crosswalk	LF	0.00	\$ 1.62	\$ -	historical-item-averages-market-area-13
0711 11 124	Thermoplastic, STD, White, Solid, 18" for Diagonals and Chevrons	LF	0.00	\$ 2.36	\$ -	historical-item-averages-market-area-13
0711 11 125	Thermoplastic, STD, White, Solid, 24" for Stop Line	LF	0.00	\$ 3.33	\$ -	historical-item-averages-market-area-13
0711 11 141	Thermoplastic, STD, White, 2-4 Dotted Guideline/6-10 Dotted Extension, 6"	GM	0.00	\$ 1,343.80	\$ -	historical-item-averages-market-area-13
0711 11 160	Thermoplastic, STD, White, Message or Symbol	EA	0.00	\$ 84.79	\$ -	historical-item-averages-market-area-13
0711 11 170	Thermoplastic, STD, White, Arrows	EA	6.00	\$ 52.40	\$ 314.40	historical-item-averages-market-area-13
0711 11 224	Thermoplastic, STD, Yellow, Solid, 18" For Diagonals and Chevrons	LF	0.00	\$ 2.32	\$ -	historical-item-averages-market-area-13
0711 11 241	Thermoplastic, STD, Yellow, 2-4 Dotted Guideline/6-10 Dotted Extension, 6"	GM	0.00	\$ 1,480.74	\$ -	historical-item-averages-market-area-13
0711 14 125	Thermoplastic, Preformed, White, Solid, 24" for High Emphasis Crosswalk	LF	0.00	\$ 14.82	\$ -	historical-item-averages-market-area-13
0711 14 160	Thermoplastic, Preformed, White, Message	EA	0.00	\$ 341.29	\$ -	historical-item-averages-market-area-13
0711 14 170	Thermoplastic, Preformed, White, Arrow	EA	6.00	\$ 240.57	\$ 1,443.42	historical-item-averages-market-area-13
0711 16 101	Thermoplastic, STD-Other Surfaces, White, Solid, 6"	GM	0.00	\$ 3,763.34	\$ -	historical-item-averages-market-area-13
0711 16 131	Thermoplastic, STD-Other Surfaces, White, Skip, 6", 10-30 Skip or 3-9 Lane Drop	GM	0.00	\$ 1,225.71	\$ -	historical-item-averages-market-area-13
0711 16 201	Thermoplastic, STD-Other Surfaces, Yellow, Solid, 6"	GM	0.00	\$ 3,833.83	\$ -	historical-item-averages-market-area-13
0711 16 102	Thermoplastic, STD-Other Surfaces, Yellow, Solid, 8"	GM	0.00	\$ 4,843.63	\$ -	historical-item-averages-market-area-13
0711 17 1	Thermoplastic, Remove Existing Thermoplastic Pavement Markings-Surface to Remain	SF	24.00	\$ 0.86	\$ 20.64	historical-item-averages-market-area-13
Subtotal					\$ 2,181.80	

Signals						
Item Number	Item	Unit	Quantity	Unit Price	Amount	Source
0653 1 11	Pedestrian Signal, Furnish & Install Led Countdown, 1 Way	AS	0.00	\$ 836.57	\$ -	historical-item-averages-market-area-13
0653 1 12	Pedestrian Signal, Furnish & Install Led Countdown, 2 Ways	AS	0.00	\$ 1,112.15	\$ -	historical-item-averages-market-area-13
Subtotal					\$ -	

Subtotal \$ 314,038.11

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