AGENDA
BPAC
Bicycle/Pedestrian Advisory Committee
NOTE: THIS IS AN IN-PERSON MEETING
IT Training Room, 5th Floor
Collier County Government Center
Administration Building (F)
3299 Tamiami Trail East, Naples, FL, 34112

May 16, 2023
9:00 a.m.

1. Call to Order
2. Roll Call
3. Approval of Agenda
4. Approval of the March 21, 2023, Meeting Minutes
5. Open to the Public for Comment on Items not on the Agenda
6. Agency Updates
   A. FDOT
   B. MPO
7. Committee Action
8. Reports & Presentations (May Require Committee Action)
   A. FDOT Update on the Marco Island Loop Trail Feasibility Study and Conceptual Design
   B. MPO Update on Current Pedestrian and Bicycle Planning Activities
9. Member Comments
10. Distribution Items
11. Topics for Future Meetings
12. Next Meeting Date
    August 15, 2023 – 9:00 a.m.
    Location: CCGC Admin. Bldg. F, IT Training Room, 5th Floor, 3299 Tamiami Trail East, Naples, FL, 34112
13. Adjournment

PLEASE NOTE:
The meetings of the advisory committees of the Collier Metropolitan Planning Organization (MPO) are open to the public
and citizen input is encouraged. Any person wishing to speak on any scheduled item may do so upon recognition of the Chairperson. Any person desiring to have an item placed on the agenda should contact the MPO Director at least 14 days prior to the meeting date. Any person who decides to appeal a decision of the advisory committee will need a record of the proceedings pertaining thereto, and therefore may need to ensure that a verbatim record of the proceeding is made, which record includes the testimony and evidence upon which the appeal is to be based. In accordance with the Americans with Disabilities Act, any person requiring special accommodations to participate in this meeting should contact the Collier Metropolitan Planning Organization 72 hours prior to the meeting by calling (239) 252-5814. The MPO’s planning process is conducted in accordance with Title VI of the Civil Rights Act of 1964 and Related Statutes. Any person or beneficiary who believes that within the MPO’s planning process they have been discriminated against because of race, color, religion, sex, age, national origin, disability, or familial status may file a complaint with the Collier MPO Title VI Coordinator, Ms. Dusty Siegler, at (239) 252-5814 or by email at: Dusty.Siegler@colliercountyfl.gov or in writing to the Collier MPO, attention: Ms. Siegler, at 2885 South Horseshoe Dr., Naples, FL 34104.
March 21, 2023 - 9:00 A.M.
Meeting Minutes

1. **Call to Order**

   Mr. Matonti called the meeting to order at 9:00 a.m.

2. **Roll Call**

   Ms. Siegler called roll and confirmed a quorum was present.

**Members Present**
Anthony Matonti (Chair)
Patty Huff (Vice-Chair)
Andrea Halman
Alan Musico
Carey Komorny
George Dondanville
Michelle Sproviero
Joe Bonness (arrived after Roll Call)
Kim Jacob (arrived after Roll Call)
Mark Komanecky (arrived after Roll Call)

**Members Absent**
Dayna Fendrick
Robert Phelan

**MPO Staff Present**
Anne McLaughlin, Executive Director
Sean Kingston, Principal Planner
Dusty Siegler, Administrative Assistant

**Others Present**
Dave Rivera (TAC/CMC)
Lorraine Lantz (Collier County Transportation Planning)
Michelle Avola-Brown (Naples Pathway Coalition)
Michael Tisch (Collier County Transportation Planning)
Tanya Merkle (FDOT)
Pierre Beauvoir (CMC/Collier County Traffic Operations)
Sergeant Anna Horowitz (Collier County Sheriff)
3. **Approval of the Agenda**

   *Mr. Dondanville moved to approve the agenda. Seconded by Ms. Halman. Carried unanimously.*

4. **Approval of the February 21, 2023, Meeting Minutes**

   *Mr. Musico: asked that the minutes to be modified to make sure he was not speaking on behalf of the Chief of Police regarding enforcement by implying the Chief supports the Bike/Ped Safety ordinance as written. [page 5 of the minutes] He rescinded this request after Ms. McLaughlin responded that, having reviewed the minutes in question, they only state that he spoke with the Chief regarding enforcement of the ordinance, they do not imply the Chief supports the ordinance.*

   *Mr. Matonti moved to approve the February 21, 2023, minutes. Seconded by Mr. Musico. Carried unanimously.*

5. **Open to the Public for Comment on Items Not on the Agenda**

   *Ms. Avola-Brown: April is distracted driving awareness month. Naples Pathways Coalition (NPC) is partnering with Blue Zones, Collier Law Enforcement, and FDOT as a means of pushing for stronger legislation for hands-free driving. States that adopted hands-free legislation saw an immediate decrease in fatalities. More than 50% of fatalities are vulnerable road users. NPC is making a strong push for awareness. Mr. Komanceky: Will there be public outreach? Ms. Avola-Brown: Yes, there are multiple methods through the different organizations. It depends on the funding. Nonprofits may get discounts. The more outreach, however it is done, the better. Many big-name people are supporting hands-free, including Tom Brady, Mark Wahlberg, and the CEO of GM. We’re hoping to get in with the Driver’s Education people at the DMV. Teenagers are pressured to answer their phones immediately when they don’t need to. Driving distracted is six times more likely to cause a fatal crash than driving at a Blood Alcohol Content of 0.10. There is an app that monitors phone activity while driving, which can reduce car insurance.*

6. **Agency Updates**

   A. **FDOT:**

   *Ms. Merkle: FDOT is finishing going through SUNTrail applications, but there still may be more monies coming through. Still reviewing applications and sending to Central Office. At the previous committee meeting there were questions about pedestrian crossings on US 41. They are projected to be done by end of April.*
B. MPO:

Ms. McLaughlin: nothing to report other than what is on the agenda to address.

7. Committee Action

A. Review and Comment on Draft Pedestrian and Cyclist Safety Ordinance

Mr. Matonti: the ordinance was discussed at the MPO Board meeting after Mr. Bonness commented as a member of the public. Suggest starting with a summary of what was said at the MPO Board meeting by Mr. Bonness and the Board, then go over committee member comments included in the packet and then the ordinance itself. We can then go over the recommendation from our committee to the Board.

Ms. McLaughlin: Mr. Bonness reiterated the comments he made at the previous BPAC meeting and drew attention to State Statute 316.125, requiring drivers to look both ways when crossing a sidewalk. Commissioner Kowal emphasized that the ordinance was still being worked on, that he agreed bicycles should be able to share sidewalks, and his intent is regarding their safety. Mr. Bonness: Yes, we want it safer for everyone and Commissioner Kowal took it to heart. The language the attorney put together isn’t necessarily what he wanted to see. Ms. McLaughlin: Commissioner LoCastro commented that electric bikes on Marco go too fast on sidewalks. Mr. Bonness: they mentioned ebikes going 36 mph, but they can’t go faster than 28 mph. Ms. McLaughlin: Mr. Bonness also suggested to the Board that the Community Traffic Safety Team review the ordinance, which is scheduled for this Thursday.

[Mr. Matonti asked each committee member who submitted written comments on the draft ordinance to summarize them for the group.]

Mr. Musico: my comments were intended to address what the regulations should reasonably be rather than contort the ordinance. Mr. Musico provided details on the classes of bicycles and micromobility and their use. Mr. Bonness: ebikes that go slower speeds than speed limits should not be in those roadways. Similarly, bicycles going over 30 mph should not be in bike lanes. Mr. Musico agreed.

Mr. Bonness: Definitions of sidewalks and facilities need to be expanded. An ordinance works better for an urban area than county-wide because of the variety of facilities. Regarding prohibitions against bicycles on sidewalks, we don’t want to put those under 16 years of age under restrictions that are overly restrictive. Schools only build the sidewalks on one side of the road. Much of the roadways in the County do not have double sidewalks. These kids use ebikes. Mr. Bonness then described State Statute 316.125 regulating cycling, which requires vehicle drivers to look both ways before crossing a sidewalk. Mr. Komanecky: The way the statute is, the bicyclist
can be on the sidewalk going any direction and the onus is on the vehicle to stop? Mr. Bonness: Yes, it says you need to stop before entering the sidewalk and yield to bicycle and pedestrian traffic. Ms. Halman: is there an age limit for riding an ebike? Mr. Bonness: I don’t think there is. Ms. Halman: there should be. Ms. Komorny: kids don’t know the laws and no one follows them anyway, so who’s to say about ebikes? Mr. Musico: if there’s no ordinance, then the police have no right to stop them. Mr. Bonness: bikes and pedestrians have to follow the crossing signs. Ms. Komorny stressed the importance of education. Mr. Bonness: the regulations require that bikes yield to pedestrians on the sidewalks. The ambiguity is with other forms of micromobility that aren’t bikes. Ms. Komorny understands that electric skateboards are not allowed on sidewalks in Florida and Mr. Bonness concurred. Ms. Halman: we need more education.

[Mr. Matonti invited other committee members to add their comments.]

Ms. Huff: it should be on driver’s education for licensing, but probably also younger than that, like in schools. Mr. Bonness: agree that education is effective. In the Miami area, this was done in public schools with WalkSafe and BikeSafe courses, which resulted in a dramatic decrease in crashes.

Mr. Komanecky: At a high level, this must be very simple for the general public to be able to understand. Bikes should be able to go both ways on the sidewalk and drivers should be careful. The onus should be on the drivers for looking both ways. Trying to limit flow to the direction of traffic brings ambiguity given the state of the roads. I feel ebikes should be allowed on sidewalks. I like the idea of lower speed limit areas for ebikes on sidewalks. I’d keep escooters off the sidewalks because they’re harder to control on sidewalks. I’m not in agreement with overly restricting use of bikes on sidewalks.

Ms. Sproviero: I agree with speed limits. I disagree with keeping bikes following flow of traffic because it is impractical with the state of the roads. I like going back to State Statute 316.125, as it is the simplest way to write this ordinance.

Ms. Halman: the ordinance should address recumbent bikes and trikes – handicapped people use these, and motorized bikes are fast coming up behind them.

Mr. Dondanville: if people are on the street going the wrong way that is against the law. Law enforcement could do education for them. This happens on US 41, where people go to the restaurants. There is a language barrier.

Mr. Matonti noted that the agenda packet includes Mr. Phelan’s and Ms. Fendrick’s comments. Mr. Phelan’s comment is that ebikes should be allowed on sidewalks and crosswalks where there is no marking on the roadway. Ms. McLaughlin briefly summarized Ms. Fendrick’s comments: She is concerned there is an incomplete network with a lack of alternate facilities without bikeways on the main arterials and if ebikes are prohibited from using sidewalks, they can’t be used at all. It isn’t safe to put bikes in 45 mph traffic. Enforcement is going to be a
problem. She recognizes a majority of the ebike riders are workers using them for transportation. She also goes into how a shared use path is different from a sidewalk.

Ms. Jacob: I like the idea of the speed limit to get motorized bikes off sidewalks. I like the use of sidewalks in both directions. I like to be able to see the bike approaching from the front. Ms. Halman: The situation itself is difficult. Ms. Huff: It’s up to local governments to deal with ebikes and that’s how it should be given the unique nature of each. A problem is how people ride the wrong way down US 41 and East Naples on the street. There’s got to be something to protect them like a bike path. There is a bike path on CR 951. Education needs to be addressed. Blue Zones addresses this.

[Mr. Matonti invited comments from members of the audience.]

Sergeant Horowitz: We run programs giving out helmets to kids on scooters, bikes, etc., for those who can’t afford them. Florida State Statute requires them to wear helmets. We host the Collier County Fun Night Out in each part of the County to supply free food, raffles, baby seats, and helmets. The Sheriff’s Office has received two grants - a $100,000 grant for the traffic on the interstate and an HVE grant - High Visibility Enforcement - for $30- to $40,000 for pedestrian bicycle safety. We can only go to the areas and times allowed by the grant.

Regarding education in certain areas, there are culture barriers. There is already an uptick in bicycle fatalities this year. There is an uptick in ebike and micromobility purchases. Unlicensed or suspended license drivers get these. And now there’s a loophole that these vehicles go at high speeds without a license. Section 316.003(23) of the Florida Statutes was implemented in the past year or two for ebikes. It describes classes of ebikes: 1, 2, and 3. It says the regulations for ebikes – they should have all the rights and all the duties of a bicycle. It is a vehicle to the same extent as a bicycle. I’ve never seen a bicycle go as fast as 28 mph. Most ebike people aren’t wearing helmets. We’ve also had issues with golf carts and where they go on the roadways. Every day, there is an issue with a bike or a pedestrian crossing the road. There is a shortage of personnel in the Sherriff’s office. People are definitely crossing US 41 – I’ve seen a mother and her 5-year-old child doing so. There are also problems with motorists passing stopped school buses letting children out.

Mr. Matonti: Are scooters allowed on the roadway? Sergeant Horowitz: I don’t believe they are. You can tell by the size of the cc (cubic centimeters) of the motor whether it is or isn’t. This dictates whether they need a license plate. At the same time, they can’t inhibit the flow of traffic. There are only three places to fit these forms of mobility: roadway, sidewalk, and bicycle lane; and each has their limitations and potentials of conflict with other users. This applies to golf carts too. Florida Statute 316.212 details these. Ms. Sproviero: What are your thoughts on speed limits for these? Sergeant Horowitz: It’s possible. There’s just so many of these forms of mobility. There’s a few ways to detect speed: visual estimation, which can be done within a 3 mph margin of error by trained officers, and radar guns. Speed limit signs need to be DOT
approved. Tickets are good, as a means of education, whether it’s a fine or a warning. If the speed limit signs are there, we will enforce them.

**Ms. Avola-Brown**: The ordinance will be hard to enforce. Florida Statute 316.125 is solid; Florida is and has been in the top three for bike/ped fatalities in the country. We are not going to see a change in behavior if we put the blame on the vulnerable road user. If you are in a 5,000-pound vehicle, you need to be responsible. Until we get drivers to put down their phones and obey the speed limits, things won’t change.

**Mr. Beauvoir**: I see rules in the ordinance but not solutions. What are we doing to mitigate these issues? I’ve measured the bike lanes. They’re 4 feet. Compared to other international cities, which separate slower vehicles from faster bigger vehicles, this is different where they segregate bicycle traffic from vehicles that go faster. Their lanes are much wider. Bike paths that are colorized with clear markings on them are used. What are we doing to create a solution for bicyclists? Because their use is growing.

**Ms. Sproviero**: We need to make the ordinance make sense in our current infrastructure.

**Mr. Beauvoir**: Enforcement is just one side of the coin. For the ordinance to take effect, infrastructure needs to be considered. There needs to be a balance between the two.

**Mr. Matonti**: The ordinance is around safety and simplicity, regulation of speed and the right of movement for all users. The ebikes and motorized scooters are unsafe on the sidewalks at certain speeds. I don’t think these are in-line with the regular bike. I don’t like how the ordinance is currently written.

**Mr. Musico**: The ordinance should focus on these issues:

1. The highest speed bikes, class 2 and 3 operating on sidewalks, must use bike lanes where available.
2. If operating on the sidewalk, there should be a speed limit – I think 10 mph.
3. No gas vehicles on the sidewalks.
4. Give governmental agencies responsibility for managing greenways to make higher speeds allowable.

**Mr. Matonti**: On that note, the definitions need to be written to define sidewalk, shared use path, greenway, etc.

**Ms. Lantz**: 8 feet is the minimum for a multi-use pathway, and six feet for sidewalk, but at certain times, things were built differently.

**Ms. Halman**: I think we’re trying to solve a problem that we can’t solve.

**Sergeant Horowitz**: There is another statute, 316.208, which regulates mopeds.
Ms. Halman: Just because this is an advisory body, doesn’t mean we need to come up with a solution.

Ms. McLaughlin: I’ve heard the committee say that with so many exceptions, the ordinance can be untenable. Another, from Pierre to build a system to accommodate all users. Until then, the best solution is the laws that already exist. What also could be done is to ask for an extension for discussion.

Mr. Matonti: To concur with Pierre, the system does not supply the infrastructure needed to accommodate an ordinance.

Mr. Musico: When so many exceptions are made, it shows that the fundamental nature of it is flawed. Ms. Sproviero: But the exceptions can show that we’ve thought of all the ins and outs of it, what they might not have considered.

Mr. Dondanville: Motion to respond to the MPO that the ordinance has too many exceptions and that part of the solution is to build better bike-ped facilities.

[Discussion followed this on what to bring to the MPO Board.]

Mr. Matonti: With another meeting or two or three, our group can’t put together another ordinance. How about next meeting, we’ll review today’s minutes to have a complete response to provide to the MPO Board?

Mr. Dondanville: If our response is that we need more time, they could see what happened at this meeting and go forward without the comment.

Mr. Tisch: It could be more useful to give them bullet points of what is being discussed and the need further consideration.

Mr. Dondanville: Motion withdrawn.

[Discussion was made after this regarding the motion to be made.]

Ms. Avola-Brown: There already is a statute 316.125 to be enforced and educated with; the responsibility of drivers towards cyclists and pedestrians.

Mr. Dondanville moved that the issues presented regarding the Draft Pedestrian and Cyclist Safety Ordinance give BPAC concern because this ordinance would require too many exceptions to make it tenable. Enforcement and education would be difficult; and the system does not provide the infrastructure required. Exceptions, some of which are listed below, point to a lack of infrastructure to support the recent trend toward micromobility.

Power Assisted Bicycles Prohibited: No person shall ride any bicycle other than using human power upon public sidewalks except under any of the following situations:
- Roadways with speed limits over 30 mph that do not have bike lanes and right lanes are less than 14’ wide.
- Shared Use Paths
- Greenways
- Off roadway trails
- Buffered bikeways / Separated bike lanes (two-way design)

Operation with flow of traffic: Bicycle shall travel in the same direction as traffic while being operated on public sidewalks, cross walks, and intersections so that such bicycles are traveling with and not against the flow of traffic except under any of the following situations:

- Cyclist under 16 years old, and families with underage cyclists
- Shared use pathways (two-way design)
- Greenways
- Off roadway trails
- Buffered bikeways / separated bike lanes (two-way design)
- Sidewalk on right side of road is not continuous, is obstructed or when reasonably necessary to avoid any condition or potential conflict, including, but not limited to, a fixed or moving object, animal, or surface hazard, which makes it unsafe
- Roadways that only have a sidewalk on one side
- Under the direction of law enforcement officer and school safety guards

Seconded by Mr. Komanecky. Carried unanimously with abstention from Mr. Alan Musico. Motion passes.

8. Reports & Presentations (May Require Committee Action)

None.

9. Member Comments

Mr. Dondanville: Ed Finn holds the purse-strings for the County. I think it is time BPAC asks the MPO for another member to look solely at Bike-Ped issues. I spoke with Anita Jenkins who worked on the first Pathways Plan; she said the County needs a bike/ped coordinator. Ms. McLaughlin: The County might need one. The MPO cannot afford another staff member. Ms. Lantz: we have had personnel who do bike-ped. There is low planning staffing. It will be a part of a staff member’s job if fully staffed. Mr. Dondanville: how do I get the County to do it? Ms. Lantz: I am lacking the personnel because I am an interim manager and cannot backfill. Ms. McLaughlin: will you be able to devote a person to bike-ped? Ms. Lantz: I can have a staffer work on it but not it solely. Mr. Bonness: there used to be money from the FDOT. Ms. Lantz: people have been in that position, but it gets passed on.
10. **Distribution Items**

   A. **FDOT Moving Florida Forward Infrastructure Initiative Presentation**

      Item distributed.

11. **Topics for Future Meetings**

    Not addressed.

12. **Next Meeting Date**

    April 18, 2023 – 9:00 a.m., in-person only meeting, at Collier County Government Center, Bldg. F, IT Training Room, Fifth Floor, 3299 Tamiami Trail East, Naples, FL, 34112.

13. **Adjournment**

    Mr. Matonti adjourned the meeting at 11:58 a.m.
FDOT Update on the Marco Island Loop Trail Feasibility Study and Conceptual Design

**OBJECTIVE:** For the committee to receive an update and have the opportunity to ask questions and comment on the Marco Island Loop Trail Feasibility Study and Conceptual Design.

**CONSIDERATIONS:** FDOT and its consultant team, Landis Evans Partners, will give a presentation on the Marco Island Loop Trail Feasibility Study. The presentation, shown in Attachment 1, is anticipated to take approximately thirty minutes. FDOT will present to City of Marco Island City Council, TAC, and CAC on May 22nd and the MPO Board on June 9th. The current draft report dated April 20, 2023 is provided in Attachment 2. The anticipated completion date for the final report is approximately two weeks after Collier County Board of County Commissioners on June 13th.

A copy of the County Transportation Planning Division’s comments on a previous draft version of the report is provided in Attachment 3. A copy of a letter received from a Marco Island Resident and the MPO’s response is shown in Attachment 4.

**STAFF RECOMMENDATION:** That the committee receive an update and have the opportunity to ask questions and comment on the Marco Island Loop Trail Feasibility Study.

Prepared By: Sean Kingston, AICP, Principal Planner

**ATTACHMENT(S):**

1. FDOT Presentation on the Marco Island Loop Trail Feasibility Study and Conceptual Design
2. FDOT Draft Trail Alternatives Evaluation Report (4/20/23)
3. County Transportation Planning Comments (4/27/23)
4. Marco Island Resident Letter and MPO Response
Marco Island Loop Trail
Feasibility Study and Conceptual Design

May 16, 2023 | Collier MPO BPAC Meeting
Presentation Outline

- Current Schedule
- Project Description
- Project Purpose & Need
- Existing Conditions
- Issues and Opportunities
- Preliminary concepts
- Public Engagement
- Trail Alternatives Evaluation
## Schedule

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**Project: Marco Loop Trail**

**Date: Wed 4/5/23**
Project Stakeholders

MPO Citizens Advisory Committee | Marco Island Bike Path Committee
MPO Bicycle Ped Advisory Committee | Manatee Elementary School
Manatee Middle School | Friends of the River of Grass

THANK YOU!
Project Description

• Multi-use trail
  • S.R. 951 (Collier Boulevard)
  • C.R. 92 (San Marco Road)
• Marco Loop Trail
  • SUNTrail
  • Spine Trail Network
  • Land Trail Opportunity Trail/Corridor
• Connects to
  • Marco Island Bike Path Master
  • NPC Paradise Coast Trail Vision
Purpose & Need

The purpose of the project is to enhance the regional bicycle and pedestrian network connecting Marco Island to the Shared-Use Nonmotorized (SUN) Trail facility along U.S. 41. Additionally, the project will improve bicycle and pedestrian safety in the study corridors.
Purpose & Need

- Safety: Improve safety conditions
- System linkage: Improve bicycle and pedestrian connectivity
- Social and economic demand: Enhance mobility choices and provide social benefits through outdoor recreation
Planning Process

Twelve-month planning effort which included research and analysis, field work, stakeholder input, and public outreach. The project was organized into the following five tasks:

- Task 1: Project Start Up
- Task 2: Research and Analysis / Existing Conditions
- Task 3: Alternative Assessment / Public Engagement
- Task 4: Development of Draft Trail Alternatives Evaluation Report
- Task 5: Final Trail Alternatives Evaluation Report
Issues

• Both corridors have limited space to construct multi-modal facilities

• Environmentally sensitive lands abut the roadways
Opportunities

• Bear Point Canoe and Kayak Launch – Review connection to facilities

• Old Goodland Bridge – Possible location for trail facilities

• Makeshift Boat Launch - Possible location for county amenities

• Trailheads
Summary of Public Engagement

Jerry Adams Chili Cook-Off  
Saturday, November 12, 2022

Marco Island Farmers Market  
Wednesday, December 7, 2022

Public Outreach Online Survey*  
November 12th, 2022, through January 16th, 2023

* Included email blasts to HOA, Chamber of Commerce, City of Marco Island, Local Schools and CAT
Survey Results – Quantitative

Walking Frequency
- Often (2-7 days per week): 9.81%
- Sometimes (1-4 days per month): 14.72%
- Rarely (1-11 day per year): 73.58%

Bicycling Frequency
- Often (2-7 days per week): 12.83%
- Sometimes (1-4 days per month): 20.38%
- Rarely (1-11 day per year): 66.42%

264 Total Responses

Key takeaways:

• ~ 3 out of 4 walkers and 2 out of 3 bicyclists walk or bike 2 to 7 days out of the week
• ~ 7 out of 8 walkers and 6 out of 7 bicyclists walk or bike for exercise or leisure purposes
Survey Results – Quantitative

Considerations Impacting a Decision to Walk or Bike

Key takeaways:

Participants considered Safety and Driver Behavior the most important of these considerations when asked to rank the importance of these considerations in deciding whether to walk or bike.
Survey Results – Qualitative Challenges

- Greatest opportunities identified by participants related to safety (39 responses) and separated facilities (37 responses).

- Greatest challenges identified by participants related to right of way, land availability, and environmental constraints (50 responses) followed by cost (30 responses), safety and separated vehicle facilities (both 24 responses).

- Most desired trail elements and features identified by participants were more space/wider path (47 responses), separated vehicle facilities (43 responses), amenities such as shade, benches, water fountains, restrooms etc. (35 responses).
Desired Multimodal Improvement for S.R. 951

Option 1: 0.39% Respondents
- No Build

Option 2: 7.75% Respondents
- 7' Buffered Bike Lane

Option 3: 17.44% Respondents
- 5' Sidewalk

Option 4: 31.01% Respondents
- 10' Shared Use Path

Option 5: 43.41% Respondents
- 10' Shared Use Path + 7' Buffered Bike Lane
Desired Multimodal Improvement
S.R. 951 – Southern Bridges

1.6% Respondents
No Build

Option 1

8.4% Respondents
7' Bike Lane

Option 2

42% Respondents
5' Sidewalk + 7' Bike Lane

Option 3

48% Respondents
10' Shared Use Path

Option 4

No Build
7' Bike Lane
5' Sidewalk + 7' Bike Lane
10' Shared Use Path

Option 1
Option 2
Option 3
Option 4

Desired Multimodal Improvement for the S.R. 951 Bridges

Option 1, 1.60%
Option 2, 8.40%
Option 3, 42.00%
Option 4, 48.00%
Desired Multimodal Improvement
S.R. 951 – Henderson Creek Bridge (435111-2)
Desired Multimodal Improvement
C.R. 92 - Roadway

0.40% Respondents
No Build

3.56% Respondents
4' Bike Lane

11.46% Respondents
7' Buffered Bike Lane

25.3% Respondents
5' Sidewalk + 4' Bike Lane

0.40% Respondents
No Build

3.56% Respondents
4' Bike Lane

11.46% Respondents
7' Buffered Bike Lane

25.3% Respondents
5' Sidewalk + 4' Bike Lane

Desired Multimodal Improvement for C.R. 92
Option 1, 0.40%
Option 2, 3.56%
Option 3, 11.46%
Option 4, 25.30%
Option 5, 23.32%
Option 6, 35.97%
Desired Multimodal Improvement
C.R. 92 Bridge

Option 1
- 6.4% Respondents
- No Build

Option 2
- 43.8% Respondents
- 10' Shared Use Path

Option 3
- 49.8% Respondents
- 8' Shared Use Path

Pie chart showing:
- Option 1, 6.37%
- Option 2, 43.82%
- Option 3, 49.80%
Trail Alternatives Evaluation

Categories Analyzed:

• Purpose and Need
• Public Support
• Sociocultural Resources
• Floodplains and Wetlands
• Utilities
• Geotechnical and Contamination
• Drainage and Permitting
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Note:  
1. The construction costs shown do not reflect project unknowns and are only calculated based on the features present in the typical sections.  
2. For Public Support Ranking, a "**" means that this typical section was either developed after the public input and the ranking is based on the most comparable typical section.  
3. No construction costs are associated to alternatives that identify no roadway widening, as these improvements can be implemented during the next RRR project for the roadway.  
4. Though there are utilities along the project corridor, no utilities are anticipated to be impacted based on the recommendations of this feasibility study.  
5. Impacts for each alternative were calculated within the existing right of way.
Trail Alternatives Evaluation
Recommended Facilities for PD&E

**S.R. 951**

- **Option 3**: 5’ Sidewalk
- **Option 4**: 10’ Shared Use Path
- **Option 5**: 10’ Shared Use Path + 7’ Buffered Bike Lane

**C.R. 92**

- **Option 4**: 5’ Sidewalk + 4’ Bike Lane
- **Option 5**: 8’ Cycle Track
- **Option 6**: 10’ Shared Use Path
Trail Alternatives Evaluation
Possible Amenities for Facilities

- Trailheads
- Wayfinding
- Transit Stops
- Signal Enhancements
- Midblock Crossings
- Lighting
- Call Boxes
- Trash Receptacles
- Trail Counts Stations
- Mile Marker Information in QR codes
- Mile Marker Symbols
- Shade
Marco Island Loop Trail
Feasibility Study and Conceptual Design
May 16, 2023 | Collier MPO BPAC Meeting
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Appendix B – Marco Island Loop Trail Feasibility Study – Summary of Public Engagement
Appendix C – Marco Island Loop Trail Feasibility Study – Utility Coordination
Appendix D – Marco Island Loop Trail Feasibility Study – Cost Estimate Back-up
Appendix E – Marco Island Loop Trail Feasibility Study – Concept Plans
PROJECT CONTEXT

The purpose of this project is to support the Florida Department of Transportation (FDOT) District One, in partnership with the City of Marco Island, Collier County, and Collier Metropolitan Planning Organization (MPO), to evaluate the feasibility of a shared use path (SUP) along State Road (S.R.) 951 (Collier Boulevard) and County Road (C.R.) 92 (San Marco Road) and determine a preferred design concept for implementation that will complete the Marco Island Loop. The terminology “trail” has been retained in certain instances as previous studies and investigations utilized the term. The MPO’s 2019 Bike-Ped Master Plan identifies the corridor as part of its Shared-Use Nonmotorized (SUN) Trail and Spine Trail Network. It is also identified as a Land Trail Opportunity Trail/Corridor on the Florida Greenways & Trails System and will connect the City of Marco Island Bike Path Master Plan and the Naples Pathways Coalition Paradise Coast Trail Vision. This study will determine the need for a subsequent Project Development and Environment (PD&E) Study based on the potential project effects, right-of-way requirements, and in consideration of the potential use of federal funds for future project phases.

The project includes two study corridors and will generally evaluate the feasibility of a shared use path to be implemented on either side of the roadway. The first corridor is along S.R. 951 from the Judge Jolley Bridge to United States (U.S.) 41. The second corridor is along C.R. 92 from Goodland Road to U.S. 41. Together, these segments will close the pedestrian and bicycle loop connecting the City of Marco Island with U.S. 41. The project location is shown in Figure 1.
Purpose and Need

The purpose of the project is to enhance the regional bicycle and pedestrian network connecting the City of Marco Island to the Shared-Use Nonmotorized (SUN) Trail facility along U.S. 41. Additionally, the project will improve bicycle and pedestrian safety in the study corridors.

The need for the project is based on the following criteria:

Safety:

*Improve safety conditions*

Safety plays an important role in deciding to utilize a facility. Along S.R. 951, the majority of the study corridor has no sidewalks, so nonmotorized vehicular travel must utilize the shoulder or share the travel lanes where the posted speed ranges from 35 MPH to 55 MPH. Along C.R. 92, the roadway has no sidewalks or paved shoulders along a roadway posted at 55 MPH.
System linkage:

*Improve bicycle and pedestrian connectivity*

The proposed project aligns with the goals of the City of Marco Island and Collier County to “provide a safe comprehensive bicycle and pedestrian network that promotes and encourages community use and enjoyment” (Collier MPO Bicycle/Pedestrian Master Plan’s Vision). The project would create a connected multimodal transportation system that links the existing network in the City of Marco Island to the statewide SUN Trail network along U.S. 41.

Social and economic demand:

*Enhance mobility choices and provide social benefits through outdoor recreation*

The Florida Department of Environmental Protection (FDEP) Division of Recreation and Parks oversees the Florida Greenways and Trails System (FGTS). Studies demonstrate that outdoor recreation delivers personal and social benefits on which healthy, happy communities thrive (FGTS Plan 2019-2023). These study corridors have been identified as a Land Trail Opportunity Trail/Corridor in the plan. Shared use path benefits identified in the plan include economic development, opportunities to support active lifestyles and improve overall health, and increased transportation choices.

FDOT District One will continue to coordinate with the City of Marco Island and Collier MPO to ensure that the project promotes consistency with local government comprehensive and transportation plans.

Planning Process

This document represents the culmination of a twelve-month planning effort which included research and analysis, field work, stakeholder input, and public outreach. The project was organized into the following five tasks:

- Task 1: Project Start Up
- Task 2: Research and Analysis / Existing Conditions
- Task 3: Alternative Assessment
- Task 4: Development of Draft Trail Alternatives Evaluation Report
- Task 5: Final Trail Alternatives Evaluation Report
An Existing Conditions Report was developed for Task 2 and is provided in **Appendix A.** As part of the planning process, the public engagement consisted of two main components:

- **Pop-up Events:**
  - Jerry Adams Chili Cook-Off - November 12, 2022
  - Marco Island Farmers Market - December 7, 2022
- **Online Questionnaire**

These components are discussed in later sections.
FEASIBLE ALTERNATIVES

Through the process of the Feasibility Study, the different options and uses took into consideration compatibility with planning efforts for the state, county, and local levels while meeting current design standards. Throughout the existing conditions assessment and stakeholder and public engagement, several options were evaluated for the multimodal improvements along S.R. 951 and C.R. 92. Feasible options were identified based on their consistency with the project purpose and need, as well as the roadway characteristics, operational conditions, safety concerns, and physical constraints documented in the Existing Conditions Report. These factors, as well as input from project stakeholders, provide the baseline from which potential options were considered.

This section will briefly outline each of the evaluated options that will move forward for consideration, in addition to other considerations. A preferred alternative will not be selected as part of this Feasibility Study. However, should the project move forward into a Project Development and Environment (PD&E) Phase, all options should be further assessed utilizing more refined data, and a preferred alternative should be selected.

Corridor Segments

The two corridors within the study, S.R. 951 (Collier Boulevard) and C.R. 92 (San Marco Road), are unique and differ in physical characteristics and right of way availability. While S.R. 951 is a four-lane divided highway with a raised, curbed median and outside flush shoulders, C.R. 92 is an undivided, two-lane roadway with no paved outside shoulders. Current zoning and future land use designations within the study corridors are primarily conservation lands and residential for S.R. 951 and conservation lands for C.R. 92.

Based on physical conditions, adjacent land use, and available right-of-way along the length of S.R. 951, the corridor has been separated into four segments:

- Segment 1 – Judge Jolley Bridge to Capri Boulevard
- Segment 2 – Capri Boulevard to Marco Shores/Mainsail Drive
- Segment 3 – Marco Shores/Mainsail Drive to Fiddlers Creek Parkway
- Segment 4 – Fiddlers Creek Parkway to Henderson Creek Drive

C.R. 92 will be analyzed as a whole corridor.
Multiple design concepts were developed and presented to the public through an online survey. Each concept provided varying approaches to the different modes of transportation that meet current design standards, providing facilities for pedestrians and bicyclists while minimizing impacts to environmentally sensitive lands.

1) No Build – Bicyclists are accommodated on existing 5'-paved shoulders and no facilities are provided for pedestrians.

2) 7' Buffered Bike Lane – Bicyclists are accommodated on a widened shoulder with a 7' buffered bike lane, and no facilities are provided for pedestrians.

3) 5' Sidewalk – Bicyclists are accommodated on existing 5'-paved shoulders and a 5' sidewalk, offset 5’ from the shoulder point (15’ from the edge of travel lane), is provided for pedestrians.

4) 10' SUP – Bicyclists are accommodated on existing paved shoulders and a 10' SUP, offset 5' from the shoulder point (15’ from the edge of travel lane), is provided for pedestrians and bicyclists.

5) 10' SUP and 7' Buffered Bike Lane – Bicyclists are accommodated on a widened shoulder with a 7' buffered bike lane, and a 10' SUP, offset 5’ from the shoulder point (15’ from the edge of travel lane), is provided for pedestrians and bicyclists.

6) 7' Buffered Bike Lane (no widening) – Bicyclists are accommodated on a 7' buffered bike lane created by reducing the travel lane widths to 11’. No facilities are provided for pedestrians.

7) 10’ SUP and 7’ Buffered Bike Lane (no widening) – Bicyclists are accommodated on a 7’ buffered bike lane created by reducing the travel lane widths to 11’. A 10’ SUP, offset 5’ from the shoulder point (15’ from the edge of travel lane), is provided for pedestrians and bicyclists.
Note: Graphics were created utilizing Streetmix (https://Streetmix.net)
S.R. 951 (Collier Boulevard) – Bridge Options

S.R. 951 Bridge over McIlvane Bay and S.R. 951 Bridge over McIlvane Creek

Located between Capri Boulevard and Marco Shores/Mainsail Drive, these bridges have a clear roadway width of 90’. Four options were created for these bridges:

1) No Build – Bicyclists are accommodated on existing 10’ bridge deck shoulders and no facilities are provided for pedestrians.

2) Buffered Bike Lane – Bicyclists are accommodated on a designated 7’ buffered bike lane and no facilities are provided for pedestrians.

3) Barrier Separated Sidewalk – Bicyclists are accommodated on a designated 7’ buffered bike lane and a barrier separated sidewalk is provided for pedestrians. The median would be reconstructed on the bridge deck and reduced in width.

4) Barrier Separated SUP – Bicyclists are accommodated on a designated 7’ buffered bike lane and a barrier separated SUP is provided for pedestrians and bicyclists. The median would be reconstructed on the bridge deck and reduced in width.
NB and SB S.R. 951 over Henderson Creek

Located between Fiddlers Creek Parkway and Henderson Creek Drive, this structure consists of twin bridges having a clear roadway width of 40’. Two options were created for these bridges.

1) No Build – Bicyclists are accommodated on existing 10’-bridge deck shoulders and no facilities are provided for pedestrians.

2) Barrier Separated SUP – A barrier separated SUP is provided for pedestrians and bicyclists. Access to and from the SUP would be provided prior to the bridge.

C.R. 92 (San Marco Road) – Shared Use Path Design Options

Six options were developed for C.R. 92. These options would be constructed on the West side of the roadway just in front of the existing power poles.

1) No Build – Bicyclists utilize the existing travel lanes, and no facilities are provided for pedestrians.

2) Paved Shoulder Bike Lanes – A 4’ paved shoulder would be constructed abutting the travel lanes and no facilities are provided for pedestrians.

3) 7’ Buffered Bike Lane – Bicyclists are accommodated on a newly constructed 7’ buffered bike lane and no facilities are provided for pedestrians.

4) Paved Shoulder Bike Lanes and Sidewalk – A 4’ paved shoulder would be constructed abutting the travel lanes and a 5’ sidewalk, offset 5’ from the edge of travel lane is provided for pedestrians.
5) Adjacent Asphalt Path – A 10’ paved path would be constructed abutting the westbound travel lane providing a 2’ buffer and 8’ path. A similar treatment was constructed by Collier County in 2021 along Goodland Drive.

6) 10’ SUP – Bicyclists utilize the existing travel lanes, and a 10’ SUP, offset 5’ from the edge of travel lane, is provided for pedestrians and bicyclists.
C.R. 92 (San Marco Road) – Bridge Options

C.R. 92 over Drainage Canal (Bridge No. 034128)

This bridge has a clear roadway width of 40’. Three options were created for this bridge:

1) No Build – Bicyclists utilize the existing travel lanes prior to the bridge where they can be accommodated on existing 8’-bridge deck shoulders and no facilities are provided for pedestrians.

2) Barrier Separated 10’ SUP – A barrier separated SUP is provided for pedestrians and bicyclists. The remaining bridge deck width would accommodate two 12’ lanes with 2’-outside shoulders.

3) Barrier Separated 8’ SUP – A barrier separated SUP is provided for pedestrians and bicyclists. The remaining bridge deck width would accommodate two 11’ lanes with 4’ outside shoulders.

![Alternative 1](image1)
![Alternative 2](image2)
![Alternative 3](image3)
Goodland Bridge

This bridge has a clear roadway width of 42’. The three previous options were utilized for this bridge with the additional width applied to the outside shoulders.

1) No Build – Bicyclists utilize the existing travel lanes prior to the bridge where they can be accommodated on existing 10’-bridge deck shoulders and no facilities are provided for pedestrians.

2) Barrier Separated 10’ SUP – A barrier separated SUP is provided for pedestrians and bicyclists. The remaining bridge deck width would accommodate two 12’ lanes with 4’-outside shoulders.

3) Barrier Separated 8’ SUP – A barrier separated SUP is provided for pedestrians and bicyclists. The remaining bridge deck width would accommodate two 11’ lanes with 6’-outside shoulders.

Public Engagement

The public engagement consisted of two main components:

- Pop-up Events:
  - Jerry Adams Chili Cook-Off - November 12, 2022
  - Marco Island Farmers Market - December 7, 2022

- Online Questionnaire - November 11, 2022 to January 16, 2023

The online questionnaire received 230 responses through the website and an additional 34 responses were completed at the Farmers Market. At the events, post card handouts were distributed which provided a brief project description, project location map, and project website. Following the first event at the Jerry Adams Chili Cook-Off, email notifications were sent to the City of Marco Island Chambers of Commerce, City of Marco Island, Collier Area Transit, adjacent Home Owner Associations within the study area, and local schools providing project information and the survey link. A summary of the public engagement can be found in Appendix B.

Speed Management

Speed management is a critical element of the Safe System Approach, which is a guiding paradigm adopted by the U.S. DOT to address roadway safety. Studies clearly show that higher speeds result in greater impact at the time of a crash, which leads to
more severe injuries and fatalities. This is especially concerning for more vulnerable road users, such as motorcyclists, bicyclists, and pedestrians. To support efforts in speed management, FHWA, through its Proven Safety Countermeasure Initiatives program, promotes the implementation of several proven speed management countermeasures including variable speed limit systems, speed safety cameras, and setting appropriate speed limits for all road users. FDOT further identifies speed management techniques in chapter 202 of the FDOT Design Manual (FDM). From Table 202.3.1 Strategies to Achieve Desired Operating Speed, for context classifications C3R and C3C, the following strategies are appropriate for a target speed of 40-45 mph: Roundabout, Lane Narrowing, Horizontal Deflection, Speed Feedback Signs, Rectangular Rapid Flashing Beacons and Pedestrian Hybrid Beacons.

Utilities

Utility Coordination

The preliminary utility coordination and investigation effort was conducted through written and verbal communications with the existing utility owners. A Sunshine State 811 of the Florida Design Ticket System listing of existing utility owners was acquired on February 15, 2023. (Appendix A).

Initially, verbal and written communication was made to all utility’s owners outlining the investigation effort along with the project limits. The list of Utility Agency Owners (UAO) known to operate utilities within the project corridor is shown in Table 1.
Table 1: Utility Contact Information

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<td>COLLIER COUNTY TRAFFIC OPERATIONS</td>
<td>PAM WILSON</td>
<td>239-252-8260</td>
<td><a href="mailto:pamela.wilson@colliercountyfl.gov">pamela.wilson@colliercountyfl.gov</a></td>
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<td>COLLIER COUNTY BCC ROAD MAINTENANCE</td>
<td>JOHN FURLONG</td>
<td>239-252-8924 Ext: 2782</td>
<td><a href="mailto:john.furlong@colliercountyfl.gov">john.furlong@colliercountyfl.gov</a></td>
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<td>MARCO ISLAND UTILITIES</td>
<td>MICHAEL EHLEN</td>
<td>239-389-5186</td>
<td><a href="mailto:mehlen@cityofmarcoisland.com">mehlen@cityofmarcoisland.com</a></td>
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<tr>
<td>CENTURYLINK</td>
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</tr>
<tr>
<td>COLLIER COUNTY STAKE &amp; LOCATES</td>
<td>STEPHEN SARABIA</td>
<td>239-252-5924</td>
<td><a href="mailto:Stephen.Sarabia@colliercountyfl.gov">Stephen.Sarabia@colliercountyfl.gov</a></td>
</tr>
<tr>
<td>COMCAST</td>
<td>CHAD EVENER</td>
<td>941-356-1564</td>
<td><a href="mailto:chad.evener@cable.coman.com">chad.evener@cable.coman.com</a></td>
</tr>
<tr>
<td>FLORIDA POWER &amp; LIGHT</td>
<td>JOEL BRAY</td>
<td>386-586-6403</td>
<td><a href="mailto:joel.bray@fpl.com">joel.bray@fpl.com</a></td>
</tr>
<tr>
<td>HOTWIRE COMMUNICATIONS</td>
<td>WALTER DAVILA</td>
<td>954-699-0900</td>
<td><a href="mailto:walter.sancho-davila@hotwirecommunication.com">walter.sancho-davila@hotwirecommunication.com</a></td>
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<tr>
<td>LEE COUNTY ELECTRIC CO-OP</td>
<td>TOM BAILEY</td>
<td>239-656-2414</td>
<td><a href="mailto:tom.bailey@lcec.net">tom.bailey@lcec.net</a></td>
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<tr>
<td>CROWN CASTLE NG</td>
<td>FIBERDIG TEAM</td>
<td>888-632-0931 Ext: 2</td>
<td><a href="mailto:fiber.dig@crownncastle.com">fiber.dig@crownncastle.com</a></td>
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<td>SUMMIT BROADBAND</td>
<td>MICHELLE DANIEL</td>
<td>407-996-1183</td>
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<tr>
<td>TECOPEOPLES GAS-FT MYERS</td>
<td>JOAN DOMNING</td>
<td></td>
<td><a href="mailto:joan.domning@tecoenergy.com">joan.domning@tecoenergy.com</a></td>
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<tr>
<td>CENTURYLINK (LUMENS)</td>
<td>NETWORK RELATIONS</td>
<td>877-366-8344 Ext: 2</td>
<td><a href="mailto:relocations@lumen.com">relocations@lumen.com</a></td>
</tr>
</tbody>
</table>

For the report’s preparation, utility owners were provided aerials depicting the project limits along S.R. 951 and C.R. 92. Using these aerial plans as a base map, each utility owner was asked to indicate their existing and proposed utilities as well as any easements that may affect their reimbursement rights for potential relocations of their facilities. In response, most utility owners replied via written communications. The utility owners provided the requested information concerning their facilities using either the utility plans or reference documentation (i.e., “As Built” or GIS maps). “Marked” Plans or reference documentation received from the Utility Agency Owners is outlined below.

*Existing Utility Facilities Description*

Responses from the UAOs are provided in Appendix C.

Collier County Traffic Operations – No response.
Collier County BCC Road Maintenance – No response.
Marco Islands Utilities – No response.
Centurylink – No response.
Collier County Stakes and Locates (Water/Sewer)

For the S.R. 951 corridor, a 12” PVC water main on the north side of Capri Boulevard intersects S.R. 951. The water main is located along the west side of S.R. 951 for approximately 400 feet before crossing to the median of S.R. 951. The water main continues in the location until Marco Shores, where it shifts to the east side of the corridor.

At Port Au Prince Road, a 10” PVC water main joins the 12” PVC water main on the east side. Also, a 4” PVC sewer main on the north side of Port Au Prince Road intersects an 8” DIP sewer main along the east side of the corridor. The two water mains and sewer main continue north on the east side of the corridor to Manatee Road.

At Manatee Road, a 10” AC water main, 20” PVC water main and 16” PVC water main intersect the two water mains from the south. A 20” PVC water main continues north on the east side of the corridor. A 10” PVC sewer main intersects the 12” PVC sewer main. The 12” PVC sewer main continues north on the east side of the corridor.

At the bridge, just north of Riverwood Road, the 20” PVC water main switches to a 20” DP water main. The water main and sewer main continue north to the intersection of U.S.41. Connections to the water mains are located at the following side roads:

- Marco Shores
- Fiddlers Creek Parkway
- Port Au Prince Road
- Championship Drive
- Diamond Lake Circle
- Manatee Road
- Tower Road
- Henderson Creek Drive
- Eagle Creek Drive

Connections to the sewer main are located at the following side roads:

- Port Au Prince Road
• Championship Drive  
• Diamond Lake Circle  
• Manatee Road  
• Tower Road  
• Henderson Creek Drive

For the C.R. 92 corridor, a 6” PVC sewer main is located on the east side of C.R. 92 from the U.S. 41 intersection for approximately 1,000 feet south, where it ties to a private sewer main for the Collier-Seminole State Park. An 8” water main owned by Collier-Seminole State Park is located on the west side of C.R. 92 from the U.S. 41 intersection for approximately 1,050 feet south before crossing C.R. 92 and entering Collier-Seminole State Park.

Comcast – No response.  
Florida Power and Light – No response.  
Hotwire Communications
No facilities email received February 17, 2023, from Walter Sancho-Davila.  
Lee County Electric Co-op

Along S.R. 951, from Judge Jolly bridge to U.S. 41, there is a transmission line on the west side of the corridor.

Along C.R. 92, south of Goodland Dr, there are primary and secondary overhead facilities on the west side of C.R. 92. Along Goodland Drive, there is a primary overhead facility along the south side, crossing C.R. 92 to connect the facilities on the west side of C.R. 92.

Along C.R. 92, at the bridge, the primary facility is underground. After the bridge, the primary underground facility crosses C.R. 92 to the east side of the road. The facility then becomes a primary overhead facility. The overhead facility crosses back to the west side of C.R. 92.

From north of the bridge to U.S. 41, the primary overhead facility is on the west side of the corridor. Near the intersection of U.S. 41, primary and secondary overhead facilities cross C.R. 92 to the east side to provide power to the Collier-Seminole State Park campsites. At the intersection, a primary overhead facility connects to the businesses in the southeast quadrant of the intersection.
Crown Castle NG

There are no facilities along S.R. 951 or C.R. 92. There are underground conduits along US 41 at the intersections with S.R. 951 and C.R. 92.

Summit Broadband – No response.

TECO Peoples Gas – Ft. Myers – No response.

Centurylink (Lumens)

Along S.R. 951, from Capri Boulevard to Championship Drive, there is an underground fiber route along the west side of the corridor. Between Championship Drive and U.S. 41, the underground fiber route is along the east side of the corridor. There are crossings at side roads along the corridor.

Along C.R. 92, from Goodland Drive to north of the bridge, there are underground local copper and fiber routes on the east side of the corridor. From north of the bridge to U.S. 41, there is an underground fiber route along the west side of the corridor. Between Curcie Road and U.S. 41, there is an underground local copper route along the east side of the roadway. The copper route crosses C.R. 92 and connects to Collier-Seminole State Park.

Trail Amenities

Essential for the success of the two trail segments, S.R. 951 and C.R. 92, both as stand-alone facilities and as part of the overall Marco Island loop, will be providing a safe, comfortable, and accessible environment. Both the segments will provide recreational opportunities as well as access to parks and recreational facilities. The S.R. 951 segment will also likely be used for access to jobs, shops, and services that encourages people to use the trail for work commutes, recreation, and social interaction. Some of the trail design elements that should be considered during evaluation of the design concepts include the following:

Trailheads

The development of trails should include consideration for trailheads. Fortunately, there are several opportunities along the trail alignments that have the potential to serve as trailheads: The Isle of Capri Paddlecraft Park is adjacent to S.R. 951 on the northwest corner of S.R. 951 and Capri Boulevard. This park includes parking, picnic pavilions, and restrooms. It also has a 6’ concrete walkway leading to the northeast side of S.R. 951.
Margood Harbor Park is located about a mile south of C.R. 92, west of the Goodland Bridge off Goodland Drive. Park amenities include parking, picnic areas, and restrooms. Access to the park would be along Goodland Drive and Pear Tree Avenue.

If these parks are to serve as trailheads, consideration should be given to providing trail-user specific enhancements. These would include bike parking, repair stations, trail maps, and trail courtesy information. Information regarding hydration and protection from sun/heat-related ailments should be included as well. Vending machines that provide trail user-friendly items such as patch kits, bike lights, CO2 canisters, sunscreen and first aid kits could be provided.

**Wayfinding**

Wayfinding should be included along the trail segments. Wayfinding should include directions to trailheads or parks. From trailhead or parks, wayfinding provides directional information to the City of Marco Island, the existing Marco Island Loop Trail on S.R. 951, and the intersection of C.R. 92 and U.S. 41. Distances to the City of Marco Island should be to the first commercial location providing access to snacks and beverages (e.g., S.R. 951 and Bald Eagle Drive, and C.R. 92 and Barfield Drive).

**Transit Stops**

The transit stops at S.R. 951 and Manatee Road already include covered benches and bicycle parking. These could be enhanced with transit schedules, or real-time bus arrival information.

**Signal Enhancements**

On S.R. 951, if the trail is located on the west side of S.R. 951, signalized intersections should be enhanced to provide pedestrian/trail features to access the west side of the roadway. This should include lighting the crosswalks to improve trail user visibility in the crosswalks.

**Midblock Crossings**

At locations where potential destinations for trail users exist, midblock crossings should be considered.
**Lighting**

In locations where lighting is not an environmental issue, trail lighting should be considered. If overhead lighting is inappropriate, the potential for path level lighting should be evaluated.

**Mile Marker Symbols**

Pavement markings, or more likely stickers, identifying trail mile points should be included along the trail. These should have specific location information that can be used to inform emergency services of the exact location of the marker.

**Shade**

Both of the trail segments are along roadways with very little shade. The potential for providing pull-outs to access covered benches should be considered when installing these trail segments. Using vegetation to provide shade is preferable to using structures.

**Call Boxes**

While cell phones have become ubiquitous, call boxes can provide immediate notification of emergency situation and provide location data to first responders.

**Trash Receptacles**

Placing trash receptacles along the trail can help reduce litter along the trail and roadway.

**Technology Considerations**

**Trail Counts**

Technology can be used to provide data on trail users and to enhance the trail users’ experience. Count stations should be considered along both trail segments. These count stations could include in-pavement sensors and eco-counters. Near traffic signals, it may be possible to tie these count stations into the existing traffic signal monitoring system and/or use video detection to count trail users.

**Mile Marker Information**

QR codes could be included on the mile markers to provide immediate access to trail maps, park locations and hours of service, safety advice, transit information, etc.
ALTERNATIVE ANALYSIS

This feasibility study is intended to reflect the general stakeholder desires to continue the planning and future implementation of a shared use path network. Through public engagement, a general understanding of the stakeholders’ goals and desires for implementation were ascertained. Each of the design concepts was evaluated for their consistency with the project purpose and need, stakeholders’ and public desires, adjacent land use, physical constraints and available right-of-way.

Of the options considered, some do not meet the purpose and need to provide system linkage, improving both bicycle and pedestrian connectivity. These options are included in particular for the bridge structures, as limited options are available if no bridge widening is taken into consideration. They are presented to help provide comparisons for options that do meet the system linkage criteria.

Corridor Segments

The purpose of the corridor segmentation for S.R. 951 was not to limit the options analyzed per segment, but to limit the overall environmental impacts. Our options which limit the construction of a sidewalk or SUP to one side of the roadway was based on the adjacent land use, which is predominantly natural lands, physical constraints and available right-of-way. With a limited ability to expand development along the corridor, it was decided that the need to provide pedestrian facilities on both sides of the roadway was not warranted.

Segment 1 – Judge Jolley Bridge to Capri Boulevard

Through this segment, the east side of the roadway is dominated by the Collier Boulevard Boating Park. The flotilla passage connecting East Marco Bay to McIlvane Bay limits the available real estate needed to construct pedestrian facilities. Through this segment, pedestrian facilities were only considered for the west side of the corridor.

Segment 2 – Capri Boulevard to Marco Shores/Mainsail Drive

Through this segment, Capri Boulevard connects to S.R. 951 on the west side and Marco Shores/Mainsail Drive connects on the east side. A short stretch of existing sidewalk just north of Capri Boulevard and on the west side of the roadway connects to the Isle of Capri Paddlecraft Park. This segment also contains two bridges (S.R. 951 over
McIlvane Bay and McIlvane Creek). Through the southern portions of the segment, the flotilla passage abuts the roadway, but is further offset than the segment to the south. There seems to be sufficient space to construct pedestrian features without impacting the existing shoring. With the park on the west side of the corridor, expanding the pedestrian facilities on the west side of the corridor provides some benefit and the additional costs needed to adjust the existing guardrail that provides protection to the canal suggests prioritizing an option with pedestrian facilities on the west side of the corridor. However, there are no identified issues with locating pedestrian facilities on the east side of the corridor. Both options should move forward into the next phase of planning and/or design.

Segment 3 – Marco Shores/Mainsail Drive to Fiddlers Creek Parkway

Fiddlers Creek Parkway connects to S.R. 951 from the east side. This segment has conservation lands adjacent to both sides of the corridor. Of note are the above ground utilities i.e., electrical transmission and distribution lines running on the west side of the roadway. Other than the utilities, both sides of the corridor seem equal and uniform. Two factors would play into the determination of the placement of pedestrian facilities: location of the utilities and location of the subdivisions. With the utilities on the west side, existing access to the poles would limit the total impacts to environmentally sensitive lands. While providing pedestrian facilities on the east side of the corridor would place the facilities closer to users and reduce exposure of these vulnerable users by eliminating the need for crossing S.R. 951. Given the current data, both options should move forward into the next phase of planning and/or design.

Segment 4 – Fiddlers Creek Parkway to Henderson Creek Drive

As the project moves north, the majority of the residential and commercial properties are located on the east side of the roadway. With signals at Fiddlers Creek Parkway and Manatee Road, mid-block crossings would be required to access pedestrian facilities on the west side of the roadway. Due to the location of the pedestrian generators, predominantly on the east side of the corridor, pedestrian facilities were only considered for the east side of the corridor.

Sociocultural Resources

Based on the information gathered for the Existing Conditions Report, there are minimal impacts to the sociocultural status within the corridors. This project would support
community resources and land uses by providing multimodal mobility and accessibility. No relocations are anticipated for this project.

Utilities

An analysis of the preliminary existing utility locations indicates the proposed improvements will not impact any of the existing utility facilities. As there are no impacts to the utility facilities, there are no conflicts to be addressed and therefore, there are no utility relocation costs or right-of-way impacts.

Geotechnical and Contamination

Based on the information gathered for the Existing Conditions Report, there are minimal impacts due to geotechnical or contamination considerations within the corridors. From a soils perspective, both roadways appear to have been constructed by utilizing fill that was placed over historic mangrove swamp. There may be soil concerns due to high water and organic content as this could affect the construction and maintenance of slopes for the pedestrian facility and/or roadway widening. There is no physical evidence of this having any long term or maintenance issues with the roadway and this should be the same with future pedestrian facilities.

From a contamination viewpoint, the Racetrac located at 6170 Collier Boulevard is the only site located within the corridors. The site was redeveloped around 2013 and was previously a gas station as well. With the fairly recent redevelopment of the site, the risk of contamination impacting the project would be minimal. No accommodations for either the geotechnical or contamination considerations are included in the analysis.

Floodplains and Wetlands

Based on the United States Fish and Wildlife Service (USFWS) National Wetlands Inventory and the Efficient Transportation Decision Making (ETDM) Environmental Screening Tool (EST), the Study Area is comprised of approximately 90% wetlands and surface waters. The majority (~80%) of these wetlands are estuarine (mangrove island and tidal flats), while the other ~10% are palustrine (freshwater, nontidal wetlands).

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM), the Study Area contains panels 12021C0612H,
With the exception of high pockets of elevation, the majority of the Study Area falls within the 100-year floodplain, due to its proximity to the coast. Based on the Digital Flood Insurance Rate Map (DFIRM), updated December 2022, the flood zone designations for the Study Area are AE and VE. Zone AE corresponds to 1% annual chance floodplains and zone VE are coastal high hazard areas.

If impacts occur to mangroves, mitigation will be required. Both Little Pine Island Mitigation Bank and Corkscrew Regional Mitigation Bank provide credits within the Study Area. Little Pine Island Mitigation Bank is the recommended mitigation bank because of its proximity to the Study Area and is the only one of the two to provide mitigation credits for Forested Freshwater, Forested Saltwater, Herbaceous Freshwater/Brackish, and Herbaceous Saltwater systems. The cost per credit for forested estuarine wetlands is $365,000 and $235,000 for herbaceous estuarine wetlands, in effect April 1, 2023. Credits are sold per credit because the amount of credit needed will be determined by the quality of the wetland impacted, rather than solely on acres impacted.

**Drainage and Permitting**

Construction of pedestrian facilities will impact tidal floodplains but no floodplain mitigation will be required and, in this case, no permit is required. No attenuation would be required. If wetlands are impacted, then a standard Environmental Resource Permit (ERP) would be required. If swales and wetlands are impacted than a full ERP Individual permit would be required.

**S.R. 951 (Collier Boulevard) – Options**

Uniform options were applied throughout the corridor. The design concepts were then evaluated for their consistency with the project purpose and need; support of project objectives; engineering constraints and considerations; public input; and the order of magnitude implementation costs, as described in greater detail below.

1) No Build – This option does not meet the desired purpose and need for the project of providing system linkage for pedestrian connectivity.
2) 7’ Buffered Bike Lane – This option does not meet the desired purpose and need for the project of providing system linkage for pedestrian connectivity. It also had the second lowest positive response from the public survey, with the no-build as the lowest response.

3) 5’ Sidewalk – The third S.R. 951 option provides system linkage for both pedestrians and bicyclists. However, no separation is provided between bicyclists and motor vehicles.

4) 10’ SUP – The next S.R. 951 option provides system linkage for both pedestrians and bicyclists and provides two areas for bicyclists’ use with separation provided between bicyclists and motor vehicles along the SUP.

5) 10’ SUP and 7’ Buffered Bike Lane – The next S.R. 951 option provides system linkage for both pedestrians and bicyclists. The shoulder would be widened by 2’ to provide the buffered bike lanes. The section provides two areas for bicyclists’ use with separation provided between bicyclists and motor vehicles along the SUP and improved buffered bike lanes. This option received the highest amount of public support.

6) 7’ Buffered Bike Lane (no widening) – This option does not meet the desired purpose and need for the project of providing system linkage for pedestrian connectivity. This option was created after the online survey was made available to the public and therefore did not receive public input.

7) 10’ SUP and 7’ Buffered Bike Lane (no widening) – This variation of Option 5 requires no roadway widening and allows the shoulder to be widened by reducing the travel lane widths to 11’. With S.R. 951 considered a freight corridor to the City of Marco Island, a minimum 12’ outside lane would be required.

Depending on the options above, a correlating bridge section would be utilized to accommodate the approach facilities for the bridges over McIlvane Bay and Creek. Options 1, 2, and 6 would require no bridge work other than possible new pavement markings. Option 3 correlates to a structure with a barrier separated sidewalk. Options 4, 5, and 7 match the bridge structure providing a 10’ SUP that is barrier separated.
Only two options were prepared for the Henderson Creek Bridge: no build and barrier separated SUP. Dependent on timing and funding, the FDOT is currently in the right of way phase for Financial Project Identification 435111-2 S.R. 951 from Manatee Road to Tower Road. The project is funded for right of way acquisition but is currently not funded for construction. If funds become available, then the planned letting date for this project is July 22, 2027. When construction occurs, the bridge will be widened over Henderson Creek to provide a sidewalk on the southbound bridge and a 10' SUP on the northbound bridge see Figure 2.

![PROPOSED STRUCTURE TYPICAL SECTION](image)

Figure 2 - Proposed Typical Section for the Henderson Creek Bridge (FPID 435111-2)

**C.R. 92 (San Marco Road) – Options**

As discussed previously under Corridor Segments for S.R. 951, the options for C.R. 92 limits the construction of a sidewalk or SUP to one side of the roadway based on the adjacent land use, which is predominantly natural lands, physical constraints and available right-of-way. With no possibility for development along the corridor, it was decided that the need to provide pedestrian facilities on both sides of the roadway was not warranted. The design concepts were then evaluated for their consistency with the project purpose and need; support of project objectives; engineering constraints and considerations; public input; and the order of magnitude implementation costs, as described in greater detail below.

1) No Build – This option does not meet the desired purpose and need for the project of providing system linkage for bicycle or pedestrian connectivity.
2) Paved Shoulder Bike Lanes – This option does not meet the desired purpose and need for the project of providing system linkage for pedestrian connectivity.

3) 7’ Buffered Bike Lane – The next option does not meet the desired purpose and need for the project of providing system linkage for pedestrian connectivity.

4) Paved Shoulder Bike Lanes and Sidewalk – The fourth C.R. 92 option provides system linkage for both pedestrians and bicyclists. However, no separation is provided between bicyclists and motor vehicles. This option had the second highest response from the public.

5) Adjacent Asphalt Path – The next option does not meet the desired purpose and need for the project of providing system linkage for pedestrian connectivity. This option had the third highest response from the public, but was very similar to the second highest (23.3% vs. 25.3%).

6) 10’ SUP – The last C.R. 92 option provides system linkage for both pedestrians and bicyclists with separation provided between bicyclists and motor vehicles along the SUP. This option had the highest positive responses from the public.

Cost Estimates

Conceptual construction cost estimates were prepared for both build options. The estimates were prepared using a similar approach to that of the FDOT Long Range Estimating application and Cost per mile models. Cost estimates are presented in Table 2. The detailed cost estimation for the is provided in Appendix D.

Recommendations

A qualitative analysis was conducted to determine the advantages and disadvantages of the options. Each option was evaluated in relation to engineering, socioeconomic, environmental criteria, and various cost factors. A Comparative Alternative Evaluation matrix is presented in Table 3. The matrix is provided for comparisons only and does not represent a recommendation or a ranking of the options.

Based on the available data and analysis, the following options are recommended to be carried forward to the PD&E phase and depicted on the Concept Plans – Appendix E:
S.R. 951

Alternative 3

Alternative 4

Alternative 5
### Table 4: Comparative Alternative Evaluation Matrix

<table>
<thead>
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<th>Build Alternatives</th>
<th>C.R. 92 (San Marco Road)</th>
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Note:
1. The construction costs shown do not reflect project unknowns and are only calculated based on the features present in the typical sections.
2. For Public Support Ranking, a "*" means that this typical section was either developed after the public input and the ranking is based upon the most comparable typical section.
3. No construction costs are associated to alternatives that identify no roadway widening, as these improvements can be implemented during the next RRR project for the roadway.
Marco Island Loop Trail
Feasibility Study and Conceptual Design

Collier County, Florida

Trail Alternatives Evaluation Report
April 2023

Prepared for:

FDOT

Collier Metropolitan Planning Organization

BPAC 5/16/23
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Figure 1: Location Map ........................................................................................................ Error! Bookmark not defined.

Figure 2 - Proposed Typical Section for the Henderson Creek Bridge (FPID 435111-2) .......................................................... 28

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Is this a feasibility report or an Alternatives Evaluation. Please be consistent with the description of this effort of study, plan, report throughout document.

Should the Table of Contents and report include a section identifying stakeholders and early issue identification. County Stakeholders include planning, transit, road maintenance, utilities, and other divisions and departments.

Fix / correct the link.
List of Appendices

Appendix A – Marco Island Loop Trail Feasibility Study – Existing Conditions Report
Appendix B – Marco Island Loop Trail Feasibility Study – Summary of Public Engagement
Appendix C – Marco Island Loop Trail Feasibility Study – Utility Coordination
Appendix D – Marco Island Loop Trail Feasibility Study – Cost Estimate Back-up
Appendix E – Marco Island Loop Trail Feasibility Study – Concept Plans
This information was not provided with the study.
PROJECT CONTEXT

The purpose of this project is to support the Florida Department of Transportation (FDOT) District One, in partnership with the City of Marco Island, Collier County, and Collier Metropolitan Planning Organization (MPO), to evaluate the feasibility of a shared use path (SUP) along State Road (S.R.) 951 (Collier Boulevard) and County Road (C.R.) 92 (San Marco Road) and determine a preferred design concept for implementation, that will complete the Marco Island Loop. The terminology “trail” has been retained in certain instances as previous studies and investigations utilized the term. The MPO’s 2019 Bike-Ped Master Plan identifies the corridor as part of its Shared-Use Nonmotorized (SUN) Trail and Spine Trail Network. It is also identified as a Land Trail Opportunity Trail/Corridor on the Florida Greenways & Trails System and will connect the City of Marco Island Bike Path Master Plan and the Naples Pathways Coalition Paradise Coast Trail Vision. This study will determine the need for a subsequent Project Development and Environment (PD&E) Study based on the potential project effects, right-of-way requirements, and in consideration of the potential use of federal funds for future project phases.

The project includes two study corridors and will generally evaluate the feasibility of a shared use path to be implemented on either side of the roadway. The first corridor is along S.R. 951 from the Judge Jolley Bridge to United States (U.S.) 41. The second corridor is along C.R. 92 from Goodland Road to U.S. 41. Together, these segments will close the pedestrian and bicycle loop connecting the City of Marco Island with U.S. 41. The project location is shown in Figure 1.
Please clarify the outcome of the study - can this study determine a preferred design concept - would eliminating a concept prejudice the future PD&E? Does it determine which concepts are Feasible and eliminate those that are not or does it just discuss the issue / concerns but not eliminate any concepts as not feasible?
The purpose of the project is to enhance the regional bicycle and pedestrian network connecting the City of Marco Island to the Shared-Use Nonmotorized (SUN) Trail facility along U.S. 41. Additionally, the project will improve bicycle and pedestrian safety in the study corridors.

The need for the project is based on the following criteria:

**Safety:**

*Improve safety conditions*

Safety plays an important role in deciding to utilize a facility. Along S.R. 951, the majority of the study corridor has no sidewalks, so nonmotorized vehicular travel must utilize the shoulder or share the travel lanes where the posted speed ranges from 35 MPH to 55 MPH. Along C.R. 92, the roadway has no sidewalks or paved shoulders along a roadway posted at 55 MPH.
Funded section of trail should be discussed regarding timing and typical section (if known).

Project location description not provided. The map provided does not provide sufficient information with which to determine the boundaries of the study areas or the jurisdictional boundaries or the segments referenced in later sections.

Is purpose and need specific to PD&E studies or can it be general for this study? This section should also include a discussion of freight, evacuation considerations, land-use, development and population.

Was crash data or other safety metrics analyzed for these conclusions? Were current and future traffic volumes reviewed?
**System linkage:**

**Improve bicycle and pedestrian connectivity**

The proposed project aligns with the goals of the City of Marco Island and Collier County to “provide a safe comprehensive bicycle and pedestrian network that promotes and encourages community use and enjoyment” (Collier MPO Bicycle/Pedestrian Master Plan’s Vision). The project would create a connected multimodal transportation system that links the existing network in the City of Marco Island to the statewide SUN Trail network along U.S. 41.

**Social and economic demand:**

**Enhance mobility choices and provide social benefits through outdoor recreation**

The Florida Department of Environmental Protection (FDEP) Division of Recreation and Parks oversees the Florida Greenways and Trails System (FGTS). Studies demonstrate that outdoor recreation delivers personal and social benefits on which healthy, happy communities thrive (FGTS Plan 2019-2023). These study corridors have been identified as a Land Trail Opportunity Trail/Corridor in the plan. Shared use path benefits identified in the plan include economic development, opportunities to support active lifestyles and improve overall health, and increased transportation choices.

FDOT District One will continue to coordinate with the City of Marco Island and Collier MPO to ensure that the project promotes consistency with local government comprehensive and transportation plans.

**Planning Process**

This document represents the culmination of a twelve-month planning effort which included research and analysis, field work, stakeholder input, and public outreach. The project was organized into the following five tasks:

- Task 1: Project Start Up
- Task 2: Research and Analysis / Existing Conditions
- Task 3: Alternative Assessment
- Task 4: Development of Draft Trail Alternatives Evaluation Report
- Task 5: Final Trail Alternatives Evaluation Report
Multimodal generally includes freight, transit and bike/ped uses.

Is this statement supported in this plan / study or is it related to other plan findings? Consider documenting benefits specific to Collier, Marco and the MPO or this study.

Additional attachments or sections should be included to support the study.
An Existing Conditions Report was developed for Task 2 and is provided in Appendix A. As part of the planning process, the public engagement consisted of two main components:

- Pop-up Events:
  - Jerry Adams Chili Cook-Off - November 12, 2022
  - Marco Island Farmers Market - December 7, 2022
- Online Questionnaire

These components are discussed in later sections.
Is there an opportunity to add more information about the questionnaire, how it was distributed and the data results? Was there an evaluation to see if there were duplicate addresses and repeat entries. Other than the charts was there any other information asked that can be summarized?

Does the attendance at 2 pop-up events meet the criteria for public involvement for a feasibility study? What other sections are they referenced in? Are these documented in the appendix that was not attached?
FEASIBLE ALTERNATIVES

Through the process of the Feasibility Study, the different options and uses took into consideration compatibility with planning efforts for the state, county, and local levels while meeting current design standards. Throughout the existing conditions assessment and stakeholder and public engagement, several options were evaluated for the multimodal improvements along S.R. 951 and C.R. 92. Feasible options were identified based on their consistency with the project purpose and need, as well as the roadway characteristics, operational conditions, safety concerns, and physical constraints documented in the Existing Conditions Report. These factors, as well as input from project stakeholders, provide the baseline from which potential options were considered.

This section will briefly outline each of the evaluated options that will move forward for consideration, in addition to other considerations. A preferred alternative will not be selected as part of this Feasibility Study. However, should the project move forward into a Project Development and Environment (PD&E) Phase, all options should be further assessed utilizing more refined data, and a preferred alternative should be selected.

Corridor Segments

The two corridors within the study, S.R. 951 (Collier Boulevard) and C.R. 92 (San Marco Road), are unique and differ in physical characteristics and right of way availability. While S.R. 951 is a four-lane divided highway with a raised, curbed median and outside flush shoulders, C.R. 92 is an undivided, two-lane roadway with no paved outside shoulders. Current zoning and future land use designations within the study corridors are primarily conservation lands and residential for S.R. 951 and conservation lands for C.R. 92.

Based on physical conditions, adjacent land use, and available right-of-way along the length of S.R. 951, the corridor has been separated into four segments:

Segment 1 – Judge Jolley Bridge to Capri Boulevard
Segment 2 – Capri Boulevard to Marco Shores/Mainsail Drive
Segment 3 – Marco Shores/Mainsail Drive to Fiddlers Creek Parkway
Segment 4 – Fiddlers Creek Parkway to Henderson Creek Drive
C.R. 92 will be analyzed as a whole corridor.
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- Consider consistency in addressing this study as a feasibility study.
- Were all these summarized or sections in this document?
- Should right of way constraints be elaborated on in this document?
- Identification of conservation lands is necessary in this section in order to discuss constraints. A Settlement Agreement with the Conservancy was discussed at the coordination meeting, that should be referenced here.
Multiple design concepts were developed and presented to the public through an online survey. Each concept provided varying approaches to the different modes of transportation that meet current design standards, providing facilities for pedestrians and bicyclists while minimizing impacts to environmentally sensitive lands.

1) No Build – Bicyclists are accommodated on existing 5'-paved shoulders and no facilities are provided for pedestrians.

2) 7' Buffered Bike Lane – Bicyclists are accommodated on a widened shoulder with a 7' buffered bike lane, and no facilities are provided for pedestrians.

3) 5' Sidewalk – Bicyclists are accommodated on existing 5’-paved shoulders and a 5’ sidewalk, offset 5’ from the shoulder point (15’ from the edge of travel lane), is provided for pedestrians.

4) 10’ SUP – Bicyclists are accommodated on existing paved shoulders and a 10’ SUP, offset 5’ from the shoulder point (15’ from the edge of travel lane), is provided for pedestrians and bicyclists.

5) 10’ SUP and 7’ Buffered Bike Lane – Bicyclists are accommodated on a widened shoulder with a 7’ buffered bike lane, and a 10’ SUP, offset 5’ from the shoulder point (15’ from the edge of travel lane), is provided for pedestrians and bicyclists.

6) 7’ Buffered Bike Lane (no widening) – Bicyclists are accommodated on a 7’ buffered bike lane created by reducing the travel lane widths to 11’. No facilities are provided for pedestrians.

7) 10’ SUP and 7’ Buffered Bike Lane (no widening) – Bicyclists are accommodated on a 7’ buffered bike lane created by reducing the travel lane widths to 11’. A 10’ SUP, offset 5’ from the shoulder point (15’ from the edge of travel lane), is provided for pedestrians and bicyclists.
Is there a discussion of current typical sections with existing designs and the options?
Note: Graphics were created utilizing Streetmix (https://Streetmix.net)
S.R. 951 Bridge over McIlvane Bay and S.R. 951 Bridge over McIlvane Creek

Located between Capri Boulevard and Marco Shores/Mainsail Drive, these bridges have a clear roadway width of 90’. Four options were created for these bridges:

1) No Build – Bicyclists are accommodated on existing 10’ bridge deck shoulders and no facilities are provided for pedestrians.

2) Buffered Bike Lane – Bicyclists are accommodated on a designated 7’ buffered bike lane and no facilities are provided for pedestrians.

3) Barrier Separated Sidewalk – Bicyclists are accommodated on a designated 7’ buffered bike lane and a barrier separated sidewalk is provided for pedestrians. The median would be reconstructed on the bridge deck and reduced in width.

4) Barrier Separated SUP – Bicyclists are accommodated on a designated 7’ buffered bike lane and a barrier separated SUP is provided for pedestrians and bicyclists. The median would be reconstructed on the bridge deck and reduced in width.
What are the bridge conditions?
Located between Fiddlers Creek Parkway and Henderson Creek Drive, this structure consists of twin bridges having a clear roadway width of 40’. Two options were created for these bridges.

1) No Build – Bicyclists are accommodated on existing 10’-bridge deck shoulders and no facilities are provided for pedestrians.

2) Barrier Separated SUP – A barrier separated SUP is provided for pedestrians and bicyclists. Access to and from the SUP would be provided prior to the bridge.

C.R. 92 (San Marco Road) – Shared Use Path Design Options

Six options were developed for C.R. 92. These options would be constructed on the West side of the roadway just in front of the existing power poles.

1) No Build – Bicyclists utilize the existing travel lanes, and no facilities are provided for pedestrians.

2) Paved Shoulder Bike Lanes – A 4’ paved shoulder would be constructed abutting the travel lanes and no facilities are provided for pedestrians.

3) 7’ Buffered Bike Lane – Bicyclists are accommodated on a newly constructed 7’ buffered bike lane and no facilities are provided for pedestrians.

4) Paved Shoulder Bike Lanes and Sidewalk – A 4’ paved shoulder would be constructed abutting the travel lanes and a 5’ sidewalk, offset 5’ from the edge of travel lane is provided for pedestrians.
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Should there be a discussion of maintenance on these options and potential maintenance constraints, costs, etc?
5) Adjacent Asphalt Path – A 10’ paved path would be constructed abutting the westbound travel lane providing a 2’ buffer and 8’ path. A similar treatment was constructed by Collier County in 2021 along Goodland Drive.

6) 10’ SUP – Bicyclists utilize the existing travel lanes, and a 10’ SUP, offset 5’ from the edge of travel lane, is provided for pedestrians and bicyclists.
C.R. 92 (San Marco Road) – Bridge Options

**C.R. 92 over Drainage Canal (Bridge No. 034128)**

This bridge has a clear roadway width of 40’. Three options were created for this bridge:

1) No Build – Bicyclists utilize the existing travel lanes prior to the bridge where they can be accommodated on existing 8’-bridge deck shoulders and no facilities are provided for pedestrians.

2) Barrier Separated 10’ SUP – A barrier separated SUP is provided for pedestrians and bicyclists. The remaining bridge deck width would accommodate two 12’ lanes with 2’-outside shoulders.

3) Barrier Separated 8’ SUP – A barrier separated SUP is provided for pedestrians and bicyclists. The remaining bridge deck width would accommodate two 11’ lanes with 4’ outside shoulders.

---

![Option 1](image1.png)

**Option 1**

![Option 2](image2.png)

**Option 2**

![Option 3](image3.png)

**Option 3**
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**Goodland Bridge**

This bridge has a clear roadway width of 42’. The three previous options were utilized for this bridge with the additional width applied to the outside shoulders.

1) No Build – Bicyclists utilize the existing travel lanes prior to the bridge where they can be accommodated on existing 10’-bridge deck shoulders and no facilities are provided for pedestrians.

2) Barrier Separated 10’ SUP – A barrier separated SUP is provided for pedestrians and bicyclists. The remaining bridge deck width would accommodate two 12’ lanes with 4’-outside shoulders.

3) Barrier Separated 8’ SUP – A barrier separated SUP is provided for pedestrians and bicyclists. The remaining bridge deck width would accommodate two 11’ lanes with 6’-outside shoulders.

**Public Engagement**

The public engagement consisted of two main components:

- **Pop-up Events:**
  - Jerry Adams Chili Cook-Off - November 12, 2022
  - Marco Island Farmers Market - December 7, 2022

- **Online Questionnaire** - November 11, 2022 to January 16, 2023

The online questionnaire received 230 responses through the website and an additional 34 responses were completed at the Farmers Market. At the events, post card handouts were distributed which provided a brief project description, project location map, and project website. Following the first event at the Jerry Adams Chili Cook-Off, email notifications were sent to the City of Marco Island Chambers of Commerce, City of Marco Island, Collier Area Transit, adjacent Home Owner Associations within the study area, and local schools providing project information and the survey link. A summary of the public engagement can be found in **Appendix B**.
Further information on the website should be included in this section - was this a project website or hosted on a public website? Should there be a snip of the website / survey? Is that in the attachments?

Email notifications were sent out but only appear to have been sent to CAT, not Collier County depts/staff. Is there a list of recipients in the Attachments?
Speed Management

Speed management is a critical element of the Safe System Approach, which is a guiding paradigm adopted by the U.S. DOT to address roadway safety. Studies clearly show that higher speeds result in greater impact at the time of a crash, which leads to more severe injuries and fatalities. This is especially concerning for more vulnerable road users, such as motorcyclists, bicyclists, and pedestrians. To support efforts in speed management, FHWA, through its Proven Safety Countermeasure Initiatives program, promotes the implementation of several proven speed management countermeasures including variable speed limit systems, speed safety cameras, and setting appropriate speed limits for all road users. FDOT further identifies speed management techniques in chapter 202 of the FDOT Design Manual (FDM). From Table 202.3.1 Strategies to Achieve Desired Operating Speed, for context classifications C3R and C3C, the following strategies are appropriate for a target speed of 40-45 mph: Roundabout, Lane Narrowing, Horizontal Deflection, Speed Feedback Signs, Rectangular Rapid Flashing Beacons and Pedestrian Hybrid Beacons.

Utilities

Utility Coordination

The preliminary utility coordination and investigation effort was conducted through written and verbal communications with the existing utility owners. A Sunshine State 811 of the Florida Design Ticket System listing of existing utility owners was acquired on February 15, 2023. (Appendix A).

Initially, verbal and written communication was made to all utility’s owners outlining the investigation effort along with the project limits. The list of Utility Agency Owners (UAO) known to operate utilities within the project corridor is shown in Table 1.
What specific speed observations warranted this? Is the recommendation to lower speed limits supported by FDOT/Collier County? Is a speed study requested? Is there a recommendation to do a speed study in coordination with the PD&E or later phase?

Is a map missing?
For the report’s preparation, utility owners were provided aerials depicting the project limits along S.R. 951 and C.R. 92. Using these aerial plans as a base map, each utility owner was asked to indicate their existing and proposed utilities as well as any easements that may affect their reimbursement rights for potential relocations of their facilities. In response, most utility owners replied via written communications. The utility owners provided the requested information concerning their facilities using either the utility plans or reference documentation (i.e., “As Built” or GIS maps). “Marked” Plans or reference documentation received from the Utility Agency Owners is outlined below.

### Existing Utility Facilities Description

Responses from the UAOs are provided in Appendix C.

Collier County Traffic Operations – No response
Who was contacted? List above indicated Traffic Ops - what about PUD?
Collier County BCC Road Maintenance – No response.

Marco Islands Utilities – No response.

Centurylink – No response.

Collier County Stakes and Locates (Water/Sewer)

For the S.R. 951 corridor, a 12" PVC water main on the north side of Capri Boulevard intersects S.R. 951. The water main is located along the west side of S.R. 951 for approximately 400' before crossing to the median of S.R. 951. The water main continues in the location until Marco Shores, where it shifts to the east side of the corridor.

At Port Au Prince Road, a 10" PVC water main joins the 12" PVC water main on the east side. Also, a 4" PVC sewer main on the north side of Port Au Prince Road intersects an 8" DIP sewer main along the east side of the corridor. The two water mains and sewer main continue north on the east side of the corridor to Manatee Road.

At Manatee Road, a 10" AC water main, 20" PVC water main and 16" PVC water main intersect the two water mains from the south. A 20" PVC water main continues north on the east side of the corridor. A 10" PVC sewer main intersects the 12" PVC sewer main. The 12" PVC sewer main continues north on the east side of the corridor.

At the bridge, just north of Riverwood Road, the 20" PVC water main switches to a 20" DP water main. The water main and sewer main continue north to the intersection of U.S.41. Connections to the water mains are located at the following side roads:

- Marco Shores
- Fiddlers Creek Parkway
- Port Au Prince Road
- Championship Drive
- Diamond Lake Circle
- Manatee Road
- Tower Road
- Henderson Creek Drive
Eagle Creek Drive

Connections to the sewer main are located at the following side roads:

- Port Au Prince Road
- Championship Drive
- Diamond Lake Circle
- Manatee Road
- Tower Road
- Henderson Creek Drive

For the C.R. 92 corridor, a 6" PVC sewer main is located on the east side of C.R. 92 from the U.S. 41 intersection for approximately 1,000’ south, where it ties to a private sewer main for the Collier-Seminole State Park. An 8" water main owned by Collier-Seminole State Park is located on the west side of C.R. 92 from the U.S. 41 intersection for approximately 1,050’ south before crossing C.R. 92 and entering Collier-Seminole State Park.

Comcast – No response.
Florida Power and Light – No response.
Hotwire Communications
No facilities email received February 17, 2023, from Walter Sancho-Davila.

Lee County Electric Co-op

Along S.R. 951, from Judge Jolly bridge to U.S. 41, there is a transmission line on the west side of the corridor.

Along C.R. 92, south of Goodland Drive, there are primary and secondary overhead facilities on the west side of C.R. 92. Along Goodland Drive, there is a primary overhead facility along the south side, crossing C.R. 92 to connect the facilities on the west side of C.R. 92.

Along C.R. 92, at the bridge, the primary facility is underground. After the bridge, the primary underground facility crosses C.R. 92 to the east side of the road. The facility then becomes a primary overhead facility. The overhead facility crosses back to the west side of C.R. 92.

From north of the bridge to U.S. 41, the primary overhead facility is on the west side of the corridor. Near the intersection of U.S. 41, primary and secondary
overhead facilities cross C.R. 92 to the east side to provide power to the Collier-Seminole State Park campsites. At the intersection, a primary overhead facility connects to the businesses in the southeast quadrant of the intersection.

Crown Castle NG

There are no facilities along S.R. 951 or C.R. 92. There are underground conduits along US 41 at the intersections with S.R. 951 and C.R. 92.

Summit Broadband – No response.

TECO Peoples Gas – Ft. Myers – No response.

Centurylink (Lumens)

Along S.R. 951, from Capri Boulevard to Championship Drive, there is an underground fiber route along the west side of the corridor. Between Championship Drive and U.S. 41, the underground fiber route is along the east side of the corridor. There are crossings at side roads along the corridor.

Along C.R. 92, from Goodland Drive to north of the bridge, there are underground local copper and fiber routes on the east side of the corridor. From north of the bridge to U.S. 41, there is an underground fiber route along the west side of the corridor. Between Curcie Road and U.S. 41, there is an underground local copper route along the east side of the roadway. The copper route crosses C.R. 92 and connects to Collier-Seminole State Park.

Trail Amenities

Essential for the success of the two trail segments, S.R. 951 and C.R. 92, both as stand-alone facilities and as part of the overall Marco Island loop, will be providing a safe, comfortable, and accessible environment. Both the segments will provide recreational opportunities as well as access to parks and recreational facilities. The S.R. 951 segment will also likely be used for access to jobs, shops, and services that encourages people to use the trail for work commutes, recreation, and social interaction. Some of the trail design elements that should be considered during evaluation of the design concepts include the following:

Trailheads

The development of trails should include consideration for trailheads. Fortunately, there are several opportunities along the trail alignments that have the potential to serve
Is this related to signage designation/requirements when built? There is reference to an evaluation during the design concept phase - that seems premature. Maintenance of these amenities need to also be determined, possible agreements and commitments of all parties are necessary.

clarify statement - are both feasible?

Is this stating that the design elements should be evaluated during the PD&E phase or a future phase after that = design?
as trailheads: The Isle of Capri Paddlecraft Park is adjacent to S.R. 951 on the northwest corner of S.R. 951 and Capri Boulevard. This park includes parking, picnic pavilions, and restrooms. It also has a 6’ concrete walkway leading to the northeast side of S.R. 951. Margood Harbor Park is located about a mile south of C.R. 92, west of the Goodland Bridge off Goodland Drive. Park amenities include parking, picnic areas, and restrooms. Access to the park would be along Goodland Drive and Pear Tree Avenue.

If these parks are to serve as trailheads, consideration should be given to providing trail-user specific enhancements. These would include bike parking, repair stations, trail maps, and trail courtesy information. Information regarding hydration and protection from sun/heat-related ailments should be included as well. Vending machines that provide trail user-friendly items such as patch kits, bike lights, CO₂ canisters, sunscreen and first aid kits could be provided.

Wayfinding

Wayfinding should be included along the trail segments. Wayfinding should include directions to trailheads or parks. From trailhead or parks, wayfinding provides directional information to the City of Marco Island, the existing Marco Island Loop Trail on S.R. 951, and the intersection of C.R. 92 and U.S. 41. Distances to the City of Marco Island should be to the first commercial location providing access to snacks and beverages (e.g., S.R. 951 and Bald Eagle Drive, and C.R. 92 and Barfield Drive).

Transit Stops

The transit stops at S.R. 951 and Manatee Road already include covered benches and bicycle parking. These could be enhanced with transit schedules, or real-time bus arrival information.

Signal Enhancements

On S.R. 951, if the trail is located on the west side of S.R. 951, signalized intersections should be enhanced to provide pedestrian/trail features to access the west side of the roadway. This should include lighting the crosswalks to improve trail user visibility in the crosswalks.

Midblock Crossings

At locations where potential destinations for trail users exist, midblock crossings should be considered.
Collier County Parks and Recreation should also be consulted as a stakeholder.

Should tourism/tourist development council be a stakeholder?

Is this recommendation supported by Transit and any of their plans - TDP?
In locations where lighting is not an environmental issue, trail lighting should be considered. If overhead lighting is inappropriate, the potential for path level lighting should be evaluated.

**Mile Marker Symbols**

Pavement markings, or more likely stickers, identifying trail mile points should be included along the trail. These should have specific location information that can be used to inform emergency services of the exact location of the marker.

**Shade**

Both of the trail segments are along roadways with very little shade. The potential for providing pull-outs to access covered benches should be considered when installing these trail segments. Using vegetation to provide shade is preferable to using structures.

**Call Boxes**

While cell phones have become ubiquitous, call boxes can provide immediate notification of emergency situation and provide location data to first responders.

**Trash Receptacles**

Placing trash receptacles along the trail can help reduce litter along the trail and roadway.

**Technology Considerations**

**Trail Counts**

Technology can be used to provide data on trail users and to enhance the trail users’ experience. Count stations should be considered along both trail segments. These count stations could include in-pavement sensors and eco-counters. Near traffic signals, it may be possible to tie these count stations into the existing traffic signal monitoring system and/or use video detection to count trail users.

**Mile Marker Information**

QR codes could be included on the mile markers to provide immediate access to trail maps, park locations and hours of service, safety advice, transit information, etc.
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ALTERNATIVE ANALYSIS

This feasibility study is intended to reflect the general stakeholder desires to continue the planning and future implementation of a shared use path network. Through public engagement, a general understanding of the stakeholders’ goals and desires for implementation were ascertained. Each of the design concepts was evaluated for their consistency with the project purpose and need, stakeholders’ and public desires, adjacent land use, physical constraints and available right-of-way.

Of the options considered, some do not meet the purpose and need to provide system linkage, improving both bicycle and pedestrian connectivity. These options are included in particular for the bridge structures, as limited options are available if no bridge widening is taken into consideration. They are presented to help provide comparisons for options that do meet the system linkage criteria.

Corridor Segments

The purpose of the corridor segmentation for S.R. 951 was not to limit the options analyzed per segment, but to limit the overall environmental impacts. Our options which limit the construction of a sidewalk or SUP to one side of the roadway was based on the adjacent land use, which is predominantly natural lands, physical constraints and available right-of-way. With a limited ability to expand development along the corridor, it was decided that the need to provide pedestrian facilities on both sides of the roadway was not warranted.

Segment 1 – Judge Jolley Bridge to Capri Boulevard

Through this segment, the east side of the roadway is dominated by the Collier Boulevard Boating Park. The flotilla passage connecting East Marco Bay to McIlvane Bay limits the available real estate needed to construct pedestrian facilities. Through this segment, pedestrian facilities were only considered for the west side of the corridor.

Segment 2 – Capri Boulevard to Marco Shores/Mainsail Drive

Through this segment, Capri Boulevard connects to S.R. 951 on the west side and Marco Shores/Mainsail Drive connects on the east side. A short stretch of existing sidewalk just north of Capri Boulevard and on the west side of the roadway connects to the Isle of Capri Paddlecraft Park. This segment also contains two bridges (S.R. 951 over
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How/where is this documented?  Was it in the attachments?

Where are these constraints documented?
McIlvane Bay and McIlvane Creek). Through the southern portions of the segment, the flotilla passage abuts the roadway, but is further offset than the segment to the south. There seems to be sufficient space to construct pedestrian features without impacting the existing shoring. With the park on the west side of the corridor, expanding the pedestrian facilities on the west side of the corridor provides some benefit and the additional costs needed to adjust the existing guardrail that provides protection to the canal suggests prioritizing an option with pedestrian facilities on the west side of the corridor. However, there are no identified issues with locating pedestrian facilities on the east side of the corridor. Both options should move forward into the next phase of planning and/or design.

**Segment 3 – Marco Shores/Mainsail Drive to Fiddlers Creek Parkway**

Fiddlers Creek Parkway connects to S.R. 951 from the east side. This segment has conservation lands adjacent to both sides of the corridor. Of note are the above ground utilities i.e., electrical transmission and distribution lines running on the west side of the roadway. Other than the utilities, both sides of the corridor seem equal and uniform. Two factors would play into the determination of the placement of pedestrian facilities: location of the utilities and location of the subdivisions. With the utilities on the west side, existing access to the poles would limit the total impacts to environmentally sensitive lands. While providing pedestrian facilities on the east side of the corridor would place the facilities closer to users and reduce exposure of these vulnerable users by eliminating the need for crossing S.R. 951. Given the current data, both options should move forward into the next phase of planning and/or design.

**Segment 4 – Fiddlers Creek Parkway to Henderson Creek Drive**

As the project moves north, the majority of the residential and commercial properties are located on the east side of the roadway. With signals at Fiddlers Creek Parkway and Manatee Road, mid-block crossings would be required to access pedestrian facilities on the west side of the roadway. Due to the location of the pedestrian generators, predominantly on the east side of the corridor, pedestrian facilities were only considered for the east side of the corridor.

**Sociocultural Resources**

Based on the information gathered for the Existing Conditions Report, there are minimal impacts to the sociocultural status within the corridors. This project would support
This is vague language that could be interpreted that the options are moving forward to design. This language is repeated in several segments.

It might be helpful to specify the subdivisions.

Moving forward to next phase of design?

What report is referenced here? Is that an attachment?
Community resources and land uses by providing multimodal mobility and accessibility. No relocations are anticipated for this project.

Utilities

An analysis of the preliminary existing utility locations indicates the proposed improvements will not impact any of the existing utility facilities. As there are no impacts to the utility facilities, there are no conflicts to be addressed and therefore, there are no utility relocation costs or right-of-way impacts.

Geotechnical and Contamination

Based on the information gathered for the Existing Conditions Report, there are minimal impacts due to geotechnical or contamination considerations within the corridors. From a soils perspective, both roadways appear to have been constructed by utilizing fill that was placed over historic mangrove swamp. There may be soil concerns due to high water and organic content as this could affect the construction and maintenance of slopes for the pedestrian facility and/or roadway widening. There is no physical evidence of this having any long term or maintenance issues with the roadway and this should be the same with future pedestrian facilities.

From a contamination viewpoint, the Racetrac located at 6170 Collier Boulevard is the only site located within the corridors. The site was redeveloped around 2013 and was previously a gas station as well. With the fairly recent redevelopment of the site, the risk of contamination impacting the project would be minimal. No accommodations for either the geotechnical or contamination considerations are included in the analysis.

Floodplains and Wetlands

Based on the United States Fish and Wildlife Service (USFWS) National Wetlands Inventory and the Efficient Transportation Decision Making (ETDM) Environmental Screening Tool (EST), the Study Area is comprised of approximately 90% wetlands and surface waters. The majority (~80%) of these wetlands are estuarine (mangrove island and tidal flats), while the other ~10% are palustrine (freshwater, nontidal wetlands).

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM), the Study Area contains panels 12021C0612H,
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Are these identified in this report?

Should there be different language here? Based on the agencies that commented and limited analysis, there appears to be no conflicts. Additional analysis would be done during future phases of this project.
12021C0615H, 12021C0827H, and 12021C0829H for S.R. 951 and panels 12021C0855H, 12021C0835H, and 12021C0842H for C.R. 92, all dated May 16, 2012. With the exception of high pockets of elevation, the majority of the Study Area falls within the 100-year floodplain, due to its proximity to the coast. Based on the Digital Flood Insurance Rate Map (DFIRM), updated December 2022, the flood zone designations for the Study Area are AE and VE. Zone AE corresponds to 1% annual chance floodplains and zone VE are coastal high hazard areas.

If impacts occur to mangroves, mitigation will be required. Both Little Pine Island Mitigation Bank and Corkscrew Regional Mitigation Bank provide credits within the Study Area. Little Pine Island Mitigation Bank is the recommended mitigation bank because of its proximity to the Study Area and is the only one of the two to provide mitigation credits for Forested Freshwater, Forested Saltwater, Herbaceous Freshwater/Brackish, and Herbaceous Saltwater systems. The cost per credit for forested estuarine wetlands is $365,000 and $235,000 for herbaceous estuarine wetlands, in effect April 1, 2023. Credits are sold per credit because the amount of credit needed will be determined by the quality of the wetland impacted, rather than solely on acres impacted.

**Drainage and Permitting**

Construction of pedestrian facilities will impact tidal floodplains but no floodplain mitigation will be required and, in this case, no permit is required. No attenuation would be required. If wetlands are impacted, then a standard Environmental Resource Permit (ERP) would be required. If swales and wetlands are impacted than a full ERP Individual permit would be required.

**S.R. 951 (Collier Boulevard) – Options**

Uniform options were applied throughout the corridor. The design concepts were then evaluated for their consistency with the project purpose and need; support of project objectives; engineering constraints and considerations; public input; and the order of magnitude implementation costs, as described in greater detail below.

1) No Build – This option does not meet the desired purpose and need for the project of providing system linkage for pedestrian connectivity.
The project appears to be in a floodplain, flood occasionally and have potential impact to mangroves? This makes it seem like it is just pay the mitigation costs, is there more to the environmental concerns?

What Permit - SFWMD, something else? Specify the permits needed / not necessary.
2) 7' Buffered Bike Lane – This option does not meet the desired purpose and need for the project of providing system linkage for pedestrian connectivity. It also had the second lowest positive response from the public survey, with the no-build as the lowest response.

3) 5' Sidewalk – The third S.R. 951 option provides system linkage for both pedestrians and bicyclists. However, no separation is provided between bicyclists and motor vehicles.

4) 10' SUP – The next S.R. 951 option provides system linkage for both pedestrians and bicyclists and provides two areas for bicyclists’ use with separation provided between bicyclists and motor vehicles along the SUP.

5) 10' SUP and 7' Buffered Bike Lane – The next S.R. 951 option provides system linkage for both pedestrians and bicyclists. The shoulder would be widened by 2' to provide the buffered bike lanes. The section provides two areas for bicyclists’ use with separation provided between bicyclists and motor vehicles along the SUP and improved buffered bike lanes. This option received the highest amount of public support.

6) 7' Buffered Bike Lane (no widening) – This option does not meet the desired purpose and need for the project of providing system linkage for pedestrian connectivity. This option was created after the online survey was made available to the public and therefore did not receive public input.

7) 10' SUP and 7' Buffered Bike Lane (no widening) – This variation of Option 5 requires no roadway widening and allows the shoulder to be widened by reducing the travel lane widths to 11'. With S.R. 951 considered a freight corridor to the City of Marco Island, a minimum 12' outside lane would be required.

Depending on the options above, a correlating bridge section would be utilized to accommodate the approach facilities for the bridges over McIlvane Bay and Creek. Options 1, 2, and 6 would require no bridge work other than possible new pavement markings. Option 3 correlates to a structure with a barrier separated sidewalk. Options 4, 5, and 7 match the bridge structure providing a 10’ SUP that is barrier separated.
Only two options were prepared for the Henderson Creek Bridge: no build and barrier separated SUP. Dependent on timing and funding, the FDOT is currently in the right of way phase for Financial Project Identification 435111-2 S.R. 951 from Manatee Road to Tower Road. The project is funded for right of way acquisition but is currently not funded for construction. If funds become available, then the planned letting date for this project is July 22, 2027. When construction occurs, the bridge will be widened over Henderson Creek to provide a sidewalk on the southbound bridge and a 10’ SUP on the northbound bridge see Figure 2.

Figure 2 - Proposed Typical Section for the Henderson Creek Bridge (FPID 435111-2)

C.R. 92 (San Marco Road) – Options

As discussed previously under Corridor Segments for S.R. 951, the options for C.R. 92 limits the construction of a sidewalk or SUP to one side of the roadway based on the adjacent land use, which is predominantly natural lands, physical constraints and available right-of-way. With no possibility for development along the corridor, it was decided that the need to provide pedestrian facilities on both sides of the roadway was not warranted. The design concepts were then evaluated for their consistency with the project purpose and need; support of project objectives; engineering constraints and considerations; public input; and the order of magnitude implementation costs, as described in greater detail below.

1) No Build – This option does not meet the desired purpose and need for the project of providing system linkage for bicycle or pedestrian connectivity.
2) Paved Shoulder Bike Lanes – This option does not meet the desired purpose and need for the project of providing system linkage for pedestrian connectivity.

3) 7’ Buffered Bike Lane – The next option does not meet the desired purpose and need for the project of providing system linkage for pedestrian connectivity.

4) Paved Shoulder Bike Lanes and Sidewalk – The fourth C.R. 92 option provides system linkage for both pedestrians and bicyclists. However, no separation is provided between bicyclists and motor vehicles. This option had the second highest response from the public.

5) Adjacent Asphalt Path – The next option does not meet the desired purpose and need for the project of providing system linkage for pedestrian connectivity. This option had the third highest response from the public, but was very similar to the second highest (23.3% vs. 25.3%).

6) 10’ SUP – The last C.R. 92 option provides system linkage for both pedestrians and bicyclists with separation provided between bicyclists and motor vehicles along the SUP. This option had the highest positive responses from the public.

Cost Estimates

Conceptual construction cost estimates were prepared for both build options. The estimates were prepared using a similar approach to that of the FDOT Long Range Estimating application and Cost per mile models. Cost estimates are presented in Table 2. The detailed cost estimation for the is provided in Appendix D.

Recommendations

A qualitative analysis was conducted to determine the advantages and disadvantages of the options. Each option was evaluated in relation to engineering, socioeconomic, environmental criteria, and various cost factors. Comparative Alternative Evaluation matrix is presented in Table 3. The matrix is provided for comparisons only and does not represent a recommendation or a ranking of the options.

Based on the available data and analysis, the following options are recommended to be carried forward to the PD&E phase and depicted on the Concept Plans – Appendix E:
The Study jumps to the conclusion and the Matrix without some discussion of the evaluation criteria listed. The options and recommendation sections focus on the purpose and need and the public opinion not the constraints - including costs of construction, engineering issues, potential environmental and mangrove impacts, etc.
Discussion indicated that nothing was eliminated and all options moved to PD&E, however recommendations only show a few options. Is there a tier of feasible / not feasible or recommended to move on and not recommended? Should the “no build” option be listed?
Collier County Metropolitan Planning Organization
2885 Horseshoe Dr. S.
Naples, FL 34104

Ladies and Gentlemen;

The Organization should reject any plan to build a multi-use trail especially the section from the Jolly Bridge to Tower Road, which is already congested with thousands of vehicles traveling on Collier to/from Marco Island every day.

This project would be incredibly dangerous to bikers or walkers who would be a mere 5 feet from dump trucks, cement trucks, semis and cars traveling at 55 mph. Any traffic accident could severely injure or kill anyone who might have the misfortune of being on the trail at that time.

Further, the bikers and walkers so close to the fast moving vehicles will be a distraction to drivers and create more accidents.

The trail would also be a waste of taxpayer funds. Bikers and walkers will not want to use the trail with it being so close to moving traffic, which generates deafening noise, dust and flying debris. Using the trail would not be a pleasant experience.

This project, which puts everyone in jeopardy, should be stopped before people get injured or killed. Thank you for your time.

Sincerely,

Jo Martin (Homeowner on Marco Island) (319) 230-2534
April 26, 2023

Ms. Jo Martin  
Box 560  
Milford, IA 51351

RE: Marco Island Loop Trail Feasibility Study

Dear Ms. Martin,

I am writing this to follow-up on my voice mail message regarding the concerns raised in your letter dated March 20th. Given your concerns about placing bicyclists and pedestrians within too close proximity to high-speed traffic, I thought it might be helpful to explain how the study came to be.

The MPO initiated the study in response to a request from the Marco Island City Council. The purpose of the study is two-fold: 1) to connect the City of Marco Island to the Shared-Use Nonmotorized (SUN Trail) corridor along US 41 (Tamiami Trail East); and 2) to improve bicycle and pedestrian safety along SR 951 (Collier Blvd) and CR 92 (San Marco Rd). The study was prioritized by the MPO’s Bicycle and Pedestrian Advisory Committee and eventually programmed using federal funds. The MPO asked FDOT to lead the study.

The options being considered along SR 951 and CR 92 include widening the existing shoulders and/or adding a 10’-wide Shared Use Path on one side of the road which would be set back from the roadway a distance of about 10 feet. The options under consideration for the S.R. 951 bridges are similar, but without the 10’-foot set back for a Shared Use Path due to the restricted width of the bridges.

Completing the Feasibility Study is just a preliminary step in a planning process that typically takes 8 to 10 years for a project to go from concept to actual construction. If there is sufficient support to continue to the next step, the MPO has the option of prioritizing the development of a much more detailed project design and environmental permitting study for federal funding.

Your letter will be included in the agenda packet for the MPO Board meeting on June 9, 2023, when the Board is scheduled to receive a presentation on the Marco Island Loop Trail Feasibility Study from FDOT. You are welcome to attend the meeting in-person or to participate virtually via ZOOM. Please feel free to call me at 239-252-5884 if you have additional questions or concerns.

Regards,

Anne McLaughlin, Executive Director
EXECUTIVE SUMMARY
REPORTS AND PRESENTATIONS
ITEM 8B

MPO Update on Current Bicycle and Pedestrian Planning Activities

**OBJECTIVE:** For the Committee to receive an update from MPO staff on current bicycle and pedestrian planning activities.

**CONSIDERATIONS:** Staff will provide a status report on the following activities:

- Proposed Bicycle and Pedestrian Safety Ordinance – Report on Advisory Committee reviews at the MPO Board Meeting on April 14th and Board discussion
- Bicycle and Pedestrian Master Plan Update – Work Order was on April 14th MPO Board Meeting agenda
- Safe Streets for All (SS4A) Grant – FHWA met with D1 grant recipients on March 30th and April 25th.

**STAFF RECOMMENDATION:** Reports are for informational purposes.

Prepared By: Sean Kingston, AICP, Principal Planner

**ATTACHMENT(S):**
N/A