SEMINOLE COUNTY
FLORIDA'S NATURAL CHOICE

ROLLING HILLS AREA
CORRIDOR ENHANCEMENT STUDY
FINAL REPORT

APRIL 2020

HDR

TABLE OF CONTENTS

LIST OF FIGURES

INTRODUCTION

PROJECT OVERVIEW

The Rolling Hills Corridor Enhancement Study identified potential improvements for three collector roadways serving the Palm Springs and the Rolling Hills neighborhoods within Seminole County. The combined roadway network is approximately 5 miles. The corridors studied were:

- Raymond Avenue from SR 434 to North Street
- North St from Raymond Avenue to CR 427
- Palm Springs Drive from SR 434 to E Central Parkway

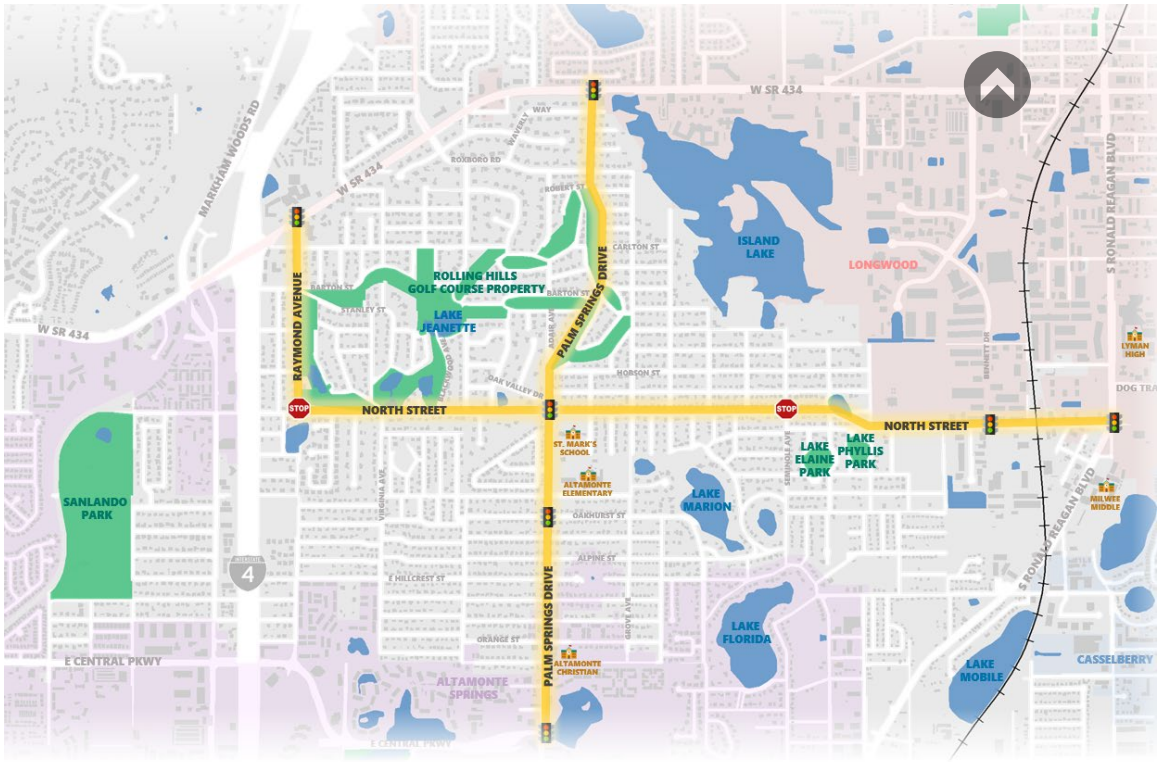


Figure 1 – Study Area Map

STUDY PURPOSE

The goal of the study was to recommend improvements to provide **mobility, safety, and livability** along the study corridors. This study focused on safety and mobility issues present along the corridors while coordinating with other recent and on-going studies and improvements including the Rolling Hills Park Conceptual Master Plan. This project identified a range of possible context sensitive alternatives to address the corridor needs that reflects the short-term and long-term needs of all users of the corridors.

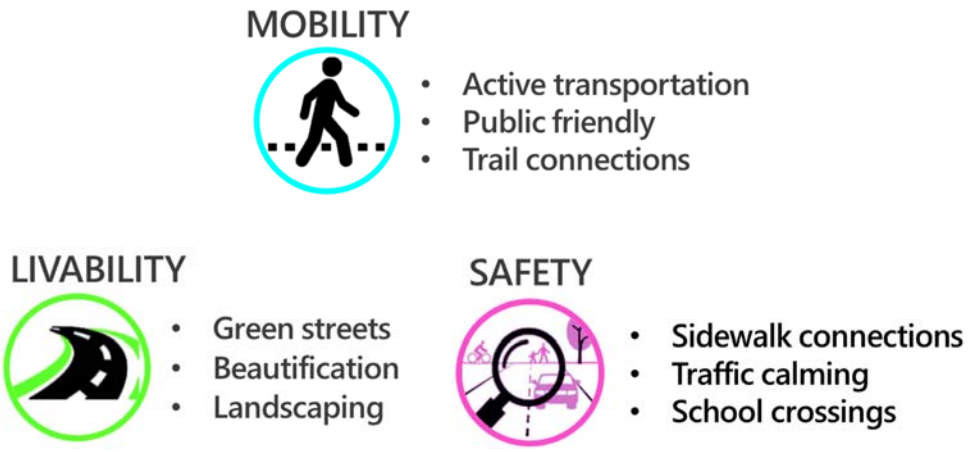


Figure 2 – **Study Goals**

PREVIOUS STUDIES

Several previous studies and projects were provided by the County and referenced throughout this study. The studies included:

- 1999 Palm Springs Rolling Hills Community Traffic Analysis
- 2000 Traffic Calming Report Recommendations
- 2009 Potential Improvements For Central Parkway at Palm Springs Drive
- 2013 Commerce Park Roadway Network Improvement Study
- 2018 Existing And Future Conditions Operational Analysis Memorandum

The results of the existing and future conditions operational analysis were documented by the County and provided to the Project Team. Intersection capacity analyses in the previous study were performed during weekday morning and afternoon peak hours. The study intersections looked at turn movements and volumes. The daily counts provided important information on peak hour traffic volumes.

In addition to these previous studies, the County is continuing work on the Rolling Hills Park Conceptual Master Plan. The Rolling Hills Golf Club closed in 2014, leaving about 100 acres of undeveloped land within the Rolling Hills residential community. With support from the surrounding community, Seminole County purchased the former golf course property in late 2018, with plans to transition the property into a passive community park. Concepts for the study area will consider the future park plans.

DEFINING SUCCESS

The approach of this project was to define the vision of the study corridors and measure the success of the study based on not only traditional methods, such as engineering standards, traffic operations, and previous studies, but to reach out to the community and define success through outreach. Public outreach played an important role in not only developing the study, but evaluating alternative concepts and design strategies. The Community Outreach Plan that led outreach efforts can be found in **Appendix A.** Additional information from the defining success section can be found in **Appendix B.**

ONLINE SURVEY

Early in the study process, the project team sent out an online survey to study area residents. Over 300 participants took the survey. Input from the public emphasized the area's need for better livability and bike and pedestrian mobility. There were concerns over sidewalk and lighting conditions and the ability to bike comfortably on the corridors. Specific intersections were mentioned due to safety concerns. Many respondents also wrote about wanting connections from the Rolling Hills Area to surrounding amenities.

Figure 3 – Survey Participants Future Vision of the Corridors

(Larger text indicates higher usage of words or phrases in survey responses)

CORRIDOR CHARACTERISTICS

The study team visited the study corridors on multiple occasions and at different times of day. Existing conditions and constraints were inventoried both in the field and through the use of available GIS data. Items taken into account include: posted speed limits, available right-of-way, lane width, number of lanes, sidewalk locations and gaps, and curb locations.

Based on this gathering of data, the study area corridors were divided into Corridor Context Areas. The Context Areas were used during the initial phases of the study to more precisely define the unique goals and objectives of each area and to aid in understanding of project alternatives. Descriptions of each Context Area can be found on the following pages.

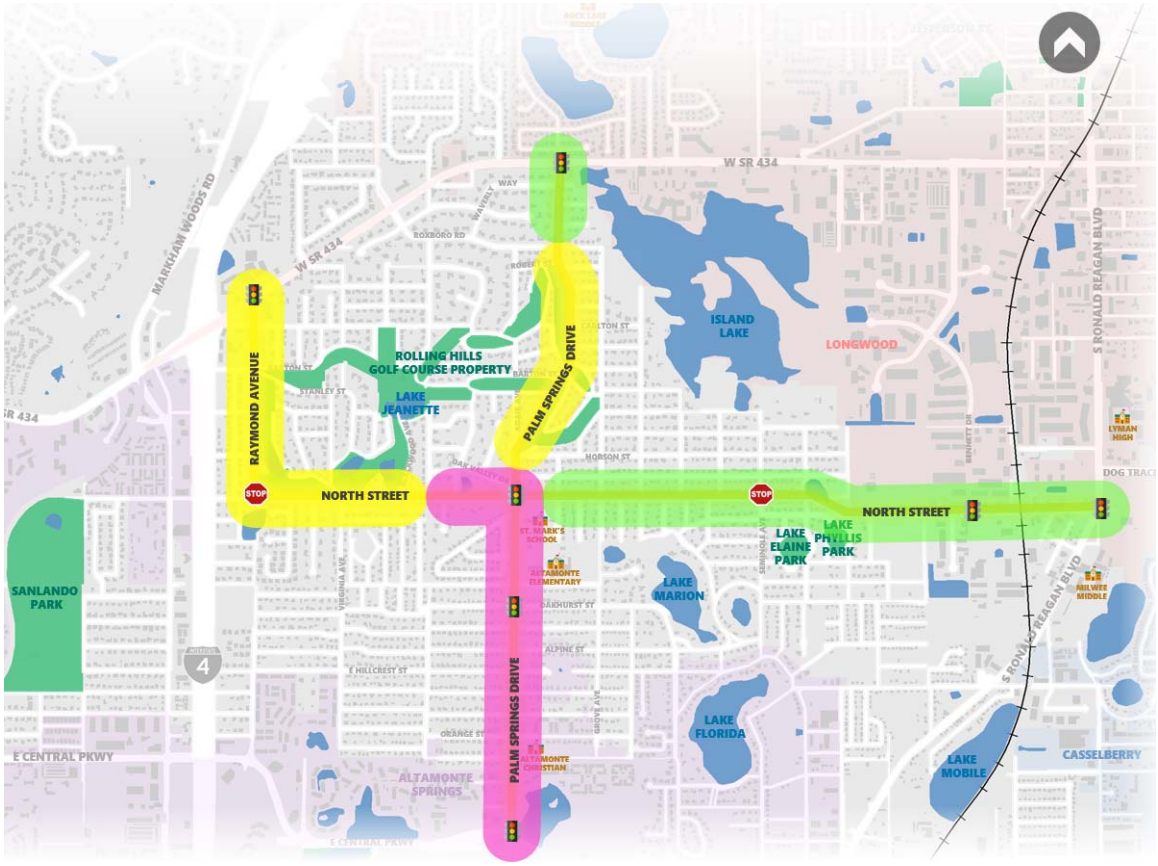


Figure 4 – **Corridor Context Areas Map**

CONTEXT AREA 1

Context area 1 includes Raymond Avenue from SR 434 to North Street, North Street from Raymond Avenue to Country Club Drive, and Palm Springs Drive from Robert Street to North Street. These segments are on the edge of the future park, have lower traffic volumes, and unaligned intersections. The existing roadway cross-section varies between two lanes and two lanes with a middle turn lane. The key goals identified for this Context Area based on evaluation of the existing conditions, coordination with County staff, and outreach feedback include:

- Improving bicycle and pedestrian mobility and connectivity between neighborhoods and the future park
- Identifying opportunities to utilize the park land for roadway right-of-way improvements
- Enhancing trail and pedestrian connections to support neighborhood and future park connections
- Using traffic calming strategies to lower speeds and enhance safety and livability
- Providing landscape areas for placemaking and neighborhood enhancement

Figure 5 – **Corridor Context Area #1 Map and Photos**

CONTEXT AREA 2

This context area includes North Street from Country Club Drive to Palm Springs Drive, and Palm Springs Drive from North Street to Central Parkway. These segments have multiple school zones, commercial activity, and higher traffic volumes. The existing roadway cross-section is predominantly two lanes with center left-turn lanes. The key goals identified for this Context Area based on evaluation of the existing conditions, coordination with County staff, and outreach feedback include:

- Improve safety at pedestrian crossings
- Support lower speeds, especially due to the presence of multiple schools
- Enhance bicycle and pedestrian connections, including connections to the future park and Altamonte Mall

Figure 6 – **Corridor Context Area #2 Map and Photos**

CONTEXT AREA 3

This context area includes Palm Springs Drive from SR 434 to Robert Street and North Street from Palm Springs Drive to Ronald Reagan Boulevard (CR 427). These segments of the corridor have numerous intersections, with areas of heavier truck activity along North Street, and medium traffic volumes. The existing roadway cross-section is predominantly two lanes. The key goals identified for this Context Area based on evaluation of the existing conditions, coordination with County staff, and outreach feedback include:

- Decrease heavy vehicle cut-through traffic
- Improve safety and operations at the North Street and Seminole Avenue intersection
- Reduce speeding and increase safety

Figure 7 – **Corridor Context Area #3 Map and Photos**

EVALUATING POTENTIAL IMPROVEMENTS

DESIGN STRATEGIES

The Project Team developed a menu of design strategies that were considered when developing the recommendations. Each of the strategies aimed at improving safety, calming traffic, and increasing the livability of the Rolling Hills area corridors. In addition to the below strategies, roundabouts were also considered at several locations. All the improvement options were presented to County staff, the Project Advisory Group, and to the public at an Open House meeting on November 14, 2019 at Altamonte Elementary School.

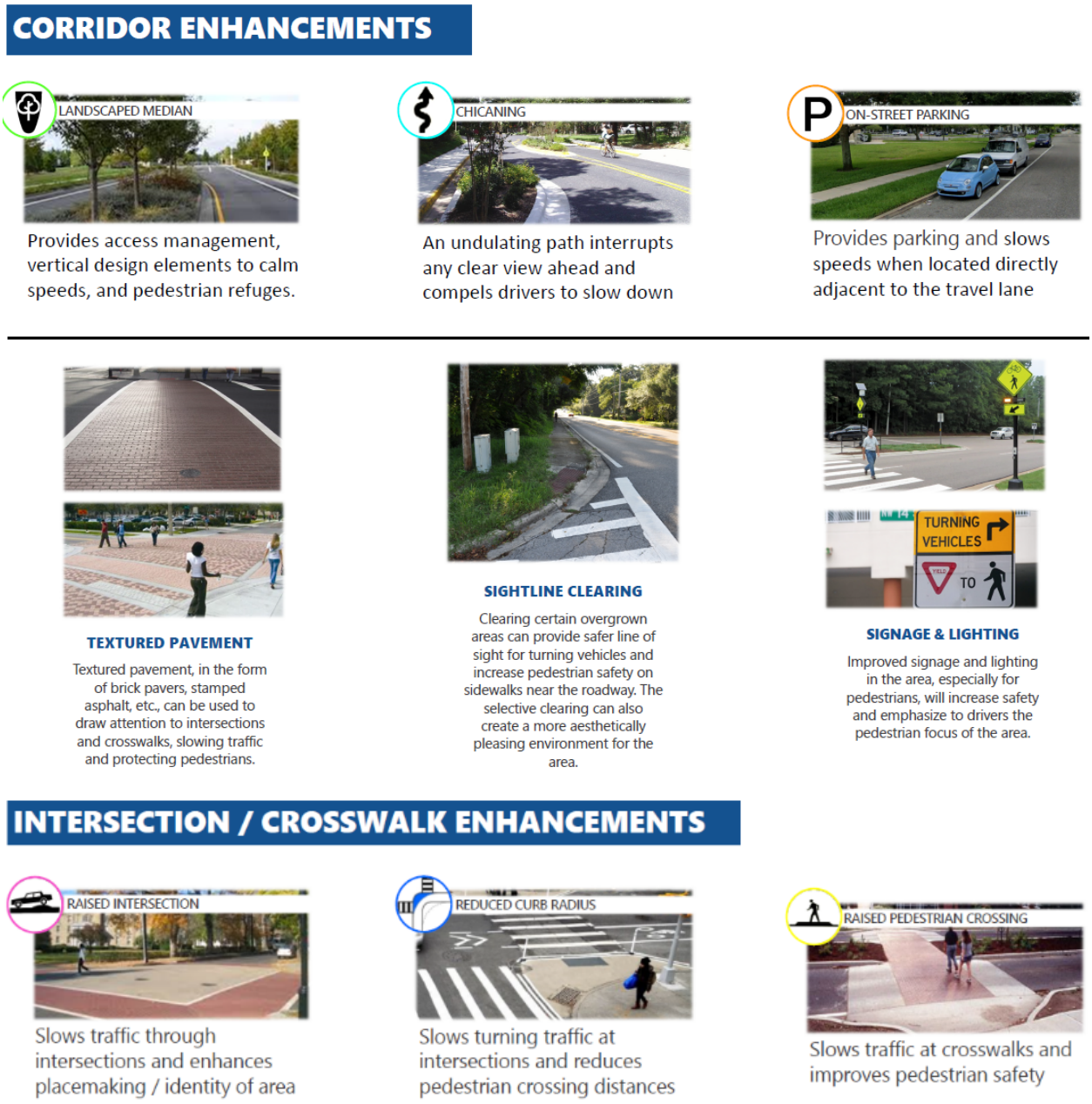


Figure 8 – **Potential Improvement Strategies**

PUBLIC MEETING SUMMARY

The public meeting was an Open House format with display boards grouped into six stations. Participants submitted feedback related to the ideas and design options presented on key display boards through an online survey accessible on their smartphones. In addition, staff was available to answer any questions. One station included a Google Earth KMZ file of select improvements including the roundabouts on Raymond Avenue, North Street, and Palm Springs Drive. There were 122 total attendees and 74 completed surveys. Most attendees learned of the public meeting through a mailed postcard (35%) or email (26%). Other methods of notification included Nextdoor (17%) and Facebook (10%). Of the attendees, 59% took the online survey.

Figure 9 – Public Meeting Photos

RECOMMENDATIONS

PROJECT CONCEPTS

Following the public meeting, the Project Team developed preliminary recommendations based on all the input received from the public, County staff, and elected officials. The developing concepts plans presentation can be found in **Appendix C**. The recommendations were segmented into six projects. The projects are:

1. Raymond Avenue from North Street to SR 434 (0.6 mi.)
2. North Street from Raymond Avenue to Palm Springs Drive (0.75 mi.)
3. Palm Springs Drive from North Street to SR 434 (1.0 mi.)
4. Palm Springs Drive from Central Parkway to North Street (1.0 mi.)
5. North Street from Palm Springs Drive to Longwood City Limits (1.0 mi.)
6. North Street from Longwood City Limits to CR 427 (0.75 mi.)

Project fact sheets follow on the next several pages. Final concept plan sheets are included in **Appendix D** for each project.

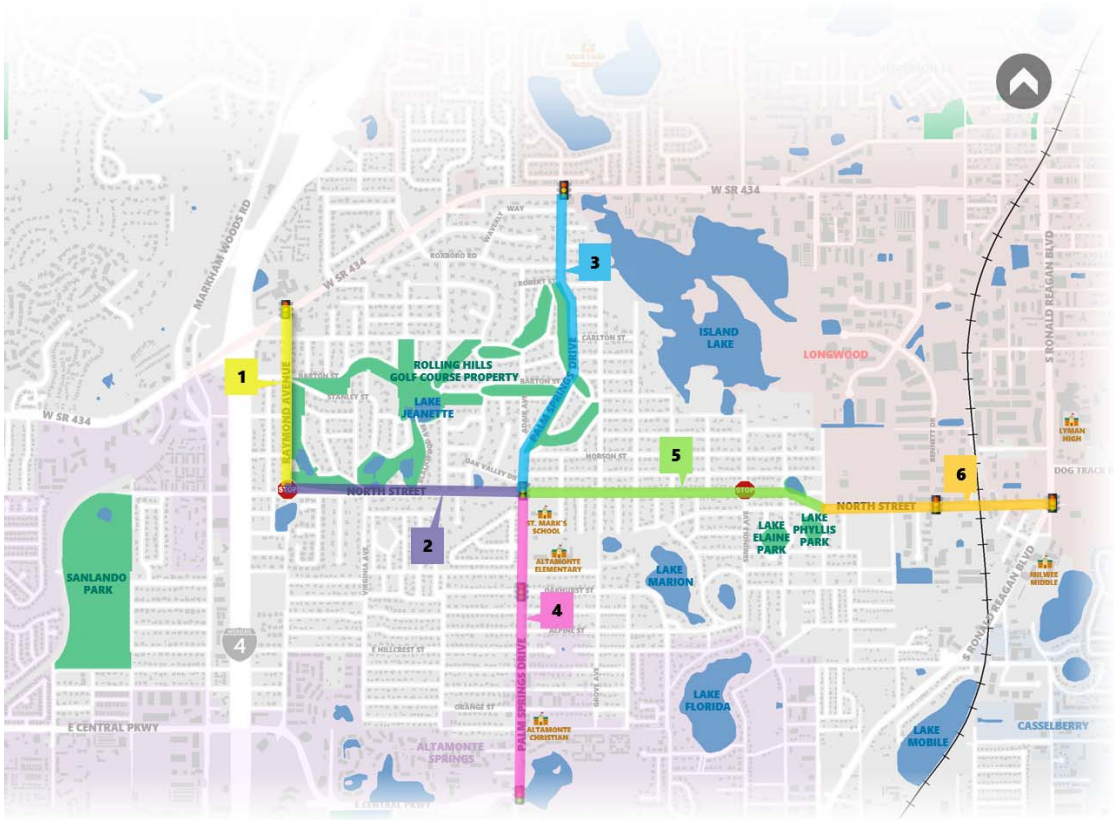


Figure 10 – **Study Area Prioritized Project Segments**

(In Order of Recommended Priority)

Figure 11 – **Project 1 Fact Sheet**

Figure 12 – **Project 2 Fact Sheet**

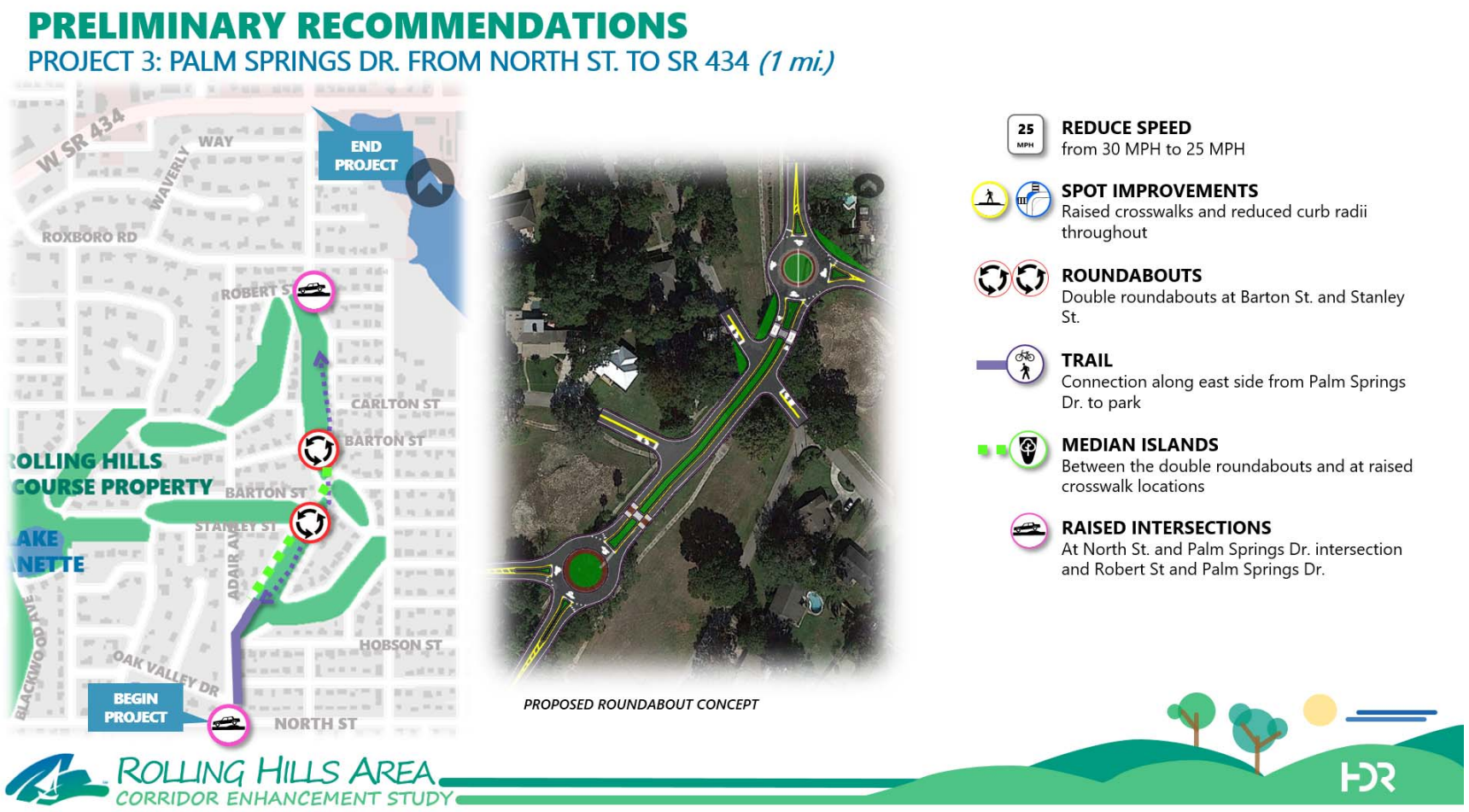


Figure 13 – Project 3 Fact Sheet

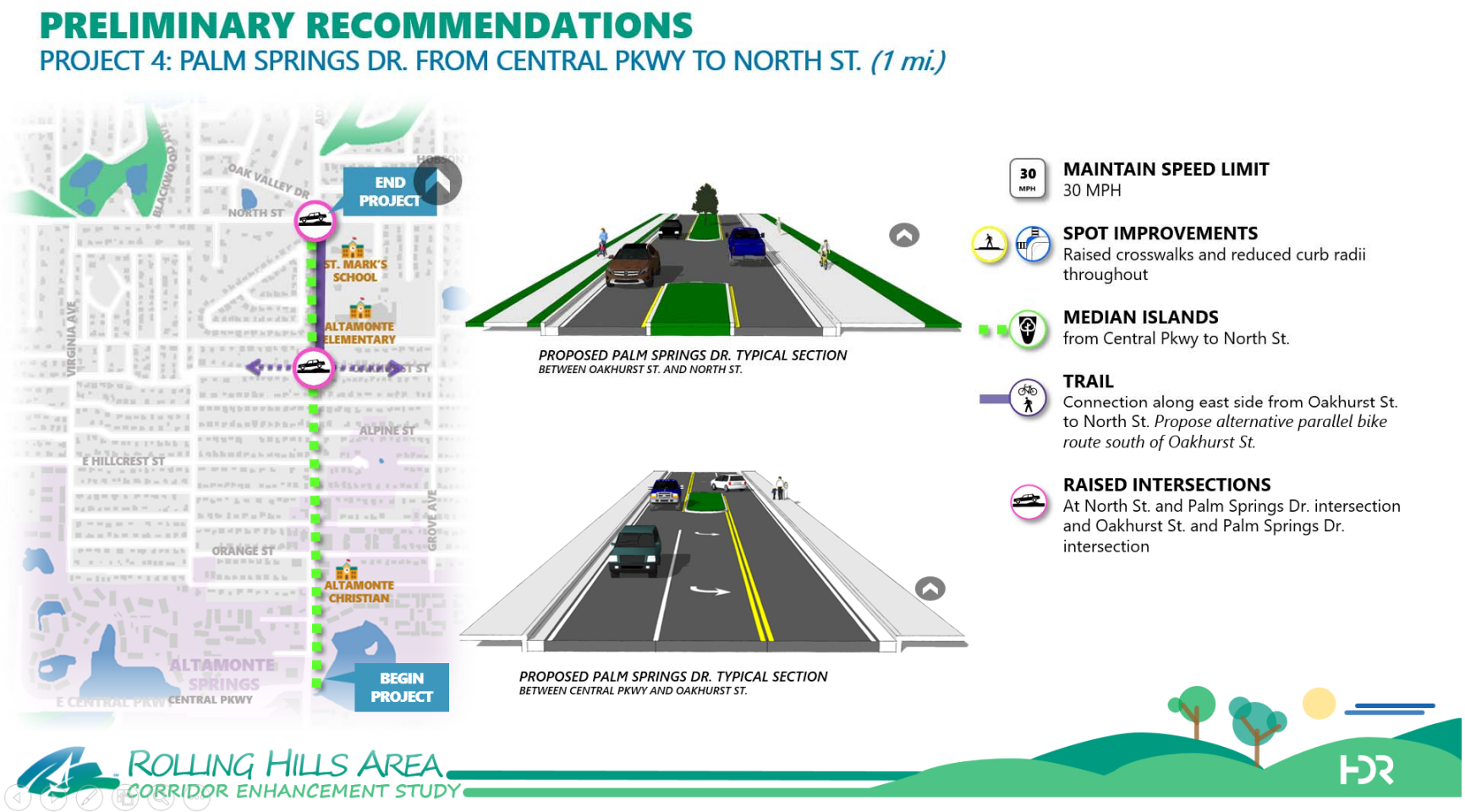


Figure 14 – Project 4 Fact Sheet

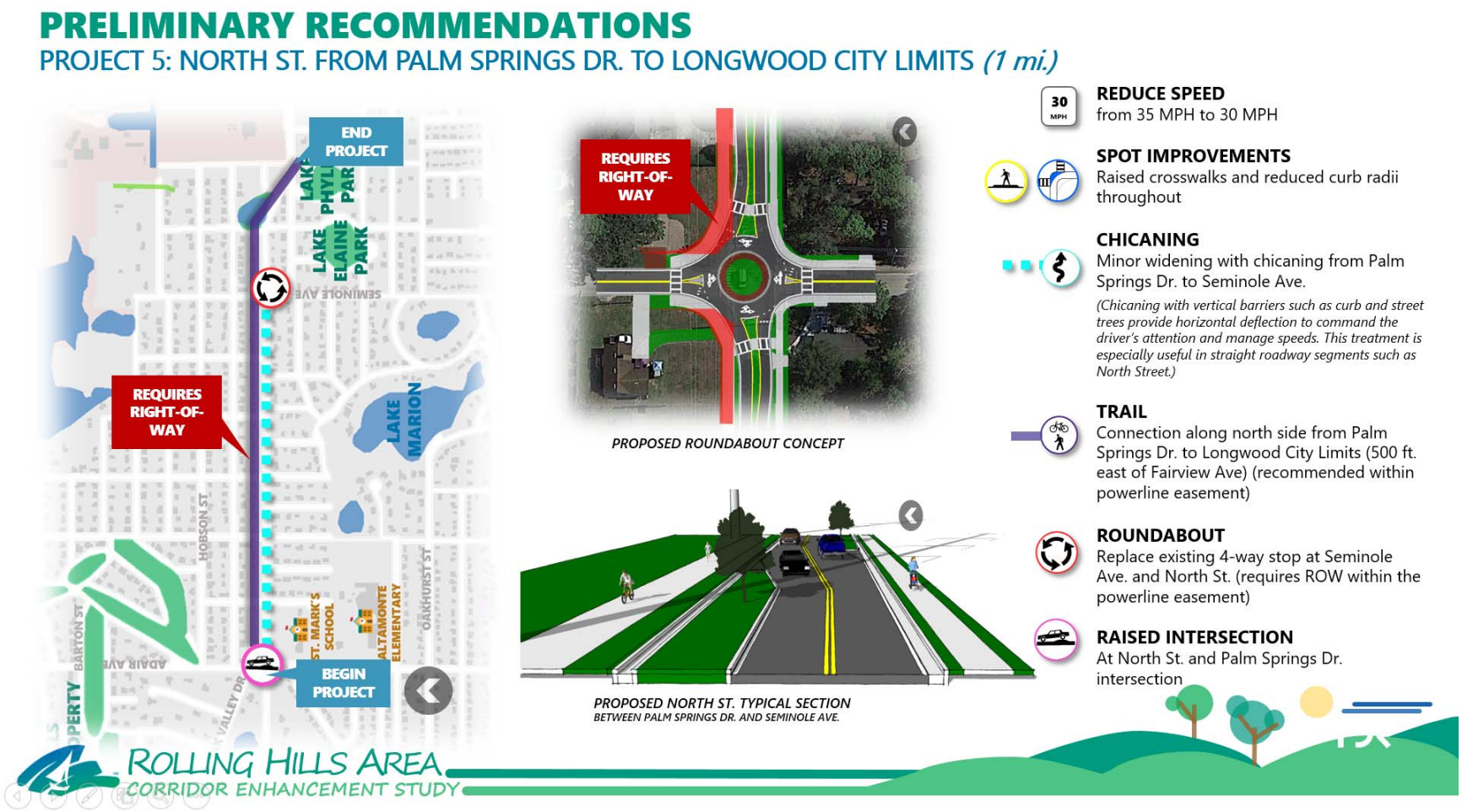


Figure 15 – **Project 5 Fact Sheet**

Figure 16 – **Project 6 Fact Sheet**

PLANNING LEVEL OPINION OF PROBABLE COSTS

A planning level opinion of probable costs was developed based on each of the proposed improvement concepts. The cost breakdown is shown in the table below.

PLANNING LEVEL OPINION OF PROBABLE COST							
ROLLING HILLS AREA CORRIDOR ENHANCEMENT STUDY (IN ORDER OF RECOMMENDED PRIORITY)							
	PROJECT 1	**PROJECT 2**	**PROJECT 3**	**PROJECT 4**	**PROJECT 5**	**PROJECT 6**	**TOTALS**
CONSTRUCTION SUBTOTAL	$ 2,086,811	$ 1,870,519	$ 2,727,879	$ 1,675,634	$ 3,864,997	$ 706,659	**$ 12,932,499**
PLUS LANDSCAPING/PLACEMAKING (10% OF SUBTOTAL)	$ 208,681	$ 187,052	$ 272,788	$ 167,563	$ 386,500	$ 70,666	**$ 1,293,250**
PLUS PROJECT UNKNOWNS / CONTINGENCY (20% OF SUBTOTAL)	$ 417,362	$ 374,104	$ 545,576	$ 335,127	$ 772,999	$ 141,332	**$ 2,586,500**
TOTAL CONSTRUCTION COST	**$ 2,712,854**	**$ 2,431,675**	**$ 3,546,243**	**$ 2,178,324**	**$ 5,024,496**	**$ 918,657**	**$ 16,812,249**
FINAL DESIGN (12% OF TOTAL CONSTRUCTION COST)	$ 325,543	$ 291,801	$ 425,549	$ 261,399	$ 602,940	$ 110,239	**$ 2,017,471**
CEI (7% OF TOTAL CONSTRUCTION COST)	$ 189,900	$ 170,217	$ 248,237	$ 152,483	$ 351,714	$ 64,306	**$ 1,176,857**
TOTAL DESIGN & CEI	**$ 515,443**	**$ 462,018**	**$ 673,786**	**$ 413,882**	**$ 954,654**	**$ 174,545**	**$ 3,194,328**
GRAND TOTAL	**$ 3,228,297**	**$ 2,893,693**	**$ 4,220,029**	**$ 2,592,206**	**$ 5,979,150**	**$ 1,093,202**	**$ 20,006,577**

NOTE: PLANNING LEVEL ONLY. SUBJECT TO CHANGE. OPINION OF PROBABLE COST DOES NOT INCLUDE COST OF ANY RIGHT OF WAY ACQUISITION OR UTILITY RELOCATION. ADDITIONAL STORMWATER PONDS HAVE NOT BEEN DETERMINED AND ARE NOT INCLUDED IN THIS ESTIMATE.

Figure 17 – Planning Level Opinion of Probable Costs

NEXT STEPS

The Project Team and County staff presented the study findings to the Board of County Commissioners on February 11, 2020. The meeting did not result in any notable changes to the recommended concepts. As each project moves into the design phase, it is noted that a drainage analysis was not performed, therefore drainage accommodations should still be evaluated.

The County should consider combining Projects 1, 2, and 3 and performing the improvements in tandem with the Rolling Hills park improvements. Project 4 can occur at any time. On Project 5 along North Street, coordination between County staff, property owners, and the utility company is needed for right-of-way acquisition. If the property owners and/or utility company are not agreeable to the right-of-way needs, improvements along the North Street from Palm Springs Drive to the Longwood city limits should still include adding a trail to the north side of North St. On Project 6, County staff should coordinate with SunRail/railroad to implement a new trail crossing on the north side of North Street.

APPENDIX A: COMMUNITY OUTREACH PLAN

SEMINOLE COUNTY
FLORIDA'S NATURAL CHOICE

ROLLING HILLS AREA
CORRIDOR ENHANCEMENT STUDY
COMMUNITY OUTREACH PLAN

AUGUST 2019

LAST REVISED:
APRIL 2020

HDR

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

(The Outreach Plan, developed by HDR (Project Team), was a living document that was updated as needed throughout the study. This Plan is included as an Appendix to the Rolling Hills Area Corridor Enhancement Study Final Report for informational purposes only.)

INTRODUCTION

The purpose of the Rolling Hills Area Corridor Enhancement Study Community Outreach Plan is to guide efforts for providing information to residents, community members, agencies, businesses, and government entities as well as obtaining any questions, comments, and concerns regarding the Rolling Hills Area Corridor Enhancement Study project. This plan is meant to ensure that the recommendations in the Rolling Hills Area Corridor Enhancement Study are reflecting the needs and values of the community.

The Outreach Plan establishes a comprehensive, inclusive process for communication with County staff, County Commissioners, Project Advisory Group (PAG) members, and the general public. The plan contains various outreach methods to communicate with all stakeholders throughout the project duration who have an interest and investment in the future development of the Rolling Hills Area.

PURPOSE AND DESCRIPTION OF PROJECT

The purpose of the project is to support and assist Seminole County in performing a corridor enhancement study that improves the mobility, safety, and livability along the North Street, Palm Springs Drive, and Raymond Avenue corridors. Together these corridors create the Rolling Hills Area Corridor Enhancement Study. This corridor enhancement study coordinates with other recent and active planning studies and improvement projects to ensure consistency in planning and implementation. The corridor enhancement study identifies a range of possible context sensitive alternatives to address the corridor needs that reflect the short-term and long-term goals of all users of the corridors.

OUTREACH ACTIVITY SCHEDULE

The Notice to Proceed for the Rolling Hills Corridor Enhancement Study was given on June 28, 2019. A Kick-off Meeting with County staff and the Project Team occurred on July 25, 2019. The study will continue through March 1, 2020. The draft Community Outreach Plan will be sent to the County Project Manager for approval.

During the Defining Success & Evaluating Potential Improvements phase, there will be a total of five (5) meetings. The meetings will consist of a Project Team meeting with County staff, a County staff Commissioner briefing, a workshop with the Board of County Commissioners (BOCC), a Project Advisory Group (PAG) meeting, and a public meeting. At the beginning of this phase, an online survey will be made available to the public to better understand the goals and vision the community has for the Rolling Hills area.

After the Defining Success & Evaluating Potential Improvements phase, the Developing Conceptual Plans phase will begin. This phase will have a total of three (3) meetings. These meetings will consist of a County staff meeting with the Project Team, a County staff Commissioner briefing, and the second PAG meeting. When the project is near completion, a project presentation will be given at the County Commission Board Meeting.

Figure 1: Project Overview

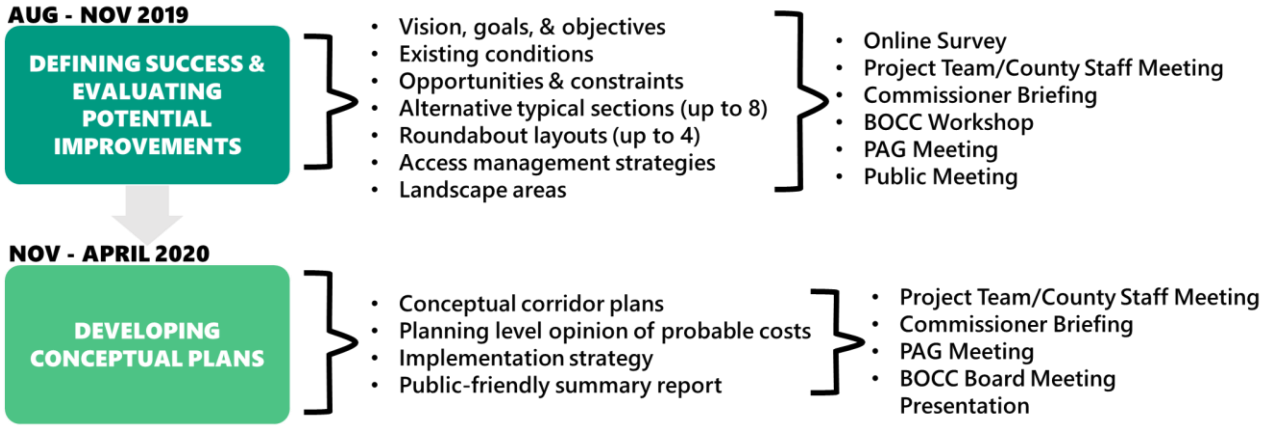


Table 1: Planned Meeting and Outreach Schedule

Topic:	Meeting:	Date:
DEFINING SUCCESS & EVALUATING POTENTIAL IMPROVEMENTS		
Notice to Proceed	Kick-off Meeting	July 25, 2019
Community Outreach Plan	County Staff Commissioner Briefing	August 9, 2019
Defining Success & Evaluating Potential Improvements	Online Survey	August 27 – September 8, 2019
Defining Success & Evaluating Potential Improvements	Project Team/County Staff	September 30, 2019
Defining Success & Evaluating Potential Improvements	County Staff Commissioner Briefing	October 2019
Defining Success & Evaluating Potential Improvements	BOCC Workshop	October 22, 2019
Defining Success & Evaluating Potential Improvements	PAG Meeting	November 8, 2019
Defining Success & Evaluating Potential Improvements	Public Meeting	November 14, 2019

DEVELOPING CONCEPTUAL PLANS		
• Overview of public meeting • Present public meeting polling results • Preliminary recommendations for typical sections and intersection design with planning level cost estimates	Project Team/County Staff	December 16, 2019
• Copy of County staff presentation	County Staff Commissioner Briefing	December 19, 2019
• Preliminary concept drawings	PAG Meeting	January 10, 2020
Project Presentation • Final concept plan and draft report	BOCC Board Meeting	February 11, 2020

ONLINE SURVEY

At the beginning of the Defining Success & Evaluating Potential Improvements phase, an online survey will be released to the public to help guide the visions and goals.

The questions included in the online survey are listed below:

1. What ways do you currently travel on Raymond Ave?

Car
Freight/Delivery Truck
School Bus
Bike
Walk
Golf Cart
Other

2. After improvements, what ways would you like to be able to travel on Raymond Ave?

   Car
   Freight/Delivery Truck
   School Bus
   Bike
   Walk
   Golf Cart
   Other

3. What do you consider your biggest obstacle to using alternative modes of transportation on Raymond Ave?

4. How would you rate the priorities of these investments for Raymond Ave?

   Beautification/Green Streets
   Safe Pedestrian Crossings
   New Multiuse Trail
   Bike Improvements
   Reducing Cut-Through Traffic/Truck Traffic
   Reducing Speeding
   Adding On-Street Parking
   Golf Cart Accommodations

5. What ways do you currently travel on North St?

   Car
   Freight/Delivery Truck
   School Bus
   Bike
   Walk
   Golf Cart
   Other

6. After improvements, what ways would you like to be able to travel on North St?

   Car
   Freight/Delivery Truck
   School Bus
   Bike
   Walk
   Golf Cart
   Other

7. What do you consider your biggest obstacle to using alternative modes of transportation of North St?

8. How would you rate the priorities of these investments for North St?

   Beautification/Green Streets
   Safe Pedestrian Crossings
   New Multiuse Trail
   Bike Improvements
   Reducing Cut-Through Traffic/Truck Traffic
   Reducing Speeding
   Adding On-Street Parking
   Golf Cart Accommodations

9. What ways do you currently travel on Palm Springs Dr?

   Car
   Freight/Delivery Truck
   School Bus
   Bike
   Walk
   Golf Cart
   Other

10. After improvements, what ways would you like to be able to travel on Palm Springs Dr?

    Car
    Freight/Delivery Truck
    School Bus
    Bike
    Walk

Golf Cart
Other

11. What do you consider your biggest obstacle to using alternative modes of transportation on Palm Springs Dr?

12. How would you rate the priorities of these investments for Palm Springs Dr?

    Beautification/Green Streets
    Safe Pedestrian Crossings
    New Multiuse Trail
    Bike Improvements
    Reducing Cut-Through Traffic/Truck Traffic
    Reducing Speeding
    Adding On-Street Parking
    Golf Cart Accommodations

13. Why do you travel in the Rolling Hills Study Area?

14. What three words describe your future vision for the corridors in the Rolling Hills Study Area?

15. After improvements, what specific activities would you like to use the corridors in the Rolling Hills Study Area for?

16. Any other comments?

17. Please provide your email to be added to the project mailing list?

Outreach Method: This survey will be developed by the Project Team and will be released by Seminole County staff to the public through NextDoor.

COUNTY STAFF MEETINGS

The Rolling Hills Area Corridor Enhancement Study Project Team will have scheduled meetings with Seminole County staff. County staff meetings will include representatives from the Leisure Services Department, the Community Information Section of the Economic Development Department, and the Engineering Division of the Public Works Department. Additional phone calls and progress meetings will be held with County staff as necessary throughout the study.

COMMISSIONER BRIEFINGS

The Rolling Hills Area Corridor Enhancement Study encompasses a portion of two County Commission districts. County staff will provide briefings to District 3 Commissioner Lee Constantine and District 4 Commissioner Amy Lockhart. These briefings will provide an opportunity to review study materials and discuss project findings.

BOARD OF COUNTY COMMISSIONERS WORKSHOP

The Project Team will present the Defining Success & Evaluating Potential Improvements phase during a regularly scheduled workshop of the Board of County Commissioners (BOCC).

Materials will be provided at a minimum of one week ahead of the scheduled workshop.

PROJECT ADVISORY GROUP

The Project Advisory Group (PAG) will be created to help steer the study's process, recommend alternatives, and give input on the conceptual design. The recommended PAG members are identified in the table on the following page.

Outreach Method: Invitations to serve on the PAG will be drafted by the Project Team and sent by Seminole County staff through email. PAG members will be contacted before each meeting to confirm an RSVP. PAG members who are unable to attend may send an assigned designee in their place.

Table 2: Suggested Project Advisory Group

Organization:	Name:	Phone:	Email:
Florida Department of Transportation (FDOT)	Heather Garcia	(386) 943-5077	Heather.garcia@dot.state.fl.us
Seminole County Leisure Services	Rick Durr	(407)-665-2173	rdurr@seminolecountyfl.gov
	Keith Welty	(407) 665-2175	rwelty@seminolecountyfl.gov
	Jeff Caldwell	(407) 665-2173	jcaldwell@seminolecountyfl.gov
Seminole County Economic Development Department	Ashley Moore	(407) 665-1172	amoore@seminolecountyfl.gov
Seminole County Parks and Preservation Advisory Committee	Mark Brandenburg	(407) 659-0915	mbrandenburg@sjrwmd.com
	Jason Sutton, Chen Moore & Assoc.	(407) 536-7970	jsutton@chenmoore.com
Seminole County Sherriff's Office	Capt. Rick Francis, School Safety & Security Director	Office: (407) 320-0049 Cell: (407) 402-3599	francirr@scps.k12.fl.us
Seminole County Public Schools	Julie Murphy, Director, Transportation	Office: (407) 320-7513 Cell: (321) 377-2224	julie_murphy@scps.k12.fl.us
City of Altamonte Springs	Brett Blackadar, Division Director of Engineering	(407) 571-8538	BBlackadar@Altamonte.org
	Irene Zhu, Senior Transportation Engineer	(407) 571-8538	xzhu@altamonte.org
City of Casselberry	Kelley Brock	(407) 262-7725 x 1235	kbrock@casselberry.org
Bike/Walk Central Florida	Amanda Day	(407) 636-5606	Amanda@bikewalkcf.org
Best Foot Forward	Barbara Giles	(407) 765-3017	barbara@bikewalkcf.org
Palm Springs/Rolling Hills	Debbie Cossairt	(407) 701-7118	debbiecossairt@mac.com
Save Rolling Hills Steering Committee	Michelle Omana	(321) 578-0392	mickgo426@aol.com
	Andrew Kaplan	(407) 592-6490	andrewk@ufg-lease.com
Shopping Center at North St. and Bennett Dr.	Mike McGavock	(406) 462-5678	Michael.mcgavock@yahoo.com
	James Cheney, Gator Mowing and Equipment, Lisa Cheney	(407) 260-1292	shop@gatormowerparts.com lisacheney@gmail.com
Scan Design – Representative for Freight/Truck Industrial	Preben Knusden		kpk@scandesign.com
Sanlando United Methodist Church	Judy Wright, Director of Operations	(407) 571-2100 x 110	Judy.wright@sanlando.org
Altamonte Christian School	Denille Brownlee, School Director	(407) 831-0950	dbrownless@altamontechristian.org
St. Mark's Presbyterian Church	David Judd, Pastor	(407) 331-7520	pastor@stmarkspc.org
WaterStone Church	Lea Davis	(407) 339-8961	lea@mywaterstone.church
Altamonte Elementary School	Pam Gamble, Principal		Pam_gamble@scps.k12.fl.us
Altamonte Elementary School PTA	Kelley Zulueta	N/A	altamonteelementarypta@gmail.com
Lyman High School PTA	Lorena Pierson	(407) 461-2888	Jackson_pierson@hotmail.com
Milwee Middle School PTA	Jolynne Mora		MilweePTSA@gmail.com

PUBLIC MEETING

The public meeting will be held to share information about the Rolling Hills Area Corridor Enhancement Study.

It is anticipated that the public meeting will be located at Lyman High School at 865 S. Ronald Reagan Blvd, Longwood, Florida 32750 in the evening.

Outreach Method: Invitations to the public meeting will be distributed by Seminole County staff through email, NextDoor, and by mail. The direct mail piece will be sent using addresses collected from the County GIS database that are within the study area. County staff are responsible for mail pieces.

PUBLIC COMMENTS

The County will accept public comments throughout the project duration. Comments can be made through multiple outlets.

1. In person at public meetings. A comment form will be made available for the public to fill out and return to the project staff members.
2. By email: wwharton@seminolecountyfl.gov
3. By phone: 407-665-5730
4. By mail:
   Bill Wharton, Transportation Planning Manager
   Seminole County Public Works Department
   100 E. 1st Street
   Sanford, FL 32771

Responses to comments will be distributed by Bill Wharton with support from the Project Team.

DOCUMENT AVAILABILITY

County staff will create and update a project webpage on the Seminole County website that will contain project information, documentation, and public meeting details.

APPENDIX B: DEFINING SUCCESS

SEMINOLE COUNTY
FLORIDA'S NATURAL CHOICE

ROLLING HILLS AREA
CORRIDOR ENHANCEMENT STUDY

DEFINING SUCCESS & EVALUATING POTENTIAL IMPROVEMENTS

PROJECT ADVISORY GROUP MEETING #1

NOVEMBER 8, 2019 - REVISED

HDR

AGENDA

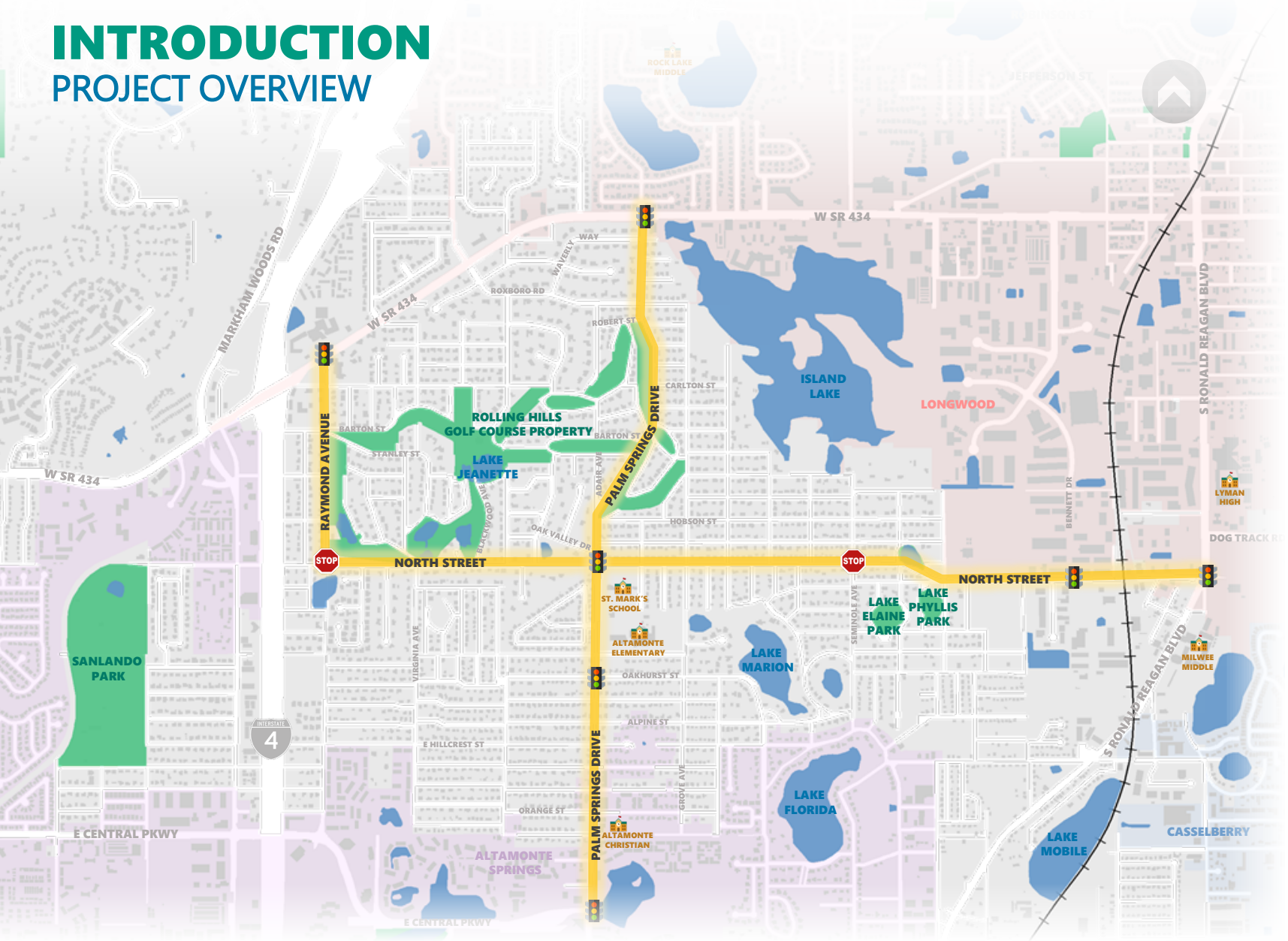
1 **INTRODUCTION**
PROJECT OVERVIEW

2 **DEFINING SUCCESS**
STUDY BACKGROUND
COMMUNITY INPUT
CORRIDOR CHARACTERISTICS
GOALS & OBJECTIVES

3 **EVALUATING POTENTIAL IMPROVEMENTS**
DESIGN STRATEGIES

1 INTRODUCTION

INTRODUCTION
PROJECT OVERVIEW



STUDY LIMITS

This study will identify improvements for three collector roadways serving the Palm Springs and Rolling Hills neighborhoods within Seminole County. The combined roadway network is approximately 5 miles:

- Raymond Ave from SR 434 to North St
- North St from Raymond Ave to CR 427
- Palm Springs Dr from SR 434 to E Central Pkwy

INTRODUCTION
PROJECT OVERVIEW

MOBILITY

- Active transportation
- Public friendly
- Trail connections

LIVABILITY

- Green streets
- Beautification
- Landscaping

SAFETY

- Sidewalk connections
- Traffic calming
- School crossings

STUDY PURPOSE

- Improve **mobility, safety, and livability** along the North St, Palm Springs Dr, and Raymond Ave corridors
- Coordinate with other recent and ongoing planning studies and improvement projects to ensure consistency in planning and implementation
- Identify a range of possible context sensitive alternatives to address the corridor needs that reflects the short-term and long-term needs of all users of the corridors
- Focus on safety and mobility issues

INTRODUCTION
PROJECT OVERVIEW

SCHEDULE

AUG - NOV 2019

DEFINING SUCCESS & EVALUATING POTENTIAL IMPROVEMENTS *

- Vision, goals, & objectives
- Existing conditions
- Opportunities & constraints
- Alternative typical sections (up to 8)
- Roundabout layouts (up to 4)
- Access management strategies
- Landscape areas

- Online Survey
- Project Team/County Staff Meeting
- Commissioner Briefing
- BOCC Workshop
- PAG Meeting
- Public Meeting

NOV - JAN 2020

DEVELOPING CONCEPTUAL PLANS

- Conceptual corridor plans
- Planning level opinion of probable costs
- Implementation strategy
- Public-friendly summary report

- Project Team/County Staff Meeting
- Commissioner Briefing
- PAG Meeting
- BOCC Board Meeting Presentation

IN PROGRESS, ALTERNATIVES TO BE REFINED AND FINALIZED IN NOVEMBER BASED ON FEEDBACK ON POTENTIAL DESIGN STRATEGIES

2 DEFINING SUCCESS

DEFINING SUCCESS
APPROACH

IDENTIFY PROJECT GOALS, OBJECTIVES AND WHAT DEFINES A SUCCESSFUL PROJECT BASED ON:

- STUDY BACKGROUND & RELATED PROJECTS
- COMMUNITY INPUT (ON-GOING)
- CORRIDOR CHARACTERISTICS

THE GOALS AND OBJECTIVES WILL BE USED TO IDENTIFY DESIGN STRATEGIES AND POTENTIAL IMPROVEMENTS.

DEFINING SUCCESS

STUDY BACKGROUND

PREVIOUS RECOMMENDATIONS (IMPLEMENTED)

LEGEND

1999 PALM SPRINGS ROLLING HILLS COMMUNITY TRAFFIC ANALYSIS

2000 TRAFFIC CALMING REPORT RECOMMENDATIONS

2009 POTENTIAL IMPROVEMENTS FOR CENTRAL PKWY AT PALM SPRINGS DR

2019 IMPROVEMENT

DEFINING SUCCESS
STUDY BACKGROUND

PREVIOUS RECOMMENDATIONS (NOT IMPLEMENTED)

2000 TRAFFIC CALMING REPORT RECOMMENDATIONS

2009 POTENTIAL IMPROVEMENTS FOR CENTRAL PKWY AT PALM SPRINGS DR

2013 COMMERCE PARK ROADWAY NETWORK IMPROVEMENT STUDY

2018 PHASE 1 STUDY

DEFINING SUCCESS
STUDY BACKGROUND

ROLLING HILLS COMMUNITY PARK CONCEPTUAL MASTER PLAN

The Rolling Hills Golf Club closed in 2014, leaving about 100 acres of undeveloped land within the Rolling Hills residential community. With support from the surrounding community, Seminole County purchased the former golf course property in late 2018, with plans to transition the property into a passive community park.

A public meeting was held in October 2018 to share the park concept master plan with the community.

DEFINING SUCCESS
STUDY BACKGROUND

CONCEPTUAL MASTER PLAN

Concept Design: Richard Durr

ROLLING HILLS COMMUNITY PARK DESIGN AND PLANNING HANDBOOK

The Design and Planning Handbook provides detailed plans for landscaping throughout the park. Concepts for the study area will consider the future park plans.

DEFINING SUCCESS
COMMUNITY INPUT

349

Nextdoor

Mentimeter

ONLINE SURVEY PARTICIPANTS

2

PLANNED PROJECT ADVISORY GROUP MEETINGS

1

PLANNED PUBLIC MEETING

DEFINING SUCCESS

COMMUNITY INPUT

ONLINE SURVEY: WHAT WE HEARD

WHY DO YOU TRAVEL IN THE ROLLING HILLS STUDY AREA?

Live

Work

Play

School

Shop

Worship

Other

297

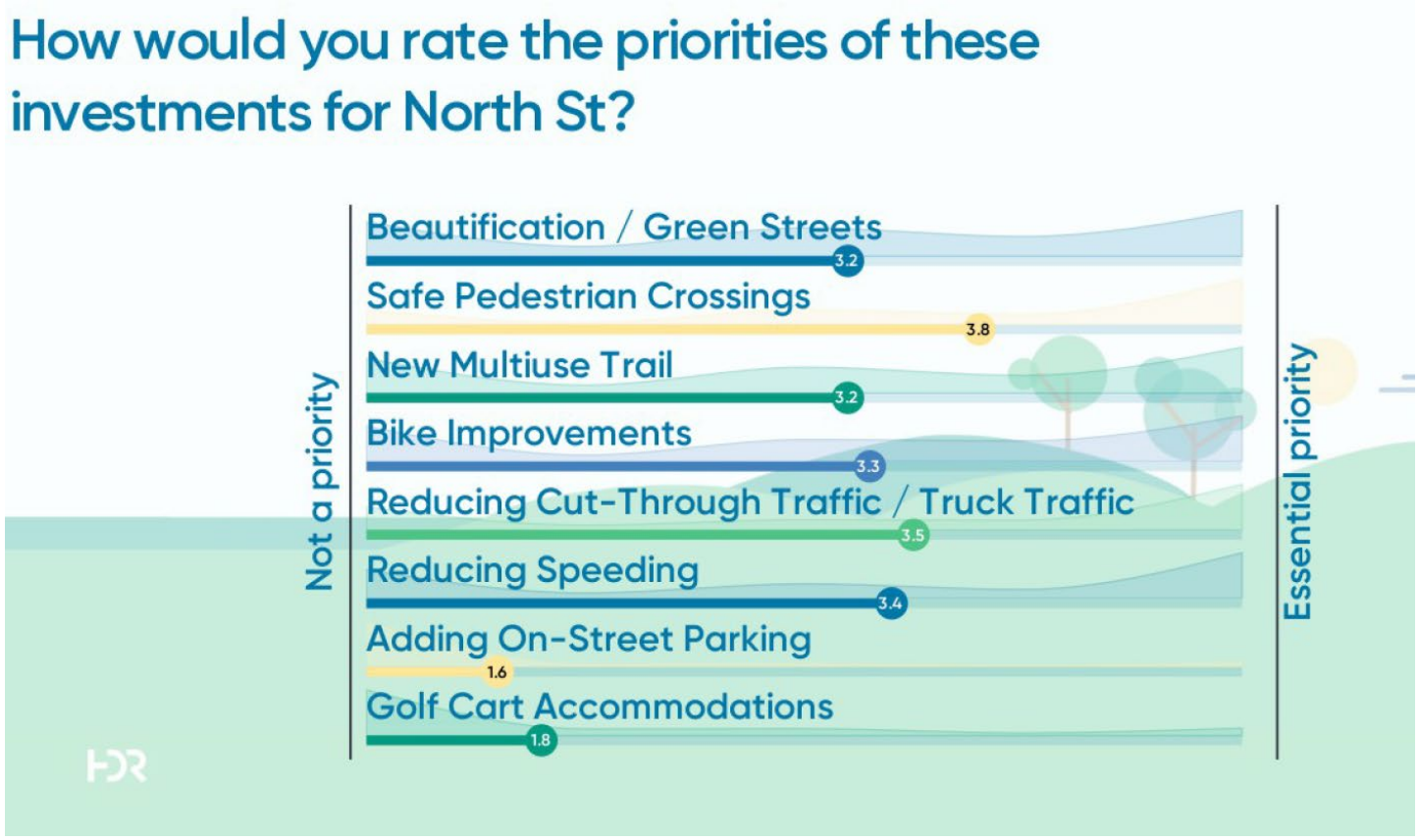
DEFINING SUCCESS
COMMUNITY INPUT

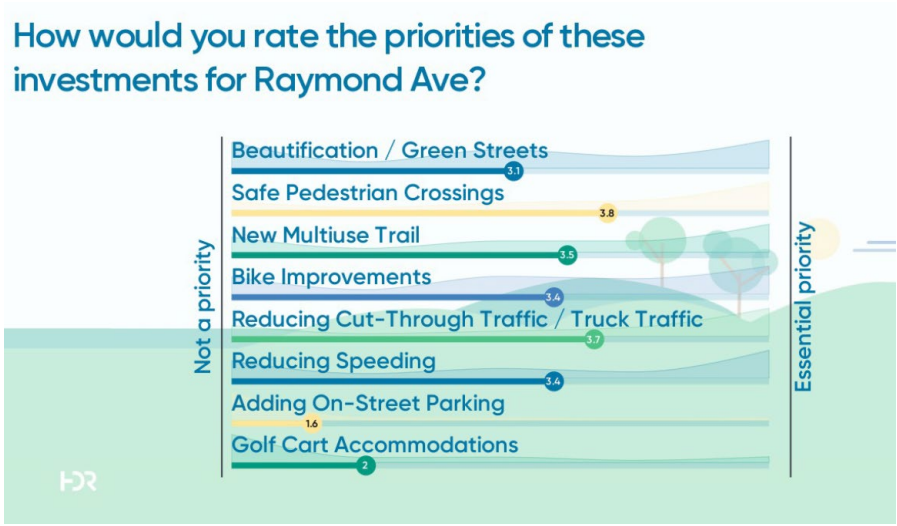
ONLINE SURVEY: WHAT WE HEARD

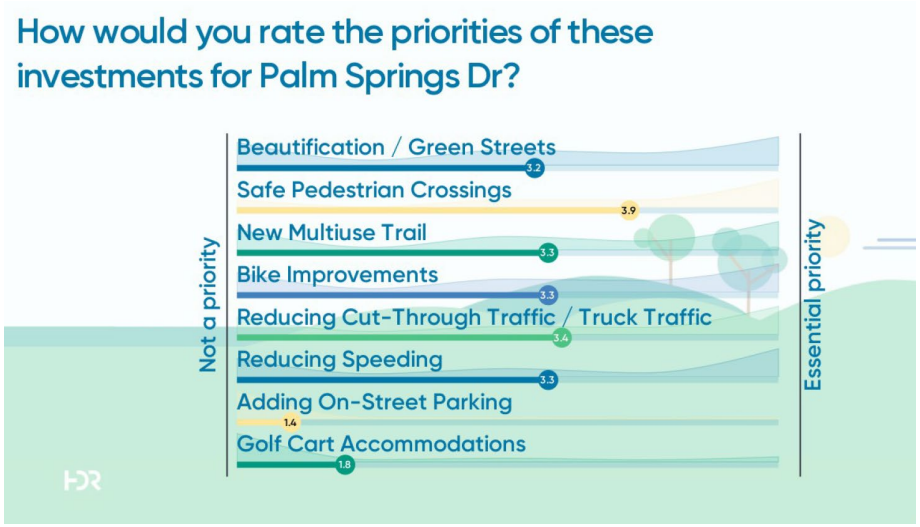
WHAT THREE WORDS DESCRIBE YOUR FUTURE VISION FOR THE CORRIDORS IN THE ROLLING HILLS AREA?

281

DEFINING SUCCESS
COMMUNITY INPUT







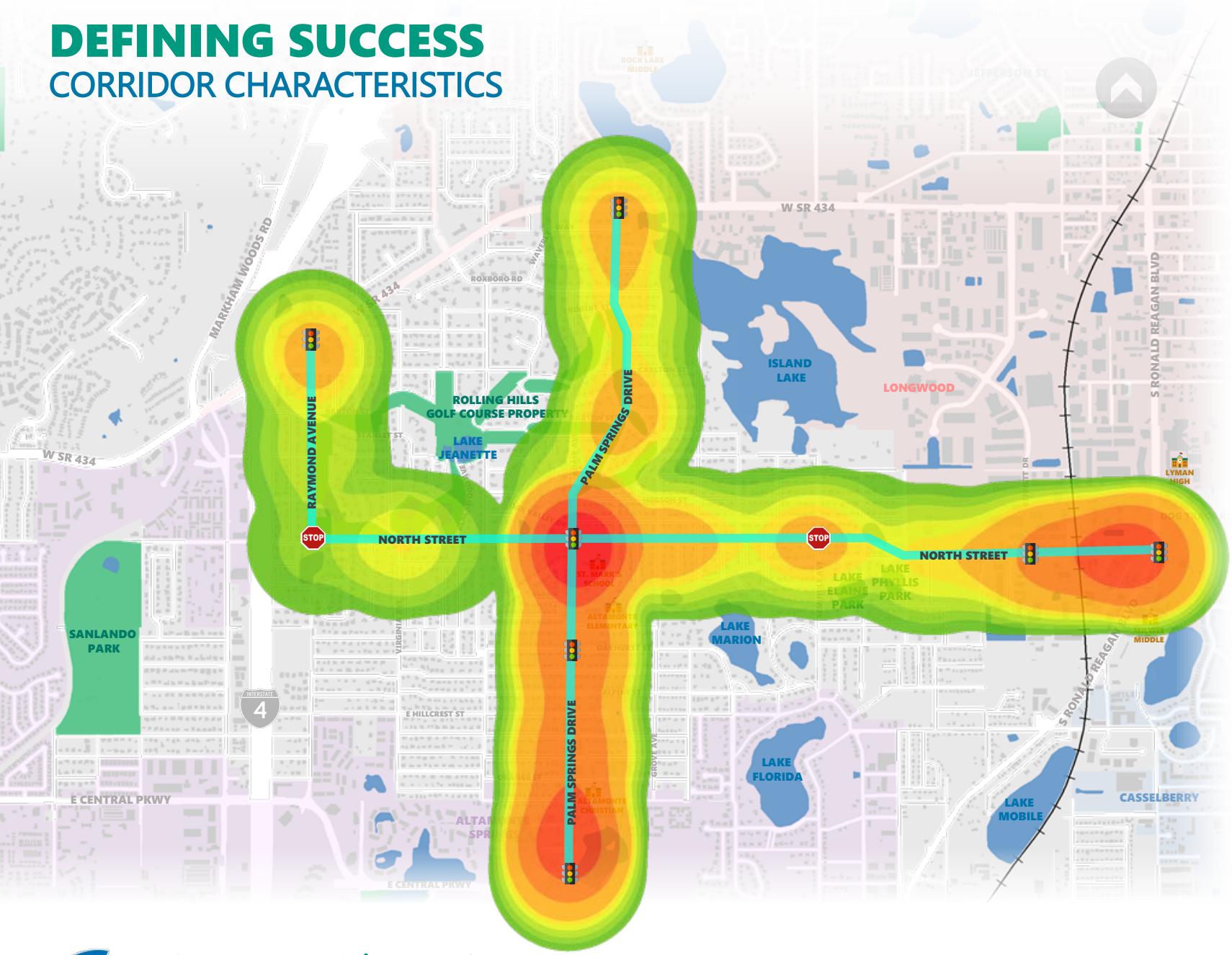
DEFINING SUCCESS
COMMUNITY INPUT

SUMMARY OF INPUT

Input from the public emphasized the area's need for better livability and bike and pedestrian mobility. There were concerns over sidewalk and lighting conditions and the ability to bike comfortably on the corridors. Specific intersections were mentioned over safety concerns. Many respondents also wrote about connections from the Rolling Hills Area to surrounding amenities.

Location specific comments are noted on the map to the left.

DEFINING SUCCESS
CORRIDOR CHARACTERISTICS



CRASHES (2012 – 2018)

From 2012-2018, there were 268 total crashes.

LEADING CAUSES

- Rear-end
- Left turn
- Sideswipe

PEDESTRIAN CRASHES

- Six crashes total
- One fatality
- Three occurred in daylight
- Two occurred at intersections

LEGEND

MORE CRASHES — LESS CRASHES

DEFINING SUCCESS
CORRIDOR CHARACTERISTICS

PEDESTRIAN FATALITY

- OCCURRED IN 2015
- OUTSIDE OF INTERSECTION
- NIGHT CONDITIONS

CRASHES (2012 – 2018)

CRASH SEVERITY

The recorded crashes for the study area are classified by severity.

LEGEND

PROPERTY DAMAGE ONLY	INJURY	FATALITY
(199)	(84)	(1)

DEFINING SUCCESS
CORRIDOR CHARACTERISTICS

TRAFFIC OPERATIONS ANALYSIS

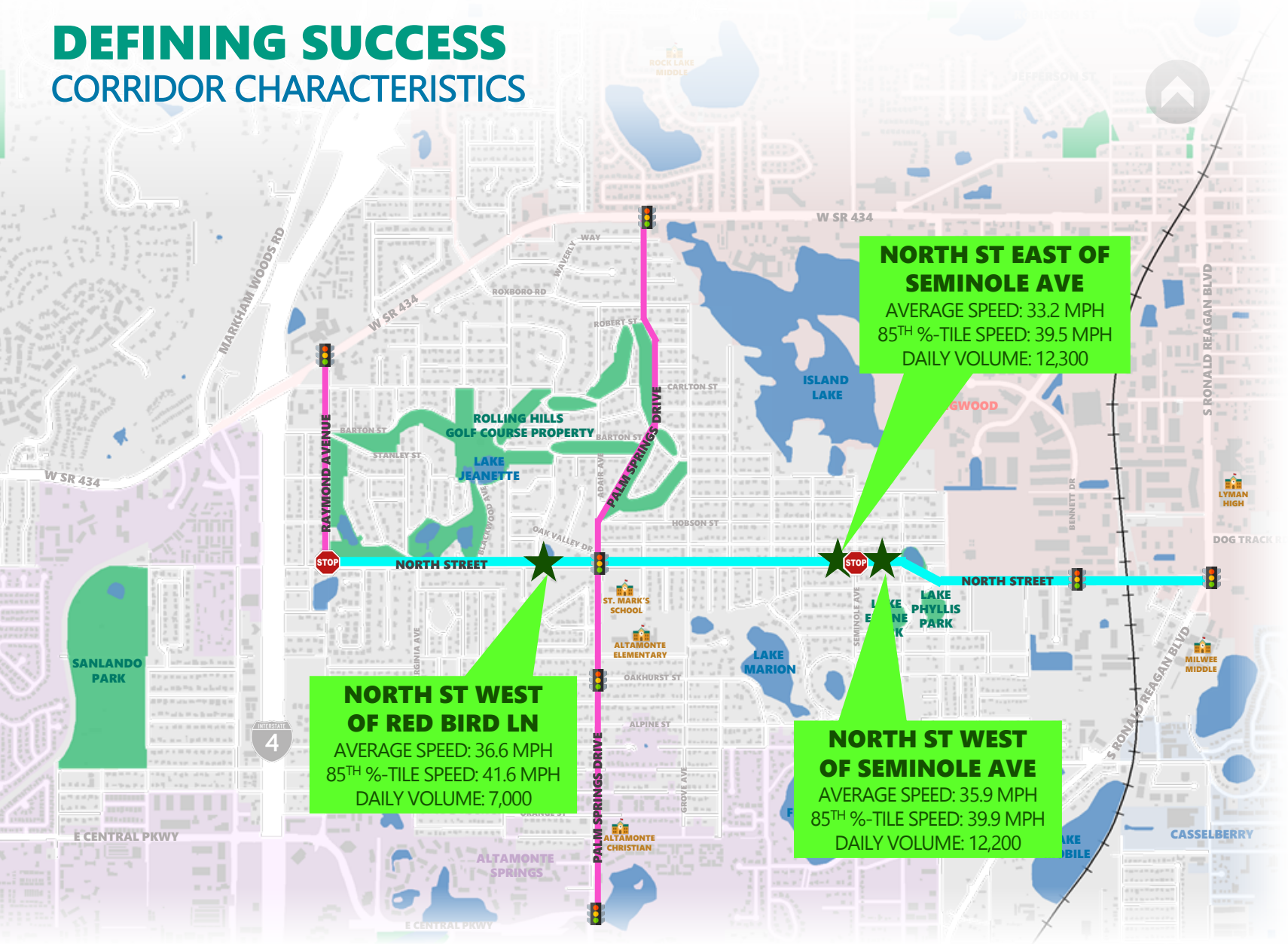
Intersection capacity analyses were performed during weekday morning and afternoon peak hours at the locations. The study intersections looked at turn movements and volumes. The daily counts provided important information on peak hour traffic volumes.

Based on the analysis, traffic is highest along Palm Springs Dr south of the North St intersection, and along North St east of Palm Springs Dr. Operational improvements were recommended at SR 434 and Raymond Avenue (restripe the northbound approach to consist of two dual left turn lanes, a shared left/thru lane, and a right turn lane) and at North Street and Seminole Avenue (evaluate feasibility of a roundabout).

LEGEND

- ROADWAY VOLUME COUNTS
- INTERSECTIONS ANALYZED

DEFINING SUCCESS
CORRIDOR CHARACTERISTICS



POSTED & OBSERVED SPEEDS

POSTED SPEED LIMITS

Raymond Avenue and Palm Springs Drive have posted speed limits of 30 mph, while North Street has a speed limit of 35 mph. The 30 mph speed limit is more characteristic of a residential roadway.

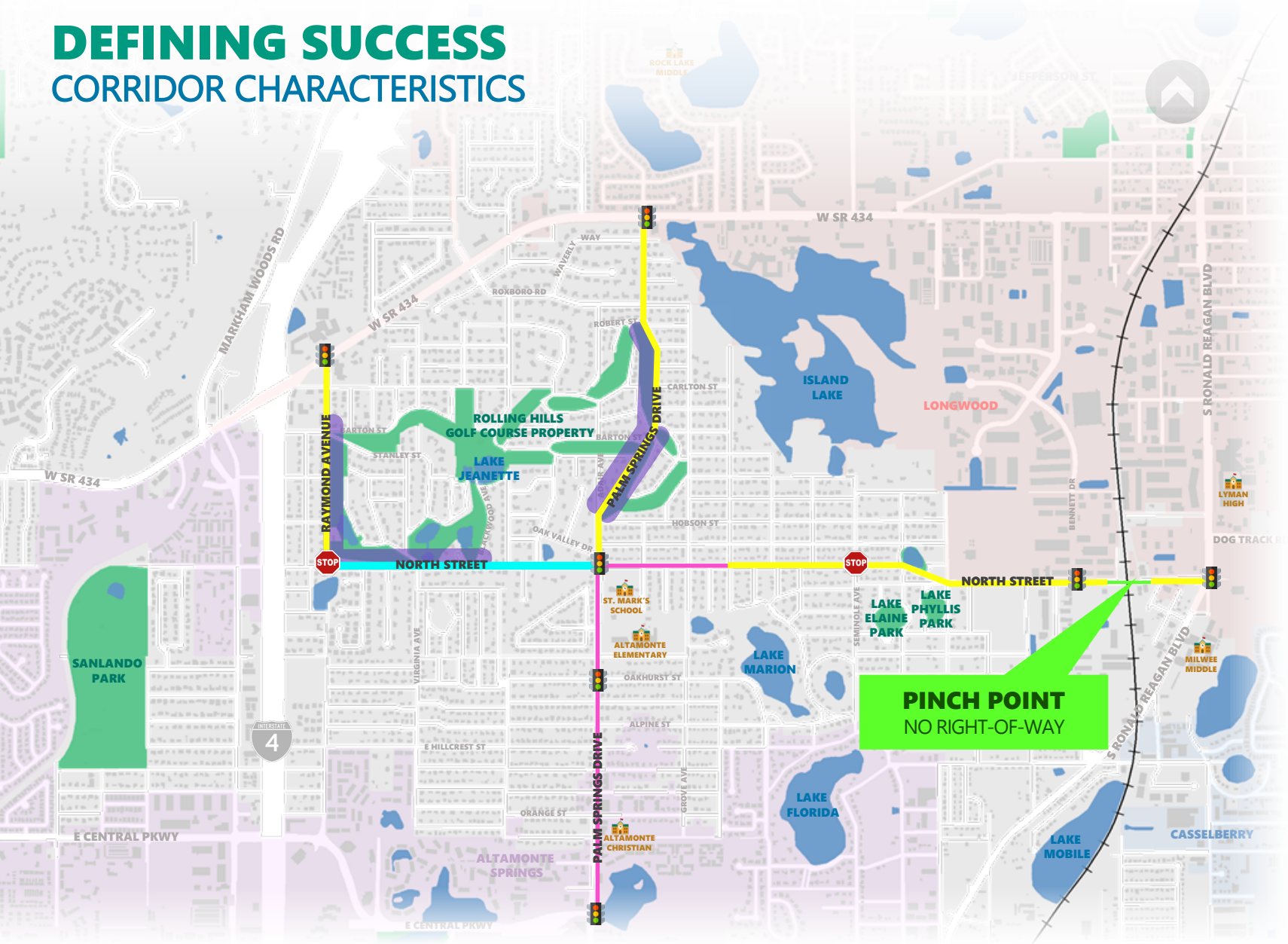
NORTH STREET SPEED STUDIES (2018)

Three speed studies were conducted along North Street to measure the average speed, 85th percentile speed, and daily volume of the section. These numbers could then be compared with the posted speed limit of the roadway.

LEGEND

- ★ SPOT SPEED STUDY
- 30 MPH SPEED LIMIT
- 35 MPH SPEED LIMIT

DEFINING SUCCESS
CORRIDOR CHARACTERISTICS



MINIMUM RIGHT-OF-WAY

LEGEND

NONE	45’ MIN	50’ MIN	55’ MIN

ADDITIONAL ROW AVAILABLE (FROM GOLF COURSE)

DEFINING SUCCESS
CORRIDOR CHARACTERISTICS

MULTIMODAL CONSIDERATIONS

The purpose of this study is to improve transportation on the designated corridors for all modes and users, which will include an emphasis on walkability.

PEDESTRIANS

Areas that lack sidewalk connectivity on both sides of the street impede pedestrians and decrease the walkability of the corridor. The daily pedestrian count is from Phase 1 of this study.

TRANSIT

There are no existing or planned transit routes. School bus routes are found along the corridor.

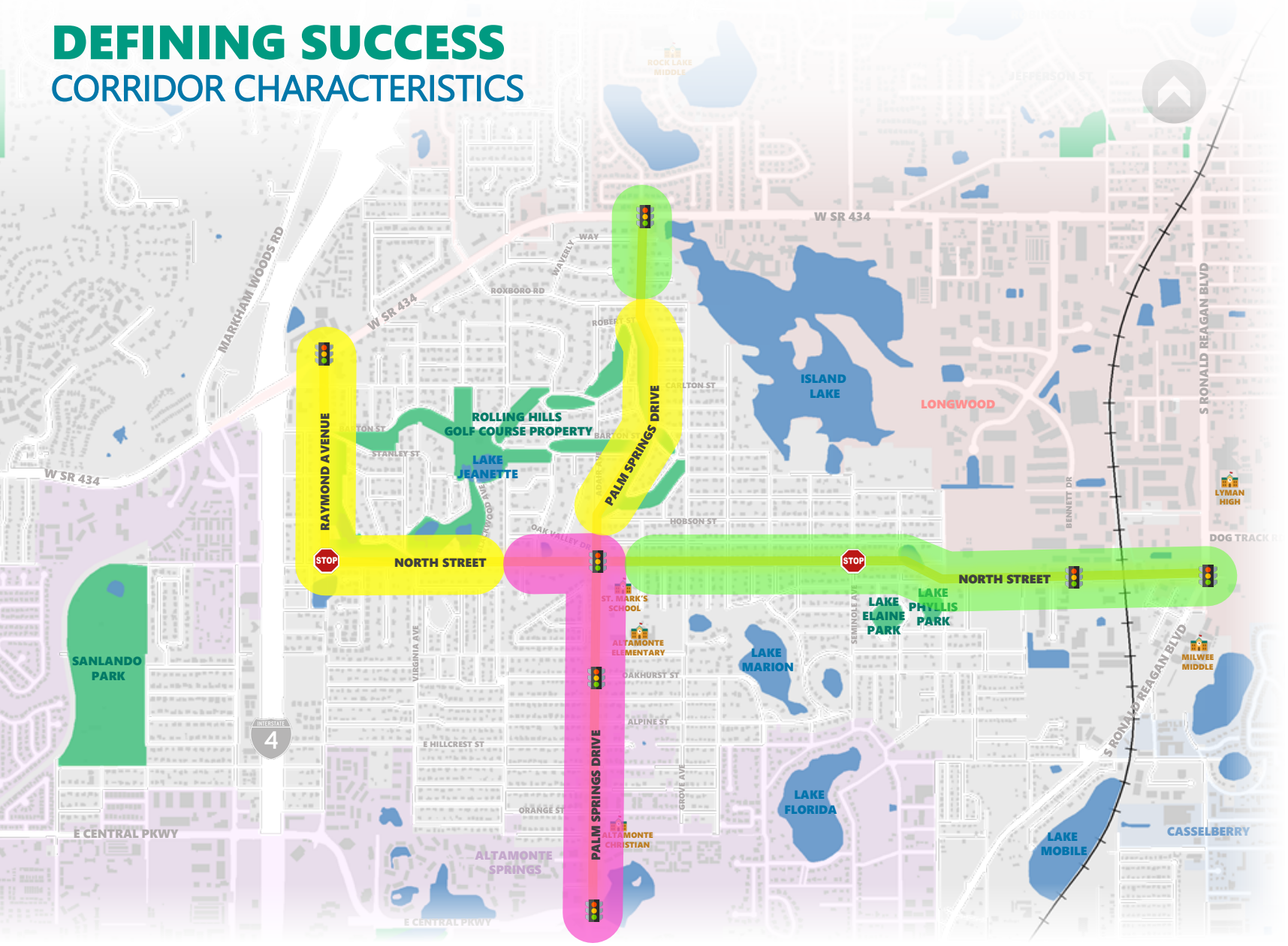
BICYCLISTS

There is no dedicated bike infrastructure in the corridors.

LEGEND

SIDEWALK GAP	NARROW SIDEWALK (UNDER 5 FT)	DAILY PEDESTRIAN COUNT
		#

DEFINING SUCCESS
CORRIDOR CHARACTERISTICS



CORRIDOR CONTEXTS

Three segments were determined from the given study area. The segments were chosen and grouped based on similar existing characteristics (such as context, traffic volumes, etc.), their possible challenges, and design strategies that might be applied.

LIMITS

CONTEXT AREA 1

Raymond Ave from SR 434 to North St
North St from Raymond Ave to Country Club Dr
Palm Springs Drive from Robert St to North St

CONTEXT AREA 2

North St from Country Club Dr to Palm Springs Dr
Palm Springs Dr from North St to Central Pkwy

CONTEXT AREA 3

Palm Springs Dr from SR 434 to Robert St
North St from Palm Springs Dr to Ronald Reagan Blvd

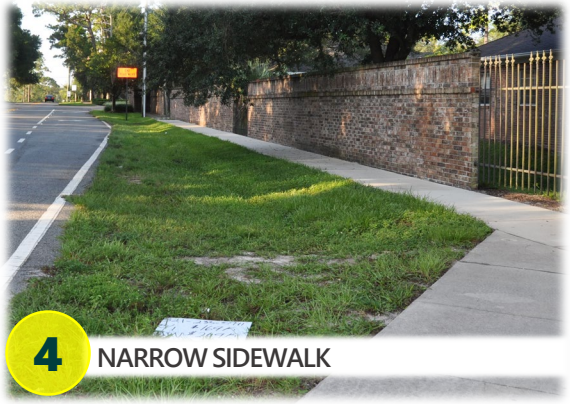
DEFINING SUCCESS
GOALS & OBJECTIVES

Context area 1 includes segments of the corridor on the edge of the future park, low traffic volume, and unaligned intersections. The existing cross-section varies between two lanes and two lanes with a middle turn lane.


1 UNALIGNED INTERSECTION


2 SIDEWALK NEAR PARK


3 TRAIL CROSSING


4 NARROW SIDEWALK

LIMITS

Raymond Ave from SR 434 to North St
North St from Raymond Ave to Country Club Dr
Palm Springs Drive from Robert St to North St

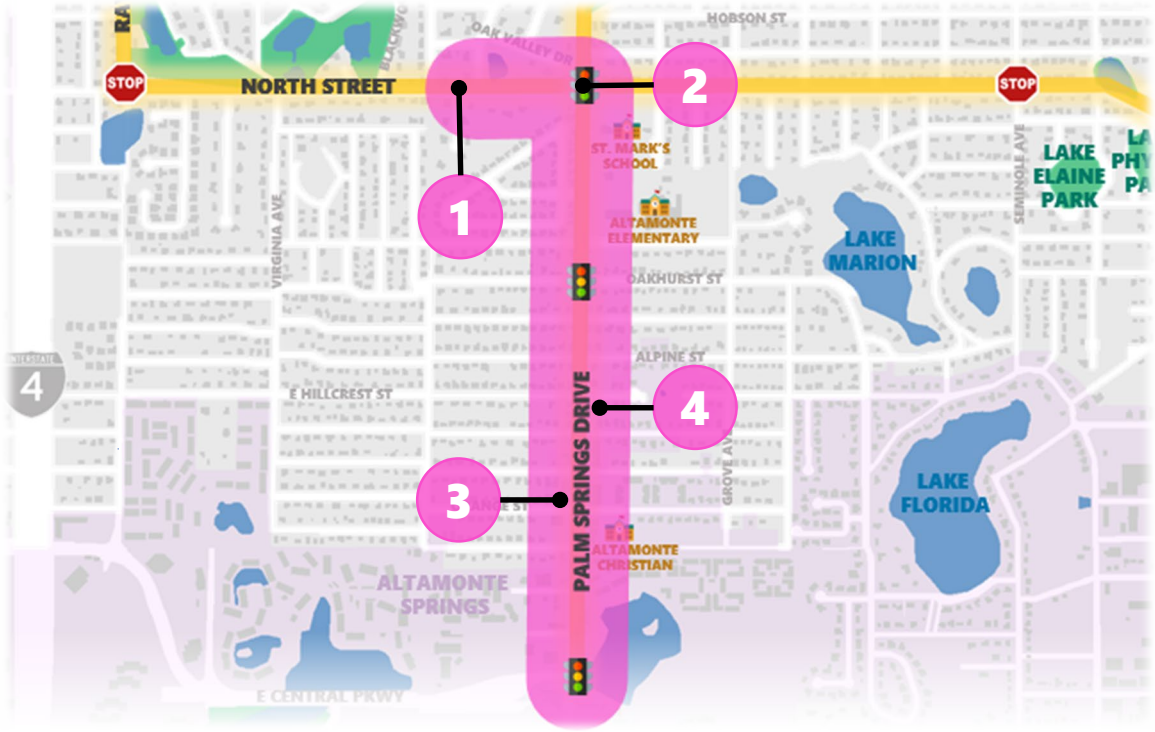
GOAL

- Street is an extension of the park with integrated neighborhood connections

OBJECTIVES

- Improve bicycle and pedestrian mobility & connectivity between neighborhoods and park
- Identify opportunities to use park land for right-of-way use
- Enhance trail & pedestrian connections to support neighborhood and future park connections
- Use traffic calming strategies to lower speeds and enhance safety and livability
- Provide landscape areas for place making and neighborhood enhancement

DEFINING SUCCESS
GOALS & OBJECTIVES



Context area 2 includes segments of the corridor with multiple school zones, commercial activity, and higher traffic volumes. The existing cross-section is predominantly two lanes with turn lanes.


1 WIDE ROAD & NARROW SIDEWALK


2 SIGNAL SIGHT DISTANCE ISSUES


3 POOR YIELDING OBSERVED FOR PEDS


4 SCHOOL ZONES

LIMITS

North St from Country Club Dr to Palm Springs Dr
Palm Springs Dr from North St to Central Pkwy

GOAL

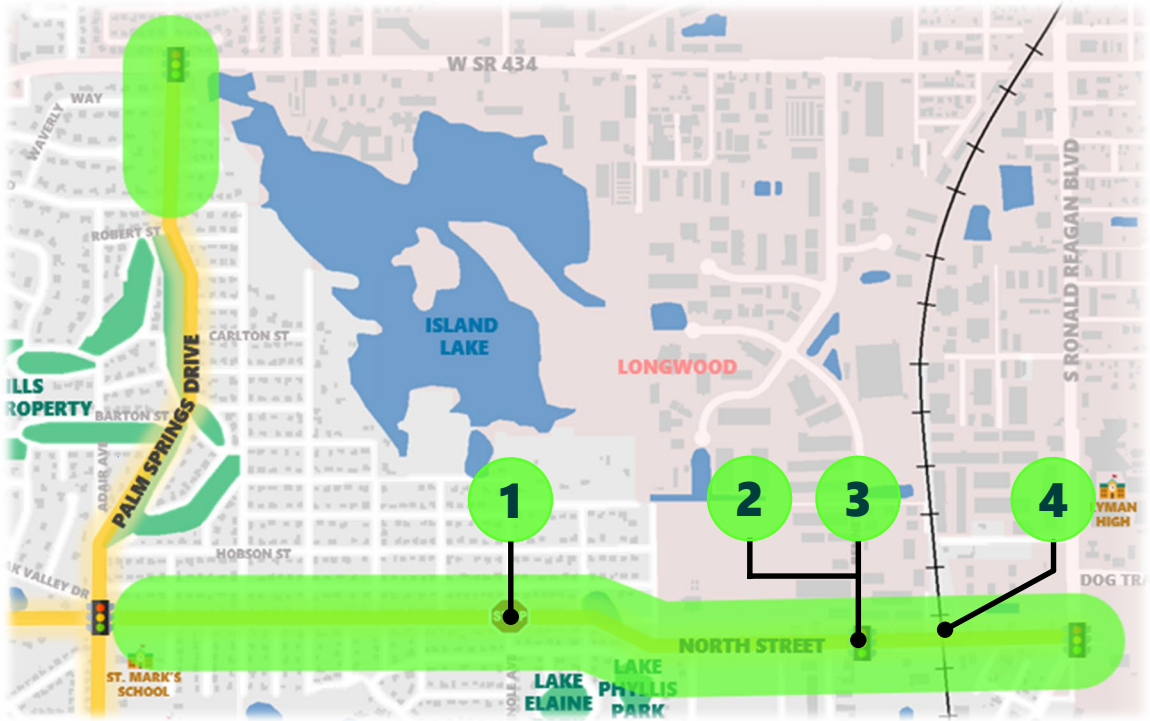
- Street is safe and comfortable for all modes, ages, and abilities

OBJECTIVES

- Improve safety at pedestrian crossings
- Support lower speeds, especially due to the presence of multiple schools
- Enhance bicycle and pedestrian connections, including connection to the future park and Altamonte Mall

DEFINING SUCCESS

GOALS & OBJECTIVES



Context area 3 includes segments of the corridor with numerous intersections, heavy truck activity, and medium traffic volumes. The cross-section is predominantly two lanes.

LIMITS

Palm Springs Dr from SR 434 to Robert St
North St from Palm Springs Dr to Ronald Reagan Blvd

GOAL

- Reduce speeding and heavy vehicle traffic to improve operations and provide a gateway into the other context areas

OBJECTIVES

- Decrease heavy vehicle cut-through traffic
- Improve safety and operations at the North St and Seminole Ave intersection
- Reduce speeding and increase safety

3 EVALUATING POTENTIAL IMPROVEMENTS

EVALUATING POTENTIAL IMPROVEMENTS

APPROACH

BASED ON GOALS AND OBJECTIVES:

- IDENTIFY DESIGN STRATEGIES AND POTENTIAL LOCATIONS
- COMMISSIONER WORKSHOP ON INITIAL DESIGN STRATEGIES (OCTOBER 22ND)

NEXT STEPS:

- PUBLIC MEETING INPUT
- REFINE AND FINALIZE ALTERNATIVES

EVALUATING POTENTIAL IMPROVEMENTS

DESIGN STRATEGIES

POTENTIAL IMPROVEMENTS

The following improvements may be used within the study area. These features can improve safety, calm traffic, and increase the livability of the Rolling Hills Area.

ROUNDABOUT

REDUCED CURB RADIUS

RAISED INTERSECTION

BIKE/PEDESTRIAN IMPROVEMENT

LANDSCAPED MEDIAN

CHICANING

RAISED PEDESTRIAN CROSSING

ON-STREET PARKING

EVALUATING POTENTIAL IMPROVEMENTS

DESIGN STRATEGIES

SHADE

SEATING OPPORTUNITIES

PLACEMAKING

LANDSCAPING

SHADE

Along multi-use paths and the roadways, adding shade trees will increase comfort and calm traffic.

SEATING OPPORTUNITIES

Along multi-use paths, new seating areas with shade can be placed about every 500 feet to enhance user experience.

PLACEMAKING

Chicaning, landscaped medians, roundabouts, and other traffic calming strategies will synergize creating a sense of place for different area types and enrich livability and aesthetics in the neighborhoods along the corridors.

EVALUATING POTENTIAL IMPROVEMENTS

DESIGN STRATEGIES

TEXTURED PAVEMENT

Textured pavement, in the form of brick pavers, stamped asphalt, etc., can be used to draw attention to intersections and crosswalks, slowing traffic and protecting pedestrians.

SELECTIVE LANDSCAPE CLEARING & GRUBBING

Clearing and grubbing certain overgrown areas can provide safer line of sight for turning vehicles and increase pedestrian safety on sidewalks near the roadway. The selective clearing can also create a more aesthetically pleasing environment for the area.

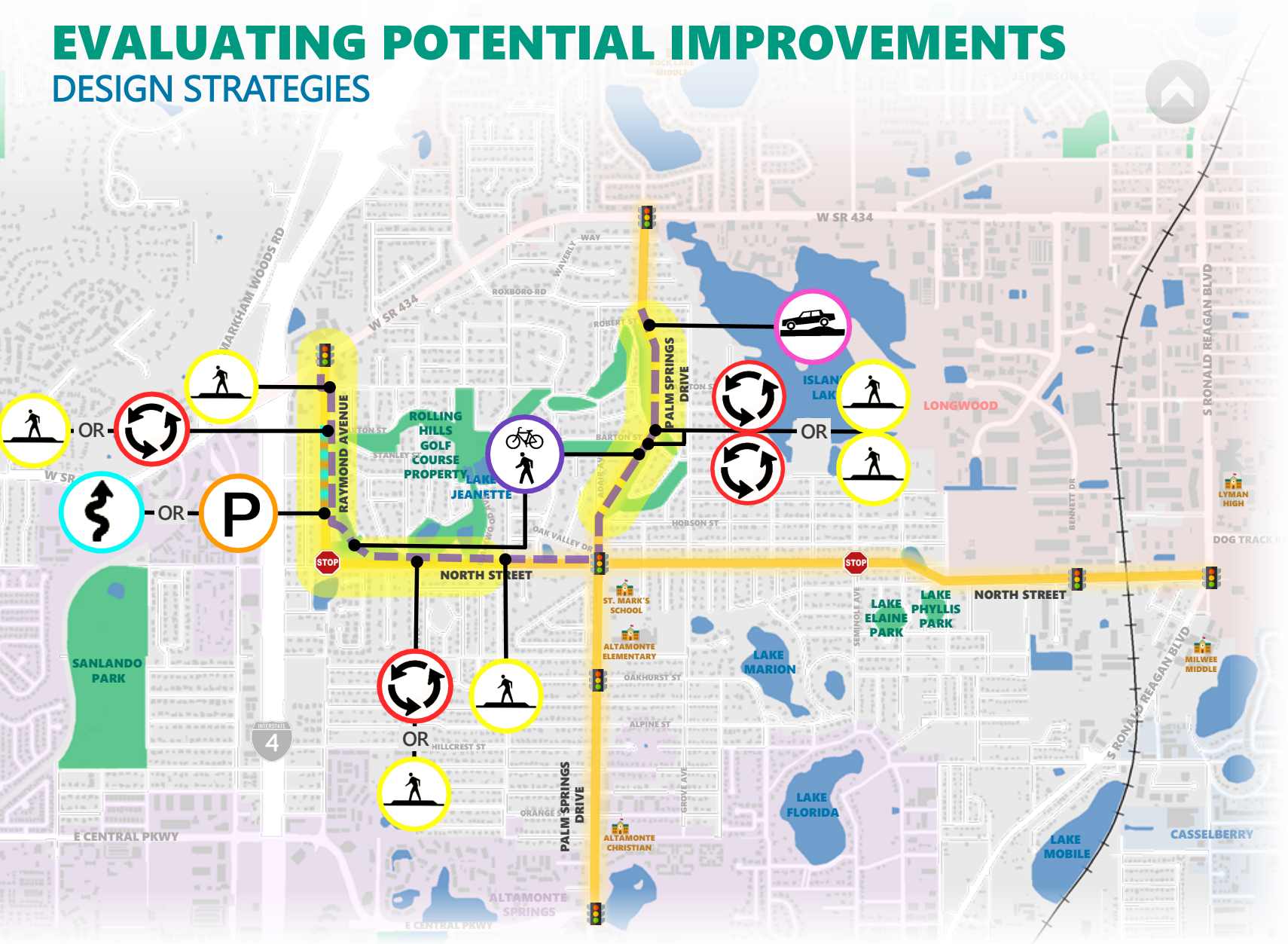
SIGNAGE & LIGHTING

Improved signage and lighting in the area, especially for pedestrians, will increase safety and emphasize to drivers the pedestrian focus of the area.

EVALUATING POTENTIAL IMPROVEMENTS

DESIGN STRATEGIES

CONTEXT AREA 1

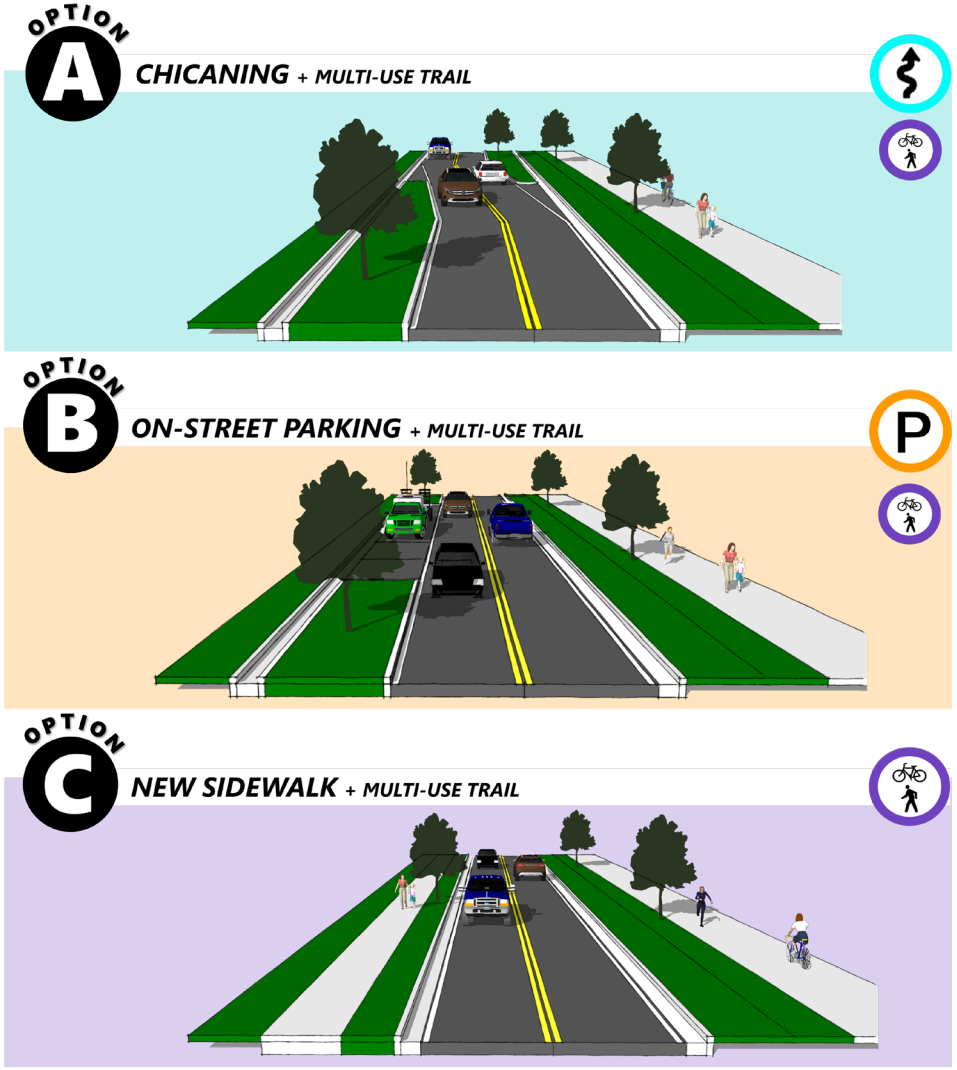


- ROUNDABOUT
- REDUCED CURB RADIUS
- CHICANING
- RAISED CROSSING
- BIKE/PEDESTRIAN IMPROVEMENT
- RAISED INTERSECTION
- LANDSCAPED MEDIAN
- ON-STREET PARKING

EVALUATING POTENTIAL IMPROVEMENTS

DESIGN STRATEGIES

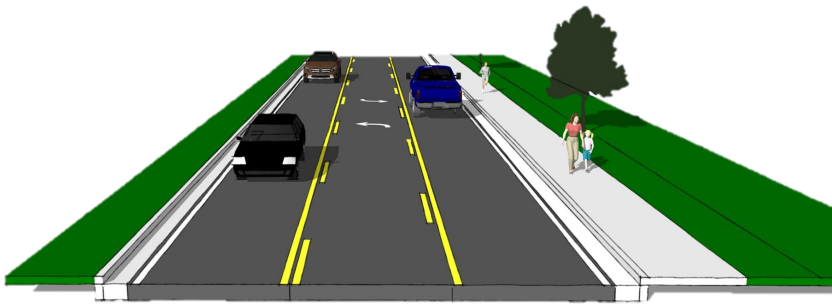
CONTEXT AREA 1



TYPICAL SECTION IMPROVEMENT

- Widen sidewalk to a multi-use trail
- Where middle turn lane exists, add chicaning or median islands

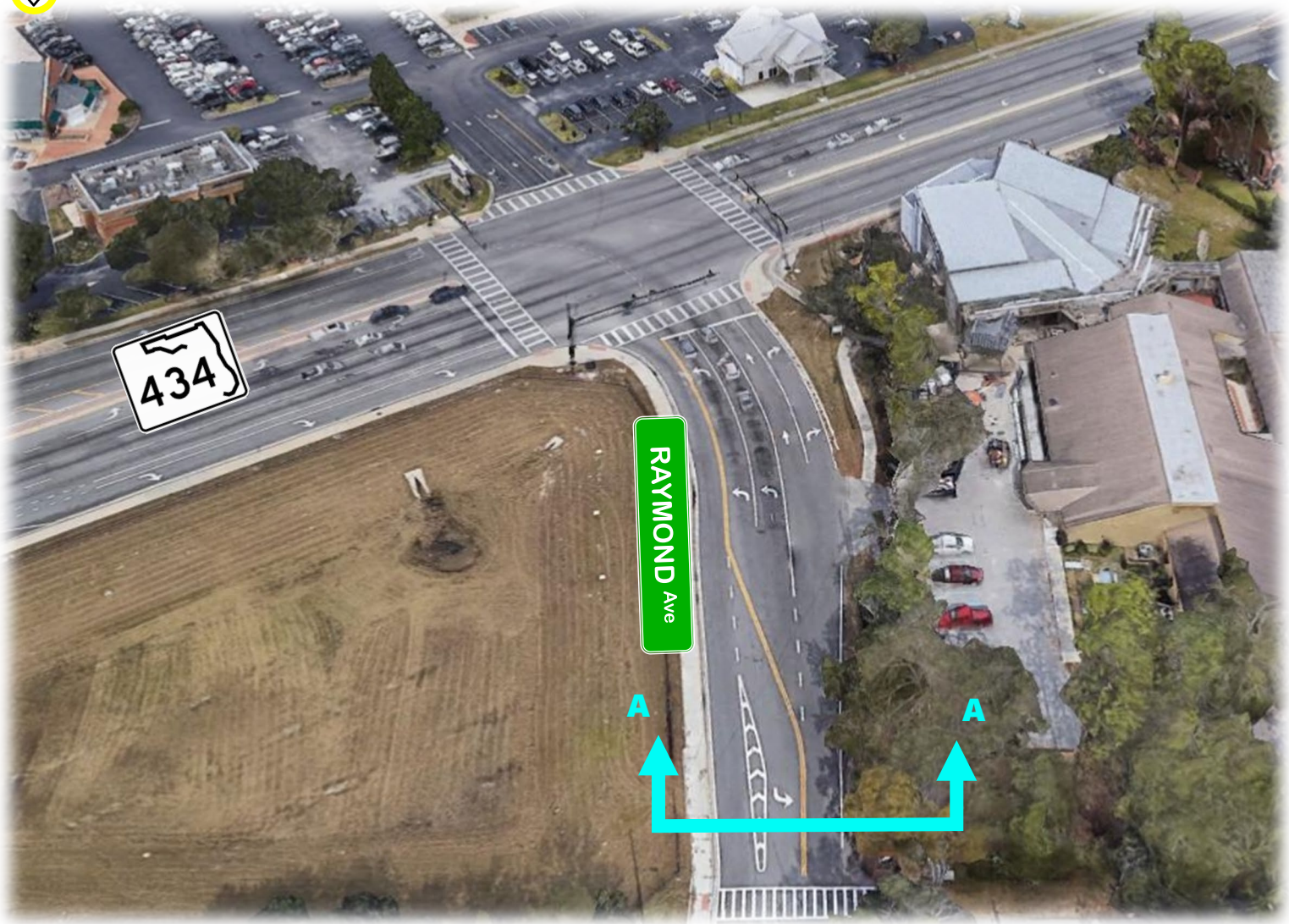
EXISTING TYPICAL SECTION



EVALUATING POTENTIAL IMPROVEMENTS

DESIGN STRATEGIES

SR 434 AND RAYMOND AVE

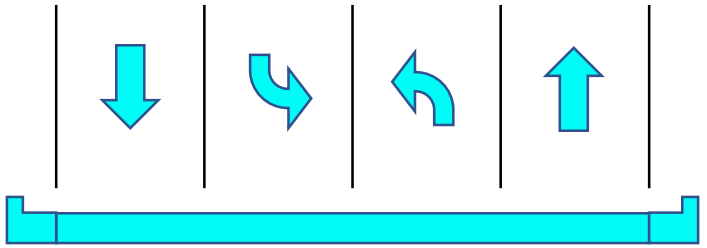


INTERSECTION IMPROVEMENT

It was recommended by Phase 1 of the study to restripe the northbound approach to consist of two dual left turn lanes, a shared left/thru lane, and a right turn lane.

There are concerns that the left-most left turn lane would be underutilized. Vehicles turning left onto SR 434 are often turning right onto I-4, using the right-most left turn lane available.

Another option is to restripe with minor widening and extend the outside left turn lane.



RESTRIPING W/ MINOR WIDENING

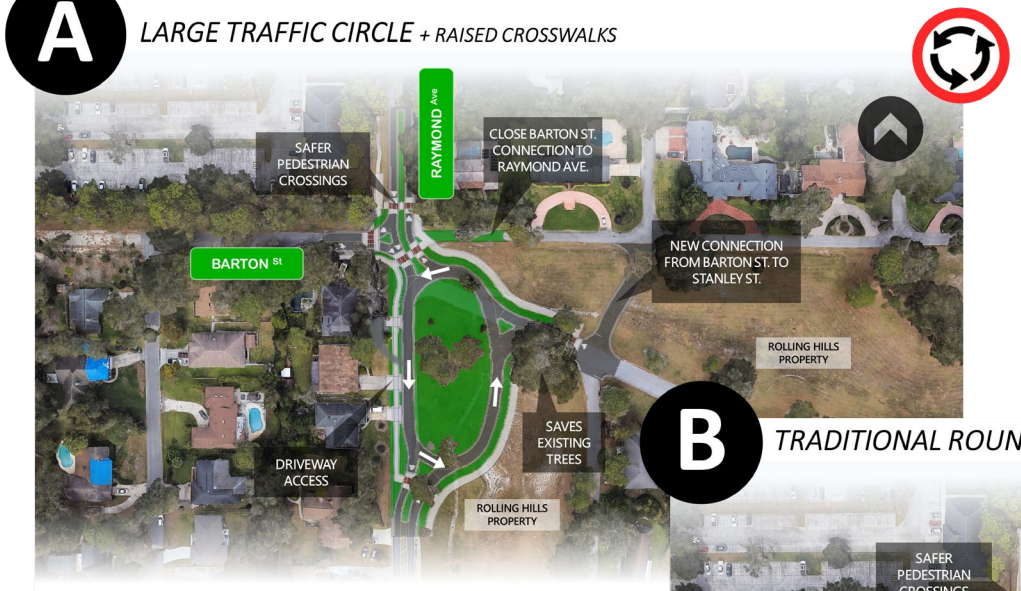
SECTION A-A

EVALUATING POTENTIAL IMPROVEMENTS

DESIGN STRATEGIES

RAYMOND AVE , BARTON ST, & STANLEY ST

A *LARGE TRAFFIC CIRCLE + RAISED CROSSWALKS*



B *TRADITIONAL ROUNDABOUT + RAISED CROSSWALKS*

INTERSECTION IMPROVEMENT

For offset and skewed intersections, a peanut shaped or irregular shaped roundabout can connect multiple streets and create simpler, slower movements through the intersection.

A roundabout at this location would serve as a gateway into the park area, slow traffic, and improve safety and yielding to crossing pedestrians. The roundabout can be accommodated using park land ROW.

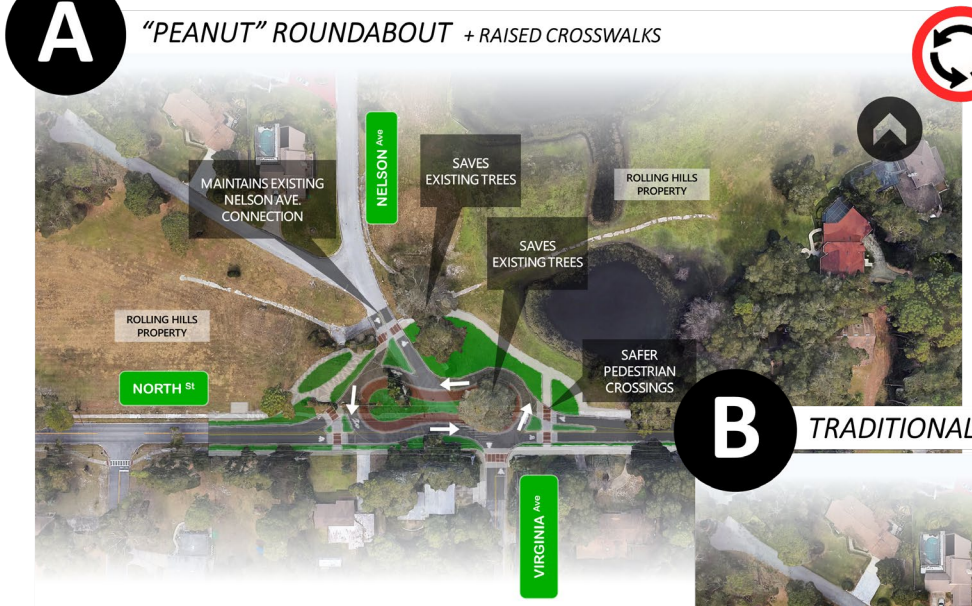
A lower cost option is to provide raised pedestrian crossings. These would provide some traffic calming and make the existing pedestrian crossing locations more visible, but would not address the operational concerns of the existing skewed intersection.

EVALUATING POTENTIAL IMPROVEMENTS

DESIGN STRATEGIES

NORTH ST, VIRGINIA AVE, & NELSON AVE

A *"PEANUT" ROUNDABOUT + RAISED CROSSWALKS*



B *TRADITIONAL ROUNDABOUT + RAISED CROSSWALKS*

INTERSECTION IMPROVEMENT

For offset and skewed intersections, a peanut shaped or irregular shaped roundabout can connect multiple streets and create simpler, slower movements through the intersection.

A roundabout at this location would provide traffic calming, and provide two new crossing locations to connect the neighborhoods south of North St to the park area. The roundabout can be accommodated using park land ROW.

A lower cost option is to provide raised pedestrian crossings. These would provide some traffic calming and add a marked pedestrian crossing, but would not address the operational concerns of the existing skewed intersection.

EVALUATING POTENTIAL IMPROVEMENTS

DESIGN STRATEGIES

PALM SPRINGS DR, ORLANDO/LAKELAND AVE, & BARTON ST

A *DOUBLE ROUNDABOUT + RAISED CROSSWALKS*

B *LANDSCAPED MEDIAN + RAISED CROSSWALKS*

INTERSECTION IMPROVEMENT

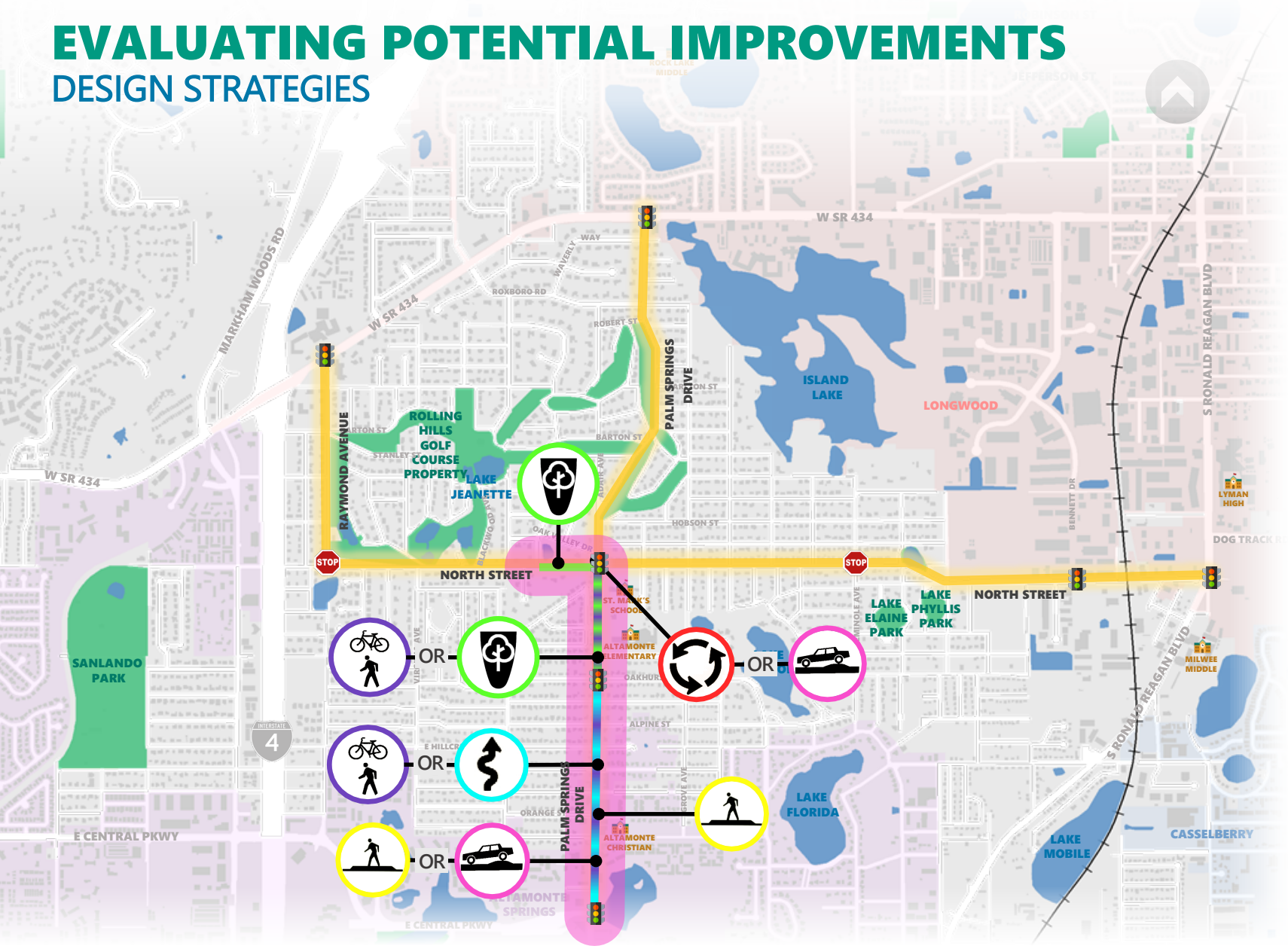
Along Palm Springs Dr, a set of two connecting roundabouts can slow traffic at the trail crossing and improve operations for turning vehicles, pedestrians, and the sandhill cranes. A roundabout in this location would also serve as a gateway into the area of the new park.

A lower cost option is to provide raised pedestrian crossings. These would provide some traffic calming and enhance the visibility of the existing pedestrian crossings.

EVALUATING POTENTIAL IMPROVEMENTS

DESIGN STRATEGIES

CONTEXT AREA 2

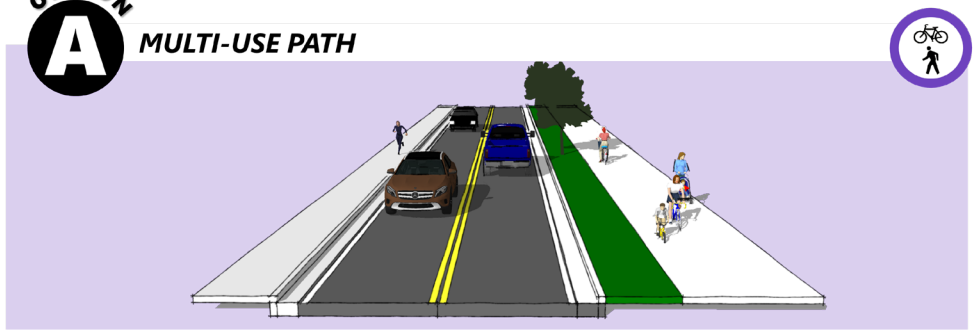


- ROUNDABOUT
- BIKE/PEDESTRIAN IMPROVEMENT
- REDUCED CURB RADIUS
- RAISED INTERSECTION
- CHICANING
- LANDSCAPED MEDIAN
- RAISED CROSSING
- ON-STREET PARKING

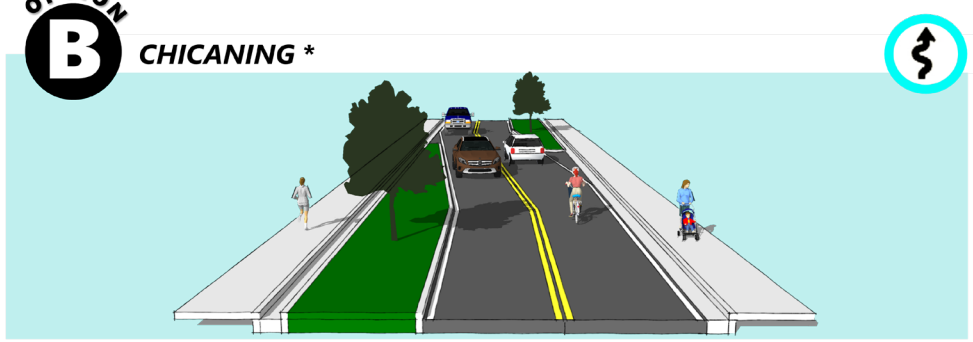
EVALUATING POTENTIAL IMPROVEMENTS

DESIGN STRATEGIES

OPTION A *MULTI-USE PATH*

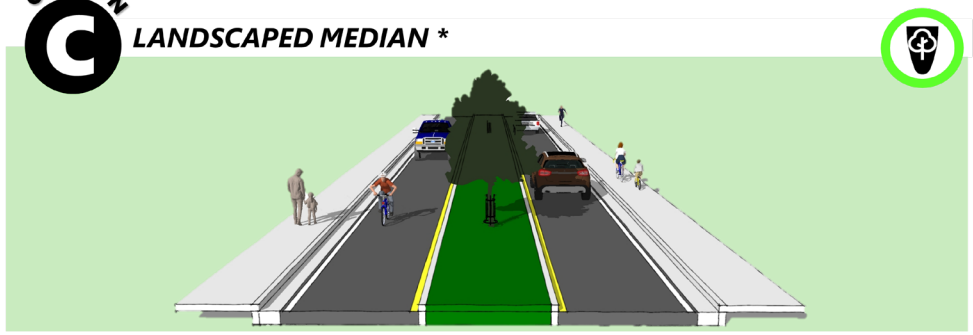


OPTION B *CHICANING **



*In combination with signed alternate bike route

OPTION C *LANDSCAPED MEDIAN **

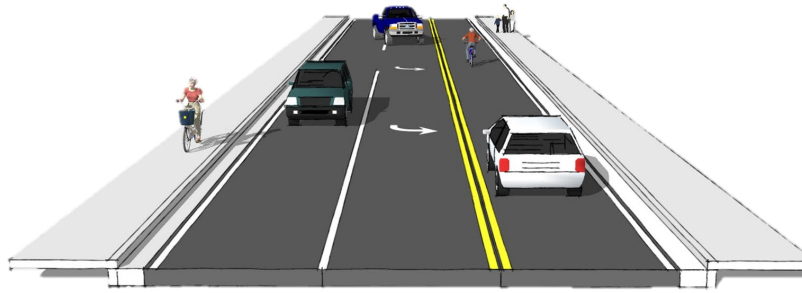


*In combination with signed alternate bike route

TYPICAL SECTION IMPROVEMENT

Within the existing curb, three alternative options include an on-street cycle track, chicaning, or median islands.

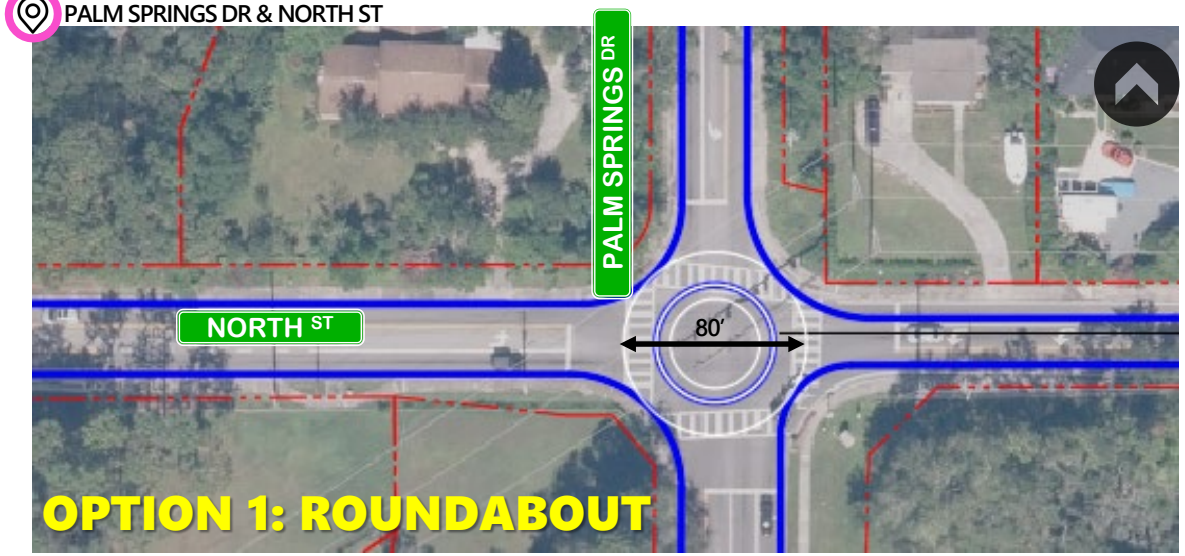
EXISTING TYPICAL SECTION



EVALUATING POTENTIAL IMPROVEMENTS

DESIGN STRATEGIES

PALM SPRINGS DR & NORTH ST



INTERSECTION IMPROVEMENT

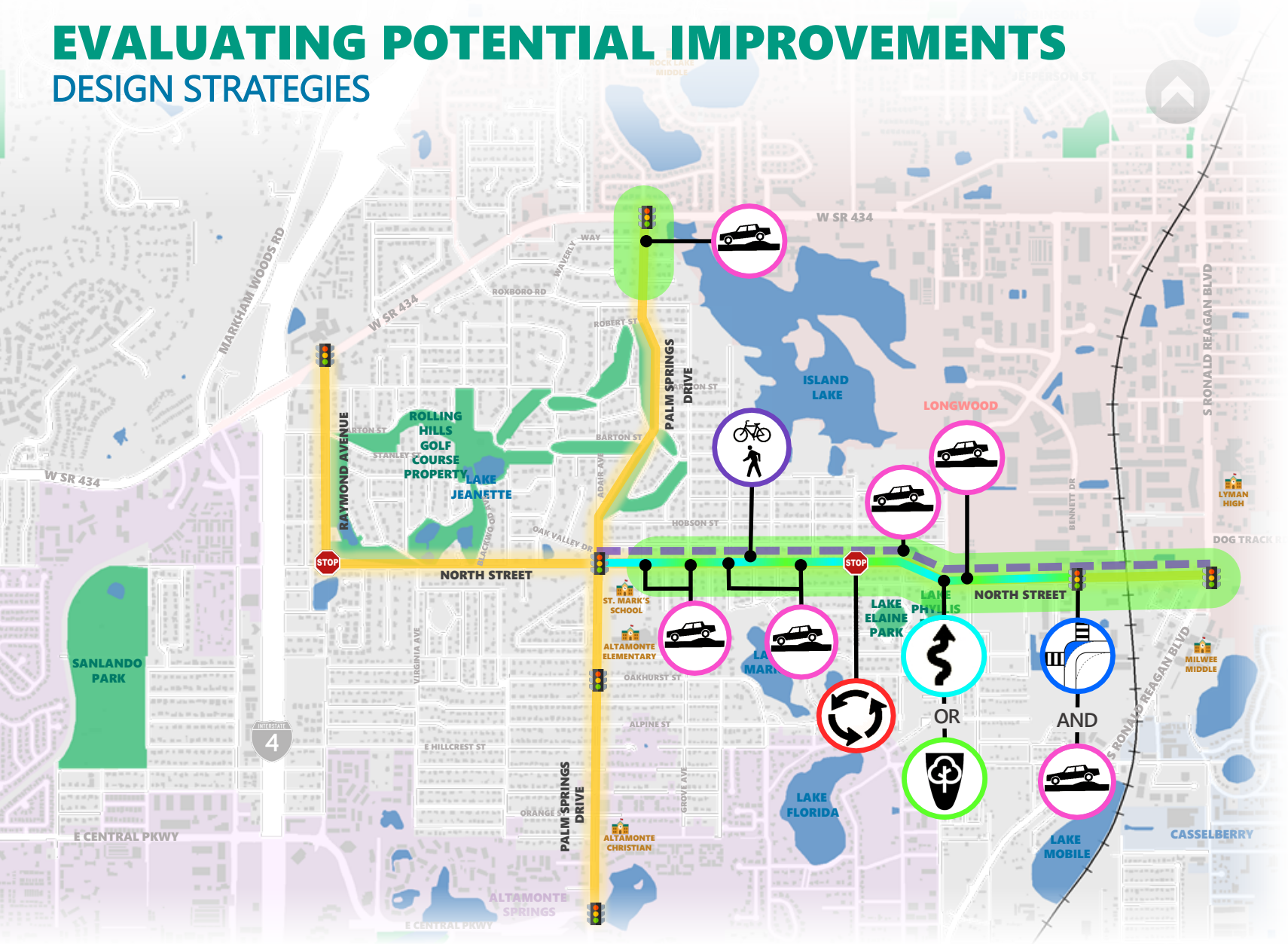
The traditional roundabout can allow for safer turns in intersections with limited sight lines, as well as a landscaping and place making opportunity in the center island. This roundabout fits within the existing ROW.

A raised intersection is a similar cost improvement that has more limited benefits of traffic calming compared to a roundabout.

EVALUATING POTENTIAL IMPROVEMENTS

DESIGN STRATEGIES

CONTEXT AREA 3

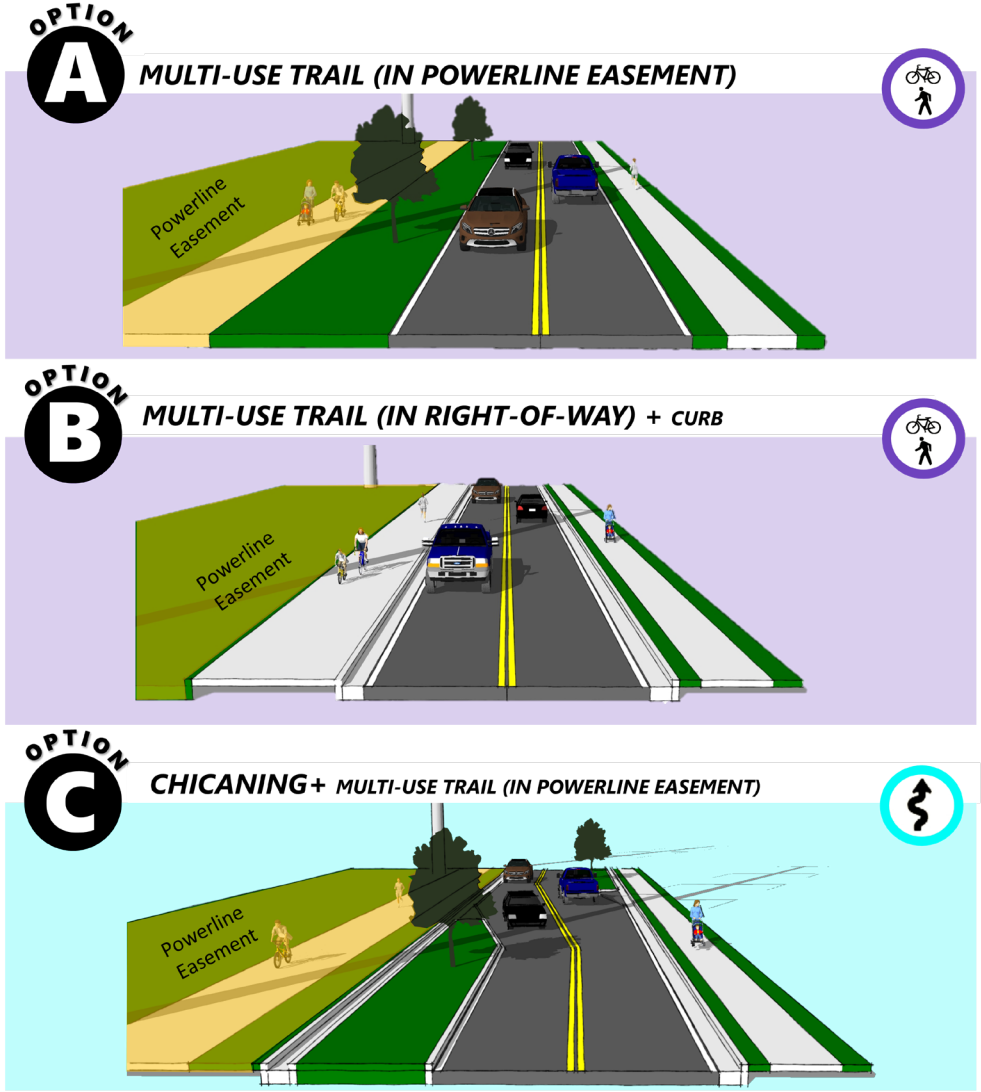


- ROUNDABOUT
- BIKE/PEDESTRIAN IMPROVEMENT
- REDUCED CURB RADIUS
- RAISED INTERSECTION
- CHICANING
- LANDSCAPED MEDIAN
- RAISED CROSSING
- ON-STREET PARKING

EVALUATING POTENTIAL IMPROVEMENTS

DESIGN STRATEGIES

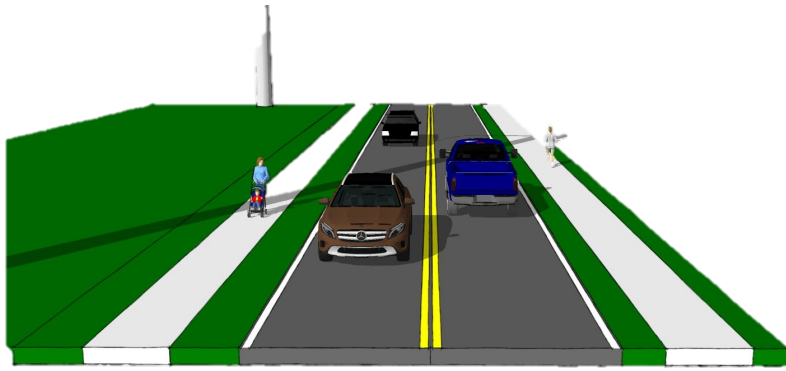
CONTEXT AREA 3



TYPICAL SECTION IMPROVEMENT

A multiuse trail may be placed within the right-of-way, or be set back from the road within the powerline easement. Reconstructing the roadway to include curb is an additional option.

EXISTING TYPICAL SECTION

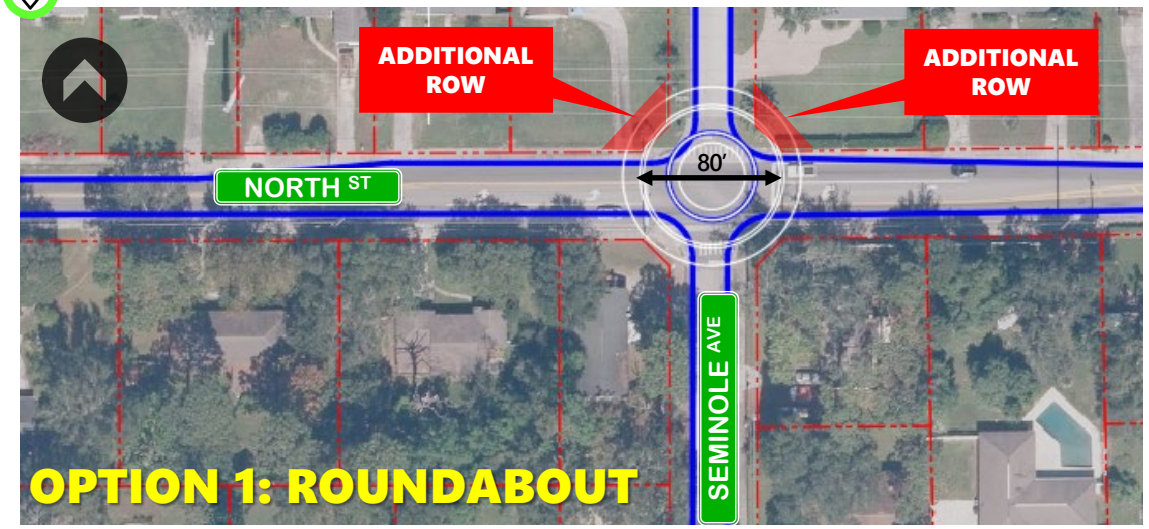


EVALUATING POTENTIAL IMPROVEMENTS

DESIGN STRATEGIES

CONTEXT AREA 3

NORTH ST & SEMINOLE AVE



INTERSECTION IMPROVEMENT

The traditional roundabout can allow for safer turns in intersections with limited sight lines, as well as a landscaping and place making opportunity in the center island. A roundabout at this location was recommended as a result of the operational evaluation. This roundabout would require right-of-way within the powerline easement of two property owners.

A raised intersection is a similar cost improvement that has more limited benefits of traffic calming compared to a roundabout.

NEXT STEPS

NEXT STEPS

Topic:	Meeting:	Date:
Notice to Proceed	Kick-off Meeting	July 25, 2019
Community Outreach Plan	County Staff Commissioner Briefing	August 9, 2019
Defining Success & Evaluating Potential Improvements	Online Survey	August 27 – September 8, 2019
Defining Success & Evaluating Potential Improvements	Project Team/County Staff	September 30, 2019
Defining Success & Evaluating Potential Improvements	County Staff Commissioner Briefing	October 7, 2019
Defining Success & Evaluating Potential Improvements	BOCC Workshop	October 22, 2019
Defining Success & Evaluating Potential Improvements	PAG Meeting	November 8, 2019
Defining Success & Evaluating Potential Improvements	Public Meeting	November 14, 2019
Developing Conceptual Plans	Project Team/County Staff	November 27, 2019 (Tentative)
Developing Conceptual Plans	County Staff Commissioner Briefing	December 9, 2019 (Tentative)
Developing Conceptual Plans	PAG Meeting	December 13, 2019 (Tentative)
Project Presentation	BOCC Board Meeting	January 28, 2020 (Tentative)

SEMINOLE COUNTY
FLORIDA'S NATURAL CHOICE

COUNTY PROJECT MANAGER

BILL WHARTON
TRANSPORTATION PLANNING MANAGER
SEMINOLE COUNTY PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION
407.665.5730
WWHARTON@SEMINOLECOUNTYFL.GOV

CONSULTANT PROJECT MANAGER

MARK SUAREZ, PE
SENIOR TRANSPORTATION ENGINEER
HDR
407.420.4200
MARK.SUAREZ@HDRINC.COM

CONSULTANT DEPUTY PROJECT MANAGER

JENN RHODES
MULTIMODAL TRANSPORTATION PLANNER
HDR
407.420.4139
JENN.RHODES@HDRINC.COM

APPENDIX C: DEVELOPING CONCEPT PLANS

SEMINOLE COUNTY
FLORIDA'S NATURAL CHOICE

ROLLING HILLS AREA
CORRIDOR ENHANCEMENT STUDY

DEVELOPING CONCEPTUAL PLANS
PROJECT ADVISORY GROUP MEETING
JANUARY 10, 2020

HDR

AGENDA

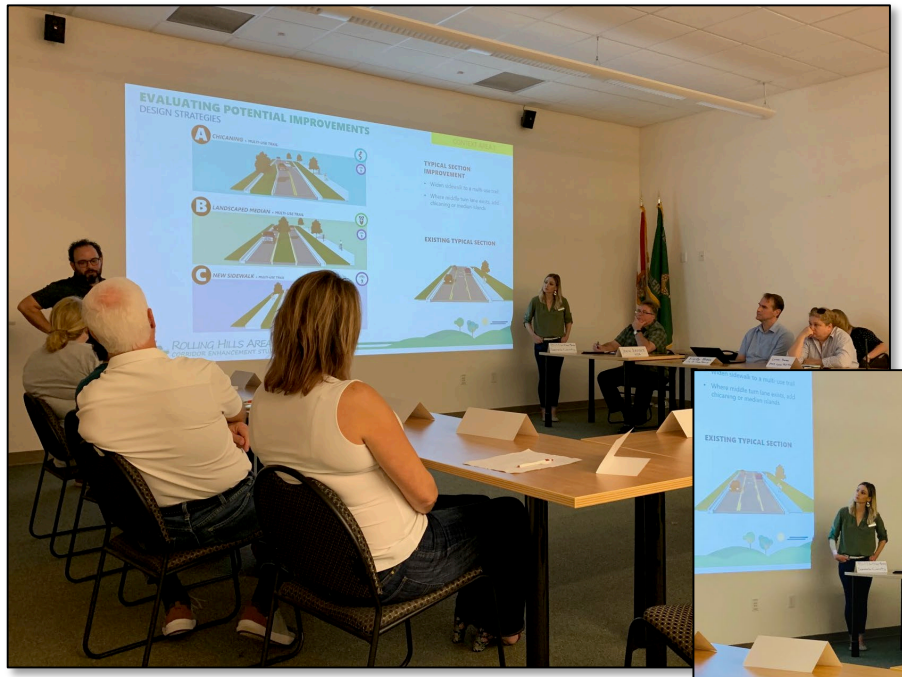
1 OUTREACH SUMMARY

2 RESULTS & RECOMMENDATIONS

3 DRAFT CONCEPT PLAN WORKING SESSION

1 OUTREACH SUMMARY

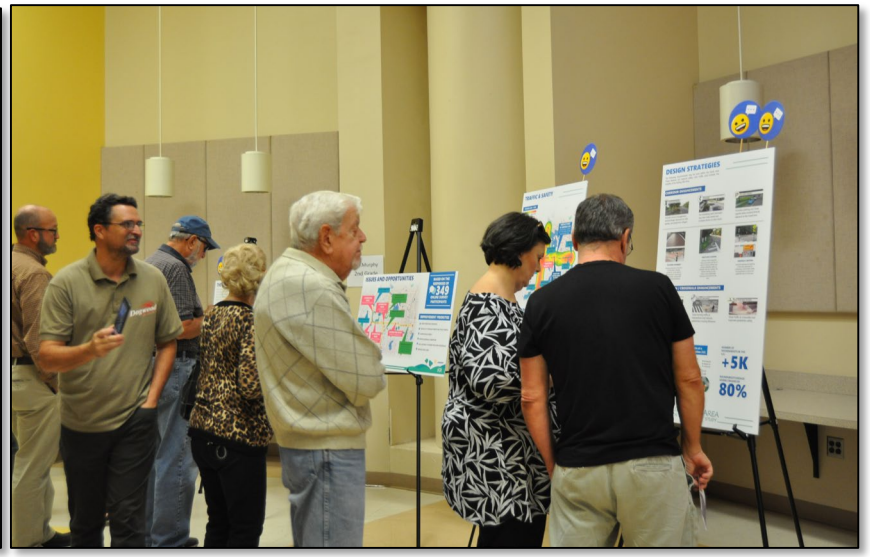
OUTREACH SUMMARY
PROJECT ADVISORY GROUP MEETING #1



PROJECT ADVISORY GROUP SUMMARY

- November 8, 2019
- Seminole County Sheriff's Office – West Division
- 17 attendees
- Discussion points / action items:
  - Modify Raymond Ave typical section options to include parallel parking
  - Modify Palm Springs Dr typical section to a shared use path rather than a cycle track
  - Support for lowering the speed limit along with recommendations
  - Discussed operational issues at North St and Seminole Ave intersection and at Raymond Ave and Carlton St
  - Don't use textured pavement within the crosswalk for ADA concerns
  - Support for RRFB signs at crossings
  - Support roundabout alternatives
  - Consider the residential portions of North St and the commercial portion of North St differently

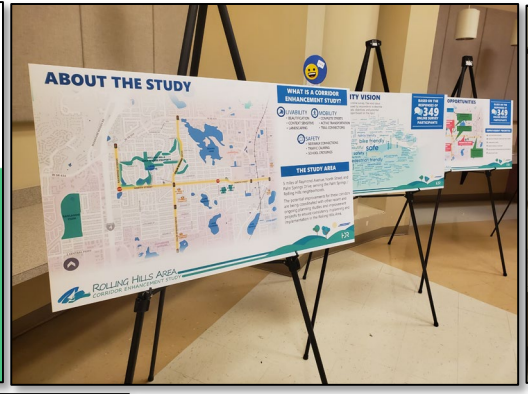
OUTREACH SUMMARY
PUBLIC MEETING

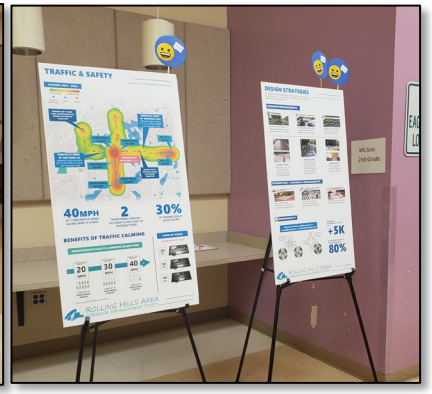


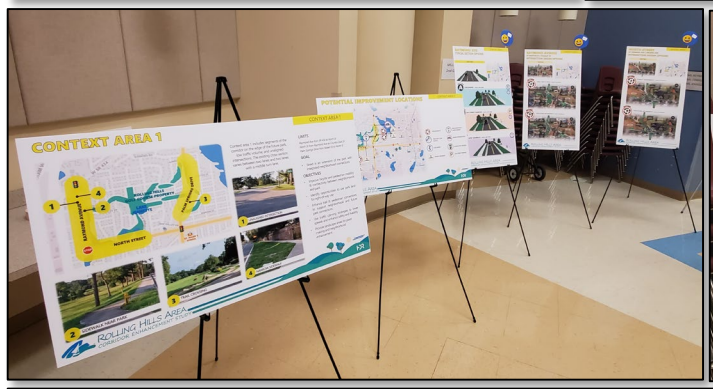
OPEN HOUSE SUMMARY

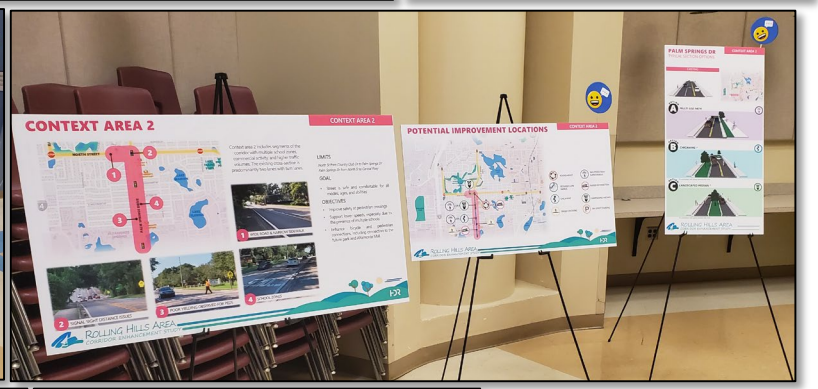
- November 14, 2019
- Altamonte Elementary School

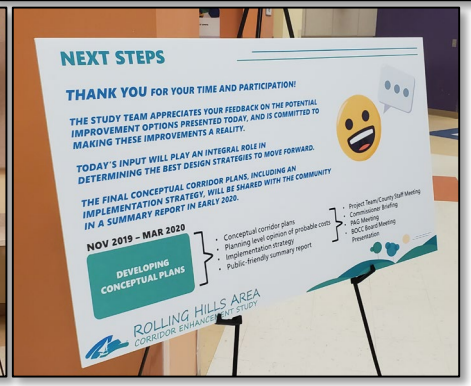
OUTREACH SUMMARY
PUBLIC MEETING











FORMAT

The public meeting was an Open House format, with display boards grouped into 6 stations:

1. Background & Design Strategies
2. Context Area 1
3. Context Area 3
4. Context Area 3
5. Next Steps
6. Comments

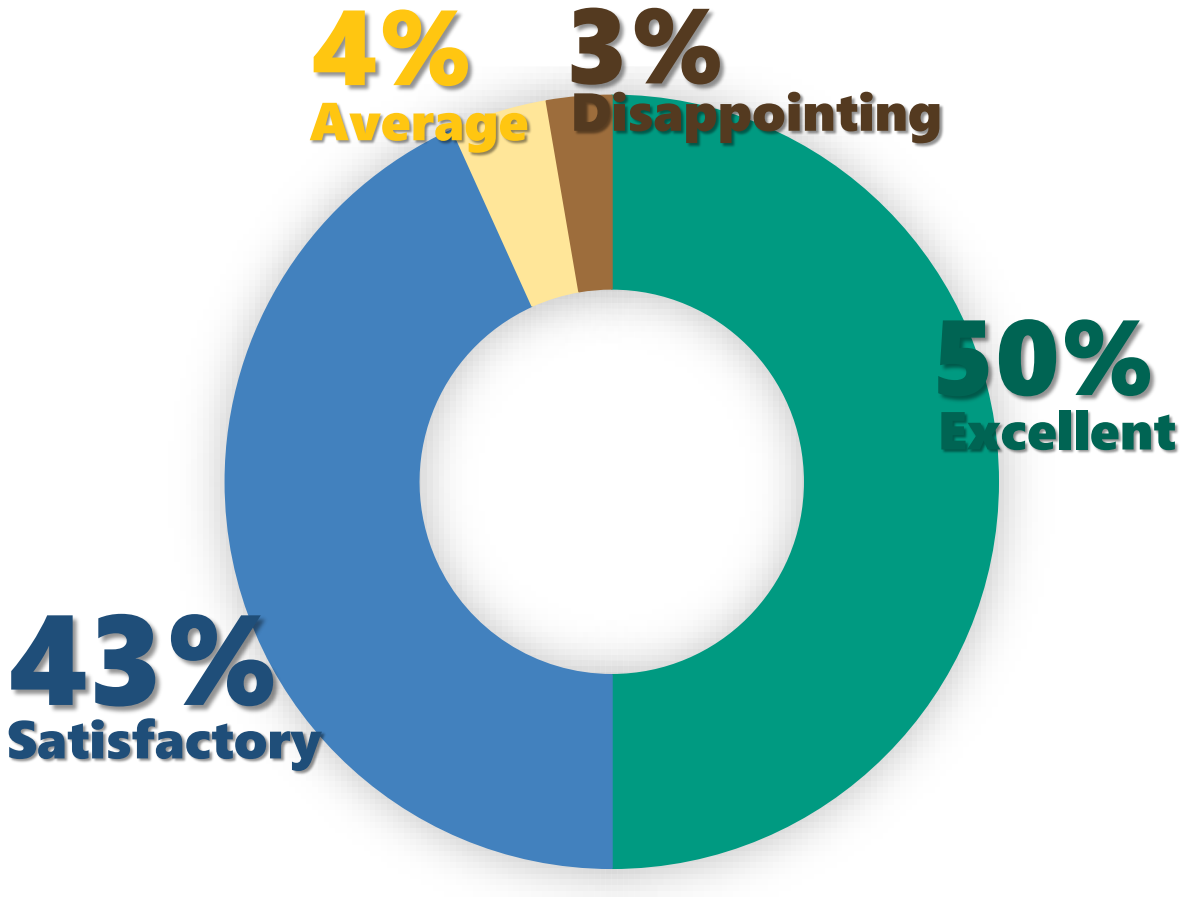
Participants submitted feedback related to the ideas and design options presented on key display boards through an online survey, accessible on their phones.

OUTREACH SUMMARY
PUBLIC MEETING

122
Attendees

74
Completed surveys

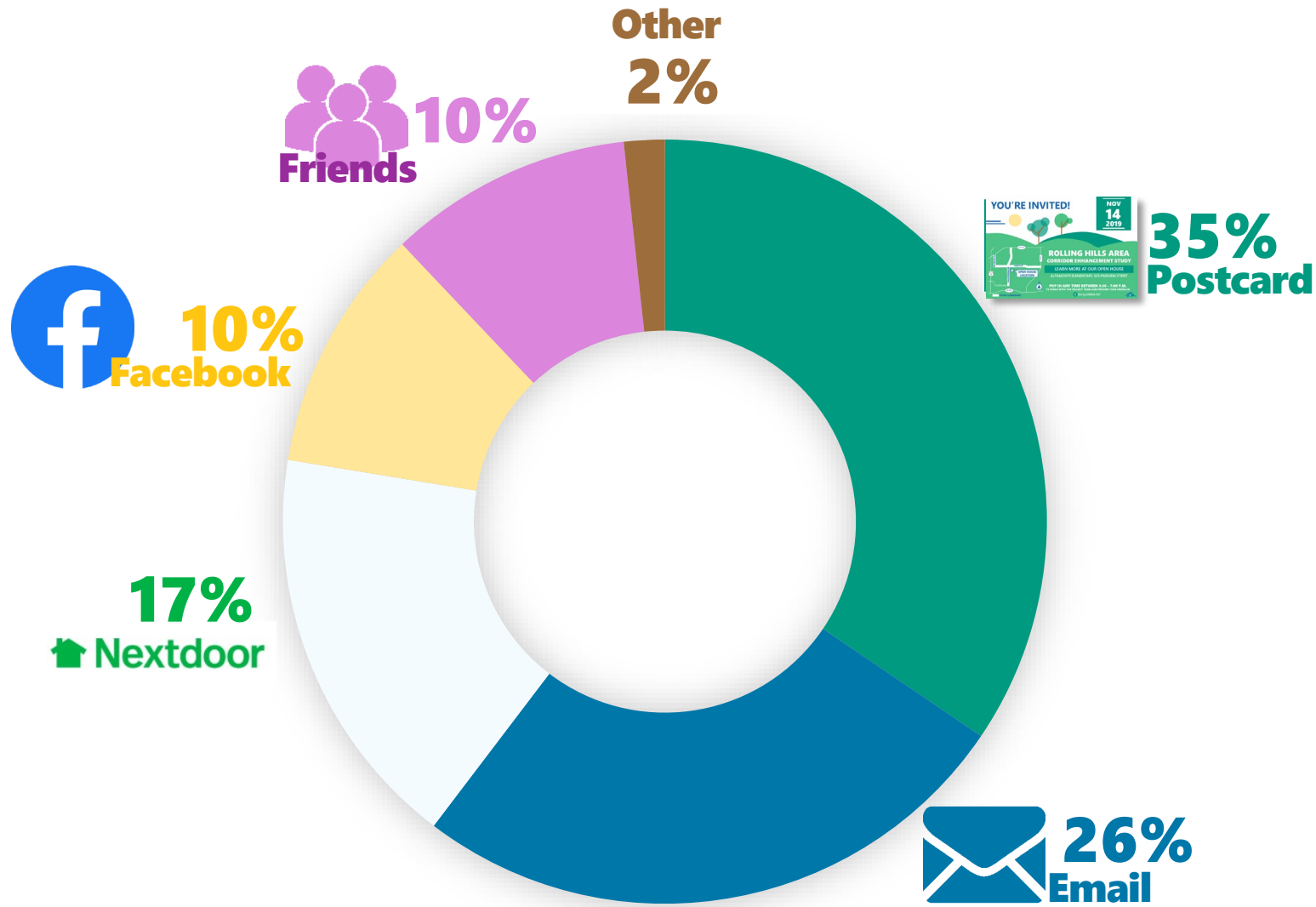
How would you describe the format of today's Open House?



93%
Satisfactory or above

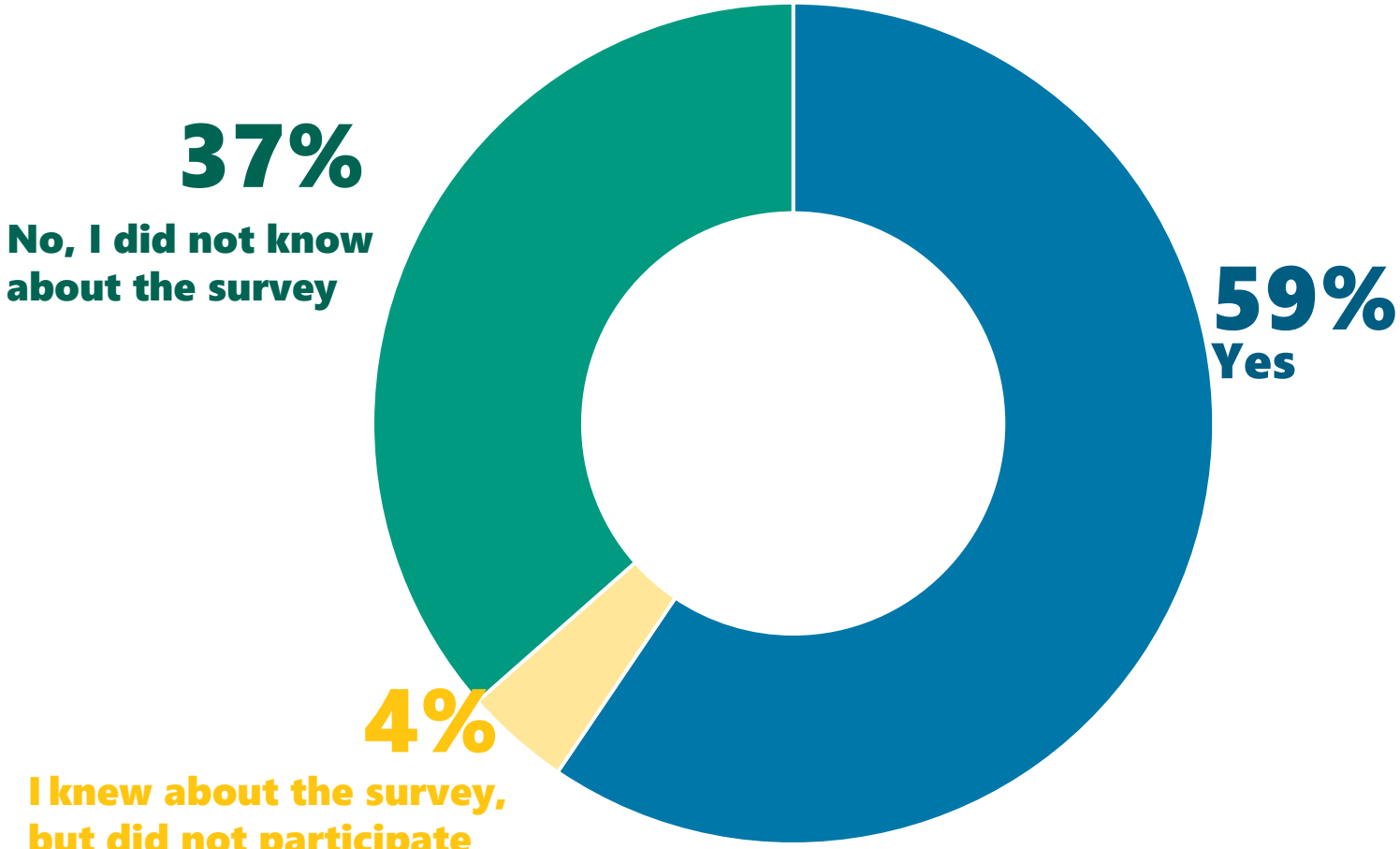
OUTREACH SUMMARY
PUBLIC MEETING

How did you hear about this meeting?

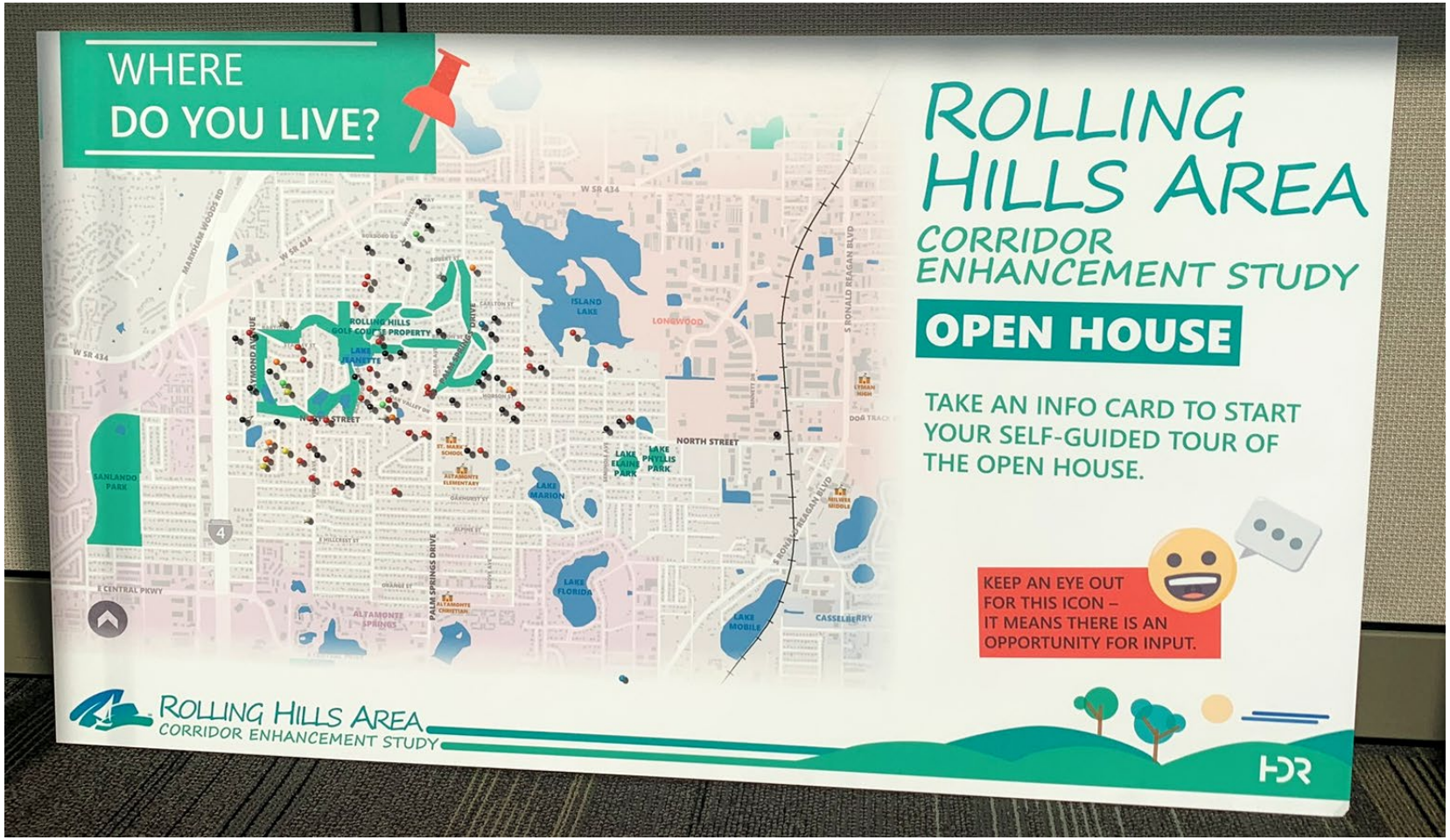


OUTREACH SUMMARY
PUBLIC MEETING

Did you participate in the online survey?



OUTREACH SUMMARY
PUBLIC MEETING



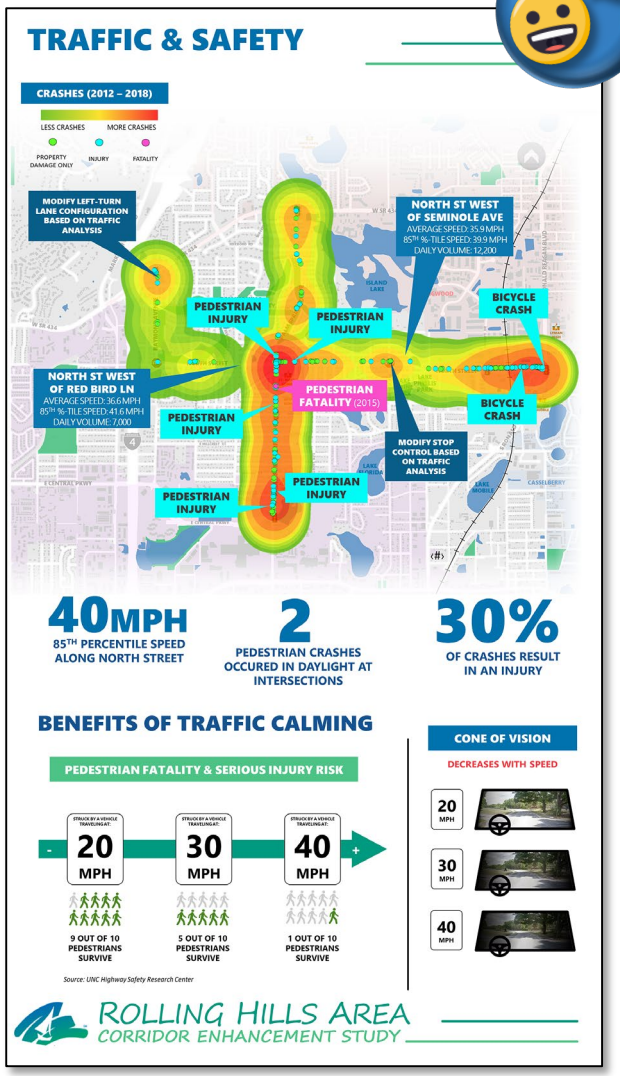
OPEN HOUSE SUMMARY - WELCOME

As people were welcomed into the Open House, they were given a card with information about how to take the self-guided tour survey. This card had a QR code that could open the survey via a phone camera, or a link and access code to the survey website if the QR code did not work.

The first board that attendees encountered as they began their self-guided tour was a "Where Do You Live?" board, where people were asked to stick a pin on the map where they lived. This was to give project staff an idea of how well project invitations worked, as well as being a fun precursor to the meeting information they were about to receive.

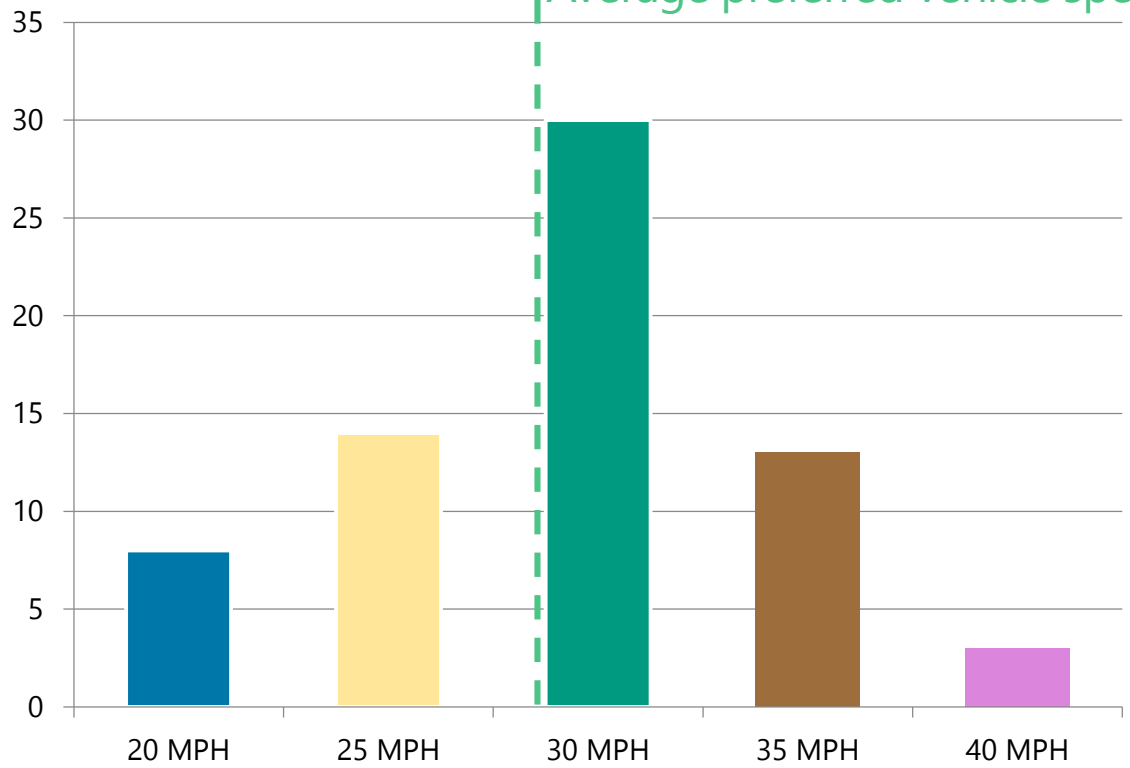
RESULTS & RECOMMENDATIONS

DESIGN STRATEGIES



29.2MPH

Average preferred vehicle speed



RESULTS & RECOMMENDATIONS

DESIGN STRATEGIES

DESIGN STRATEGIES

The following improvements may be used within the study area. These features can improve safety, calm traffic, and increase the livability of the Rolling Hills Area.

CORRIDOR ENHANCEMENTS

LANDSCAPED MEDIAN

Provides access management, vertical design elements to calm speeds, and pedestrian refuges.

CHICANING

An undulating path interrupts any clear view ahead and compels drivers to slow down

ON-STREET PARKING

Provides parking and slows speeds when located directly adjacent to the travel lane

TEXTURED PAVEMENT

Textured pavement, in the form of brick pavers, stamped asphalt, etc., can be used to draw attention to intersections and crosswalks, slowing traffic and protecting pedestrians.

SIGHTLINE CLEARING

Clearing certain overgrown areas can provide safer line of sight for turning vehicles and increase pedestrian safety on sidewalks near the roadway. The selective clearing can also create a more aesthetically pleasing environment for the area.

TURNING VEHICLES

SIGNAGE & LIGHTING

Improved signage and lighting in the area, especially for pedestrians, will increase safety and emphasize to drivers the pedestrian focus of the area.

INTERSECTION / CROSSWALK ENHANCEMENTS

RAISED INTERSECTION

Slows traffic through intersections and enhances placemaking / identity of area

REDUCED CURB RADIUS

Slows turning traffic at intersections and reduces pedestrian crossing distances

RAISED PEDESTRIAN CROSSING

Slows traffic at crosswalks and improves pedestrian safety

ROUNDABOUTS

Potential vehicle conflict points at a roundabout (8) vs. a 4-leg intersection (32)

Diverging (8) Merging (8) Crossing (16)

Diverging (4) Merging (4) Crossing (0)

NUMBER OF ROUNDABOUTS IN THE U.S.

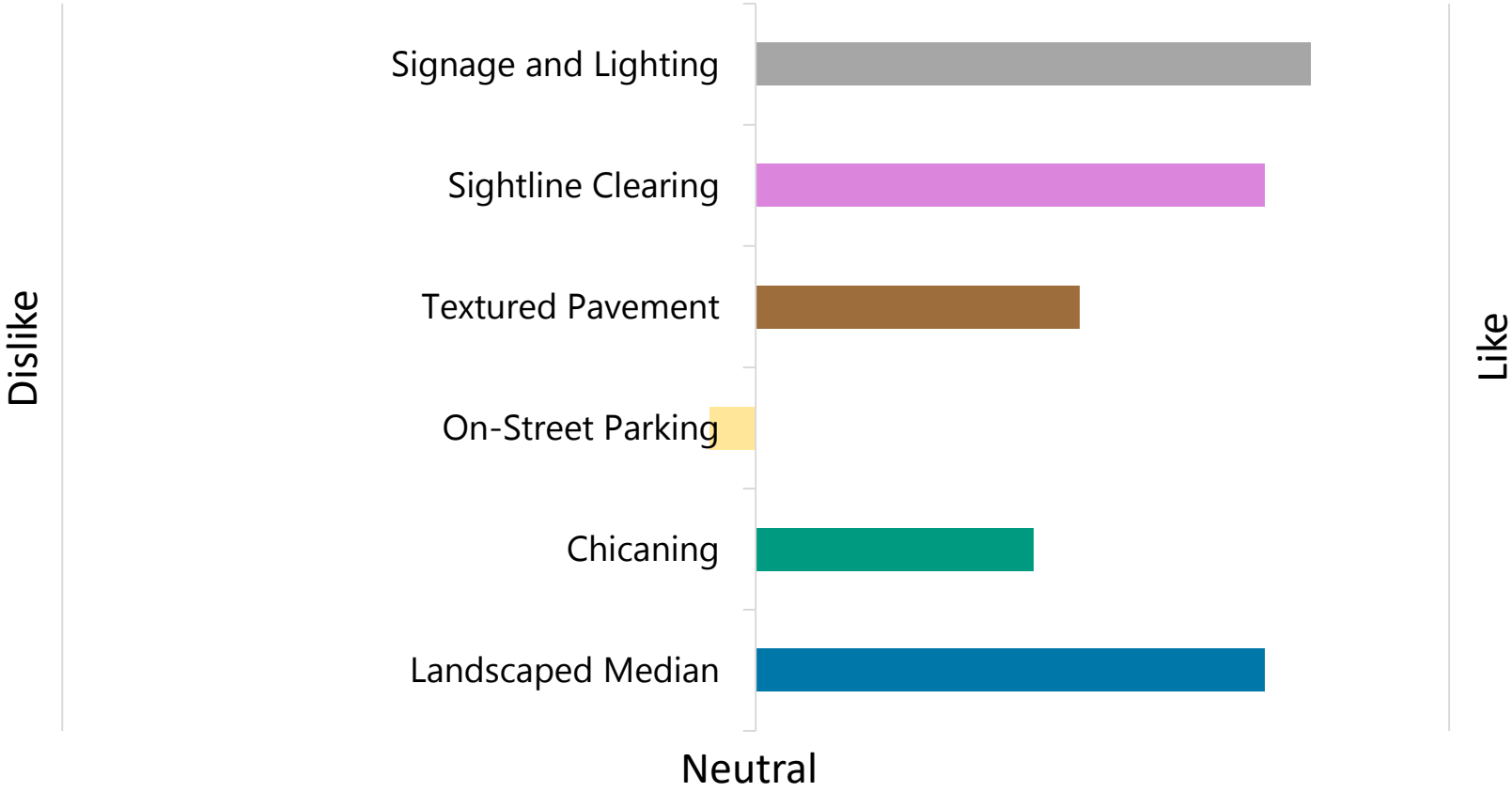
+5K

ROUNDABOUTS REDUCE SEVERE CRASHES BY

80%

ROLLING HILLS AREA CORRIDOR ENHANCEMENT STUDY

DESIGN STRATEGIES: What do you think of implementing these corridor enhancement strategies in the study area?



RESULTS & RECOMMENDATIONS

DESIGN STRATEGIES

DESIGN STRATEGIES

The following improvements may be used within the study area. These features can improve safety, calm traffic, and increase the livability of the Rolling Hills Area.

CORRIDOR ENHANCEMENTS

LANDSCAPED MEDIAN
Provides access management, vertical design elements to calm speeds, and pedestrian refuges.

CHICANING
An undulating path interrupts any clear view ahead and compels drivers to slow down

ON-STREET PARKING
Provides parking and slows speeds when located directly adjacent to the travel lane

TEXTURED PAVEMENT
Textured pavement, in the form of brick pavers, stamped asphalt, etc., can be used to draw attention to intersections and crosswalks, slowing traffic and protecting pedestrians.

SIGHTLINE CLEARING
Clearing certain overgrown areas can provide safer line of sight for turning vehicles and increase pedestrian safety on sidewalks near the roadway. The selective clearing can also create a more aesthetically pleasing environment for the area.

SIGNAGE & LIGHTING
Improved signage and lighting in the area, especially for pedestrians, will increase safety and emphasize to drivers the pedestrian focus of the area.

INTERSECTION / CROSSWALK ENHANCEMENTS

RAISED INTERSECTION
Slows traffic through intersections and enhances placemaking / identity of area

REDUCED CURB RADIUS
Slows turning traffic at intersections and reduces pedestrian crossing distances

RAISED PEDESTRIAN CROSSING
Slows traffic at crosswalks and improves pedestrian safety

ROUNDABOUTS

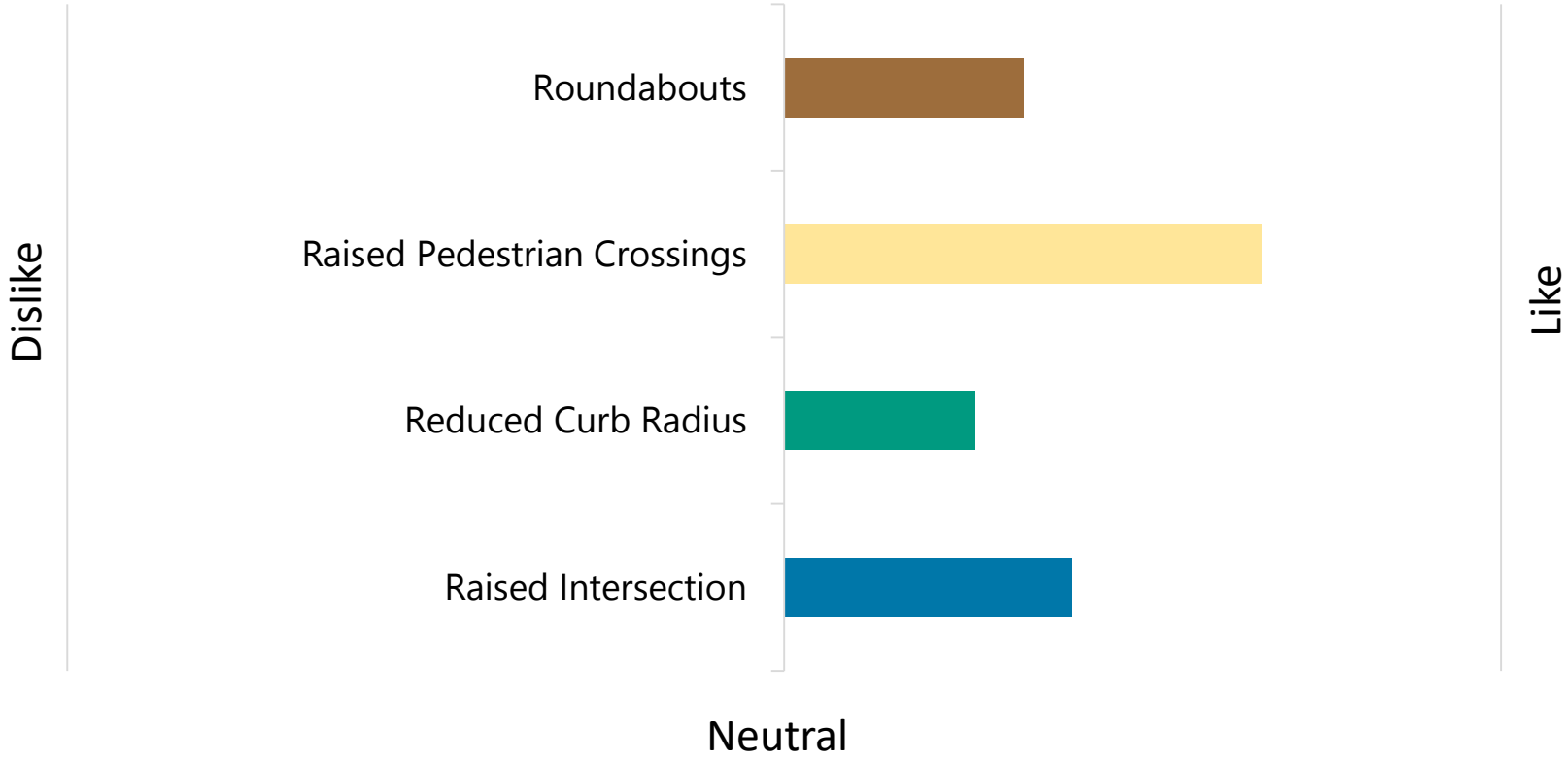
Potential vehicle conflict points at a roundabout (8) vs. a 4-leg intersection (32)

NUMBER OF ROUNDABOUTS IN THE U.S.
+5K

ROUNDABOUTS REDUCE SEVERE CRASHES BY
80%

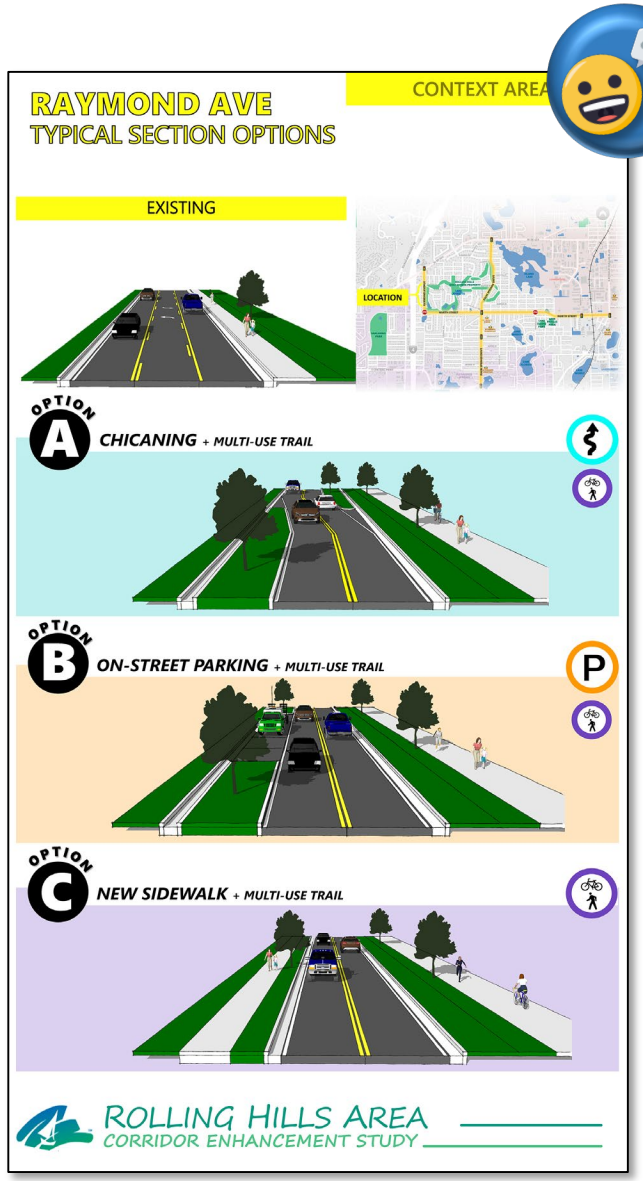
ROLLING HILLS AREA
CORRIDOR ENHANCEMENT STUDY

DESIGN STRATEGIES: What do you think of implementing these intersection/crosswalk strategies in the study area?

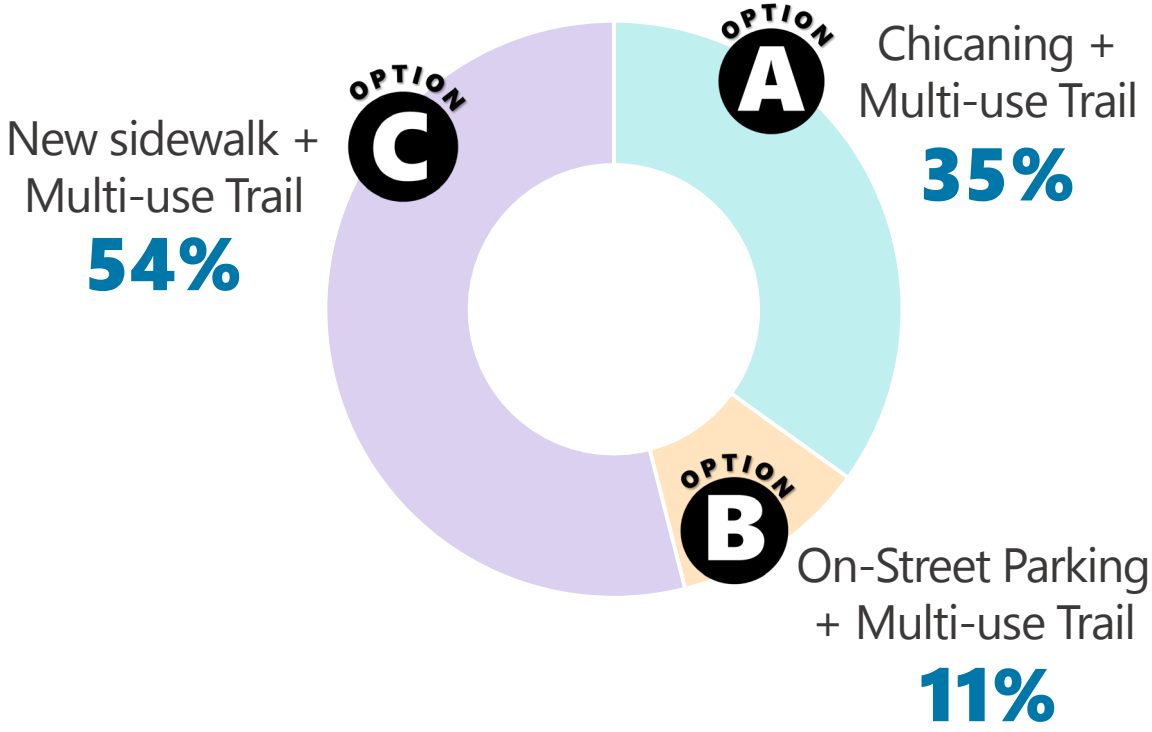


RESULTS & RECOMMENDATIONS

RAYMOND AVE FROM NORTH ST TO SR 434 *(0.6 mi.)*

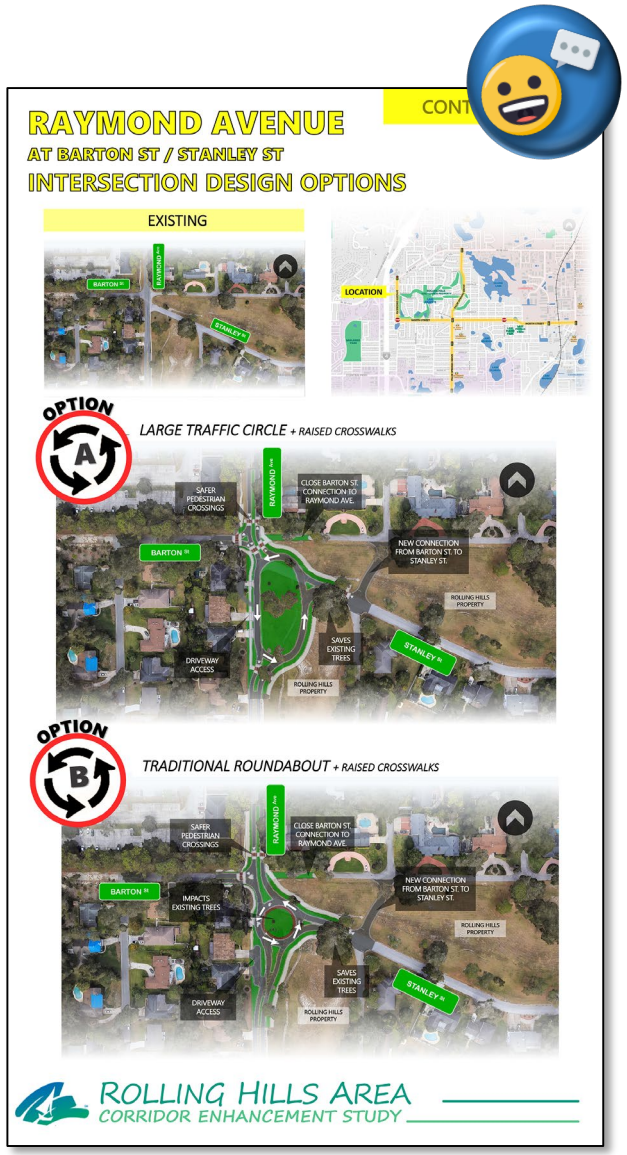


CONTEXT AREA 1: Which improvement would you most like to see along Raymond Avenue between Barton St and Hobson St?

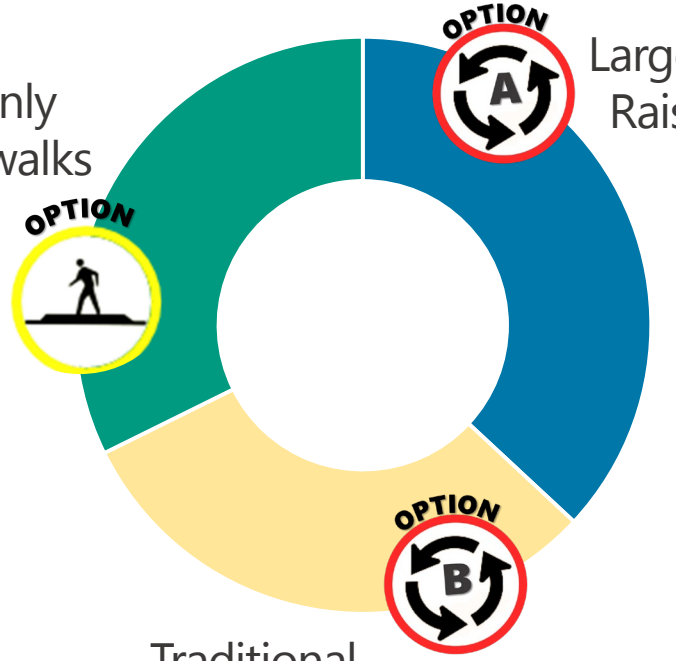


RESULTS & RECOMMENDATIONS

RAYMOND AVE FROM NORTH ST TO SR 434 *(0.6 mi.)*



CONTEXT AREA 1: Which intersection design option would you like to see at Raymond Avenue, Barton St, and Stanley St?



Large Traffic Circle + Raised Crosswalks
37%

Neither – Only Raised Crosswalks
32%

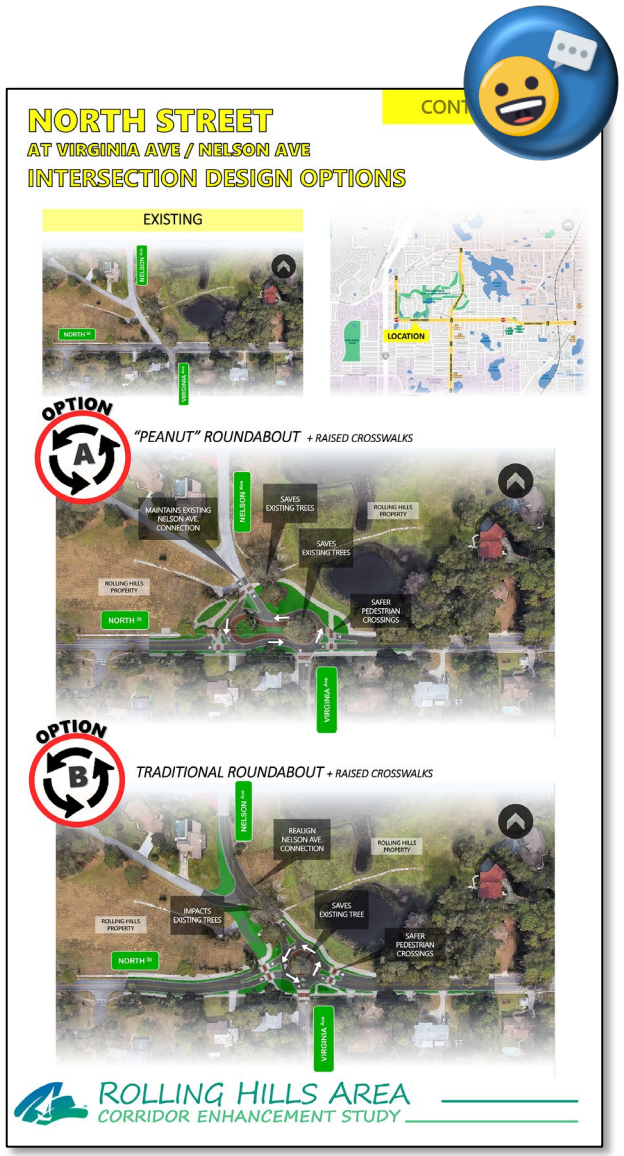
Traditional Roundabout + Raised Crosswalks
31%

68%
prefer a roundabout alternative

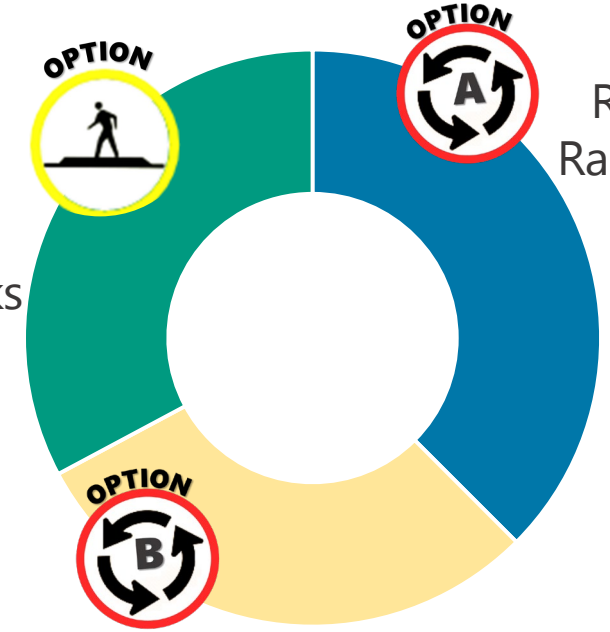
ROLLING HILLS AREA
CORRIDOR ENHANCEMENT STUDY

PRELIMINARY RECOMMENDATIONS

NORTH STREET FROM RAYMOND AVE TO PALM SPRINGS DR *(0.75 mi.)*



CONTEXT AREA 1: Which intersection design option would you like to see at North Street, Virginia Ave, and Nelson Ave?



Neither – Only Raised Crosswalks
33%

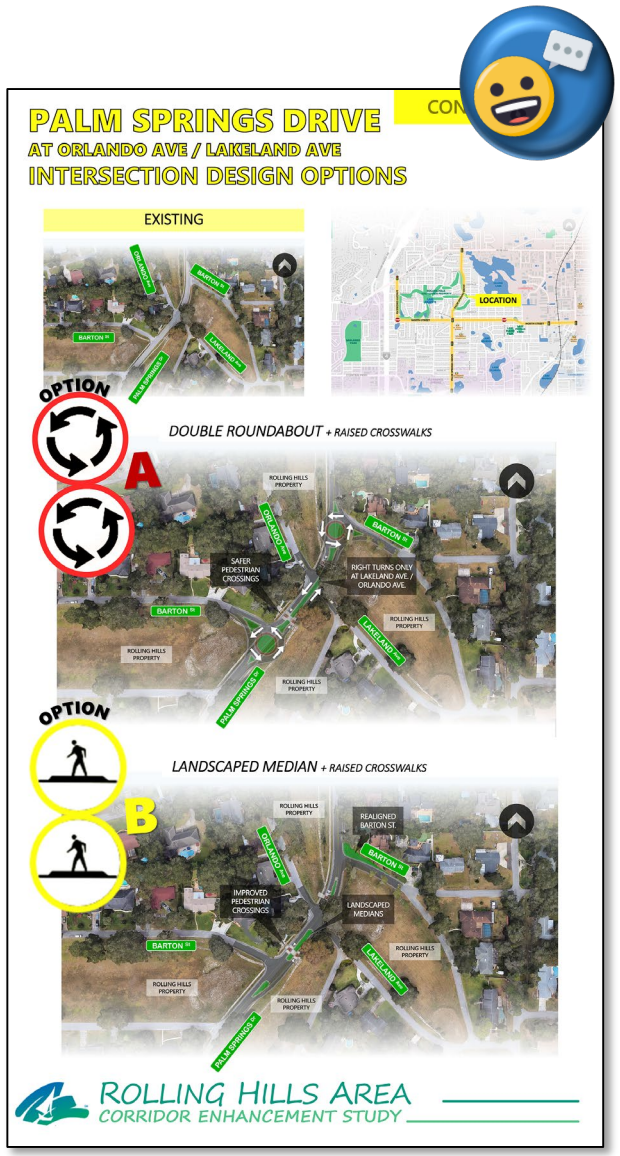
"Peanut" Roundabout + Raised Crosswalks
37%

Traditional Roundabout + Raised Crosswalks
30%

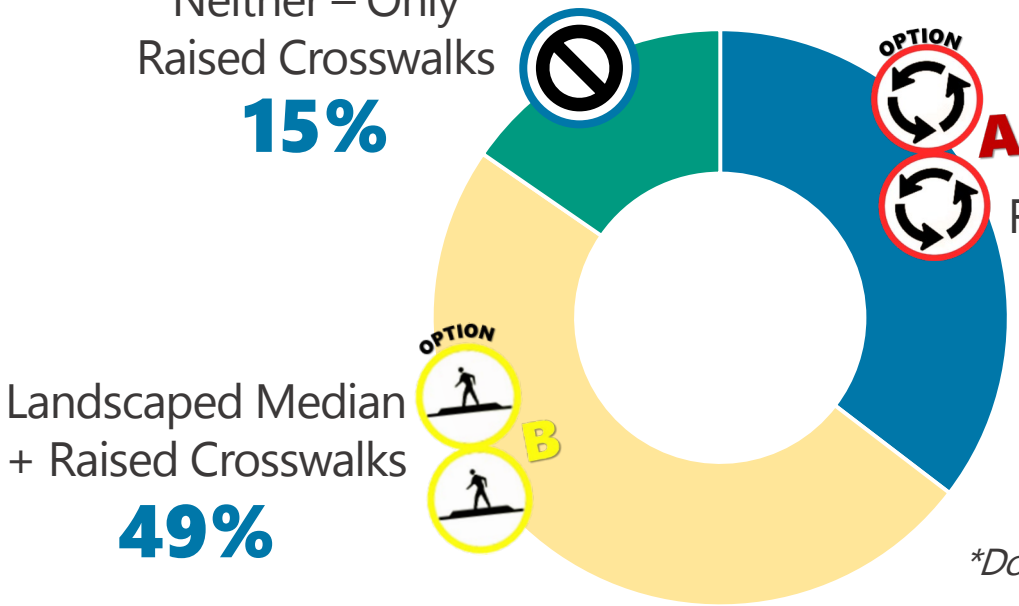
67%
prefer a roundabout alternative

RESULTS & RECOMMENDATIONS

PALM SPRINGS DR FROM NORTH ST TO SR 434 *(1 mi.)*



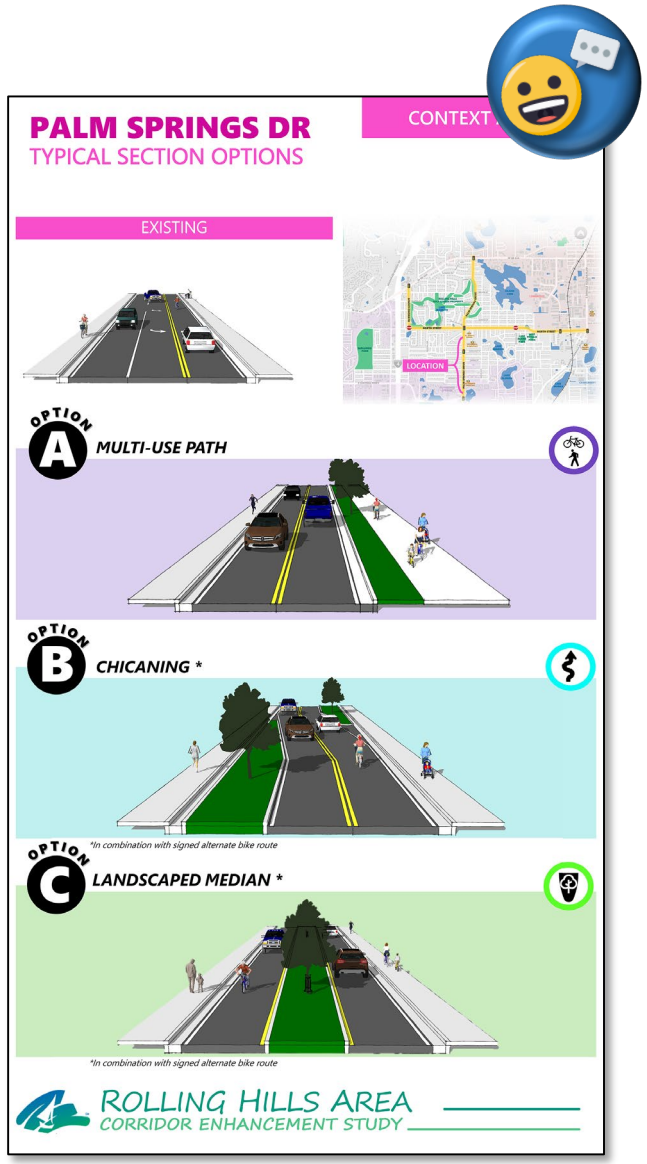
CONTEXT AREA 1: Which intersection design option would you like to see at Palm Springs Drive, Orlando Ave, and Lakeland Ave?



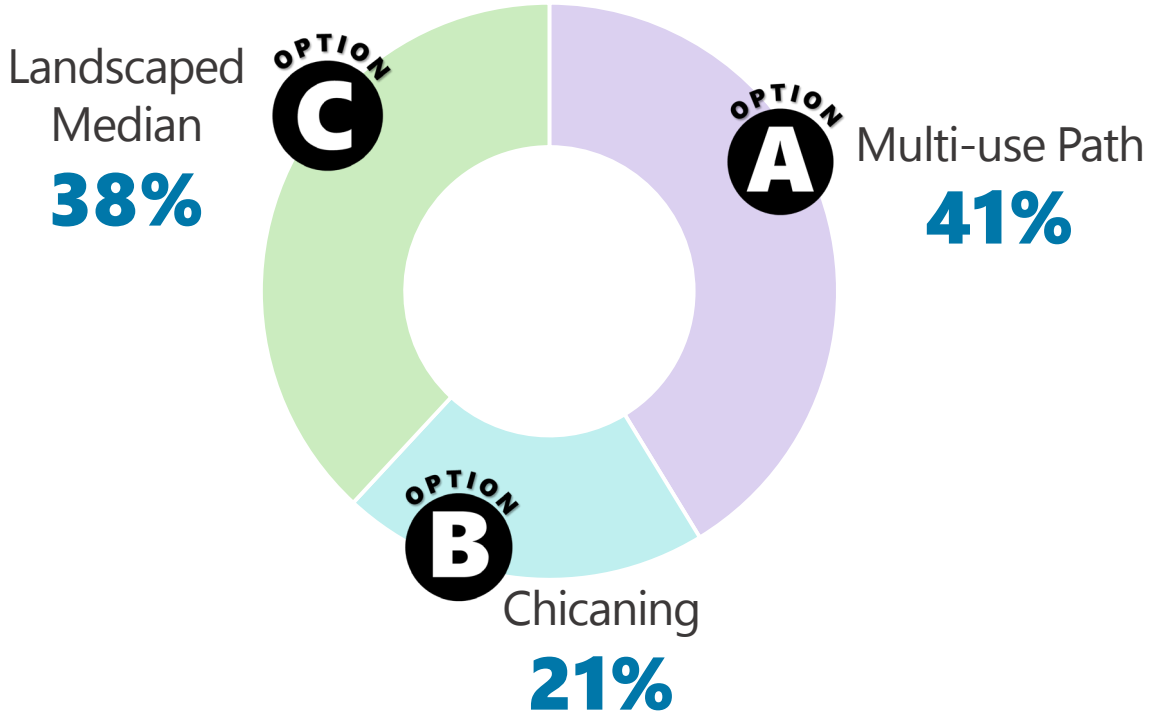
**Double Roundabout option includes Landscaped Medians*

RESULTS & RECOMMENDATIONS

PALM SPRINGS DR. FROM CENTRAL PKWY TO NORTH ST. *(1 mi.)*

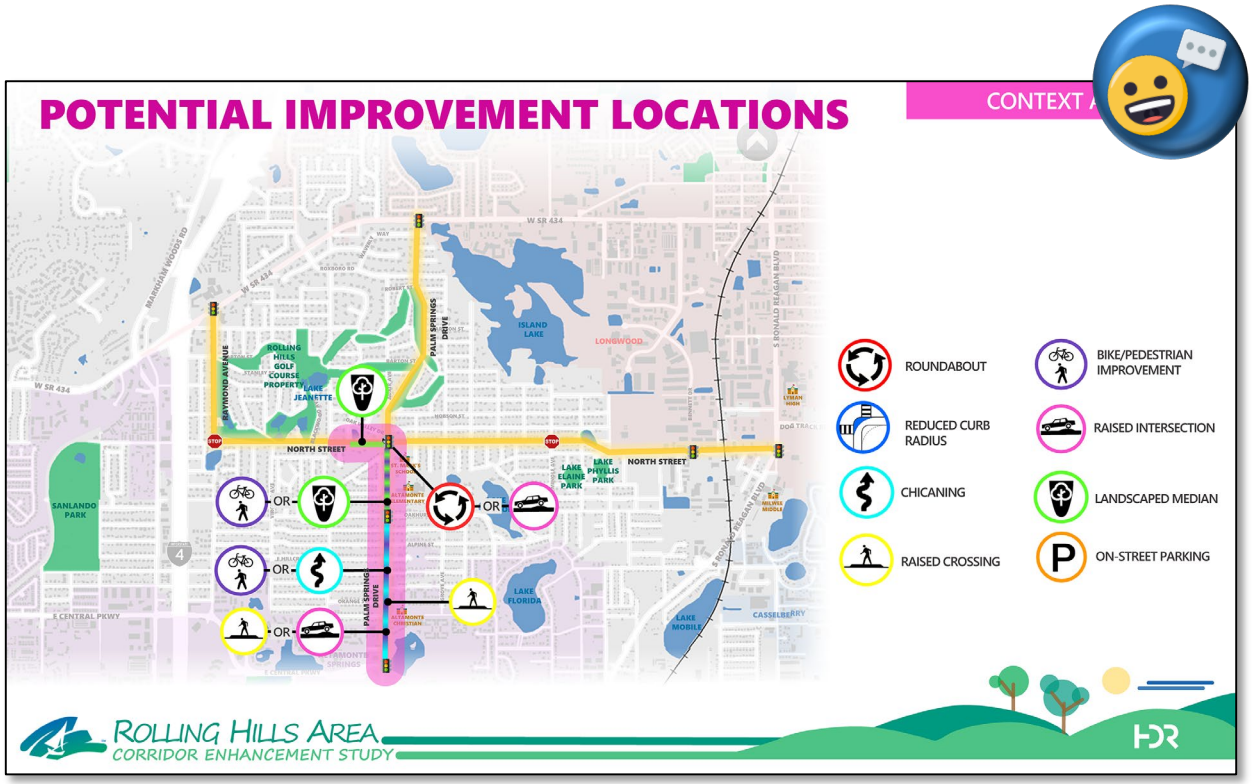


CONTEXT AREA 2: Which improvement would you most like to see along Palm Springs Dr. south of North St.?

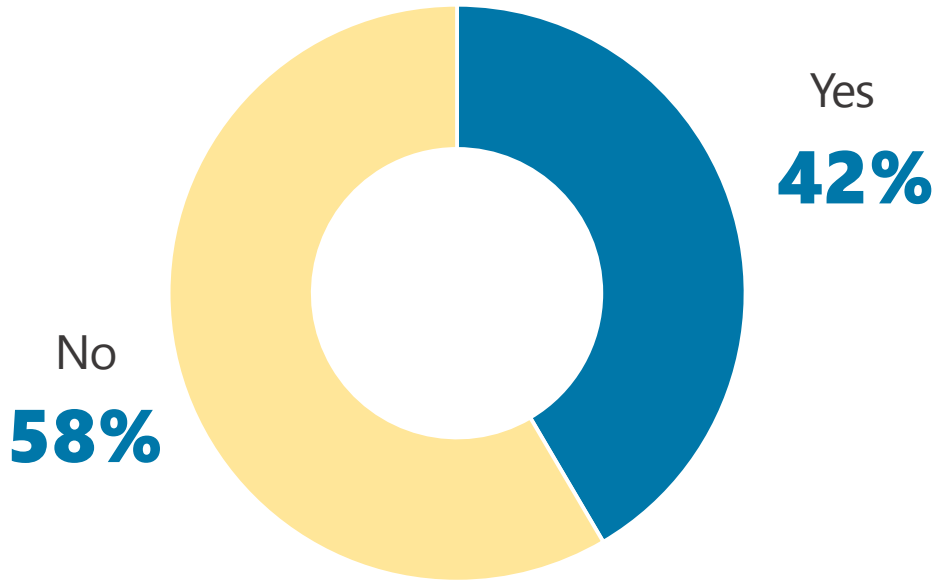


RESULTS & RECOMMENDATIONS

PALM SPRINGS DR. FROM CENTRAL PKWY TO NORTH ST. *(1 mi.)*



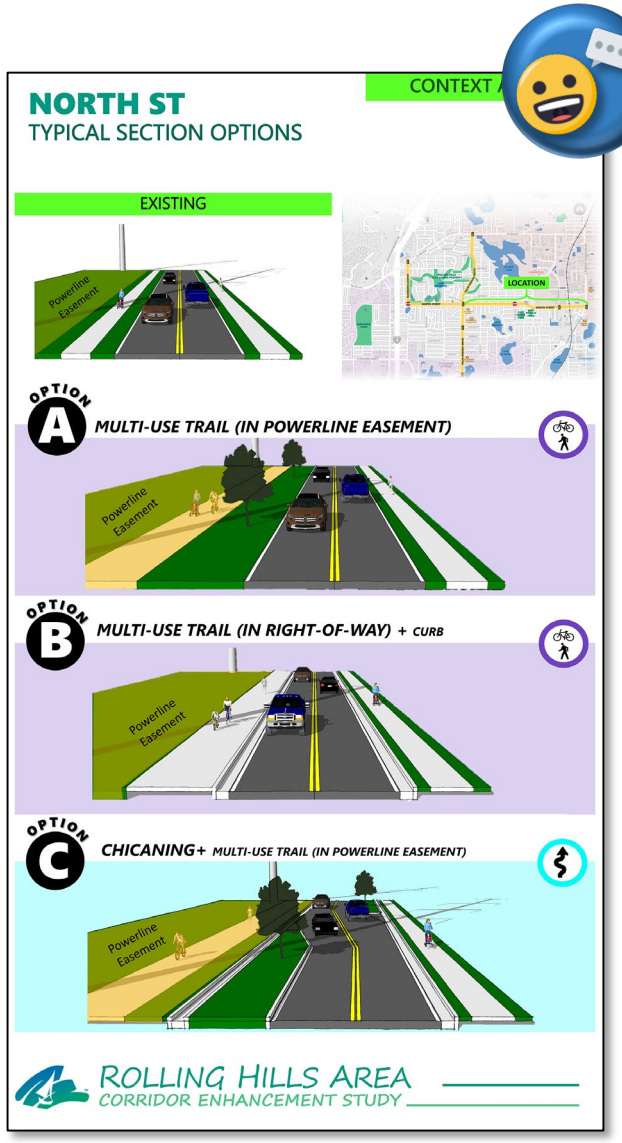
CONTEXT AREA 2: Should we continue to evaluate a roundabout option at Palm Springs Dr. and North St. (currently signalized)?



RESULTS & RECOMMENDATIONS

NORTH ST. FROM PALM SPRINGS DR. TO CR 427

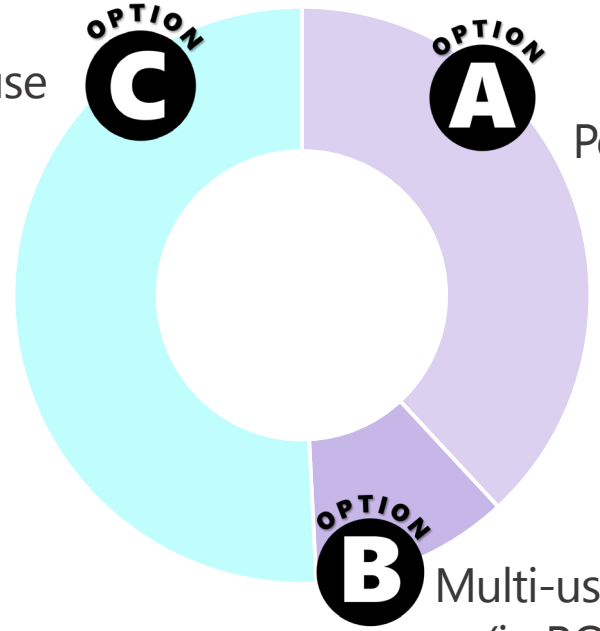
CONTEXT AREA 3



CONTEXT AREA 3: Which improvement would you most like to see along North St east of Palm Springs Dr?

Chicaning + Multi-use Trail (in Powerline Easement)

51%



Multi-use Trail (in Powerline Easement)

38%

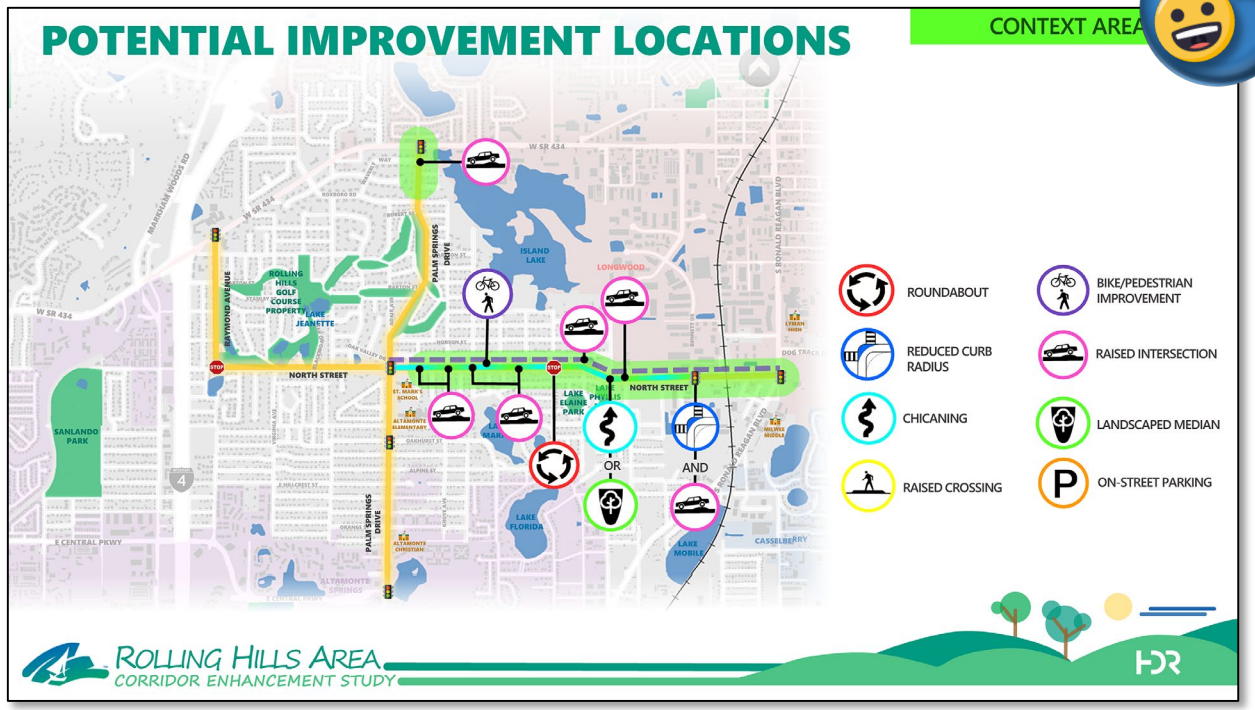
Multi-use Trail (in ROW)

11%

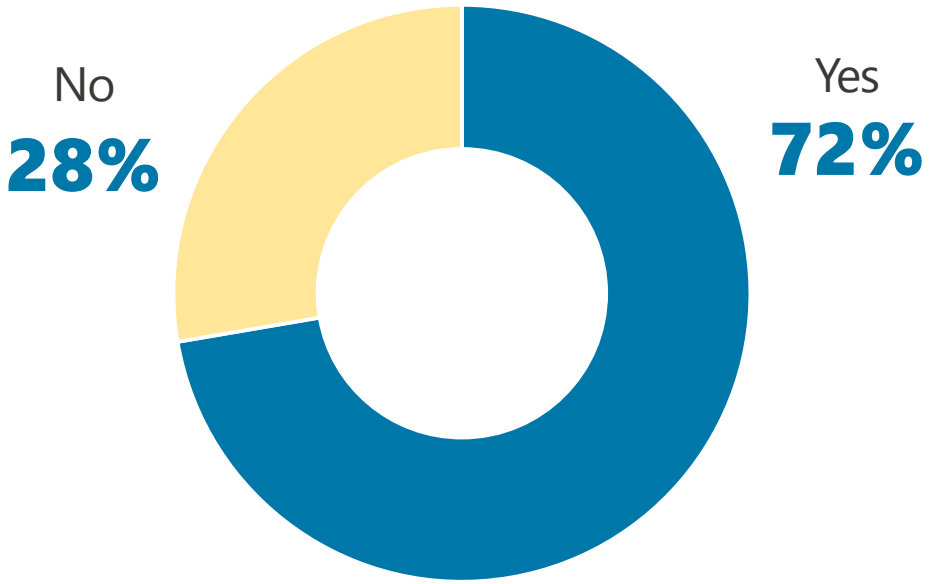
ROLLING HILLS AREA
CORRIDOR ENHANCEMENT STUDY

RESULTS & RECOMMENDATIONS

NORTH ST. FROM PALM SPRINGS DR. TO CR 427



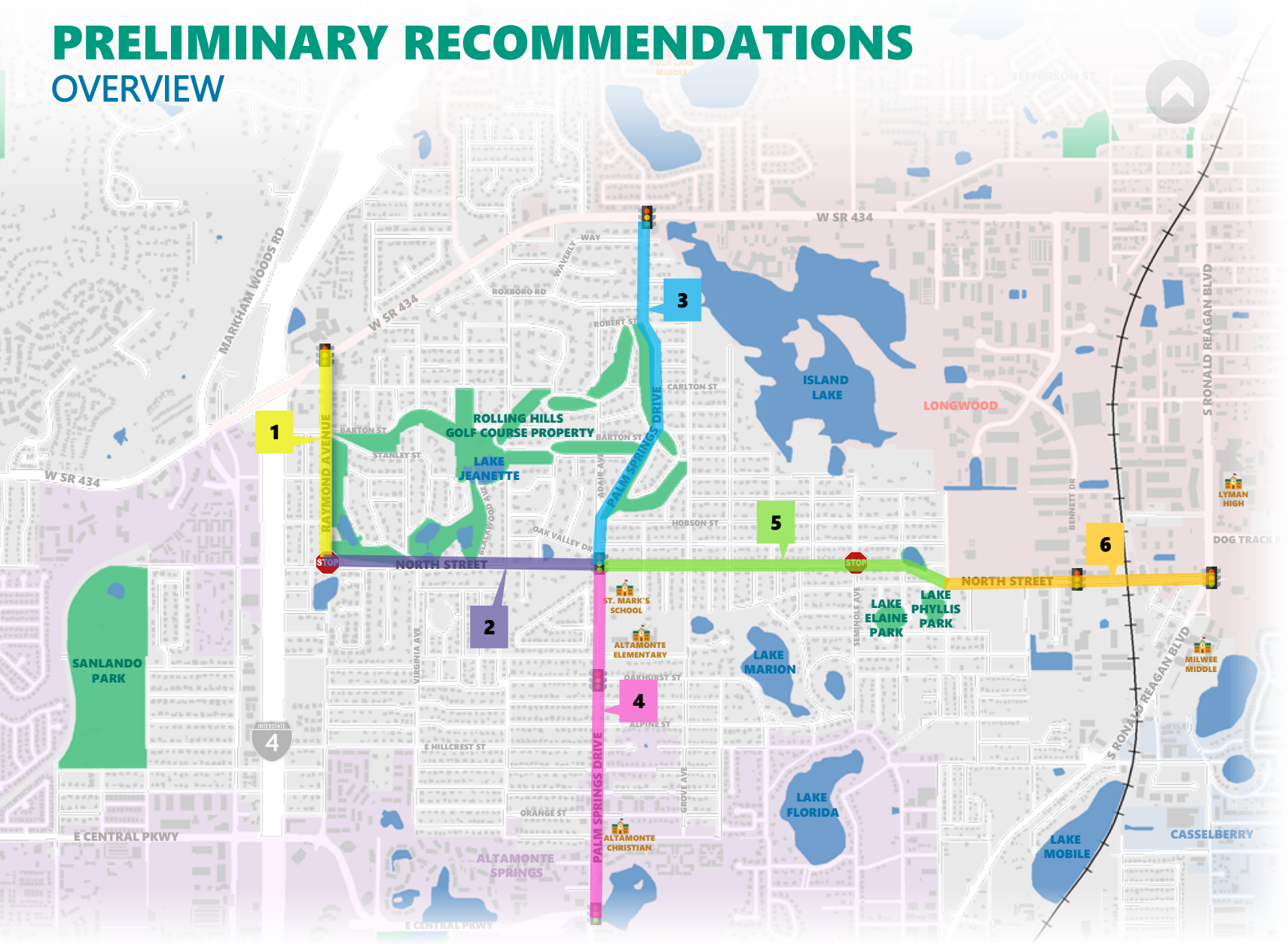
CONTEXT AREA 3: Should we continue to evaluate a roundabout option at North St and Seminole Ave (currently an all-way stop)?



2 PRELIMINARY RECOMMENDATIONS

PRELIMINARY RECOMMENDATIONS

OVERVIEW



STUDY AREA PRIORITIZED INTO 6 PROJECTS

1. RAYMOND AVE.

FROM NORTH ST. TO SR 434 (0.6 mi.)

2. NORTH ST.

FROM RAYMOND AVE. TO PALM SPRINGS DR. (0.75 mi.)

3. PALM SPRINGS DR.

FROM NORTH ST. TO SR 434 (1 mi.)

4. PALM SPRINGS DR.

FROM CENTRAL PKWY TO NORTH ST. (1 mi.)

5. NORTH ST.

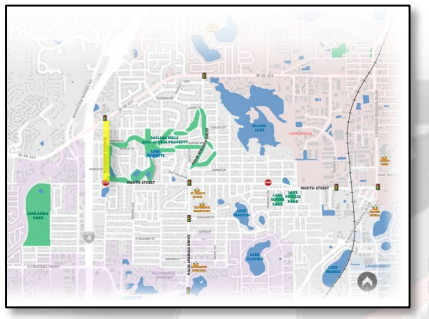
FROM PALM SPRINGS DR. TO LONGWOOD CITY LIMITS (2 mi.)

6. NORTH ST.

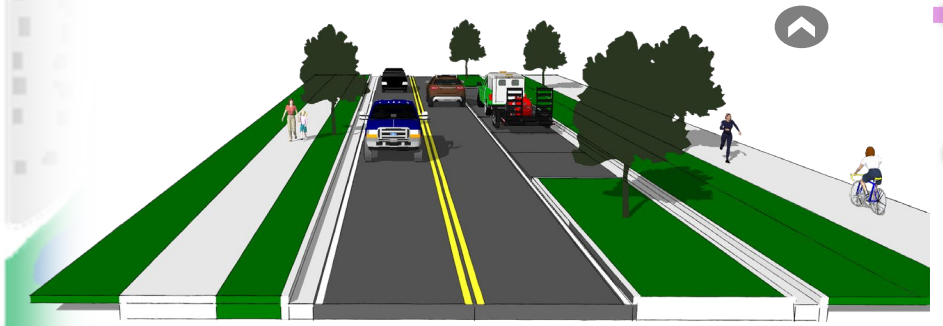
FROM LONGWOOD CITY LIMITS TO CR 427 (0.75 mi.)

PRELIMINARY RECOMMENDATIONS

PROJECT 1: RAYMOND AVE. FROM NORTH ST. TO SR 434 *(0.6 mi.)*



PROPOSED ROUNDABOUT CONCEPT



PROPOSED RAYMOND AVE. TYPICAL SECTION
BETWEEN STANLEY ST. AND HOBSON ST.

REDUCE SPEED
From 30 MPH to 25 MPH

SPOT IMPROVEMENTS
Raised crosswalks and reduced curb radii throughout

TRAIL
Provide trail connection on west side from park to SR 434 (eventually to Seminole-Wekiva Trail)

MEDIAN
Add median, curb, and traffic operations improvements from park to SR 434

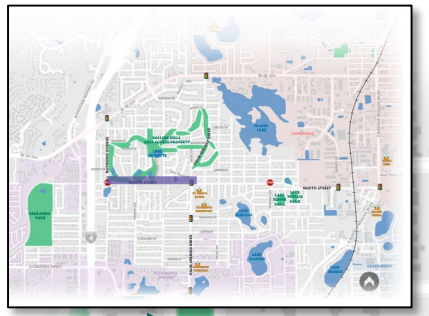
ROUNDABOUT
Large traffic circle at Stanley St. and provide new connection from Barton St. to Stanley St.

NEW SIDEWALK
Eliminate TWLTL and fill sidewalk gap on the west side from North St. to Stanley St.

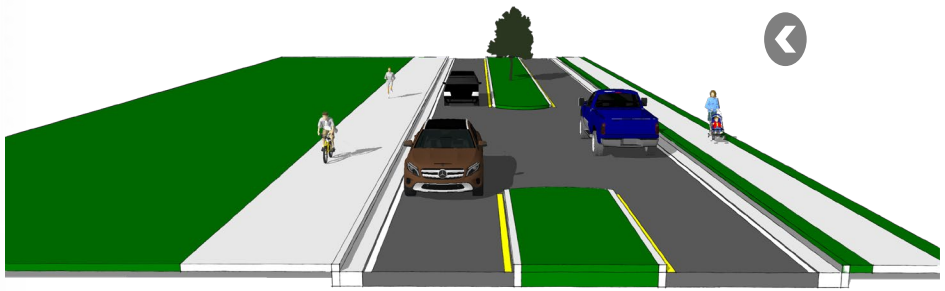
ON-STREET PARKING
Adjacent to park between Stanley St. and Hobson St. (also accommodates landscape vehicles)

PRELIMINARY RECOMMENDATIONS

PROJECT 2: NORTH ST. FROM RAYMOND AVE. TO PALM SPRINGS DR. *(0.75 mi.)*



PROPOSED ROUNDABOUT CONCEPT



PROPOSED NORTH ST. TYPICAL SECTION
BETWEEN VIRGINIA AVE. TO PALM SPRINGS DR.

REDUCE SPEED
From 35 MPH to 25 MPH

SPOT IMPROVEMENTS
Raised crosswalks and reduced curb radii throughout

ROUNDABOUT
Peanut Roundabout at Virginia Ave.

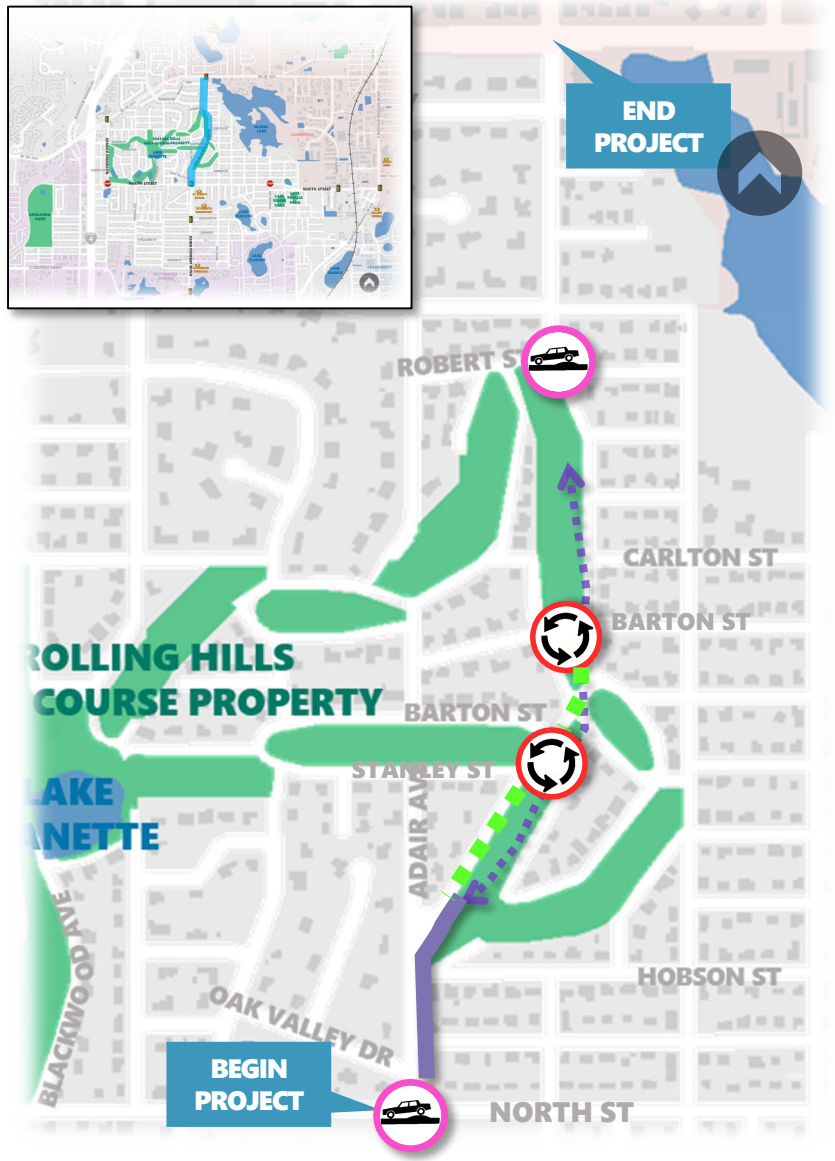
TRAIL
Connection along north side from park to Palm Springs Dr. (connects to proposed trails in adjacent segments)

MEDIAN ISLANDS
From park to Palm Springs Dr. (with openings for driveway access)

RAISED INTERSECTION
At North St. and Palm Springs Dr. intersection

PRELIMINARY RECOMMENDATIONS

PROJECT 3: PALM SPRINGS DR. FROM NORTH ST. TO SR 434 *(1 mi.)*



PROPOSED ROUNDABOUT CONCEPT

REDUCE SPEED
from 30 MPH to 25 MPH

SPOT IMPROVEMENTS
Raised crosswalks and reduced curb radii throughout

ROUNDABOUTS
Double roundabouts at Barton St. and Stanley St.

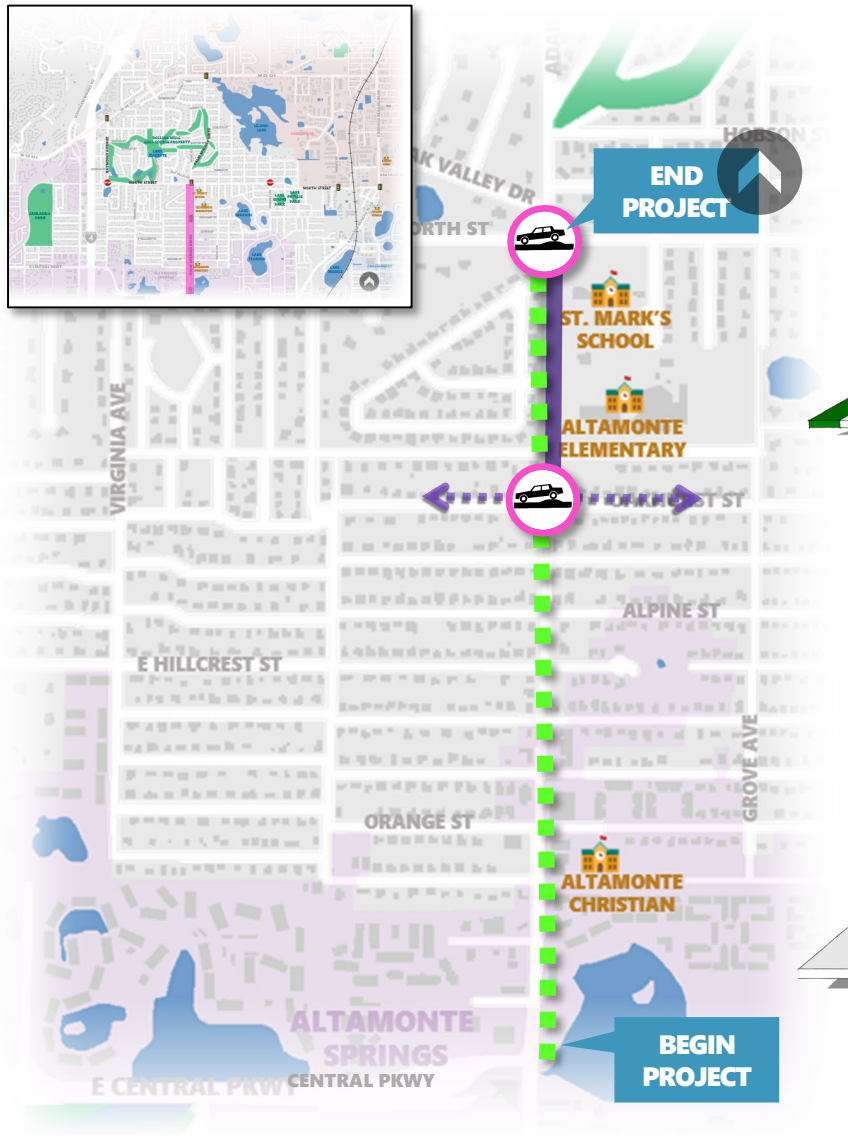
TRAIL
Connection along east side from Palm Springs Dr. to park

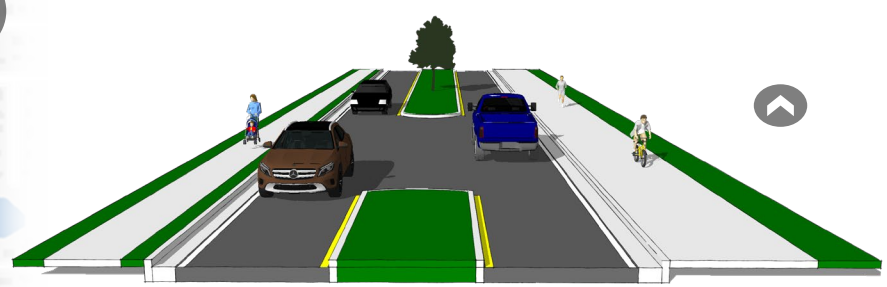
MEDIAN ISLANDS
Between the double roundabouts and at raised crosswalk locations

RAISED INTERSECTIONS
At North St. and Palm Springs Dr. intersection and Robert St and Palm Springs Dr.

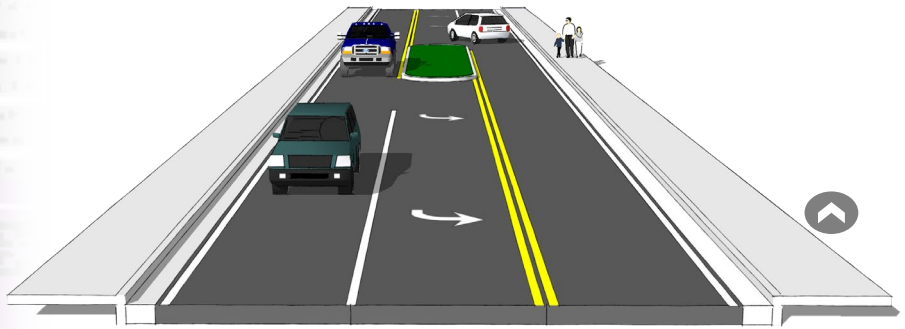
PRELIMINARY RECOMMENDATIONS

PROJECT 4: PALM SPRINGS DR. FROM CENTRAL PKWY TO NORTH ST. *(1 mi.)*





PROPOSED PALM SPRINGS DR. TYPICAL SECTION
BETWEEN OAKHURST ST. AND NORTH ST.



PROPOSED PALM SPRINGS DR. TYPICAL SECTION
BETWEEN CENTRAL PKWY AND OAKHURST ST.

MAINTAIN SPEED LIMIT
30 MPH

SPOT IMPROVEMENTS
Raised crosswalks and reduced curb radii throughout

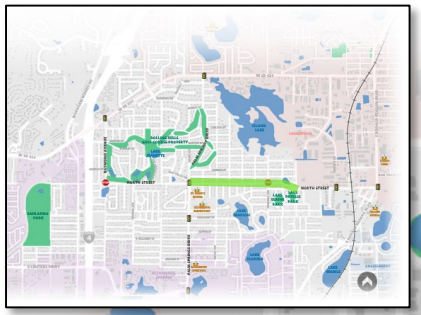
MEDIAN ISLANDS
from Central Pkwy to North St.

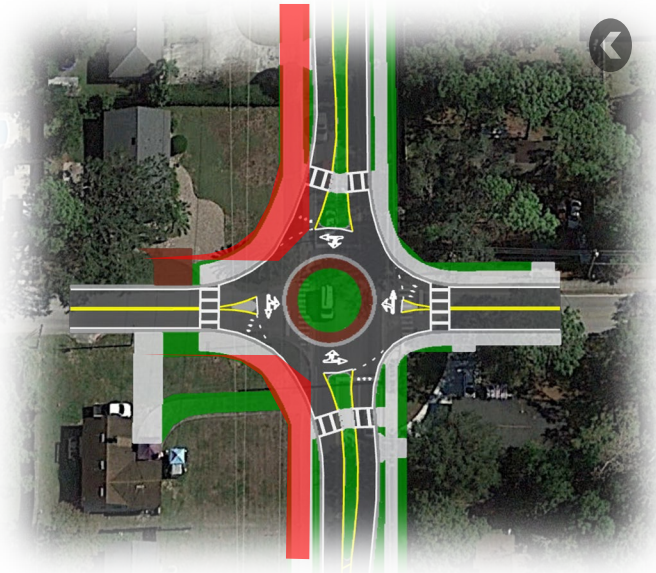
TRAIL
Connection along east side from Oakhurst St. to North St. *Propose alternative parallel bike route south of Oakhurst St.*

RAISED INTERSECTIONS
At North St. and Palm Springs Dr. intersection and Oakhurst St. and Palm Springs Dr. intersection

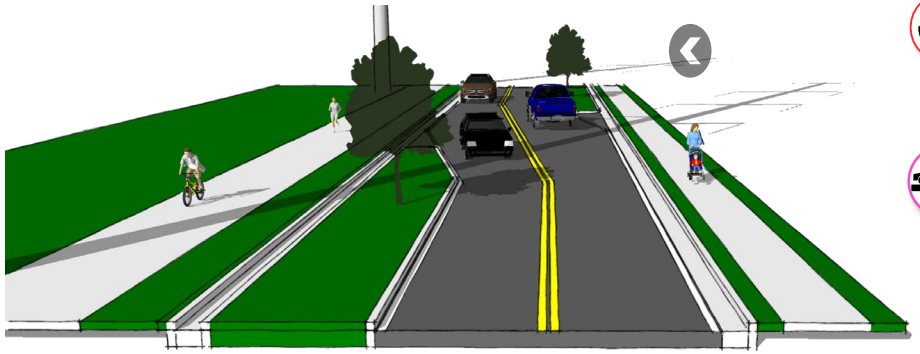
PRELIMINARY RECOMMENDATIONS

PROJECT 5: NORTH ST. FROM PALM SPRINGS DR. TO LONGWOOD CITY LIMITS *(2 mi.)*





PROPOSED ROUNDABOUT CONCEPT



PROPOSED NORTH ST. TYPICAL SECTION
BETWEEN PALM SPRINGS DR. AND SEMINOLE AVE.

REDUCE SPEED
from 35 MPH to 30 MPH

SPOT IMPROVEMENTS
Raised crosswalks and reduced curb radii throughout

CHICANING
Minor widening with chicaning from Palm Springs Dr. to Seminole Ave.

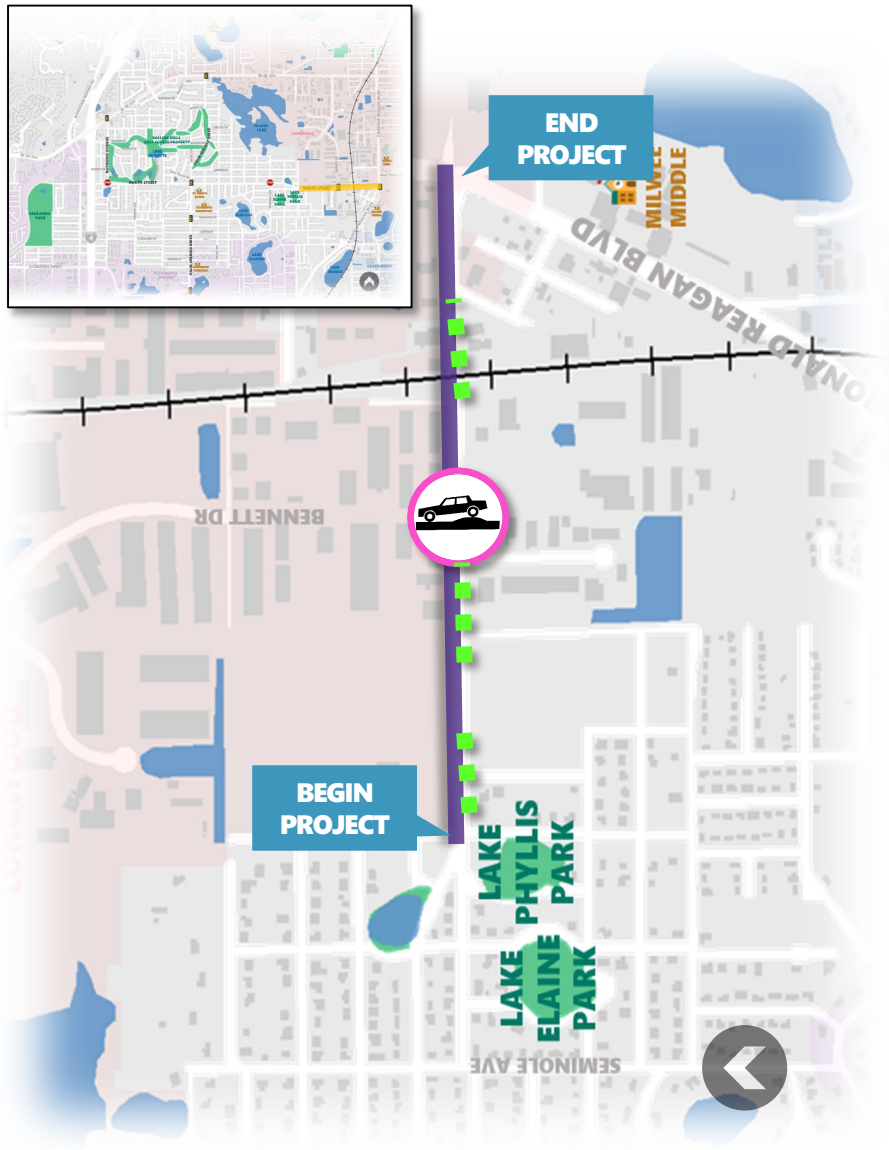
TRAIL
Connection along north side from Palm Springs Dr. to Longwood City Limits (500 ft. east of Fairview Ave) (recommended within powerline easement)

ROUNDABOUT
Replace existing 4-way stop at Seminole Ave. and North St. (requires ROW within the powerline easement)

RAISED INTERSECTION
At North St. and Palm Springs Dr. intersection

PRELIMINARY RECOMMENDATIONS

PROJECT 6: NORTH ST. FROM LONGWOOD CITY LIMITS TO CR 427 *(0.75 mi.)*



WIDE CURB RADII AT BENNETT DR.

SIDEWALK GAP AT RAILROAD CROSSING

MAINTAIN SPEED
35 MPH

SPOT IMPROVEMENTS
Raised crosswalks and reduced curb radii throughout

MEDIAN ISLANDS
Spot locations within the existing curbs

TRAIL
Connection along north side from Longwood City Limits (500 ft. east of Fairview Ave) to CR 427 (within powerline easement)

RAISED INTERSECTION
At North St. and Bennett Dr.

COUNTY PROJECT MANAGER

BILL WHARTON
TRANSPORTATION PLANNING MANAGER
SEMINOLE COUNTY PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION
407.665.5730
WWHARTON@SEMINOLECOUNTYFL.GOV

CONSULTANT PROJECT MANAGER

MARK SUAREZ, PE
SENIOR TRANSPORTATION ENGINEER
HDR
407.420.4200
MARK.SUAREZ@HDRINC.COM

CONSULTANT DEPUTY PROJECT MANAGER

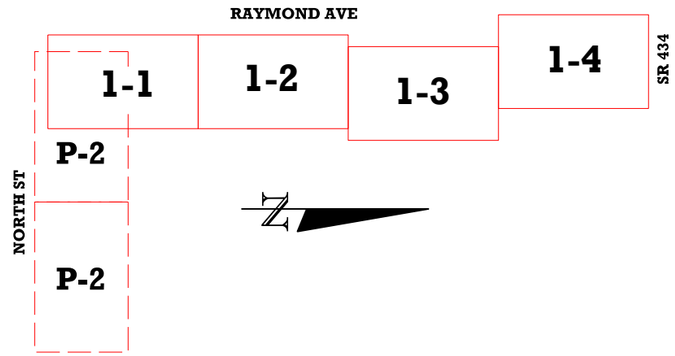
JENN RHODES
MULTIMODAL TRANSPORTATION PLANNER
HDR
407.420.4139
JENN.RHODES@HDRINC.COM

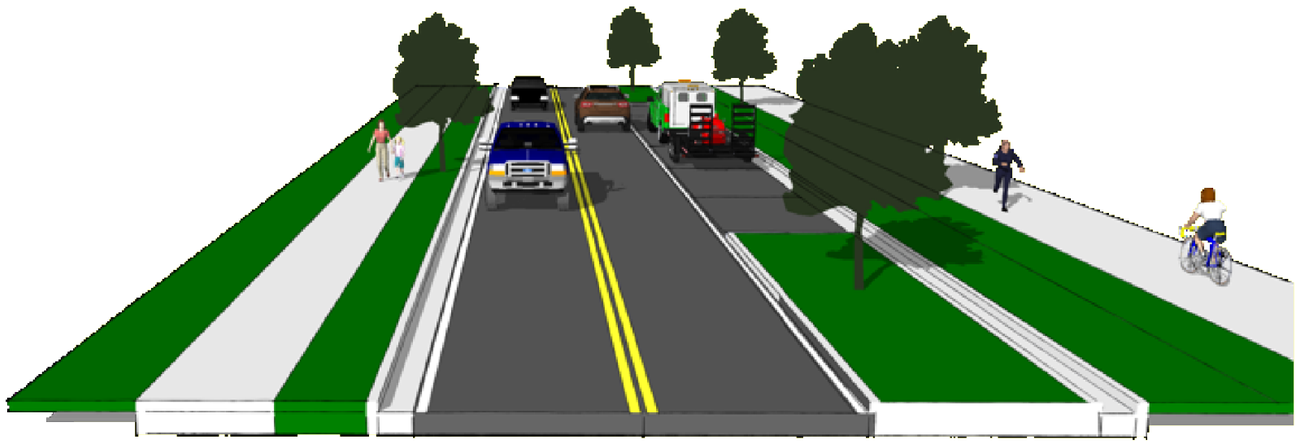
APPENDIX D: CONCEPT PLANS

PROJECT 1

PROPOSED CORRIDOR SPEED LIMIT

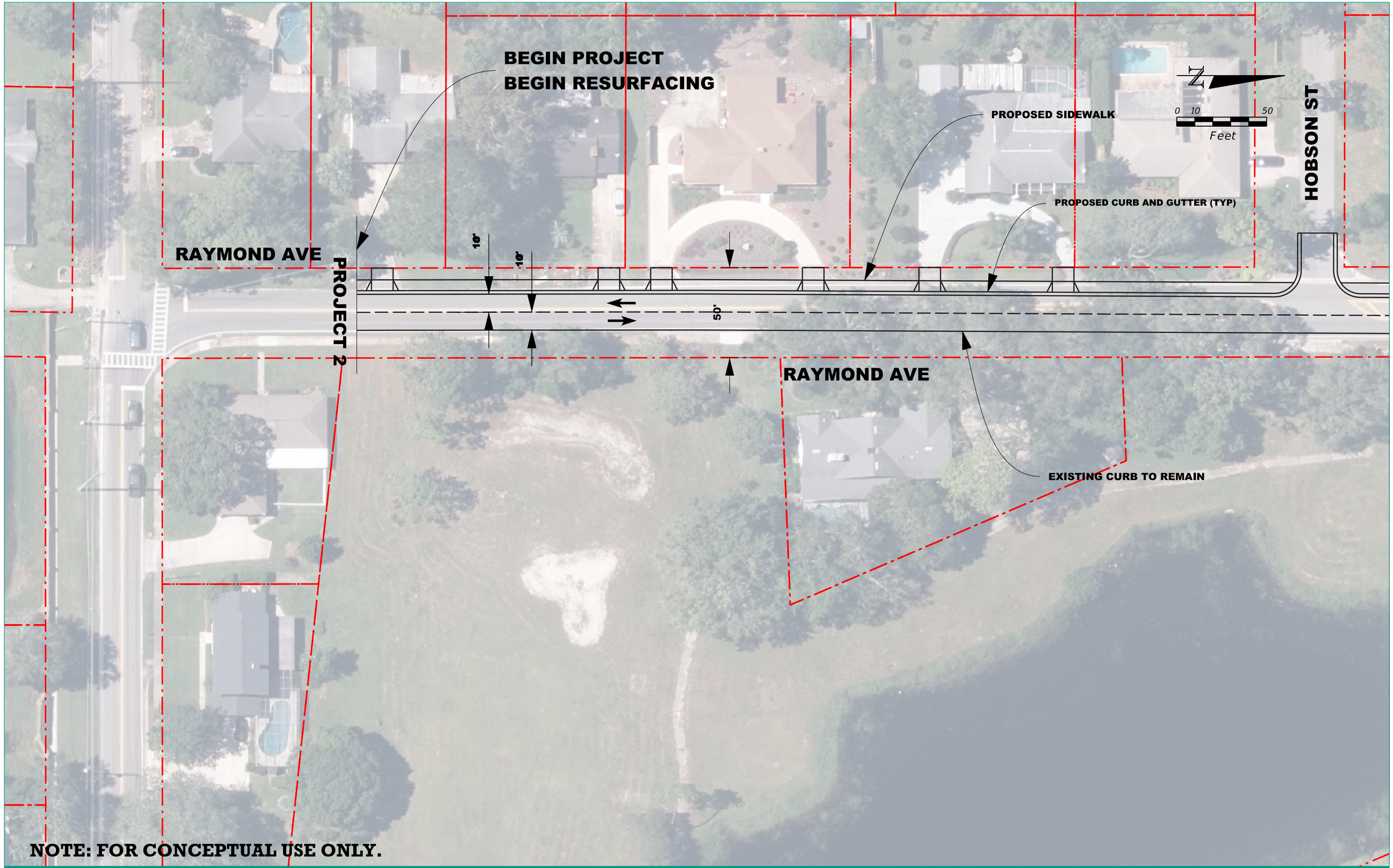
SHEET LAYOUT PROJECT 1





TYPICAL SECTION
RAYMOND AVENUE FROM NORTH STREET TO SR 434

NOTE: FOR CONCEPTUAL USE ONLY.



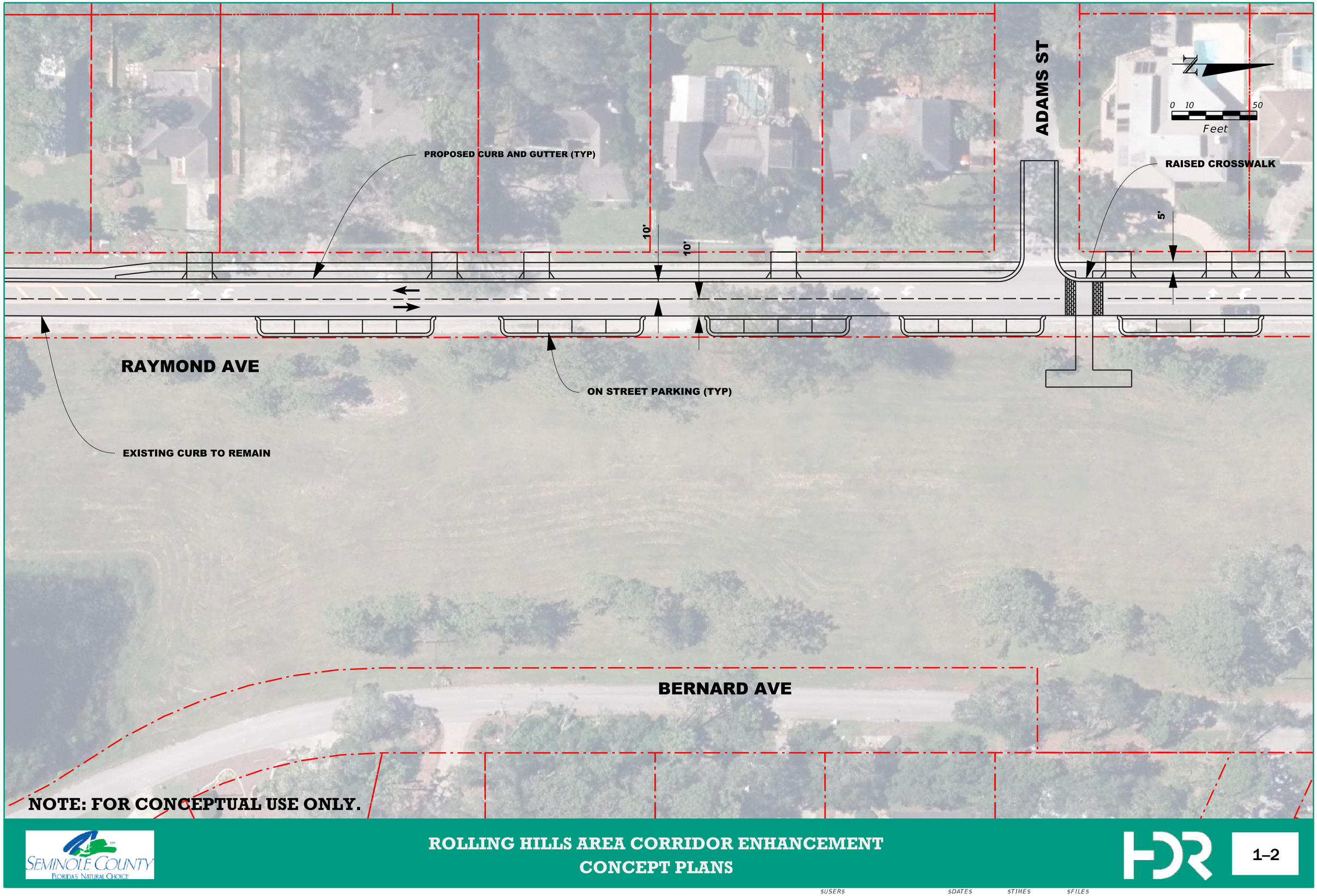
NOTE: FOR CONCEPTUAL USE ONLY.

SEMINOLE COUNTY
FLORIDA'S NATURAL CHOICE

ROLLING HILLS AREA CORRIDOR ENHANCEMENT
CONCEPT PLANS

HDR

$USER$ $DATE$ $TIME$ $FILE$



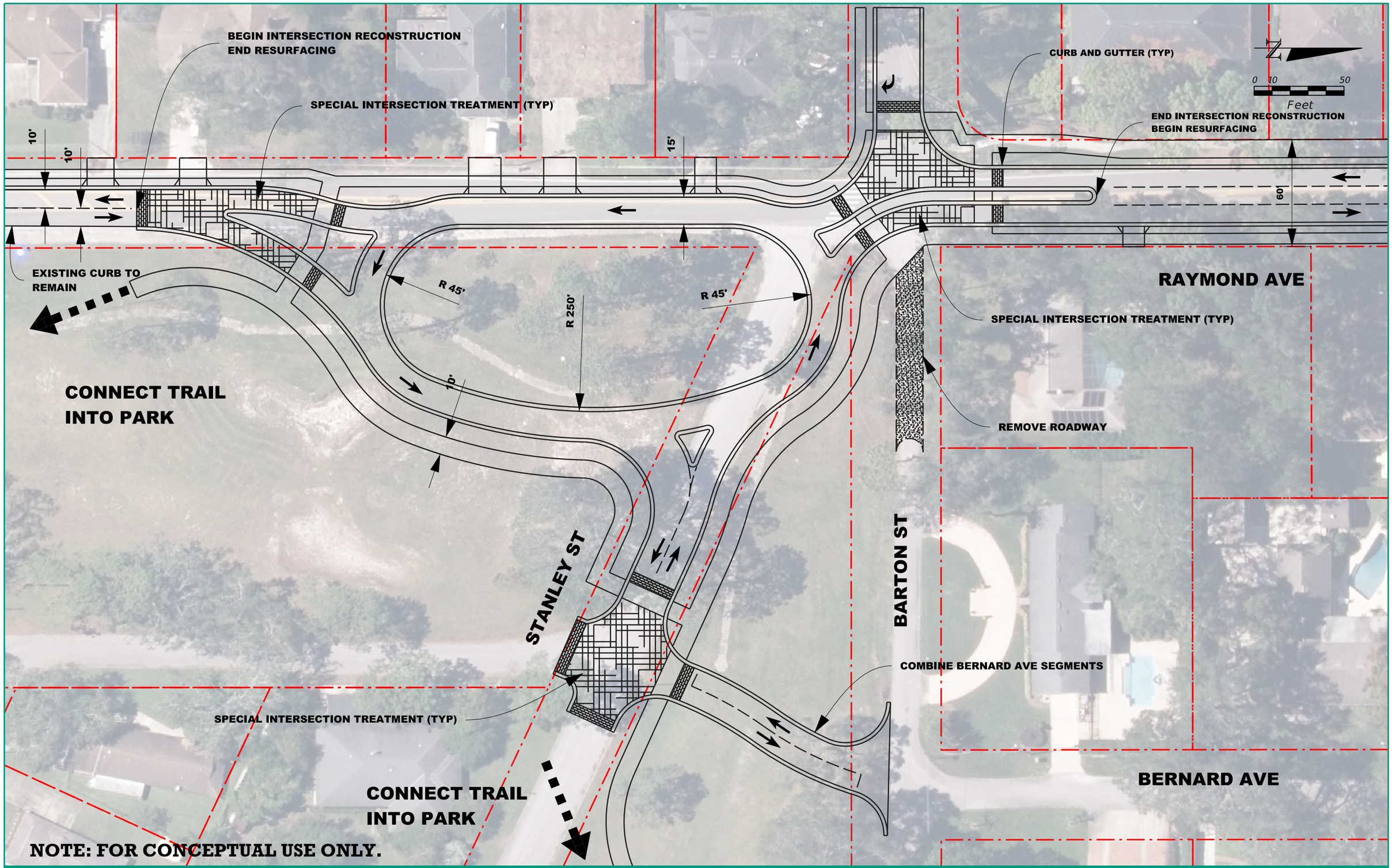
NOTE: FOR CONCEPTUAL USE ONLY.

SEMINOLE COUNTY
FLORIDA'S NATURAL CHOICE

ROLLING HILLS AREA CORRIDOR ENHANCEMENT
CONCEPT PLANS

HDR

$USER$ $DATE$ $TIME$ $FILE$

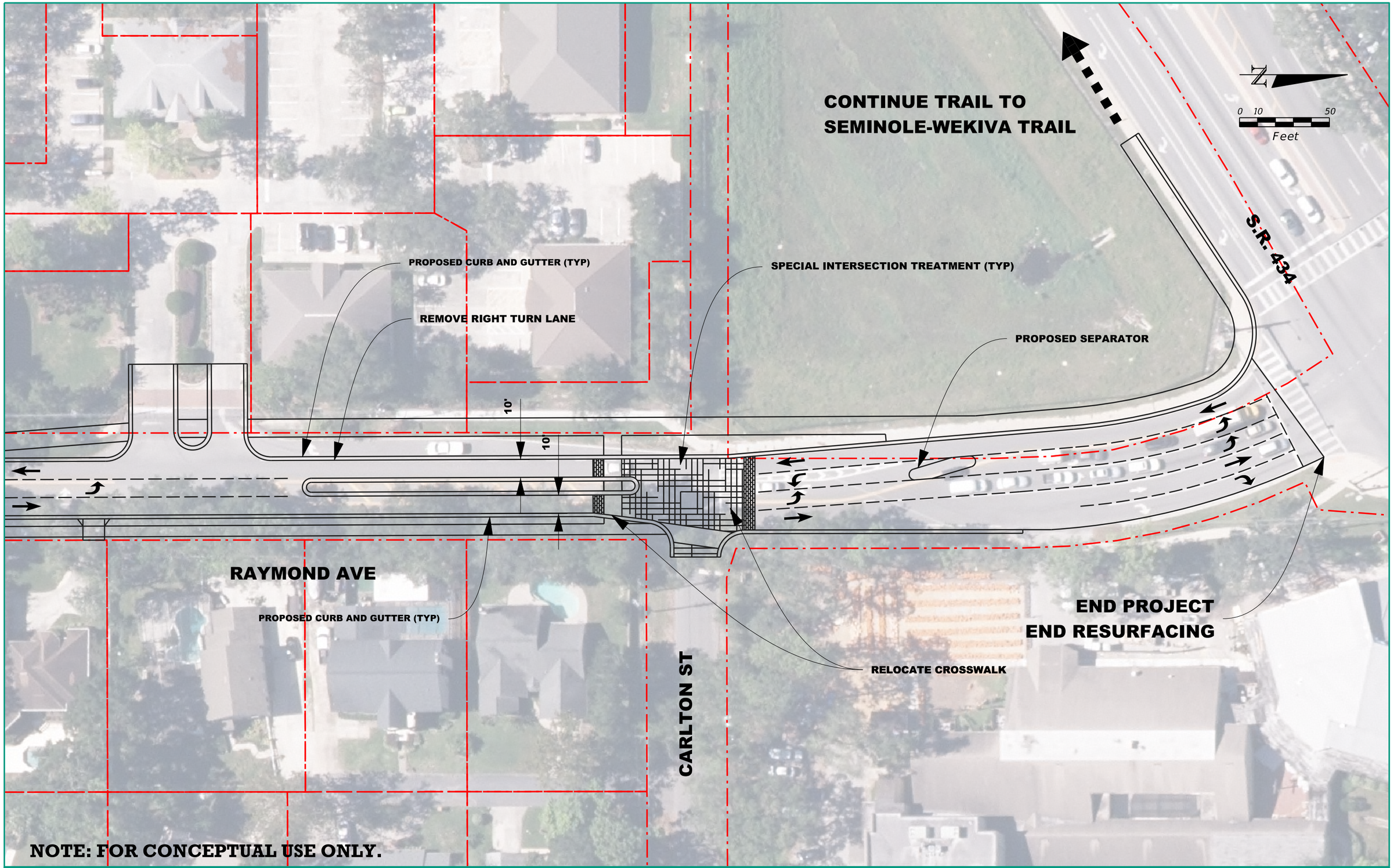


SEMINOLE COUNTY
FLORIDA'S NATURAL CHOICE

ROLLING HILLS AREA CORRIDOR ENHANCEMENT
CONCEPT PLANS

HDR

$USER$ $DATE$ $TIME$ $FILE$



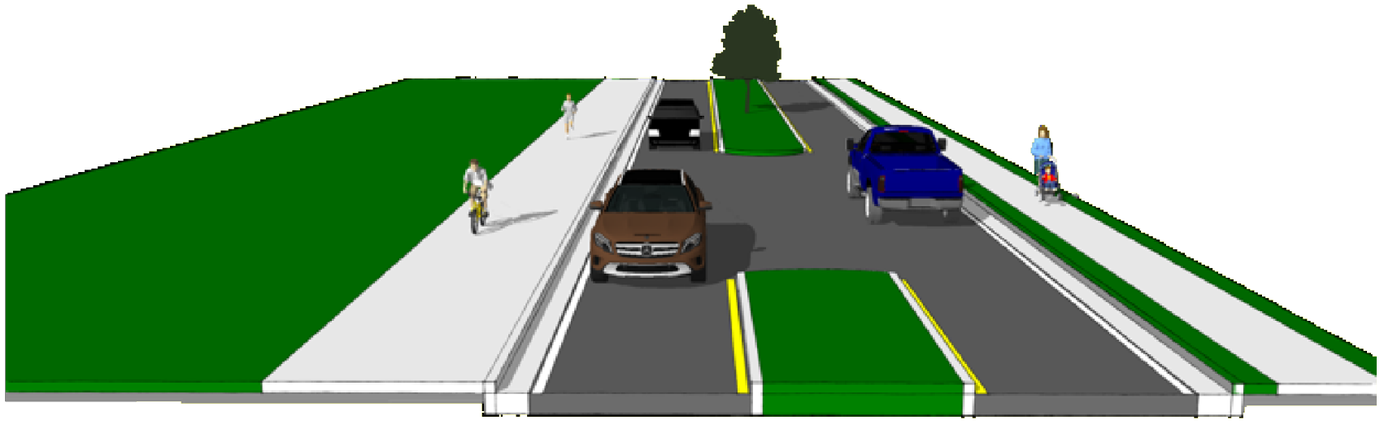
SEMINOLE COUNTY
FLORIDA'S NATURAL CHOICE

ROLLING HILLS AREA CORRIDOR ENHANCEMENT
CONCEPT PLANS

HDR

$USER$ $DATE$ $TIME$ $FILE$

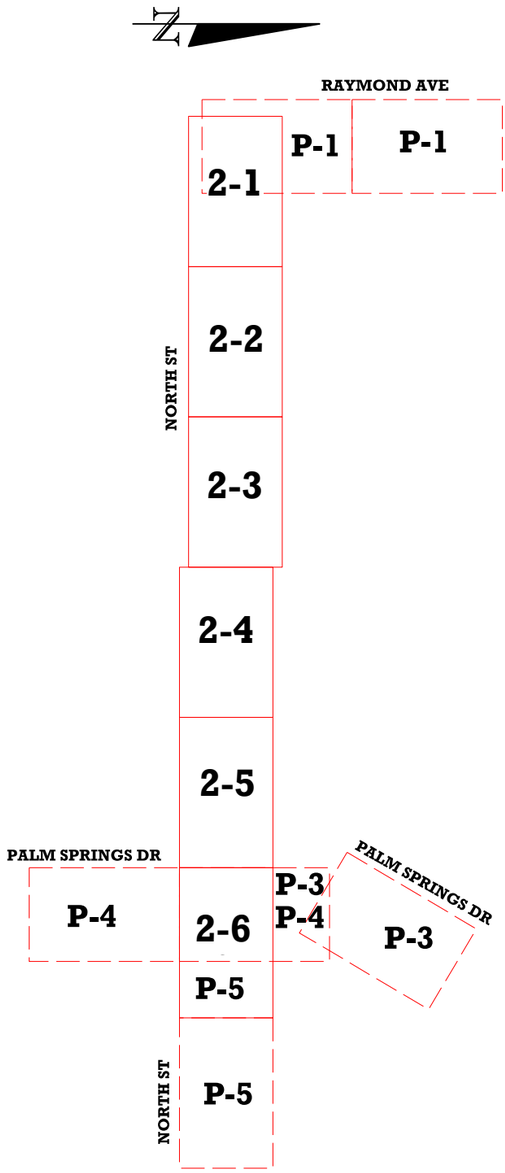
PROPOSED CORRIDOR SPEED LIMIT



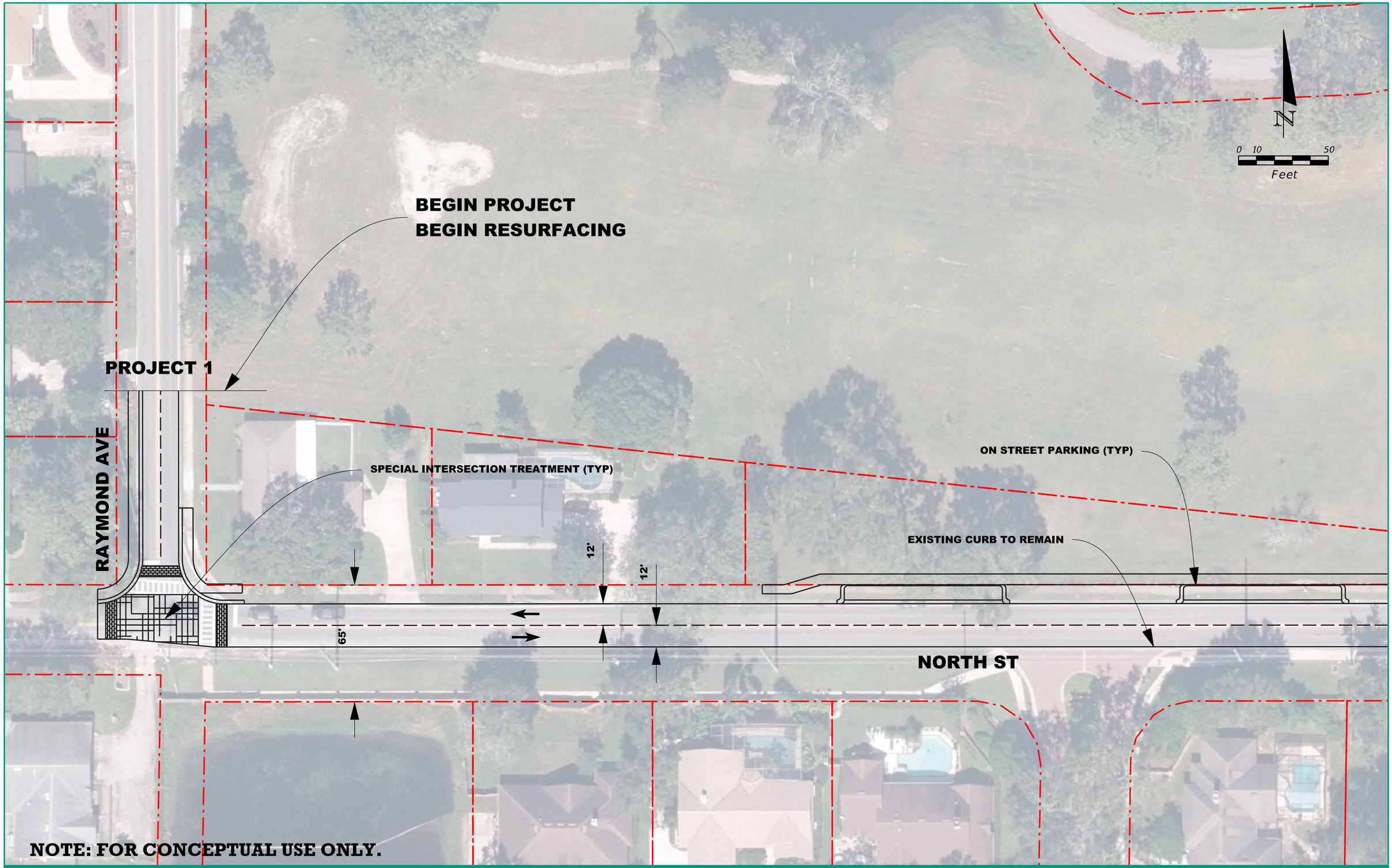
TYPICAL SECTION
NORTH STREET FROM RAYMOND AVENUE TO PALM SPRINGS DRIVE

NOTE: FOR CONCEPTUAL USE ONLY.

SHEET LAYOUT PROJECT 2



$USERS $DATES $TIMES $FILES



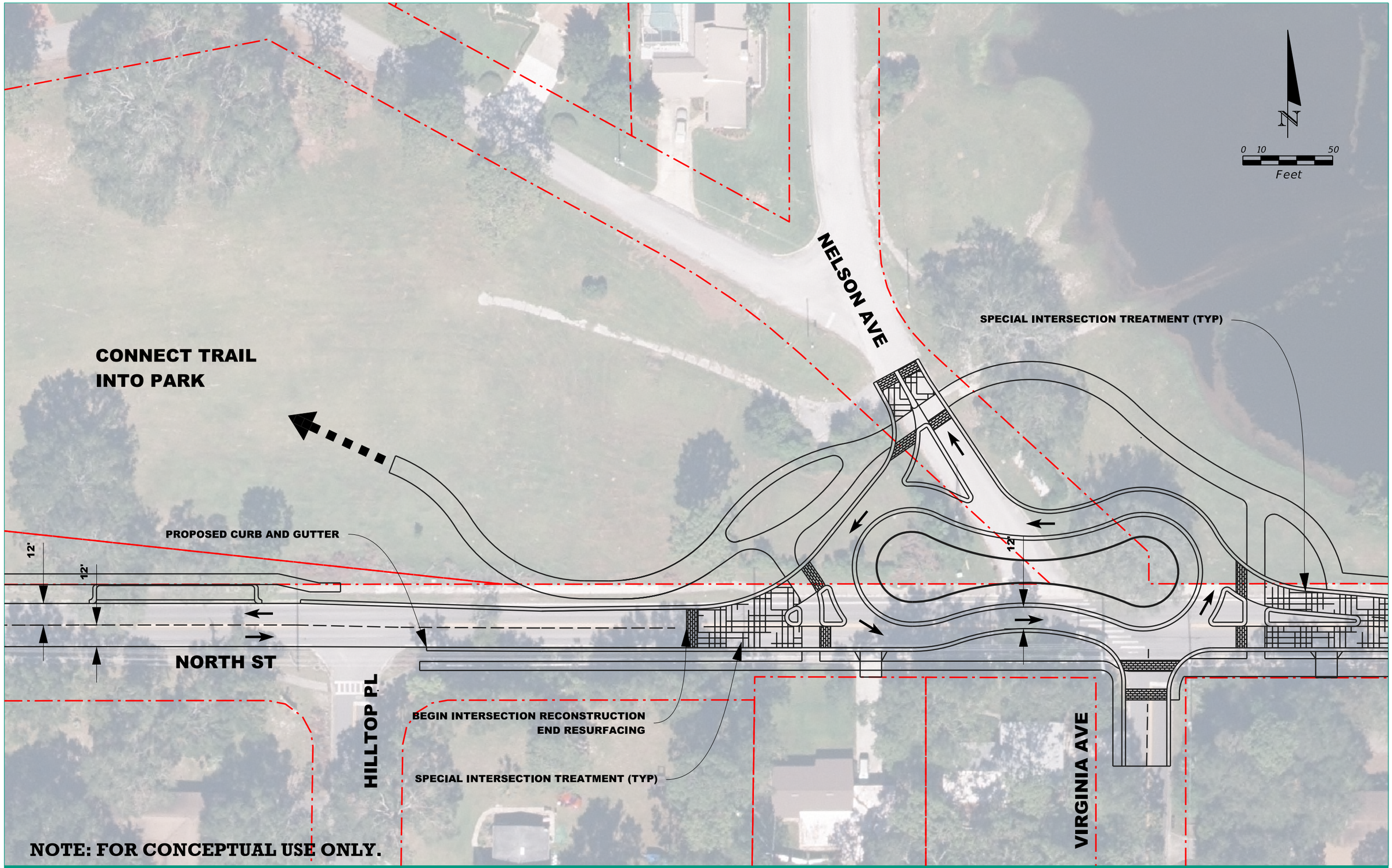
NOTE: FOR CONCEPTUAL USE ONLY.

SEMINOLE COUNTY
FLORIDA'S NATURAL CHOICE

ROLLING HILLS AREA CORRIDOR ENHANCEMENT
CONCEPT PLANS

HDR

$USER$ $DATE$ $TIME$ $FILE$

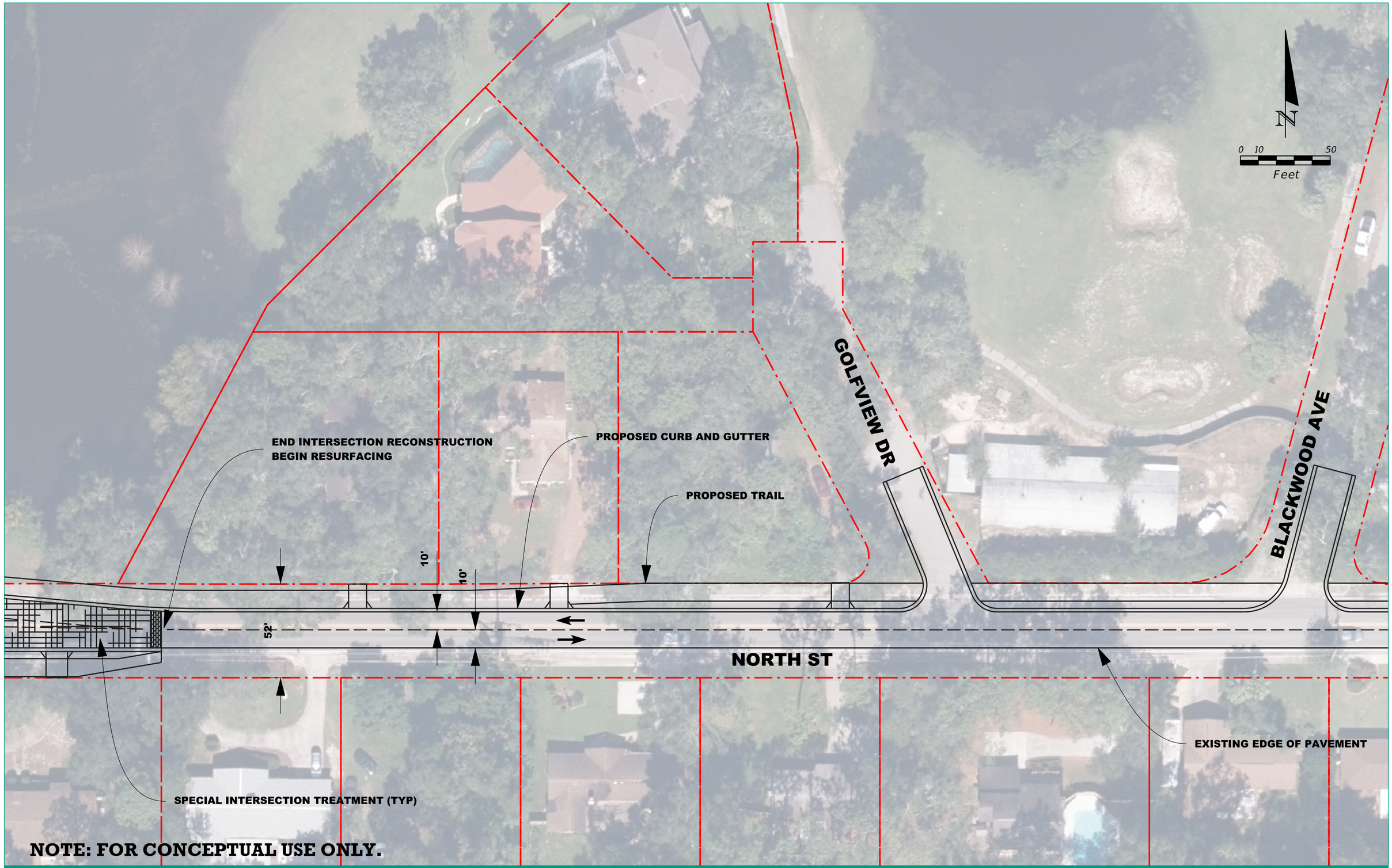


SEMINOLE COUNTY
FLORIDA'S NATURAL CHOICE

ROLLING HILLS AREA CORRIDOR ENHANCEMENT
CONCEPT PLANS

HDR

$USER$ $DATE$ $TIME$ $FILE$

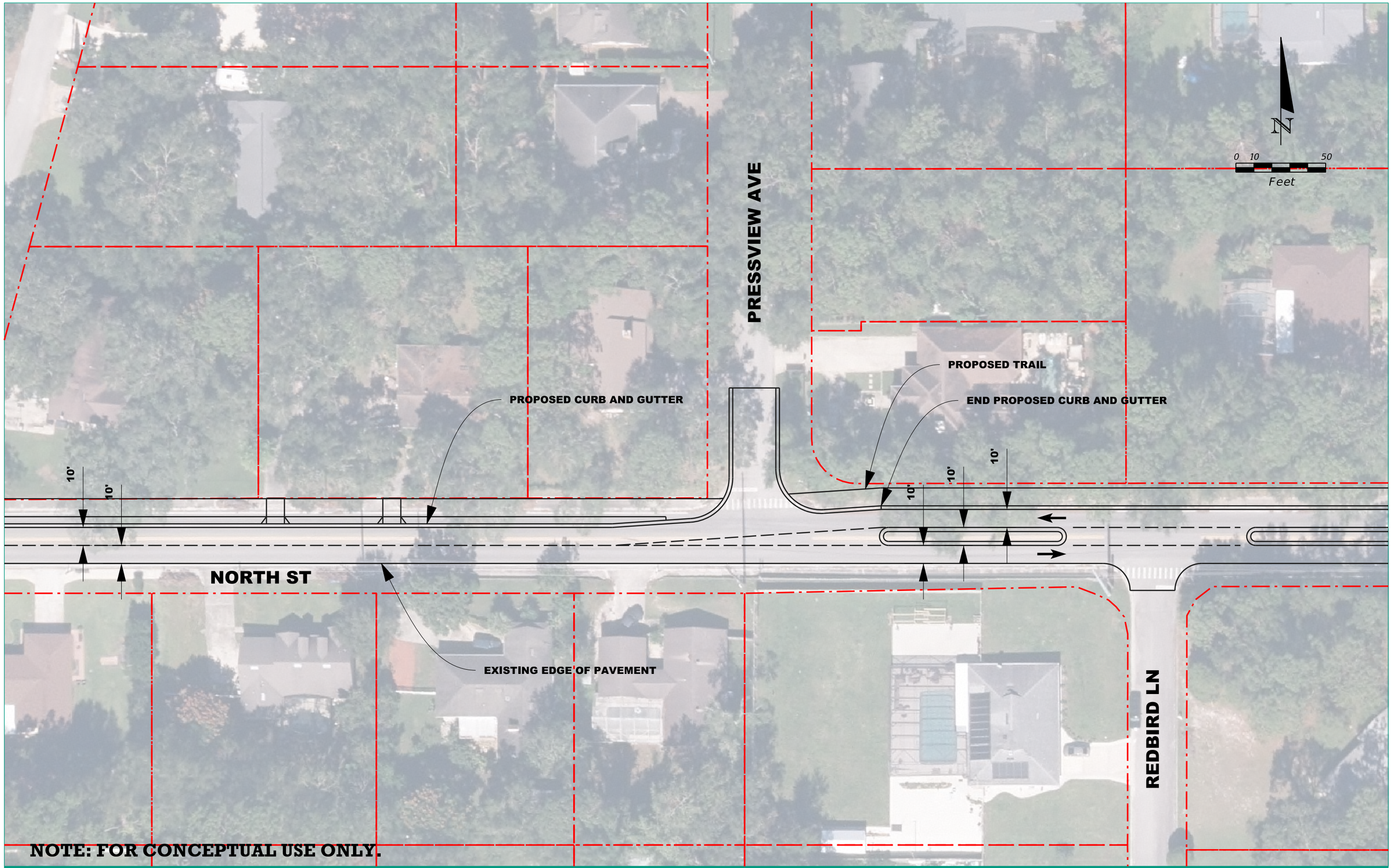


SEMINOLE COUNTY
FLORIDA'S NATURAL CHOICE

ROLLING HILLS AREA CORRIDOR ENHANCEMENT
CONCEPT PLANS

HDR

$USER$ $DATE$ $TIME$ $FILE$



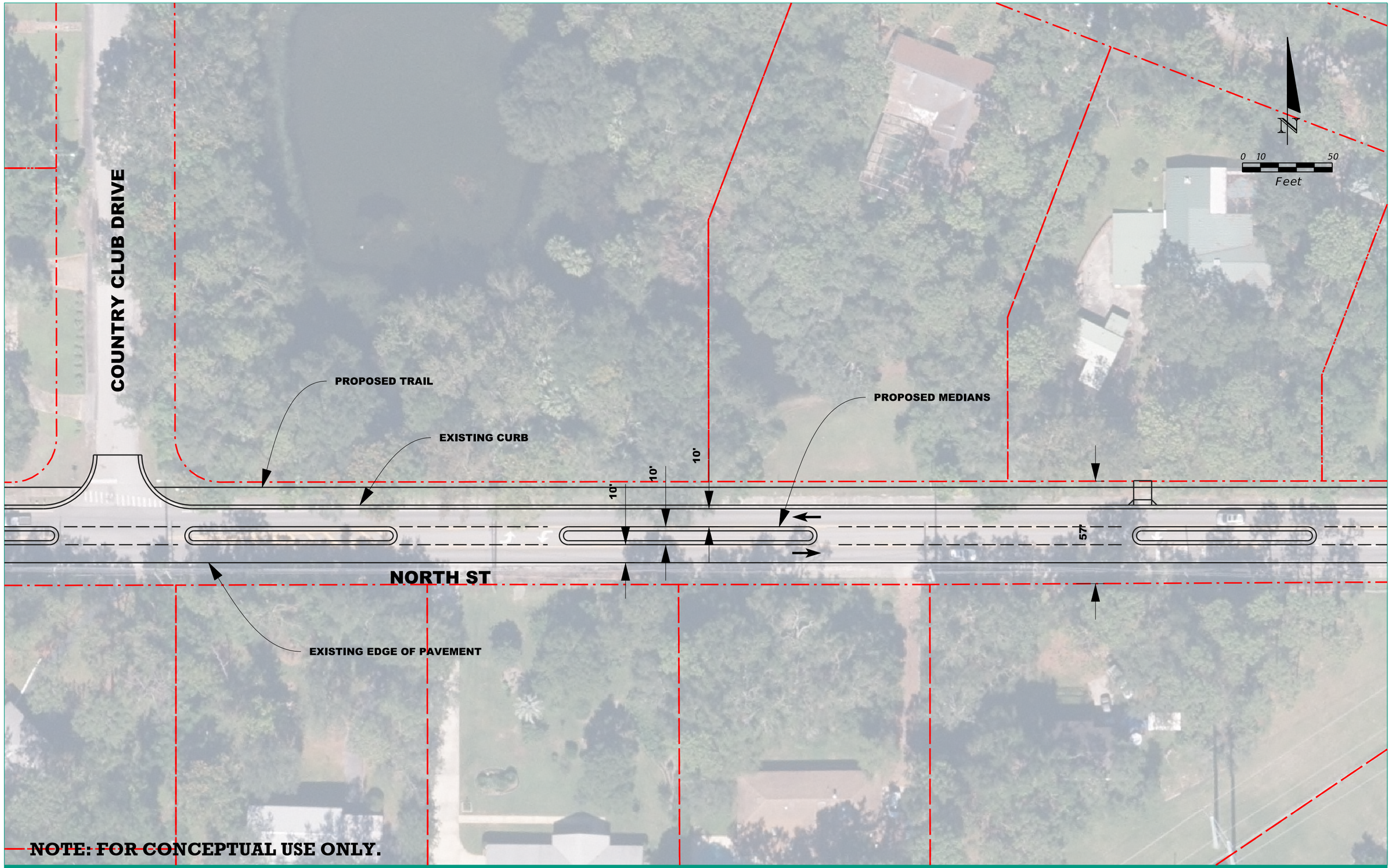
NOTE: FOR CONCEPTUAL USE ONLY.

SEMINOLE COUNTY
FLORIDA'S NATURAL CHOICE

ROLLING HILLS AREA CORRIDOR ENHANCEMENT
CONCEPT PLANS

HDR

$USER$ $DATE$ $TIME$ $FILE$



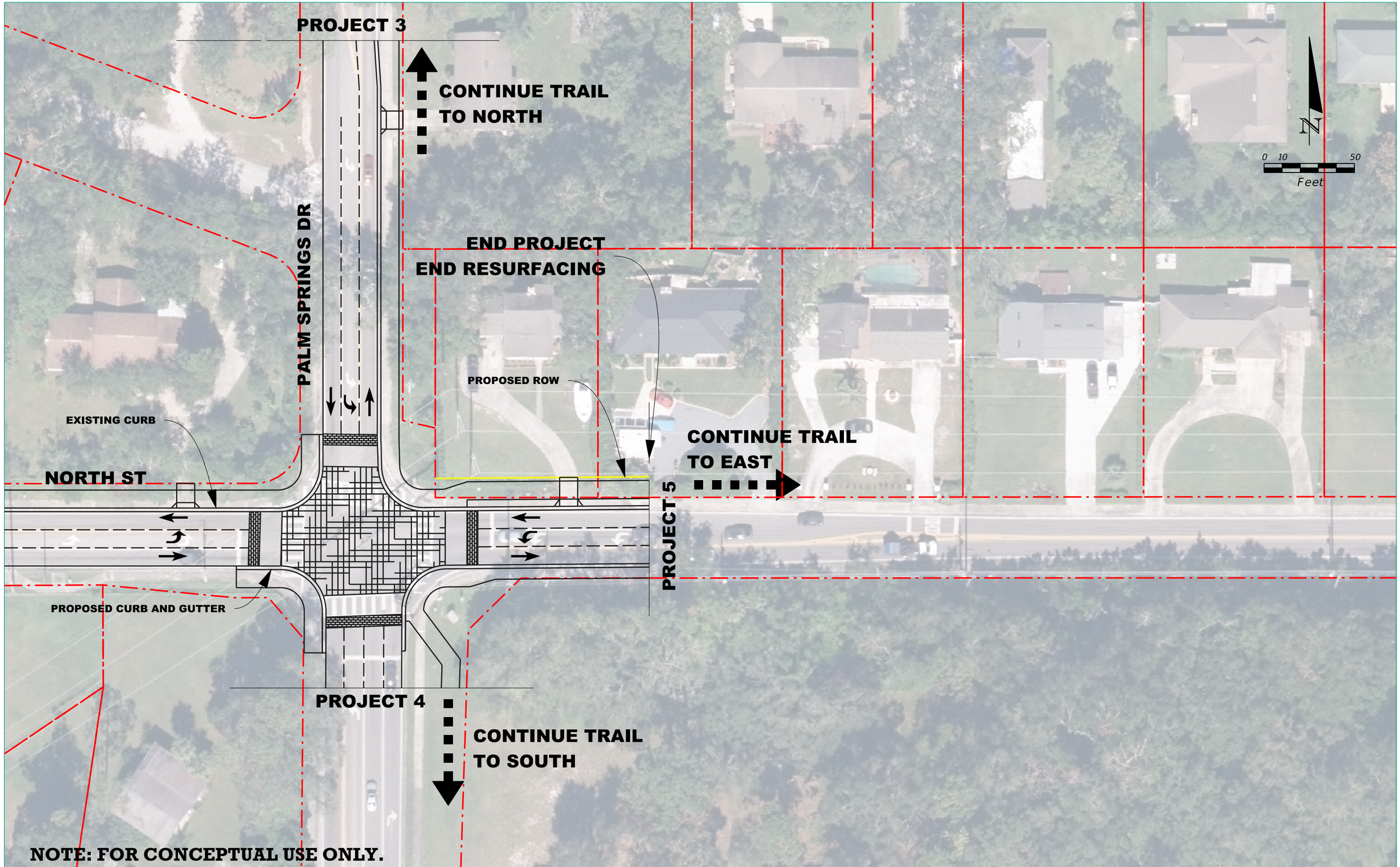
NOTE: FOR CONCEPTUAL USE ONLY.

SEMINOLE COUNTY
FLORIDA'S NATURAL CHOICE

ROLLING HILLS AREA CORRIDOR ENHANCEMENT
CONCEPT PLANS

HDR

$USER$ $DATE$ $TIME$ $FILE$



NOTE: FOR CONCEPTUAL USE ONLY.

SEMINOLE COUNTY
FLORIDA'S NATURAL CHOICE

ROLLING HILLS AREA CORRIDOR ENHANCEMENT
CONCEPT PLANS

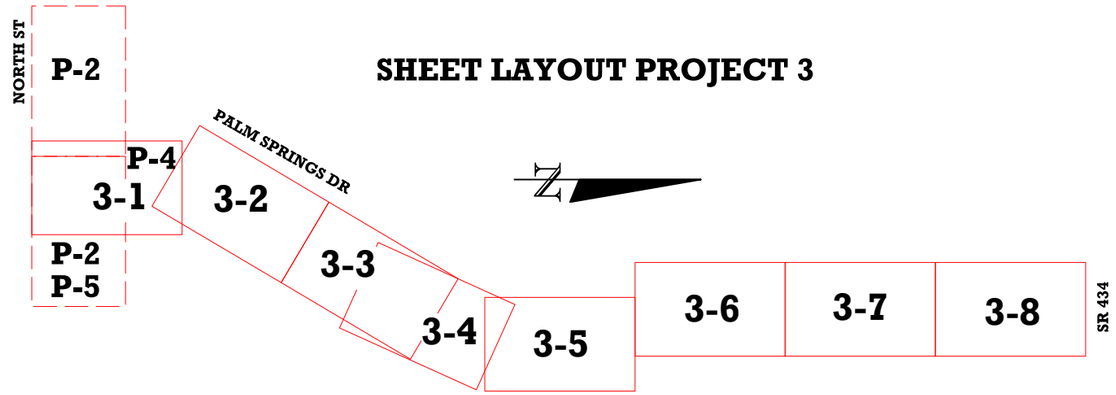
HDR

$USERS $DATES $TIMES $FILES

PROJECT 3

PROPOSED CORRIDOR SPEED LIMIT

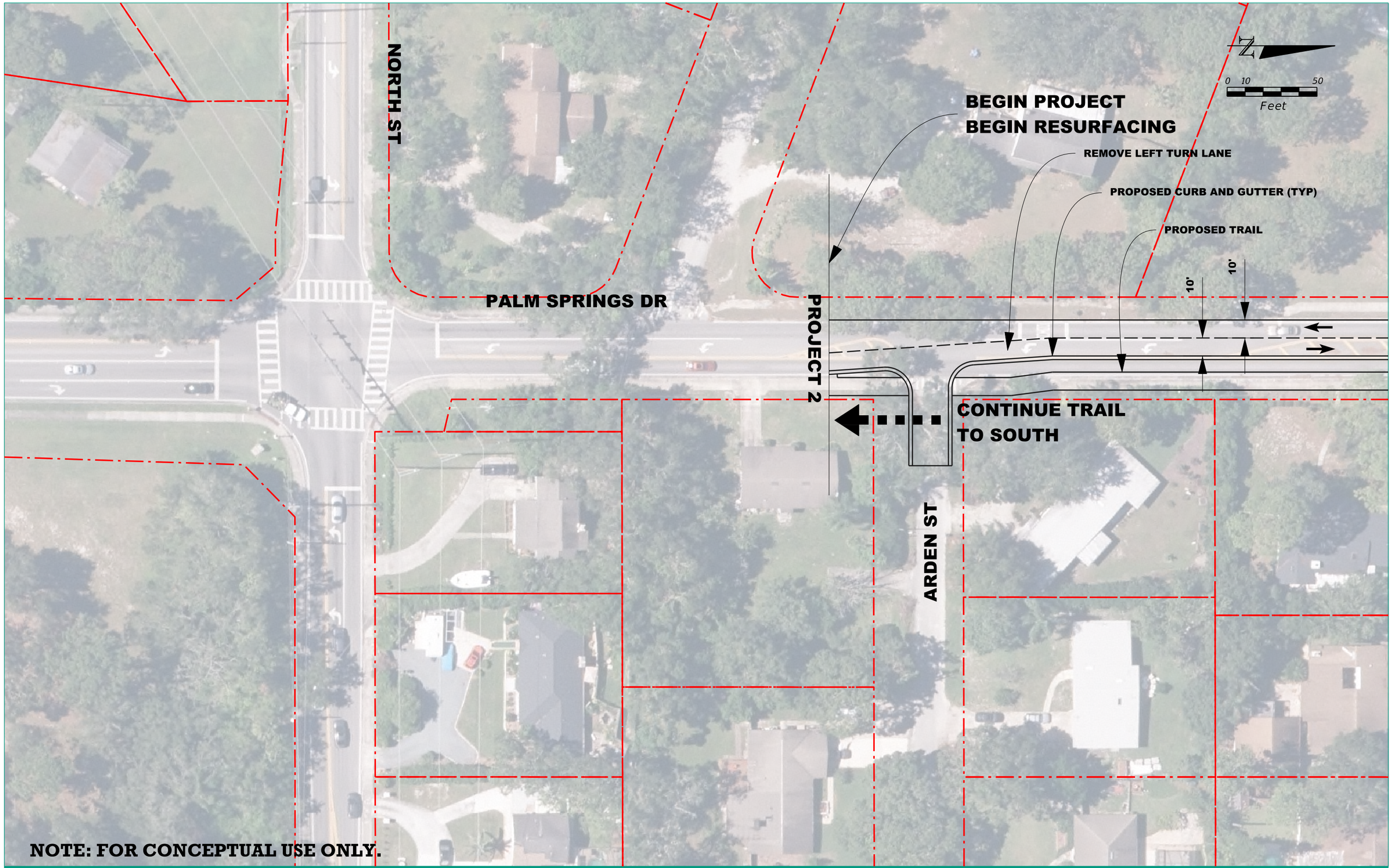
SHEET LAYOUT PROJECT 3



NO TYPICAL SECTION
PALM SPRINGS DRIVE FROM NORTH STREET TO SR 434

NOTE: FOR CONCEPTUAL USE ONLY.

$USER$ $DATE$ $TIME$ $FILE$



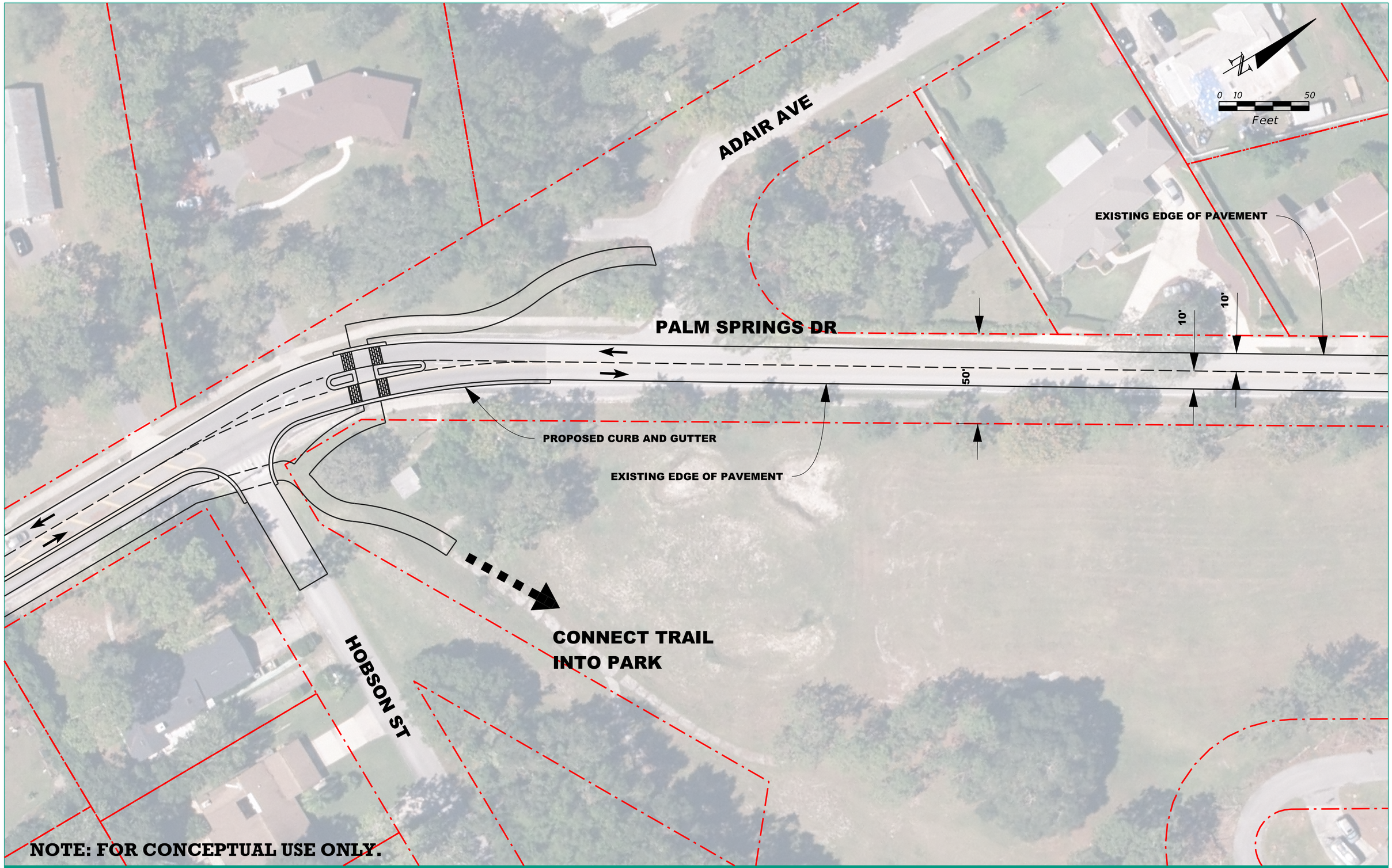
NOTE: FOR CONCEPTUAL USE ONLY.

SEMINOLE COUNTY
FLORIDA'S NATURAL CHOICE

ROLLING HILLS AREA CORRIDOR ENHANCEMENT
CONCEPT PLANS

HDR

$USER$ $DATE$ $TIME$ $FILE$

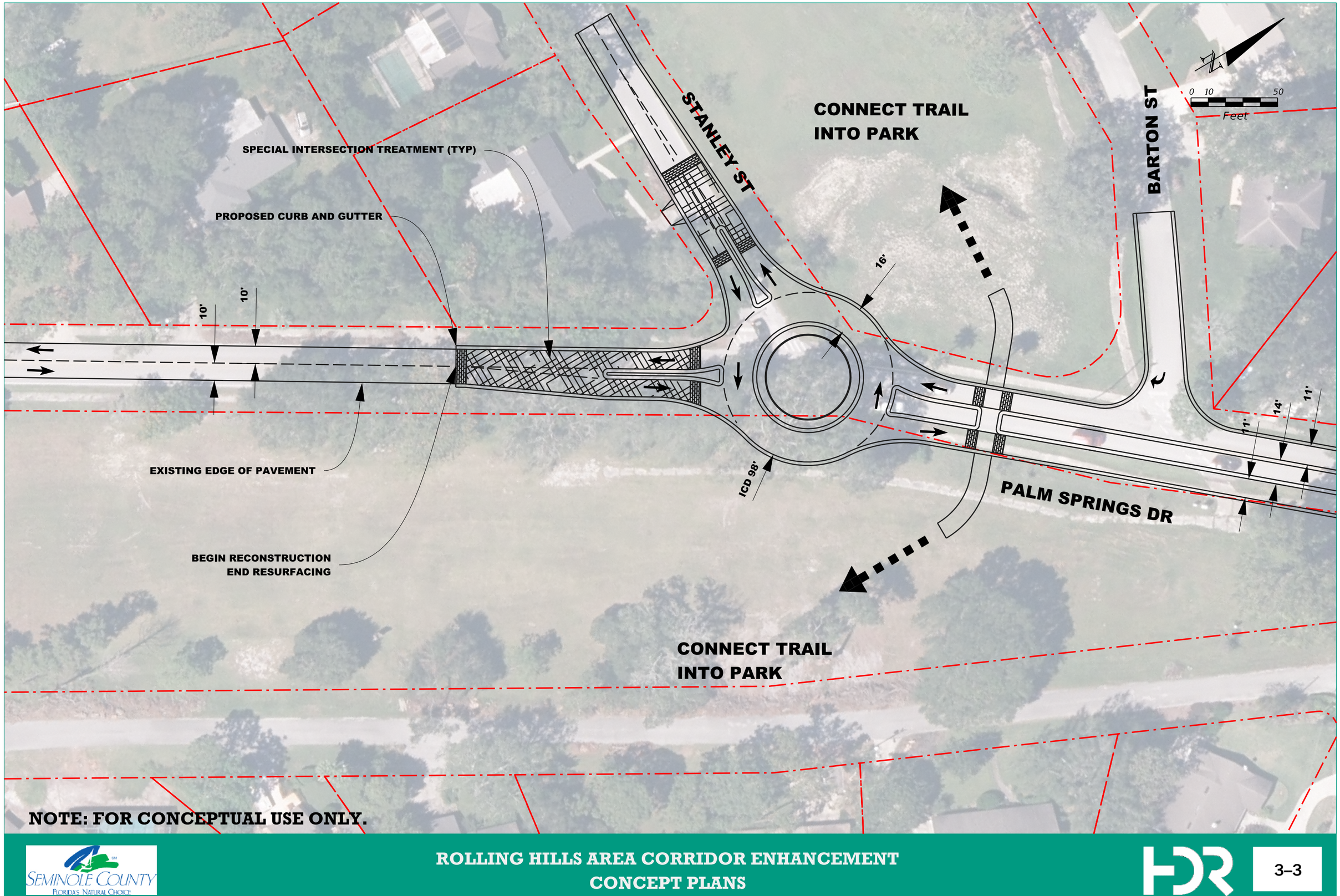


SEMINOLE COUNTY
FLORIDA'S NATURAL CHOICE

ROLLING HILLS AREA CORRIDOR ENHANCEMENT
CONCEPT PLANS

HDR

$USER$ $DATE$ $TIME$ $FILE$



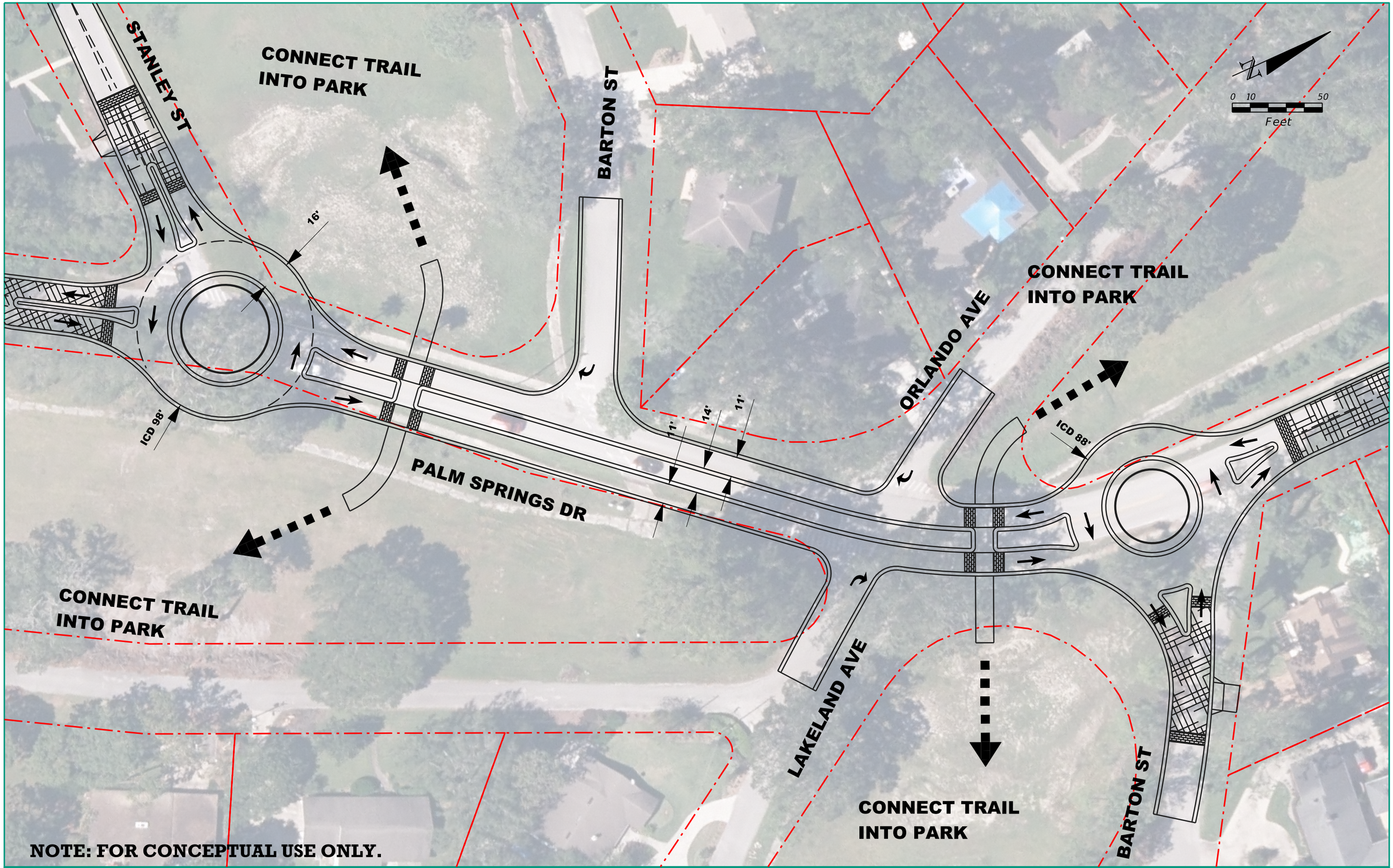
NOTE: FOR CONCEPTUAL USE ONLY.

SEMINOLE COUNTY
FLORIDA'S NATURAL CHOICE

ROLLING HILLS AREA CORRIDOR ENHANCEMENT
CONCEPT PLANS

HDR

$USERS $DATES $TIMES $FILES

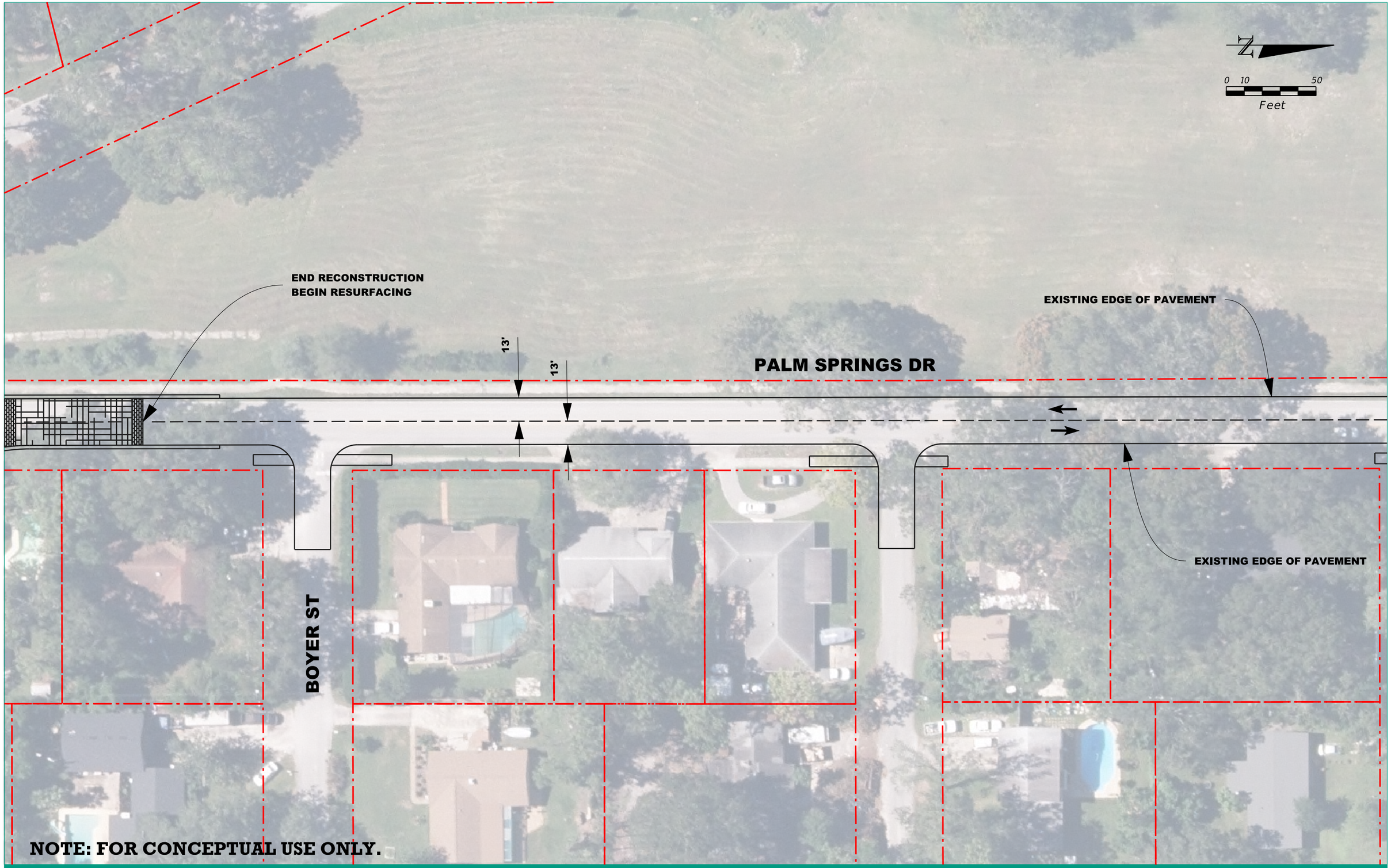


SEMINOLE COUNTY
FLORIDA'S NATURAL CHOICE

ROLLING HILLS AREA CORRIDOR ENHANCEMENT
CONCEPT PLANS

HDR

$USER$ $DATE$ $TIME$ $FILE$

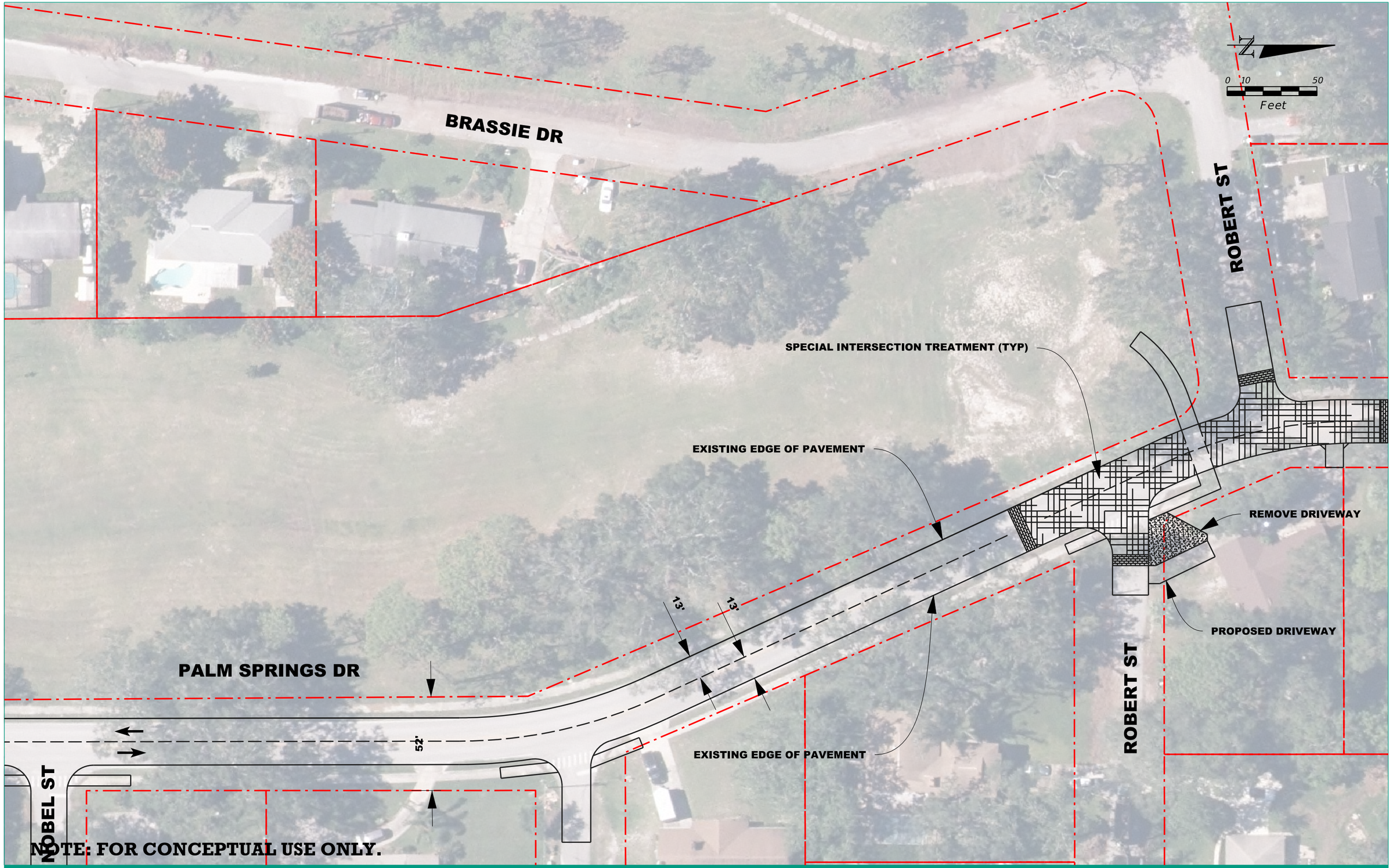


SEMINOLE COUNTY
FLORIDA'S NATURAL CHOICE

ROLLING HILLS AREA CORRIDOR ENHANCEMENT
CONCEPT PLANS

HDR

$USER$ $DATE$ $TIME$ $FILE$



NOTE: FOR CONCEPTUAL USE ONLY.

SEMINOLE COUNTY
FLORIDA'S NATURAL CHOICE

ROLLING HILLS AREA CORRIDOR ENHANCEMENT
CONCEPT PLANS

$USER$ $DATE$ $TIME$ $FILE$

ROXBORO RD

REDUCE CORNER RADIUS (TYP)

EXISTING EDGE OF PAVEMENT

PALM SPRINGS DR

12'

12'

EXISTING EDGE OF PAVEMENT

PEARL ST

N

0 10 50

Feet

NOTE: FOR CONCEPTUAL USE ONLY.

SEMINOLE COUNTY
FLORIDA'S NATURAL CHOICE

ROLLING HILLS AREA CORRIDOR ENHANCEMENT
CONCEPT PLANS

HDR

$USERS $DATES $TIMES $FILES

WAVERLY WAY

EXISTING EDGE OF PAVEMENT

PALM SPRINGS DR

12'

12'

PROPOSED MEDIAN

END PROJECT
END RESURFACING

S.R. 434

0 10 50
Feet

EXISTING EDGE OF PAVEMENT

NOTE: FOR CONCEPTUAL USE ONLY.

SEMINOLE COUNTY
FLORIDA'S NATURAL CHOICE

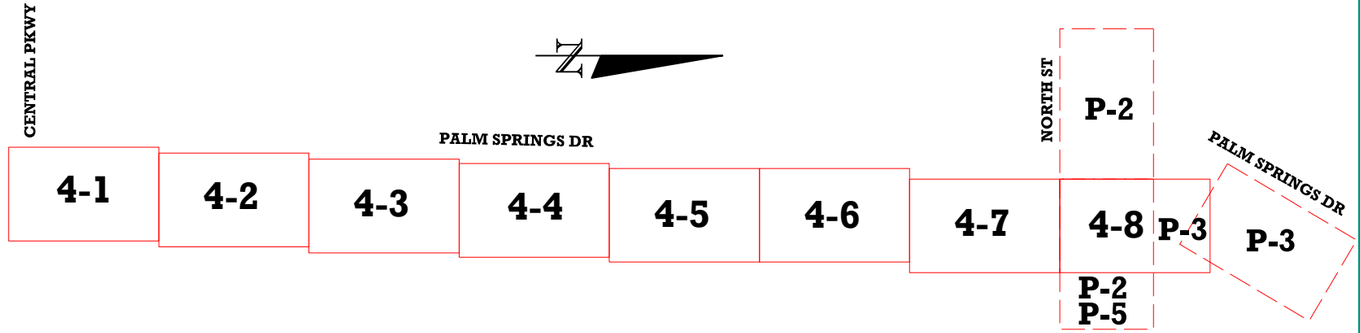
ROLLING HILLS AREA CORRIDOR ENHANCEMENT
CONCEPT PLANS

HDR

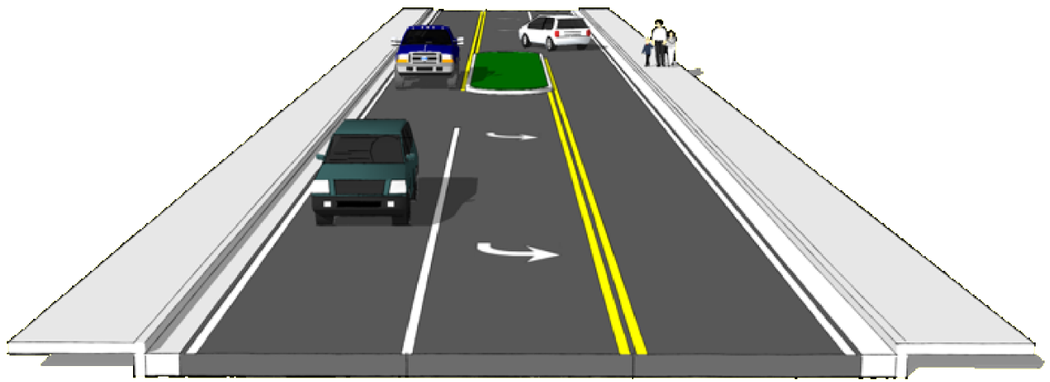
$USER$ $DATE$ $TIME$ $FILE$

PROJECT 4

SHEET LAYOUT PROJECT 4



PROPOSED CORRIDOR SPEED LIMIT

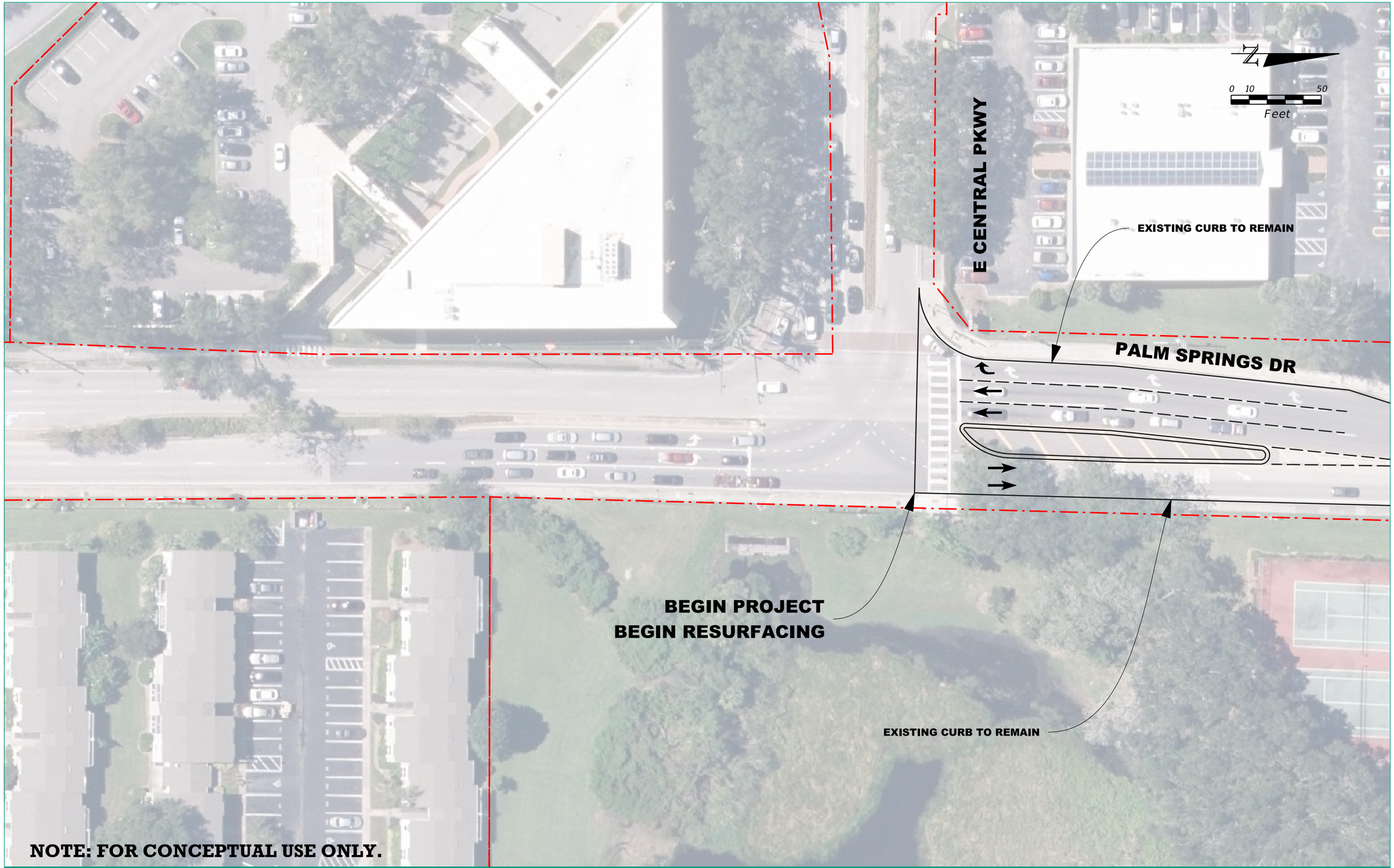


TYPICAL SECTION
PALM SPRINGS DRIVE FROM CENTRAL PKWY TO OAKHURST STREET

TYPICAL SECTION
PALM SPRINGS DR FROM OAKHURST STREET TO NORTH STREET

NOTE: FOR CONCEPTUAL USE ONLY.

$USER$ $DATE$ $TIME$ $FILE$



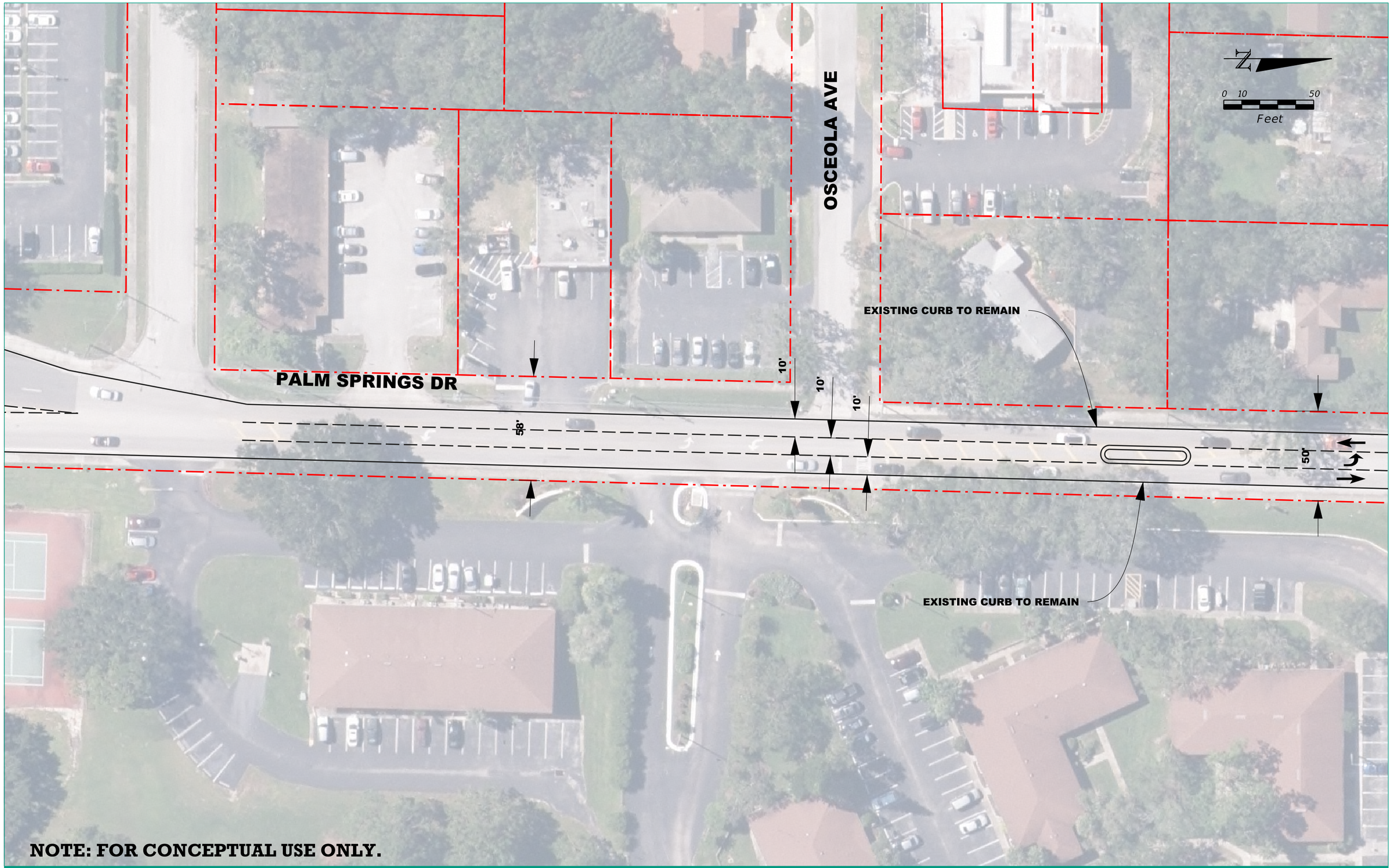
NOTE: FOR CONCEPTUAL USE ONLY.

SEMINOLE COUNTY
FLORIDA'S NATURAL CHOICE

ROLLING HILLS AREA CORRIDOR ENHANCEMENT
CONCEPT PLANS

HDR

$USER$ $DATE$ $TIME$ $FILE$



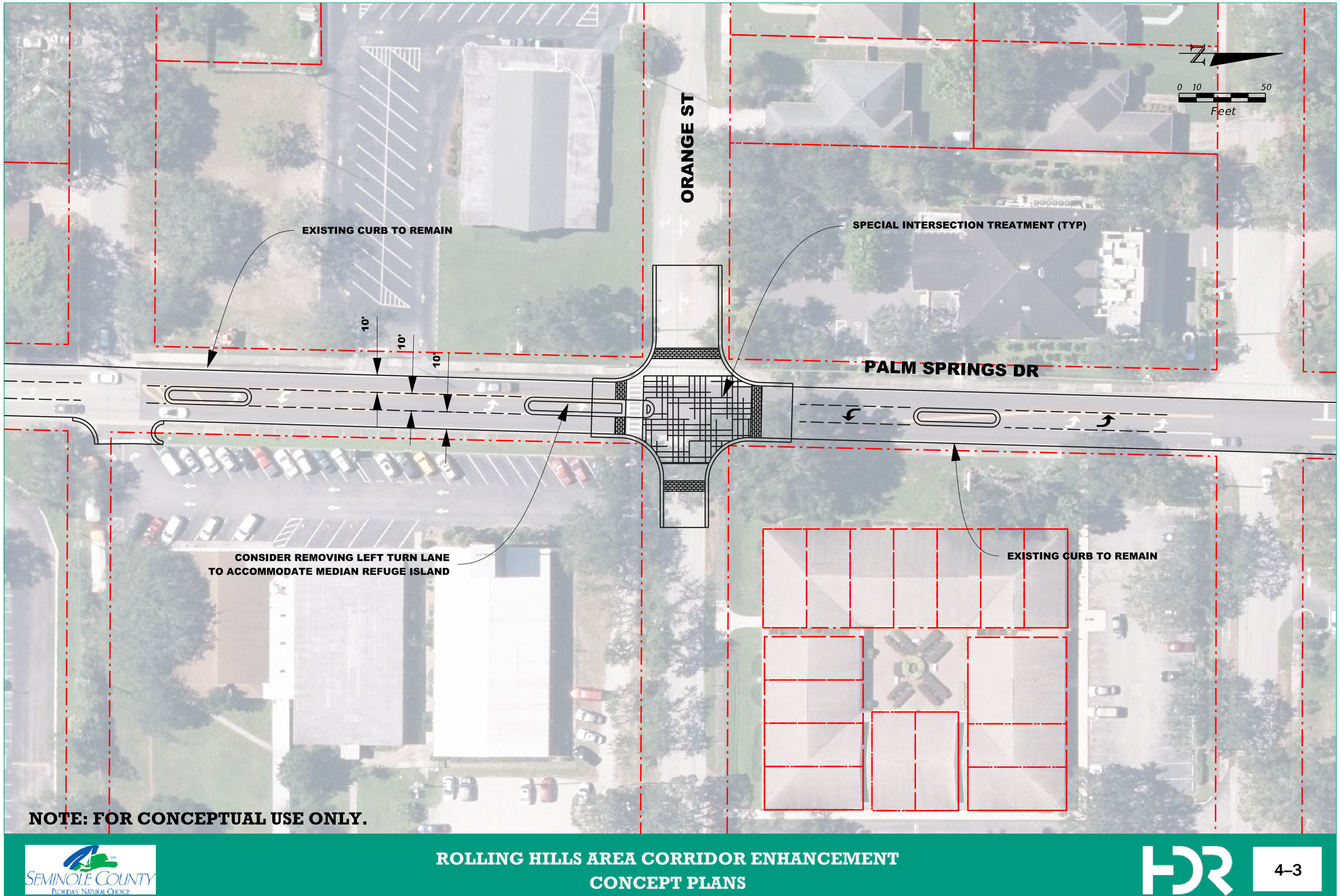
NOTE: FOR CONCEPTUAL USE ONLY.

SEMINOLE COUNTY
FLORIDA'S NATURAL CHOICE

ROLLING HILLS AREA CORRIDOR ENHANCEMENT
CONCEPT PLANS

HDR

$USER$ $DATE$ $TIME$ $FILE$



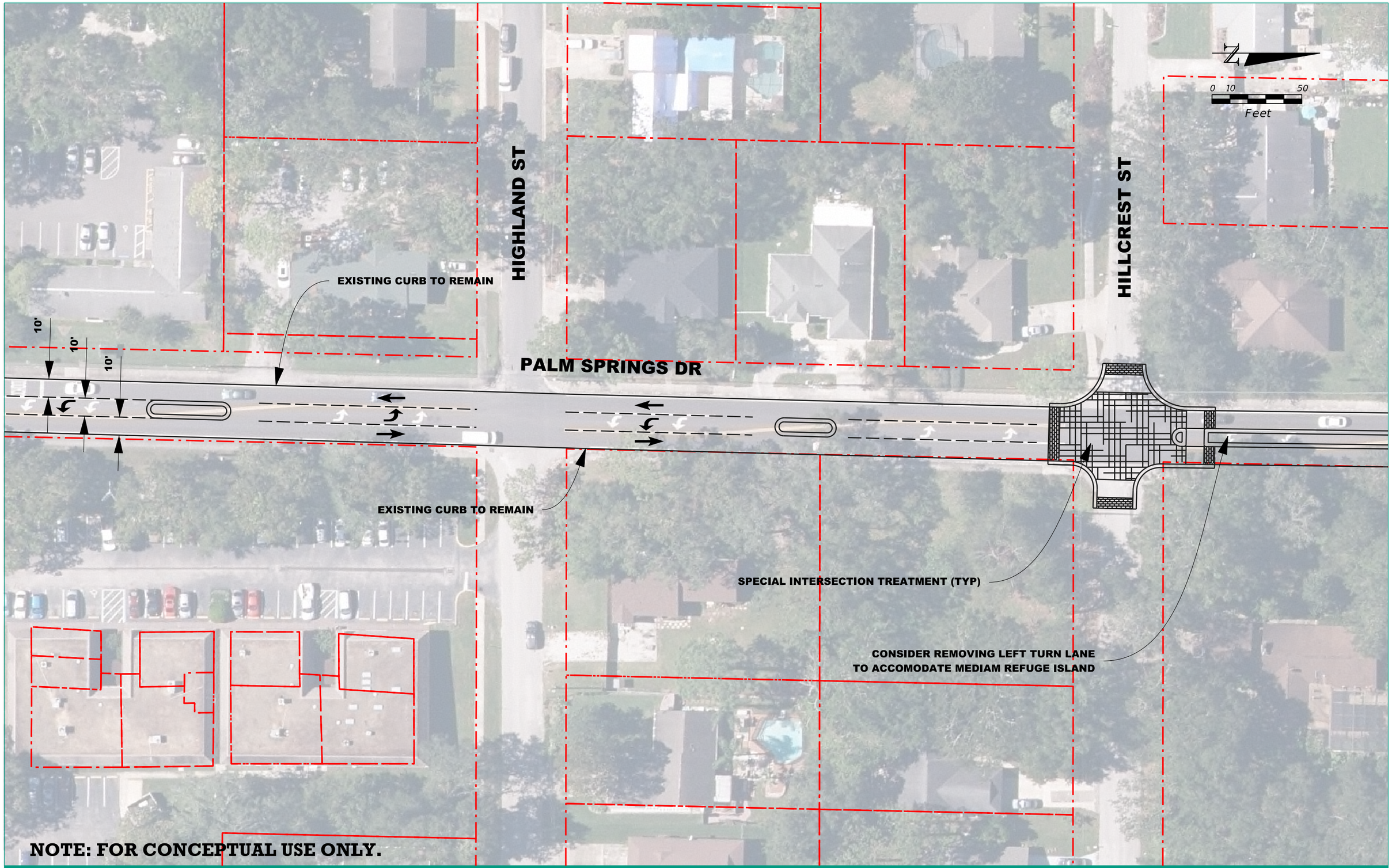
NOTE: FOR CONCEPTUAL USE ONLY.

SEMINOLE COUNTY
FLORIDA'S NATURAL CHOICE

ROLLING HILLS AREA CORRIDOR ENHANCEMENT
CONCEPT PLANS

HDR

$USERS $DATES $TIMES $FILES



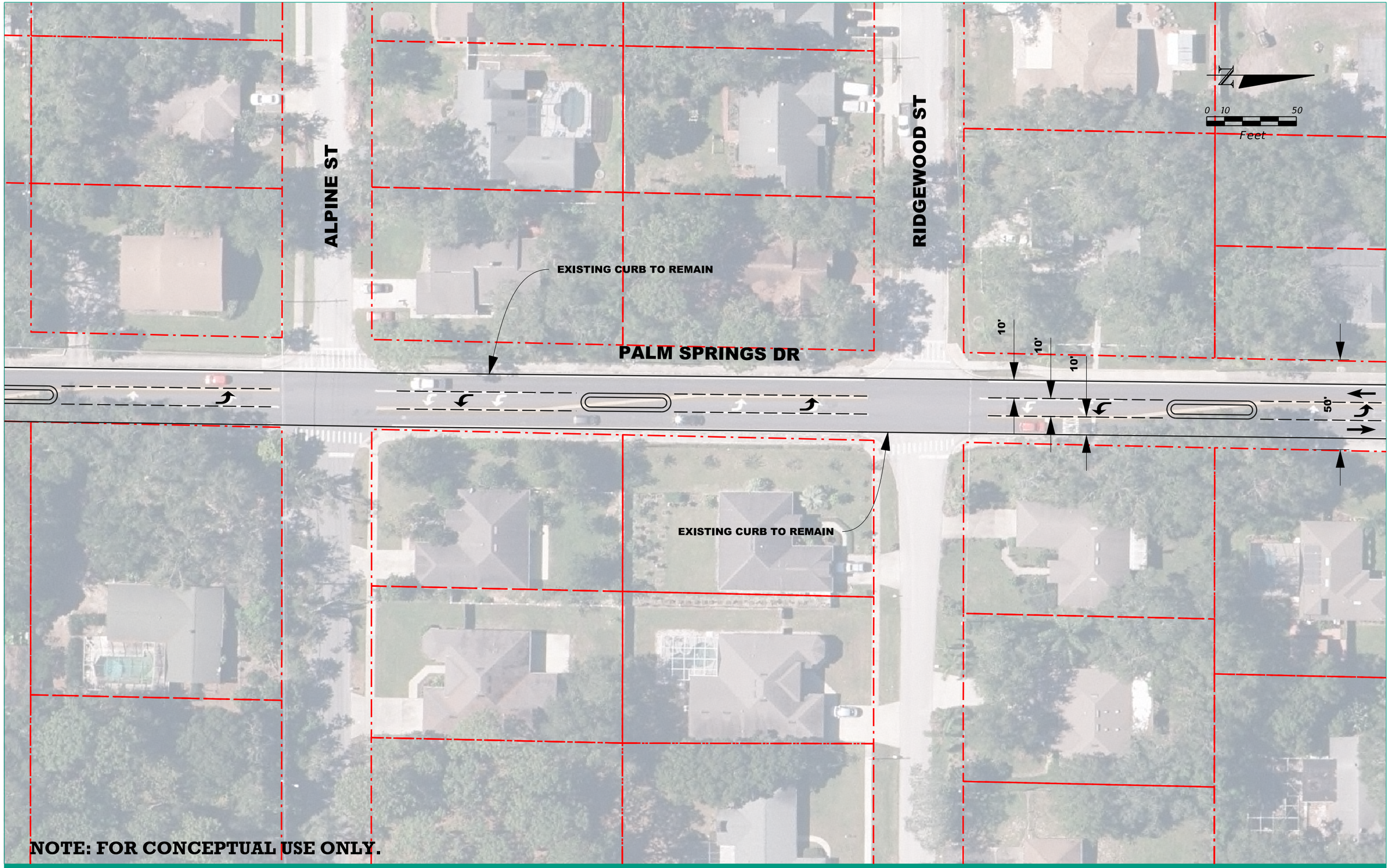
NOTE: FOR CONCEPTUAL USE ONLY.

SEMINOLE COUNTY
FLORIDA'S NATURAL CHOICE

ROLLING HILLS AREA CORRIDOR ENHANCEMENT
CONCEPT PLANS

HDR

$USER$ $DATE$ $TIME$ $FILE$



NOTE: FOR CONCEPTUAL USE ONLY.

SEMINOLE COUNTY
FLORIDA'S NATURAL CHOICE

ROLLING HILLS AREA CORRIDOR ENHANCEMENT
CONCEPT PLANS

HDR

$USERS $DATES $TIMES $FILES

CONTINUE NEIGHBORHOOD
BIKE ROUTE

OAKHURST ST

SPECIAL INTERSECTION TREATMENT (TYP)

PALM SPRINGS DR

10'

10'

10'

PINEVIEW ST

PROPOSED MEDIANS

EXISTING CURB TO REMAIN

10'

0 10 50
Feet

PROPOSED ROW

PROPOSED ROW

PROPOSED TRAIL

CONTINUE NEIGHBORHOOD
BIKE ROUTE

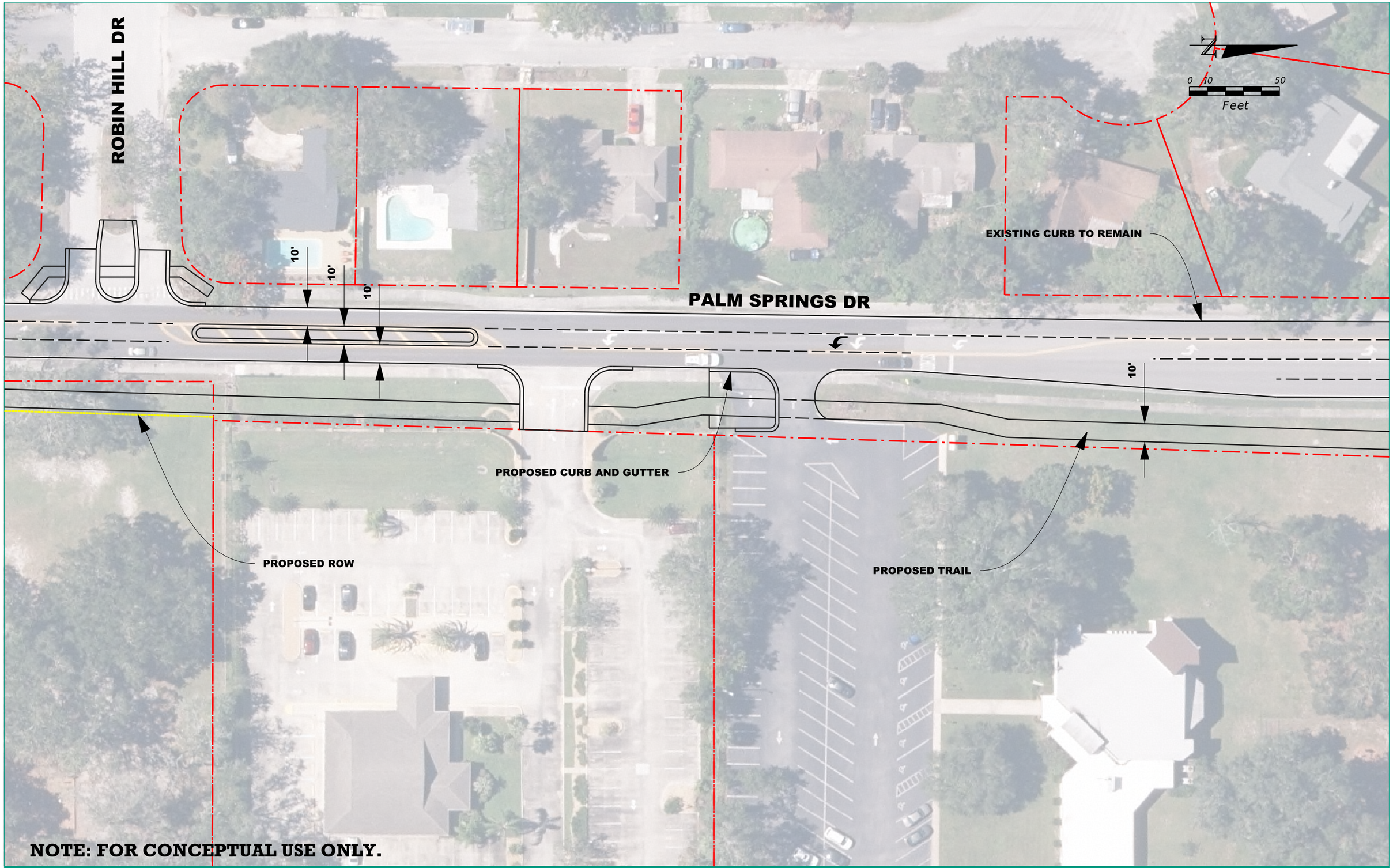
NOTE: FOR CONCEPTUAL USE ONLY.

SEMINOLE COUNTY
FLORIDA'S NATURAL CHOICE

ROLLING HILLS AREA CORRIDOR ENHANCEMENT
CONCEPT PLANS

HDR

$USER$ $DATE$ $TIME$ $FILE$



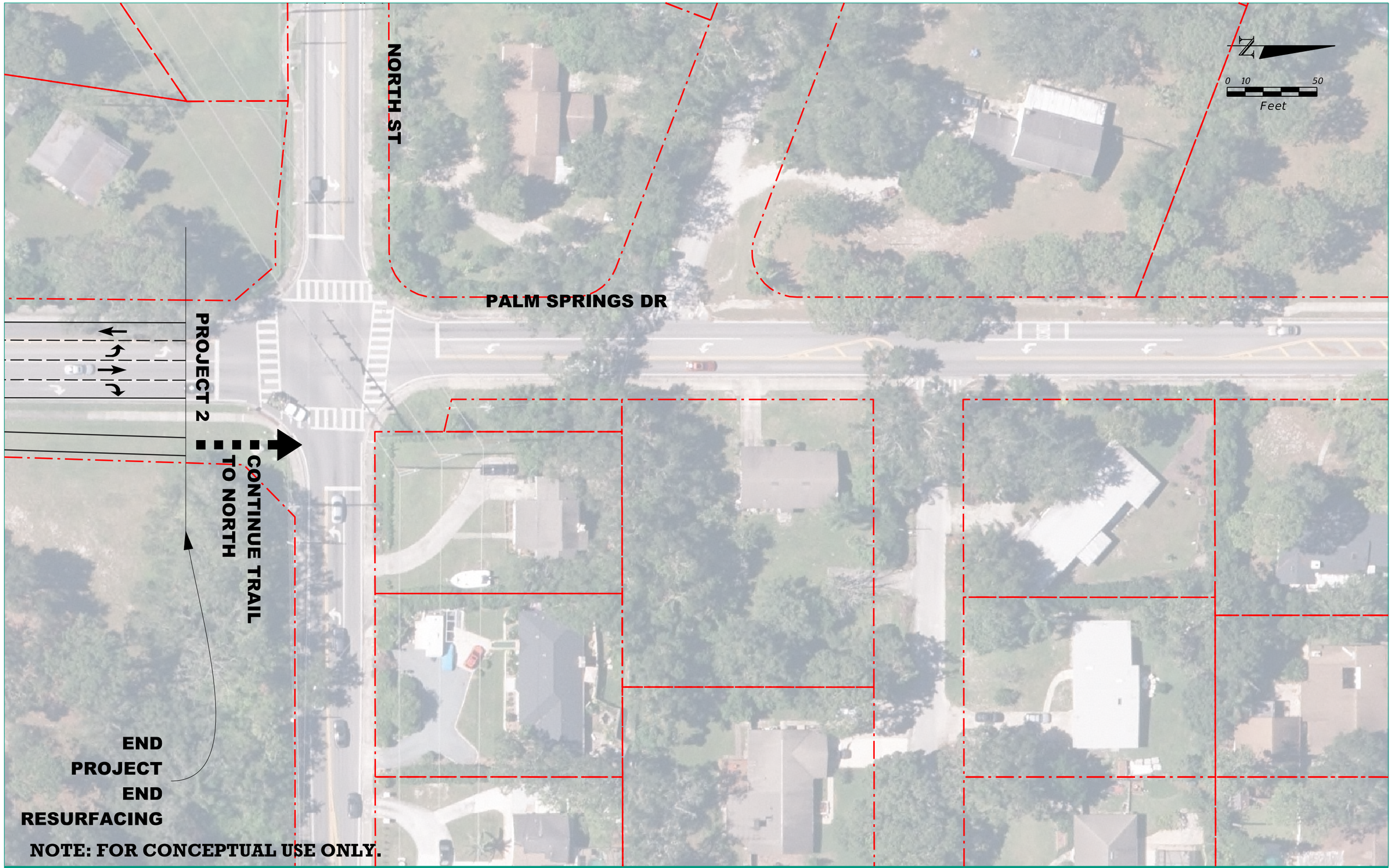
NOTE: FOR CONCEPTUAL USE ONLY.

SEMINOLE COUNTY
FLORIDA'S NATURAL CHOICE

ROLLING HILLS AREA CORRIDOR ENHANCEMENT
CONCEPT PLANS

HDR

$USER$ $DATE$ $TIME$ $FILE$



NOTE: FOR CONCEPTUAL USE ONLY.

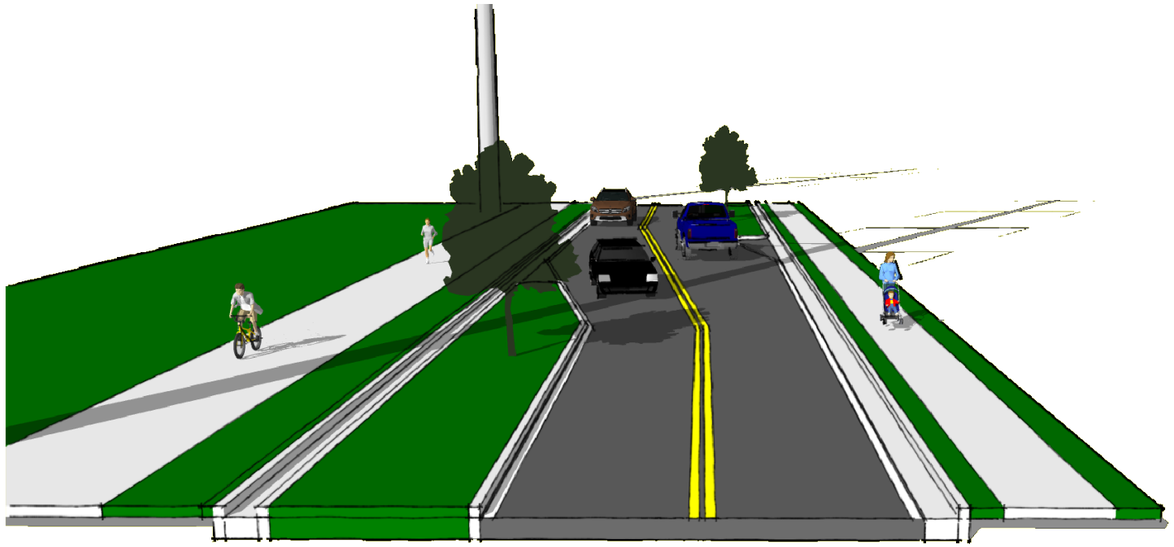
SEMINOLE COUNTY
FLORIDA'S NATURAL CHOICE

ROLLING HILLS AREA CORRIDOR ENHANCEMENT
CONCEPT PLANS

HDR

$USER$ $DATE$ $TIME$ $FILE$

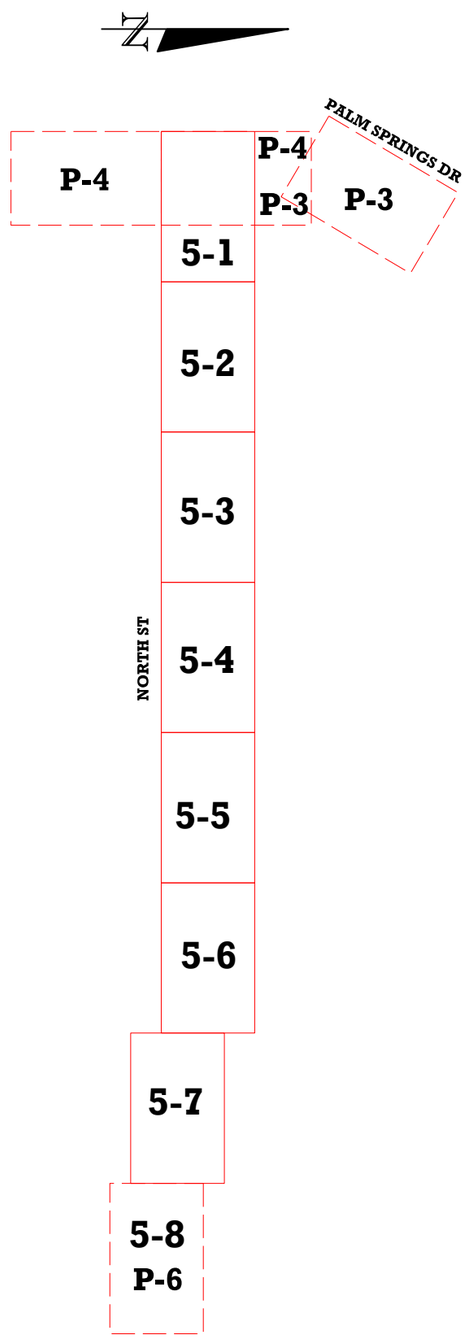
PROPOSED CORRIDOR SPEED LIMIT



TYPICAL SECTION
NORTH STREET FROM PALM SPRINGS DRIVE TO LONGWOOD CITY LIMITS

NOTE: FOR CONCEPTUAL USE ONLY.

SHEET LAYOUT PROJECT 5



PALM SPRINGS DR

NORTH ST

CONTINUE TRAIL
TO WEST

BEGIN PROJECT
BEGIN RECONSTRUCTION

PROJECT 2

PROPOSED ROW

PROPOSED CURB AND GUTTER (TYP)

10'

10'

10'

PROPOSED SIDEWALK

N

0 10 50
Feet

NOTE: FOR CONCEPTUAL USE ONLY.

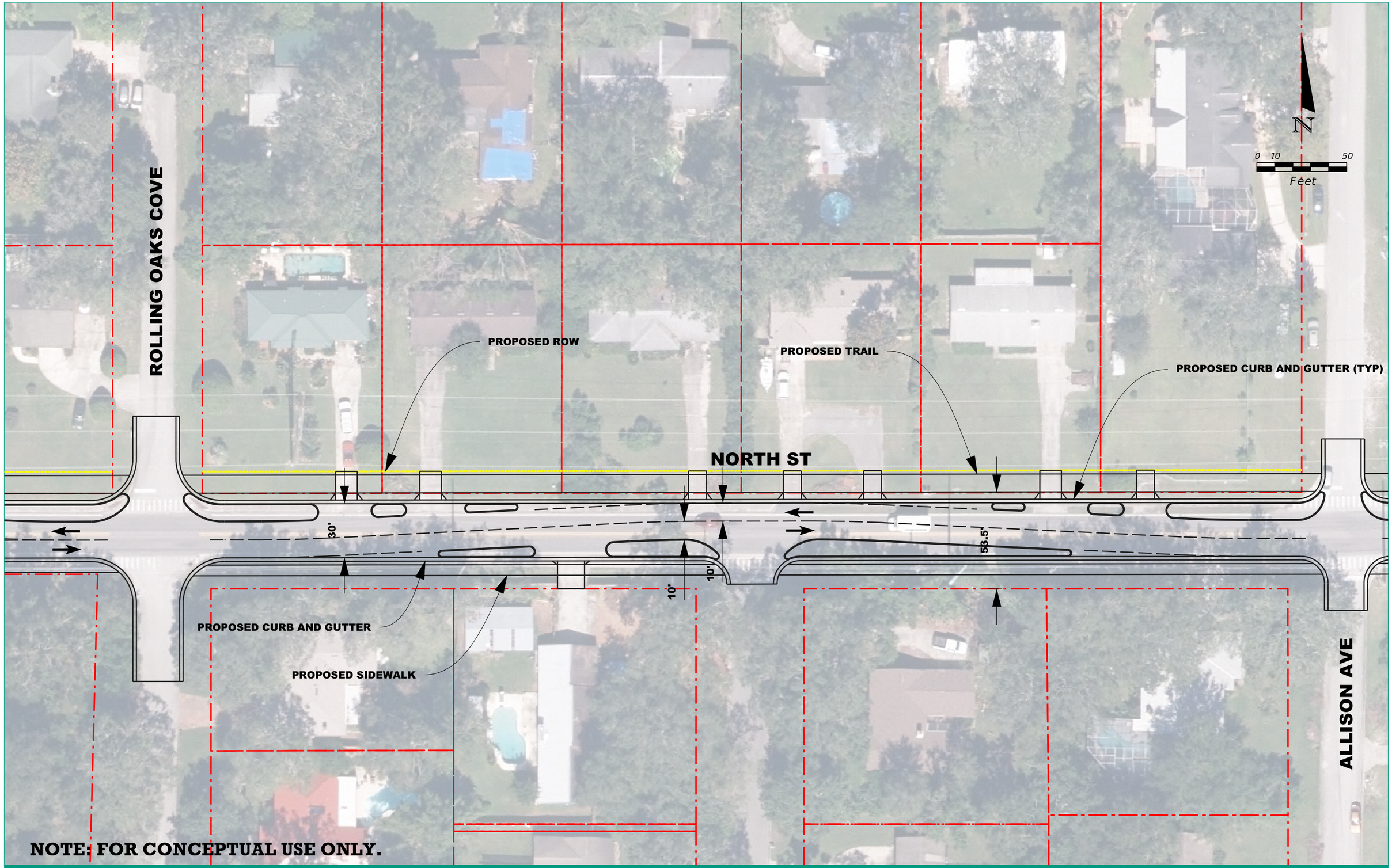
SEMINOLE COUNTY
FLORIDA'S NATURAL CHOICE

ROLLING HILLS AREA CORRIDOR ENHANCEMENT
CONCEPT PLANS

HDR

5–1

$USER$ $DATE$ $TIME$ $FILE$



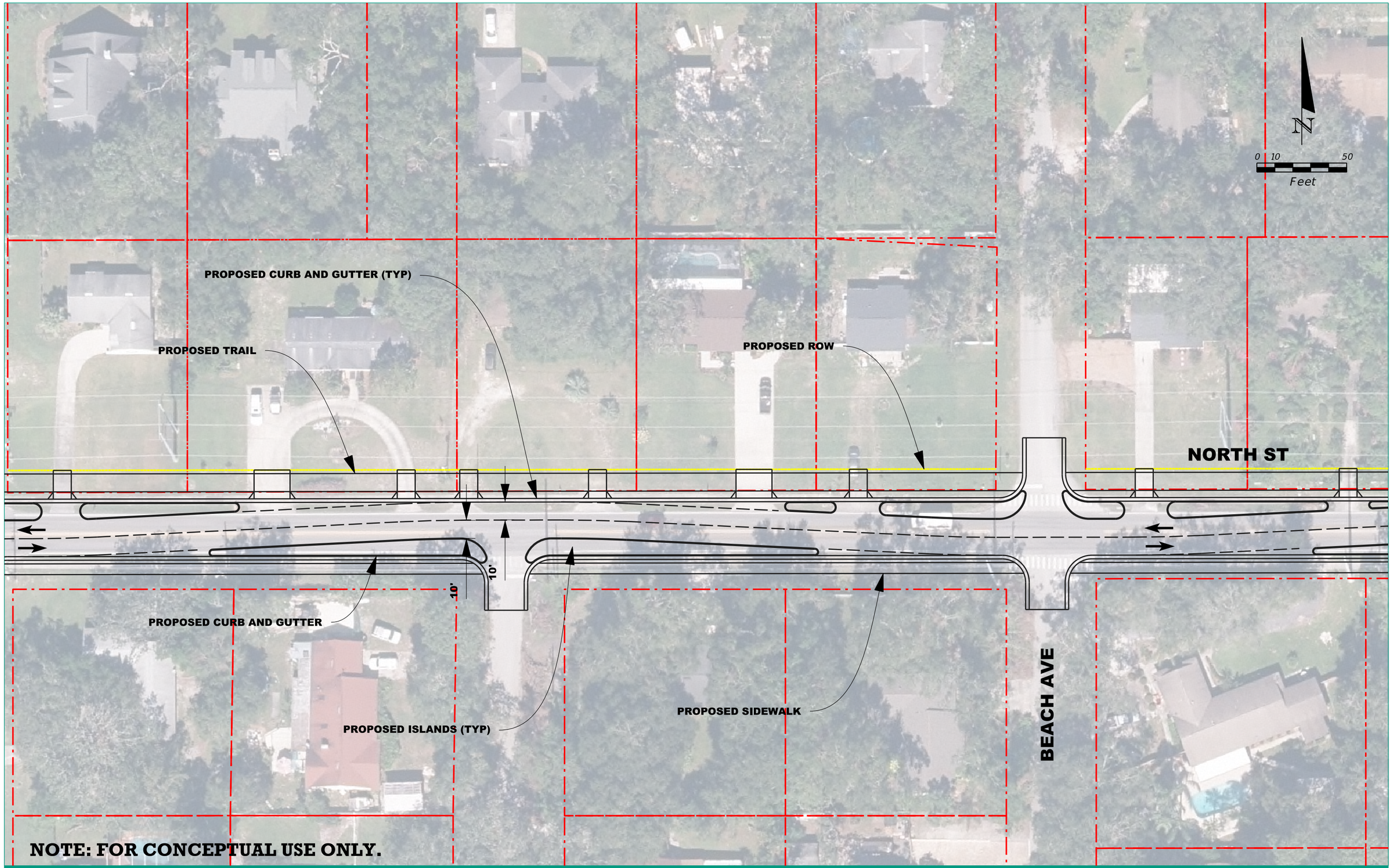
NOTE: FOR CONCEPTUAL USE ONLY.

SEMINOLE COUNTY
FLORIDA'S NATURAL CHOICE

ROLLING HILLS AREA CORRIDOR ENHANCEMENT
CONCEPT PLANS

HDR

$USER$ $DATE$ $TIME$ $FILE$



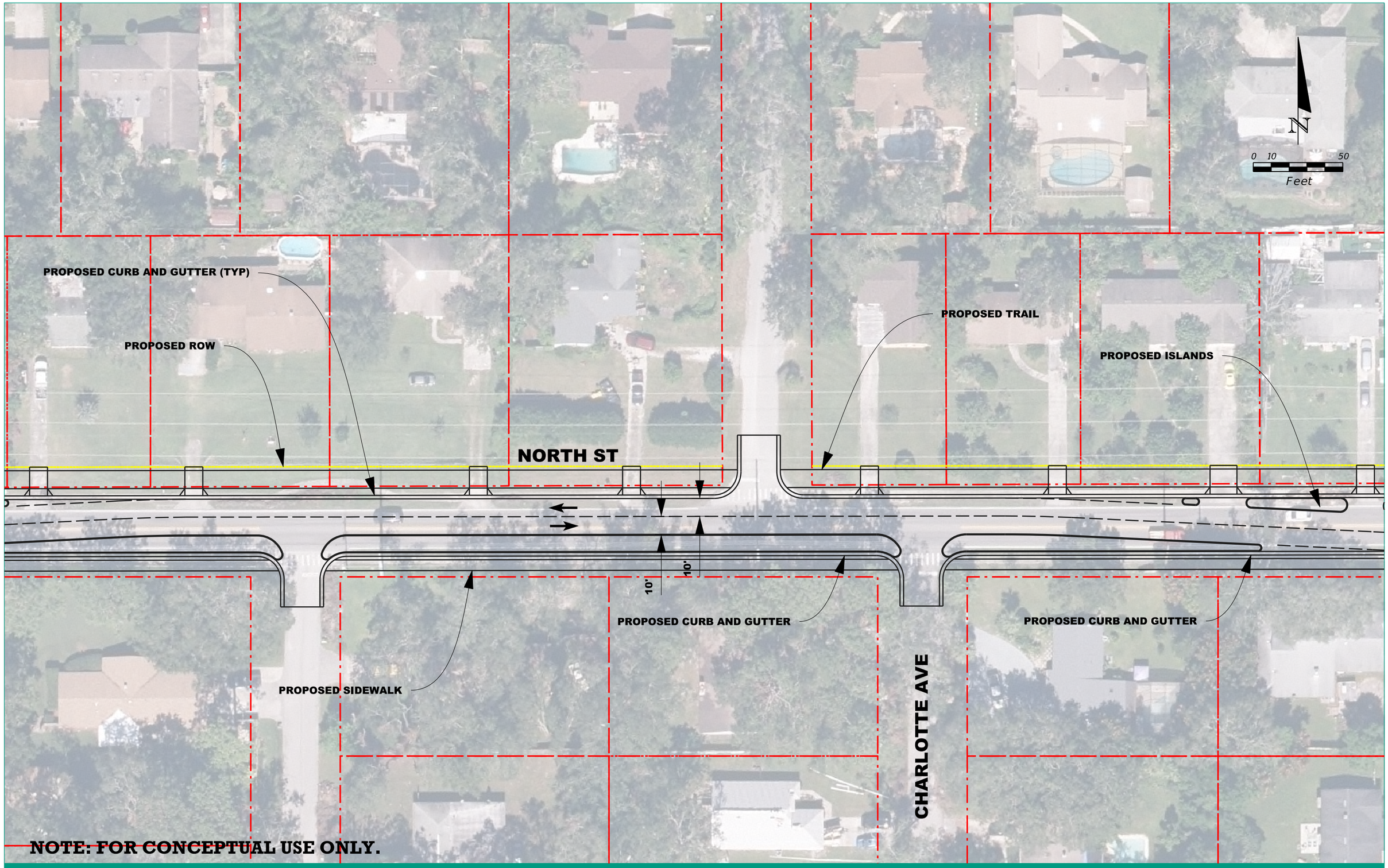
SEMINOLE COUNTY
FLORIDA'S NATURAL CHOICE

ROLLING HILLS AREA CORRIDOR ENHANCEMENT
CONCEPT PLANS

HDR

5–3

$USERS $DATES $TIMES $FILES



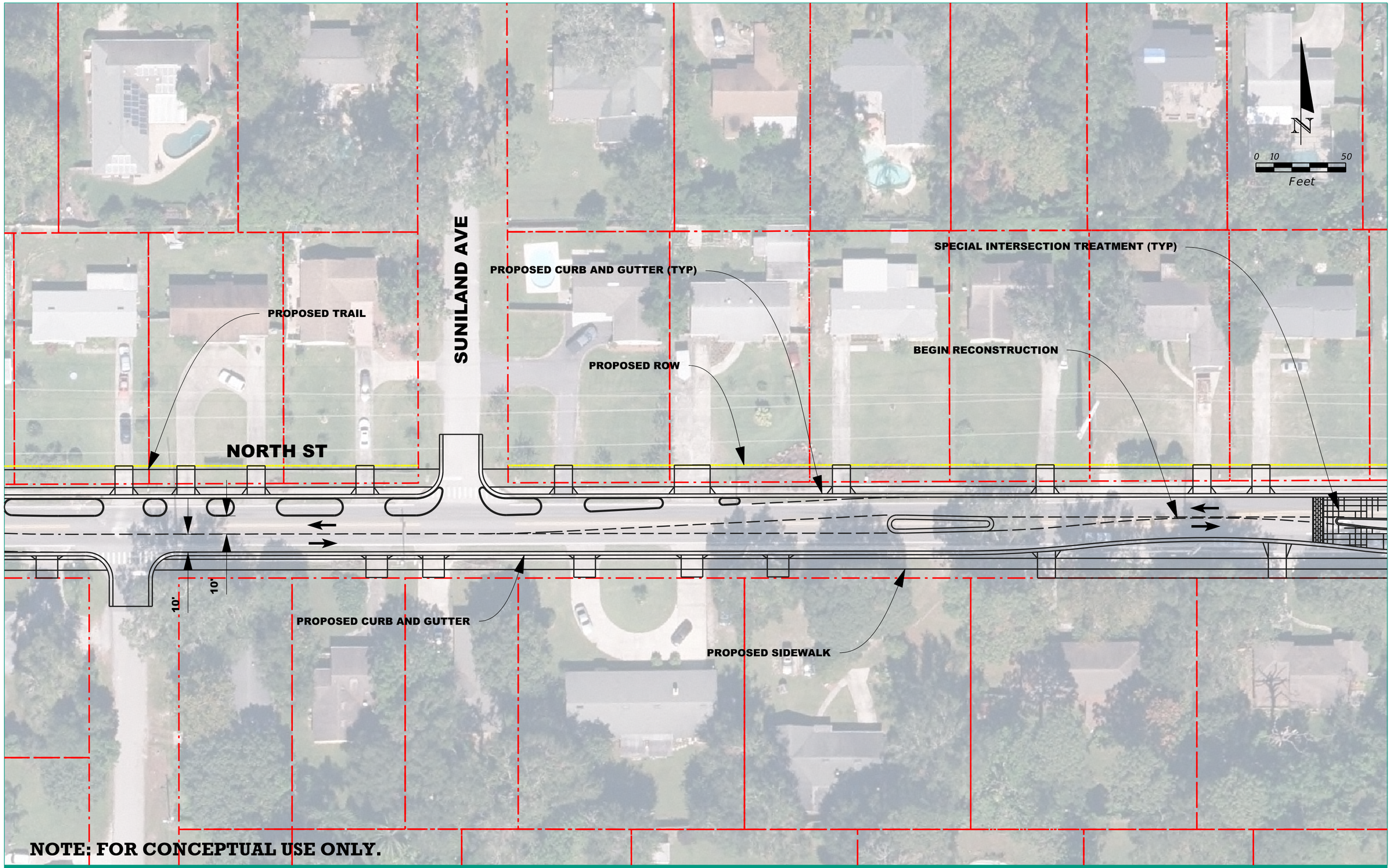
NOTE: FOR CONCEPTUAL USE ONLY.

SEMINOLE COUNTY
FLORIDA'S NATURAL CHOICE

ROLLING HILLS AREA CORRIDOR ENHANCEMENT
CONCEPT PLANS

HDR

$USER$ $DATE$ $TIME$ $FILE$



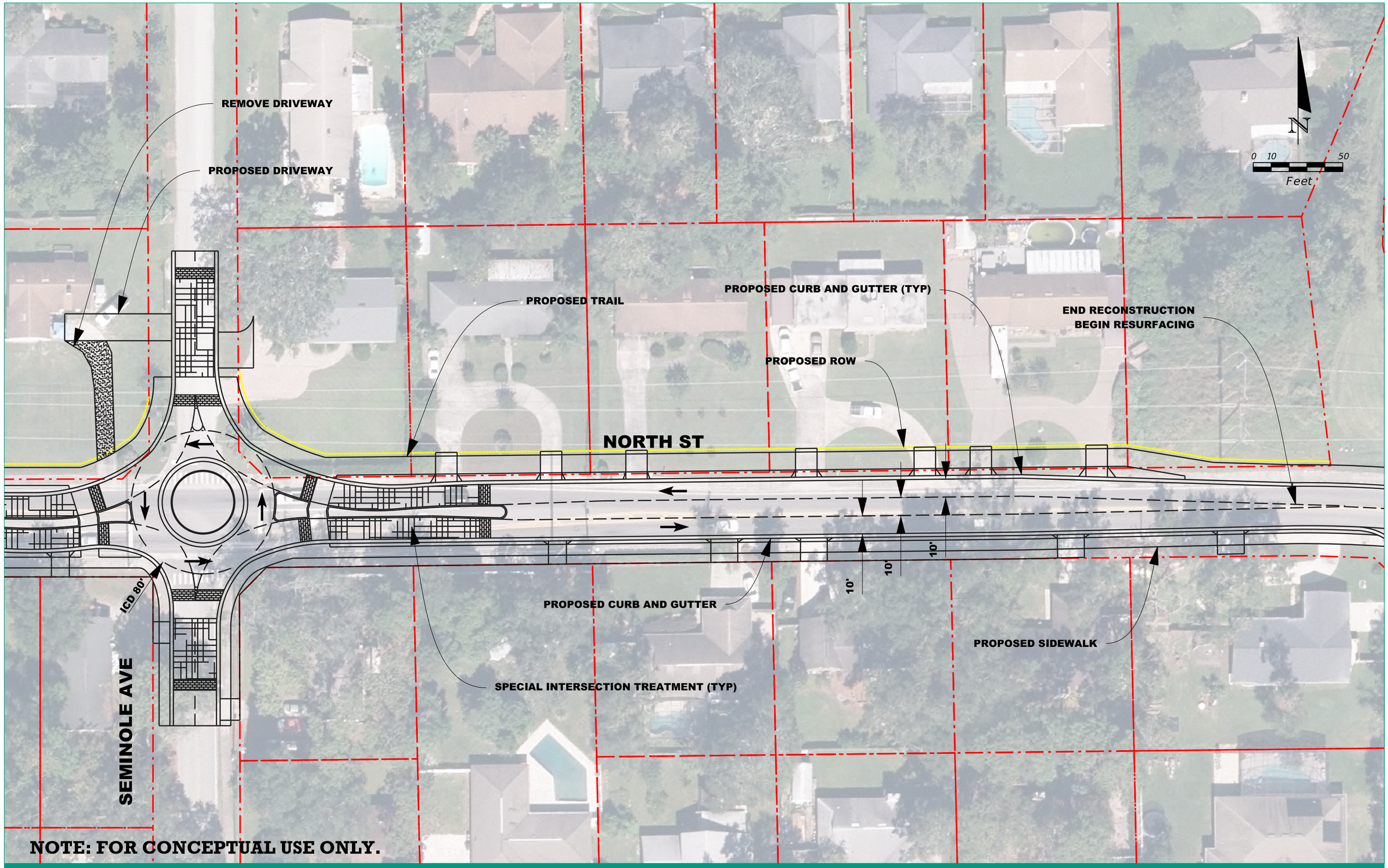
NOTE: FOR CONCEPTUAL USE ONLY.

SEMINOLE COUNTY
FLORIDA'S NATURAL CHOICE

ROLLING HILLS AREA CORRIDOR ENHANCEMENT
CONCEPT PLANS

HDR

$USER$ $DATE$ $TIME$ $FILE$



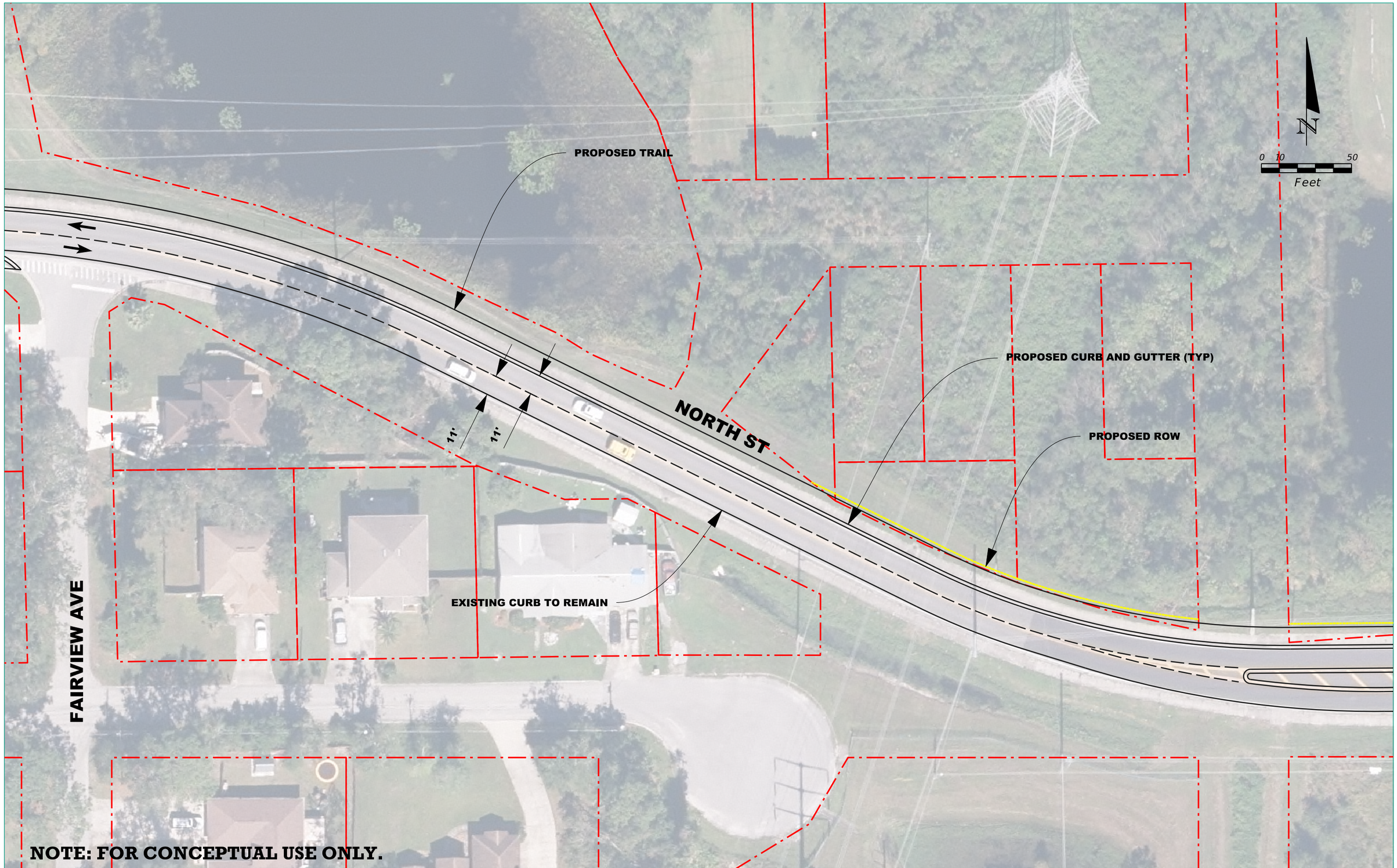
NOTE: FOR CONCEPTUAL USE ONLY.

SEMINOLE COUNTY
FLORIDA'S NATURAL CHOICE

ROLLING HILLS AREA CORRIDOR ENHANCEMENT
CONCEPT PLANS

HDR

$USER$ $DATE$ $TIME$ $FILE$



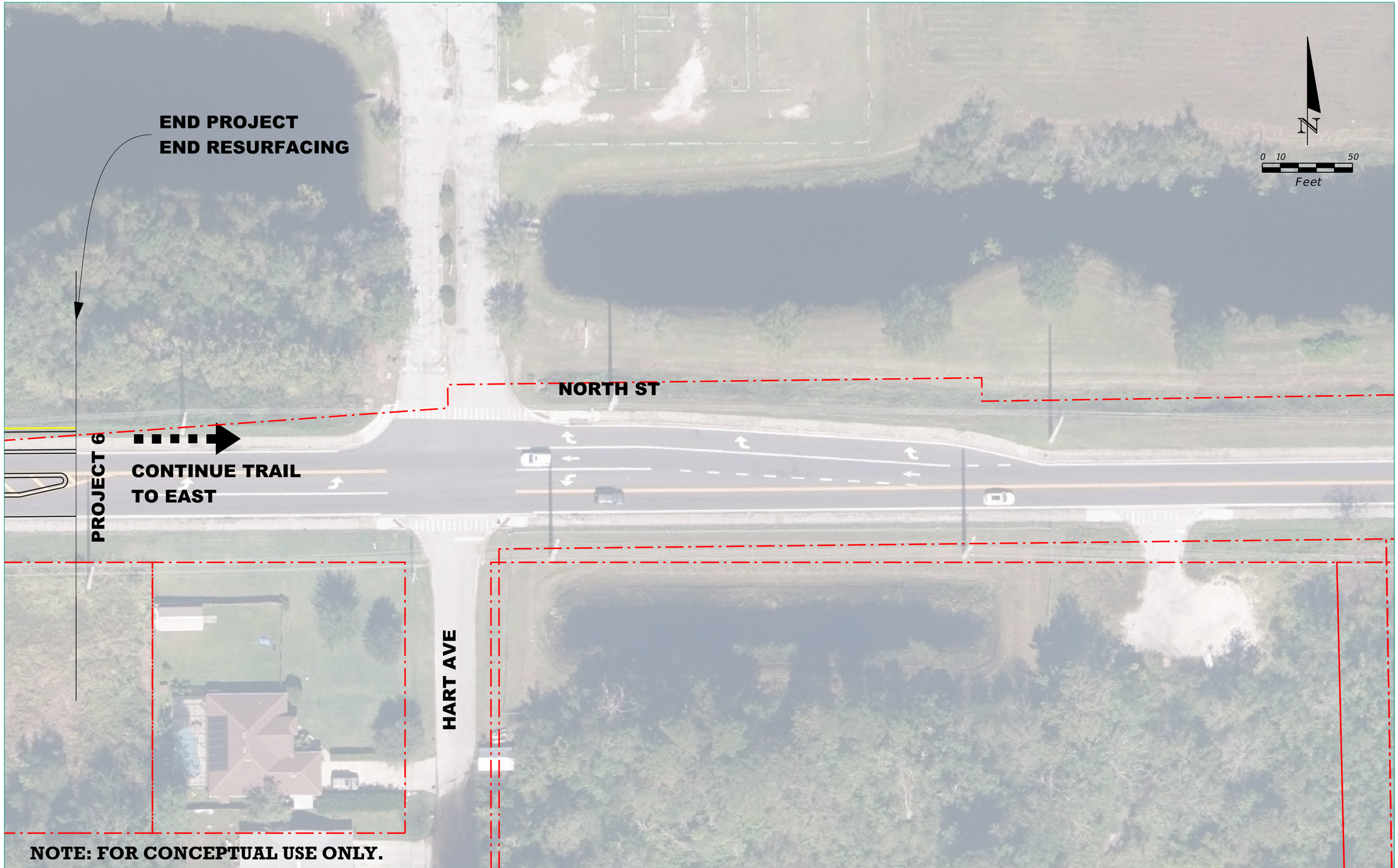
NOTE: FOR CONCEPTUAL USE ONLY.

SEMINOLE COUNTY
FLORIDA'S NATURAL CHOICE

ROLLING HILLS AREA CORRIDOR ENHANCEMENT
CONCEPT PLANS

HDR

$USER$ $DATE$ $TIME$ $FILE$



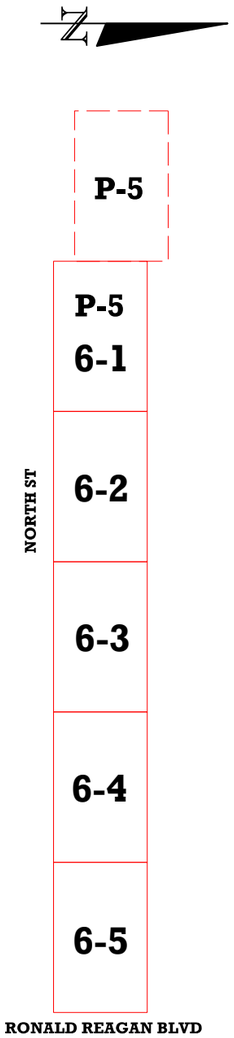
NOTE: FOR CONCEPTUAL USE ONLY.

SEMINOLE COUNTY
FLORIDA'S NATURAL CHOICE

ROLLING HILLS AREA CORRIDOR ENHANCEMENT
CONCEPT PLANS

$USER$ $DATE$ $TIME$ $FILE$

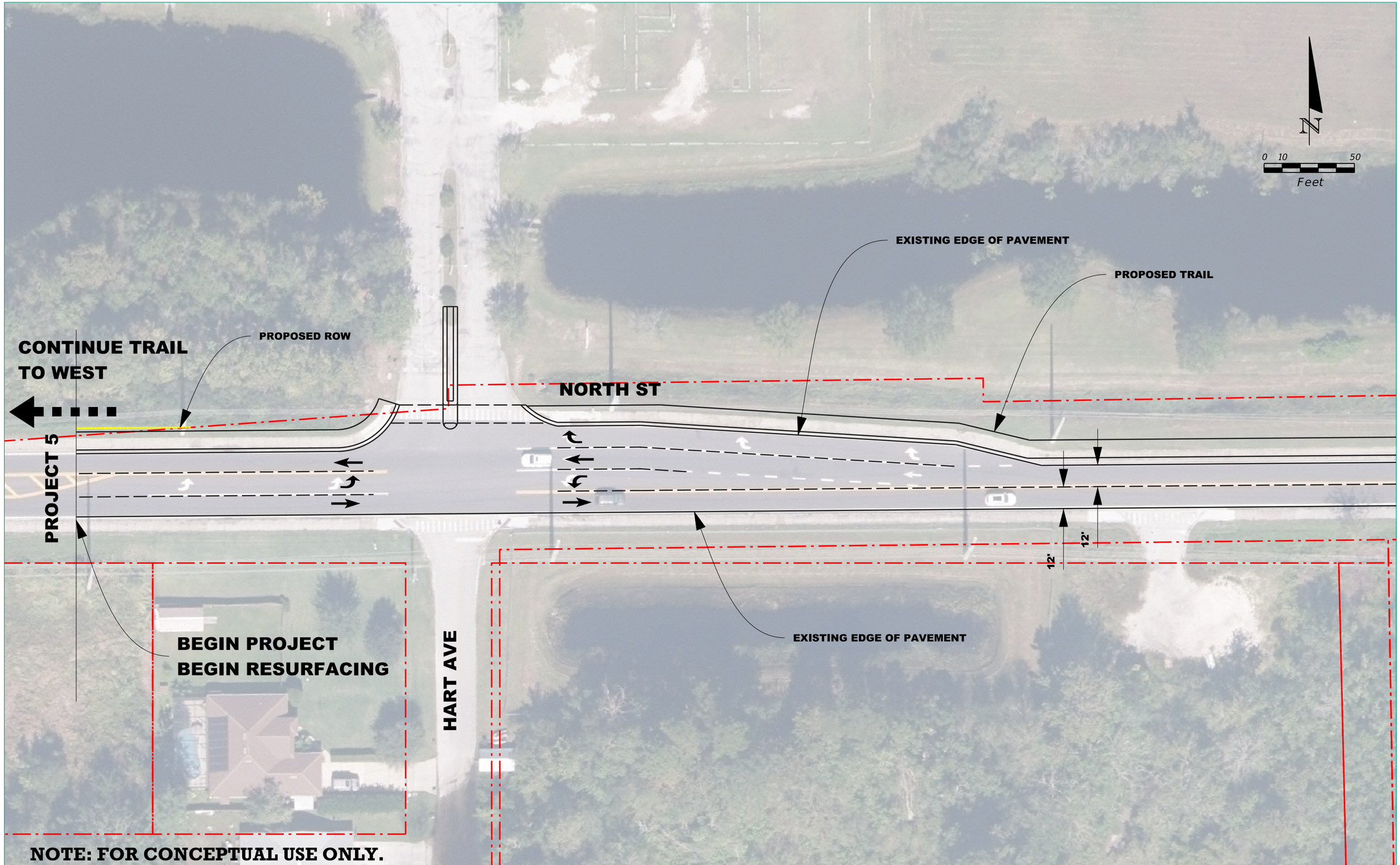
SHEET LAYOUT PROJECT 6



PROPOSED CORRIDOR SPEED LIMIT

NO TYPICAL SECTION
NORTH STREET FROM LONGWOOD CITY LIMITS TO RONALD REAGAN BOULEVARD

NOTE: FOR CONCEPTUAL USE ONLY.

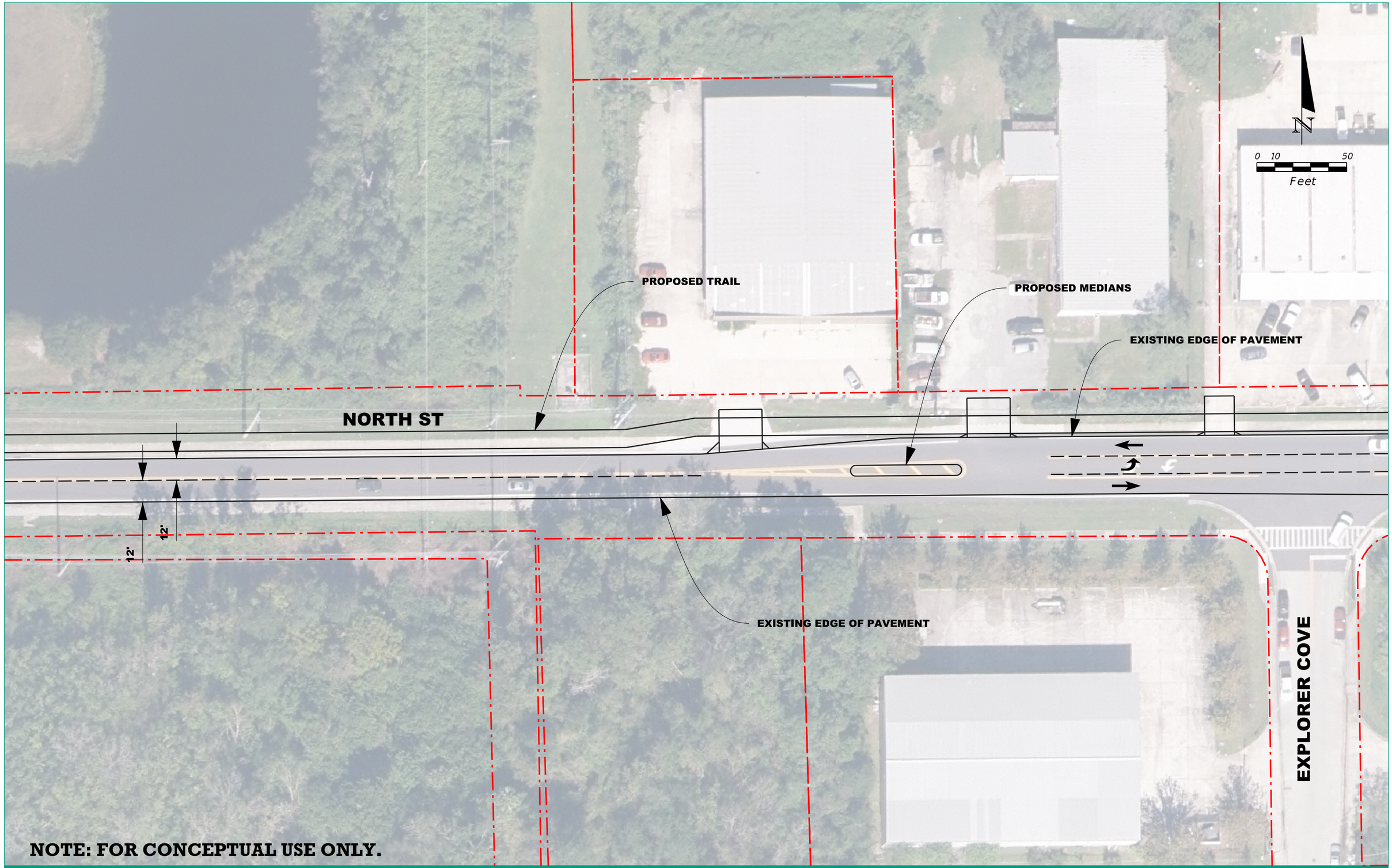


SEMINOLE COUNTY
FLORIDA'S NATURAL CHOICE

ROLLING HILLS AREA CORRIDOR ENHANCEMENT
CONCEPT PLANS

HDR

$USERS $DATES $TIMES $FILES



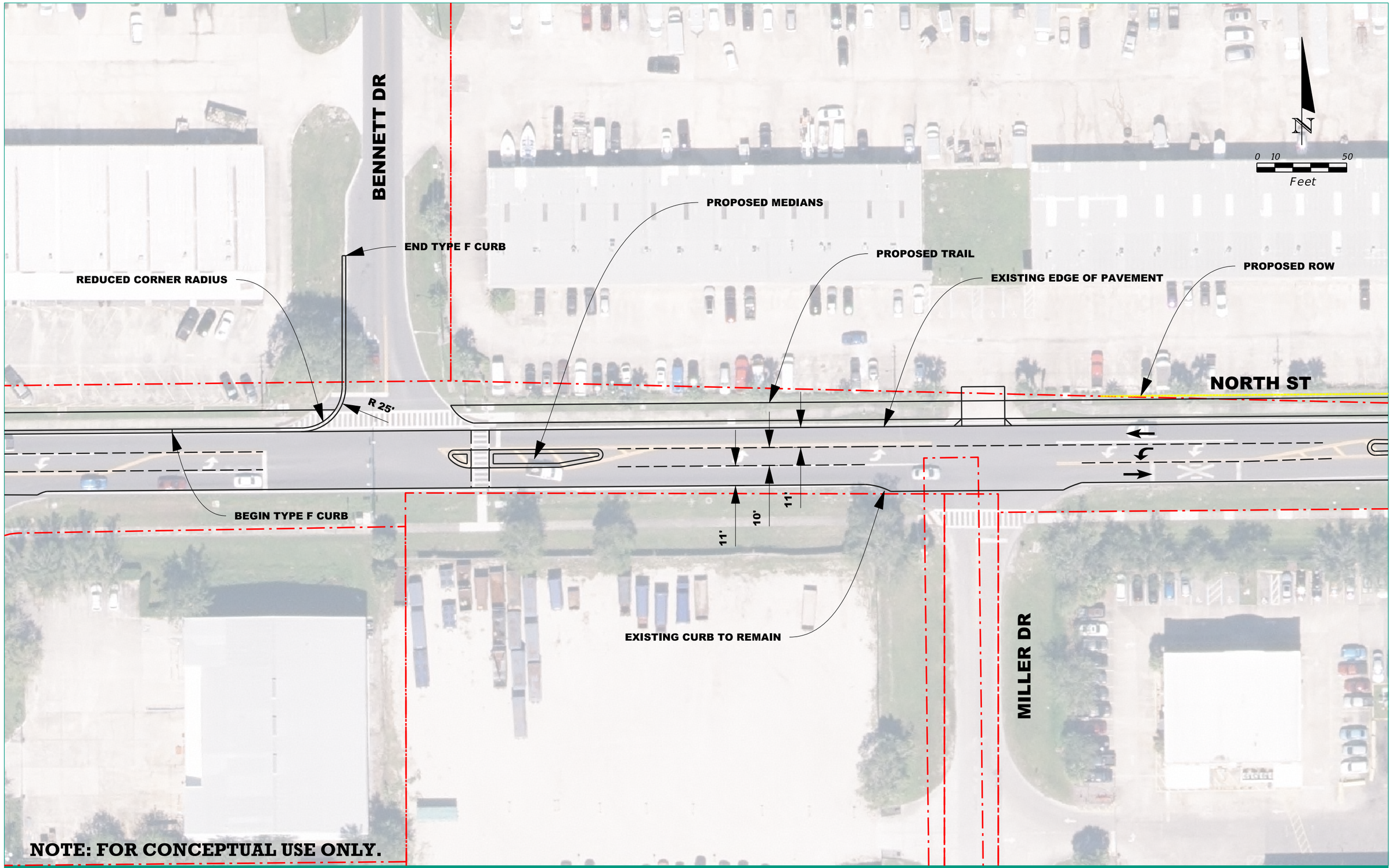
NOTE: FOR CONCEPTUAL USE ONLY.

SEMINOLE COUNTY
FLORIDA'S NATURAL CHOICE

ROLLING HILLS AREA CORRIDOR ENHANCEMENT
CONCEPT PLANS

HDR

$USER$ $DATE$ $TIME$ $FILE$



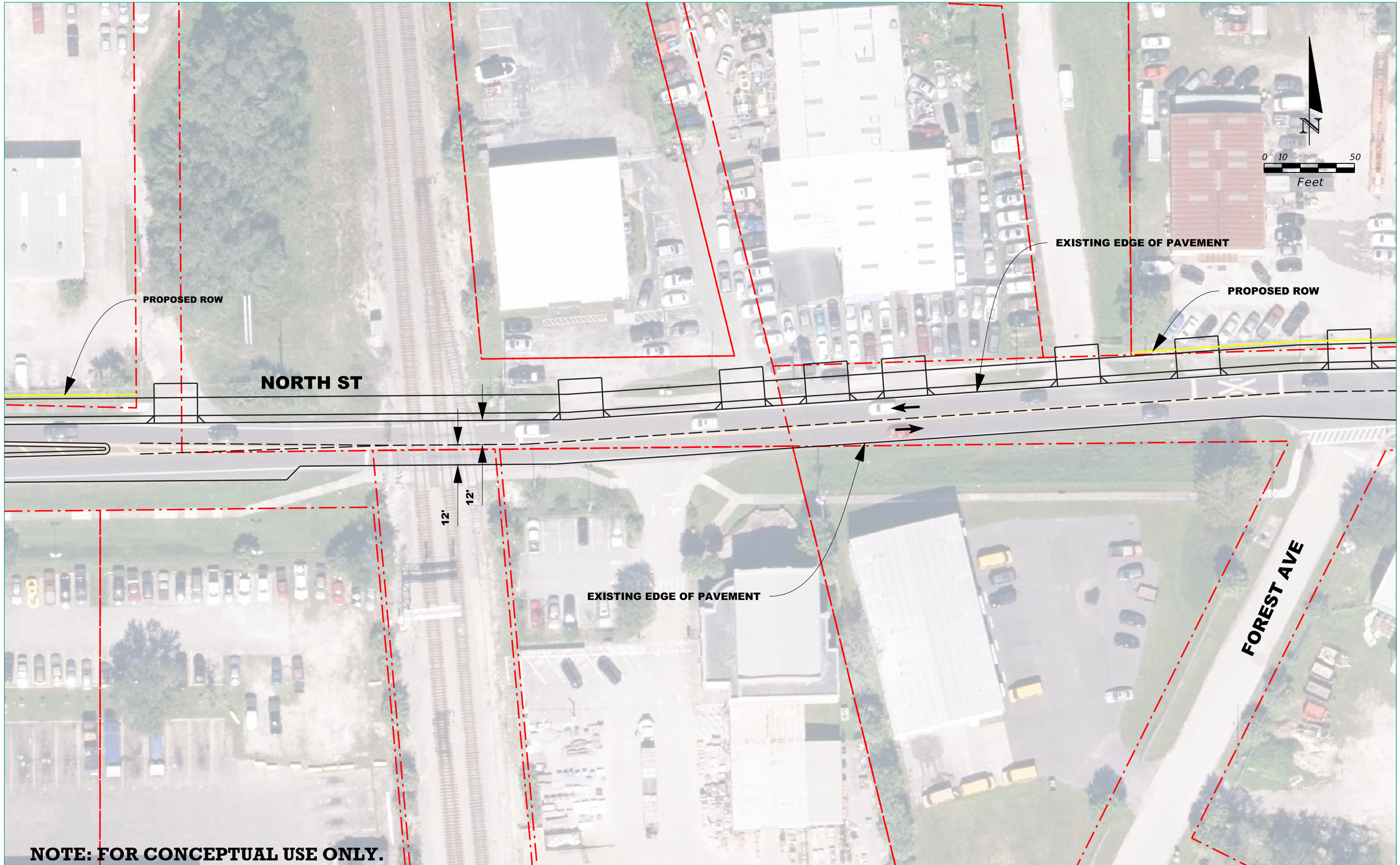
NOTE: FOR CONCEPTUAL USE ONLY.

SEMINOLE COUNTY
FLORIDA'S NATURAL CHOICE

ROLLING HILLS AREA CORRIDOR ENHANCEMENT
CONCEPT PLANS

HDR

$USER$ $DATE$ $TIME$ $FILE$



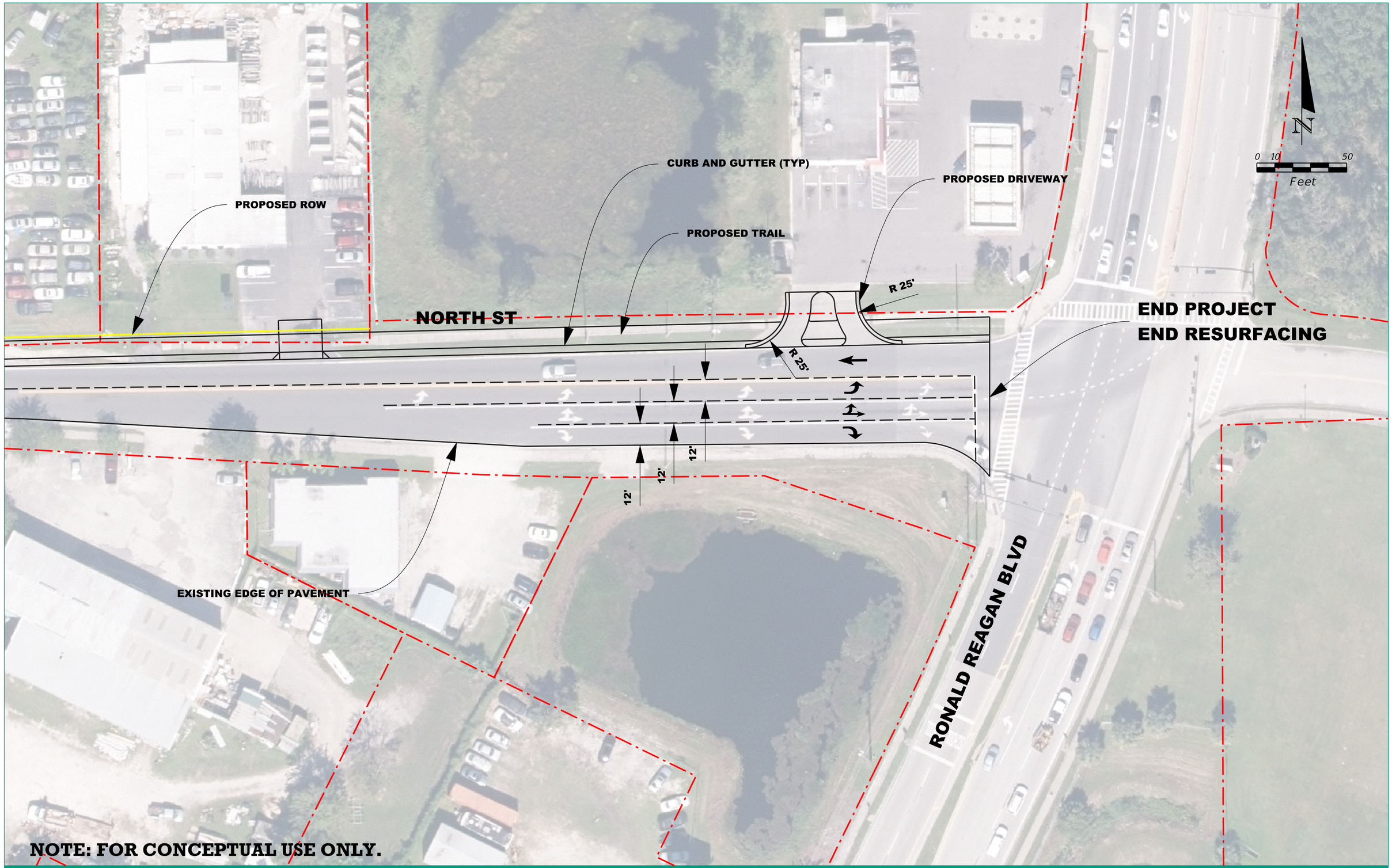
NOTE: FOR CONCEPTUAL USE ONLY.

SEMINOLE COUNTY
FLORIDA'S NATURAL CHOICE

ROLLING HILLS AREA CORRIDOR ENHANCEMENT
CONCEPT PLANS

HDR

$USERS $DATES $TIMES $FILES



NOTE: FOR CONCEPTUAL USE ONLY.

SEMINOLE COUNTY
FLORIDA'S NATURAL CHOICE

ROLLING HILLS AREA CORRIDOR ENHANCEMENT
CONCEPT PLANS

HDR

$USER$ $DATE$ $TIME$ $FILE$