Engineering and Design Services of

HARTWOOD MARSH ROAD Phase I

KCA

KISINGER CAMPO

PRESENTAT

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RSQ No. 21-0921 for Lake County, FL

September 7, 2021

CONTACT INFORMATION:

Rossitto@kcaeng.com www.kisingercampo.com

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AGENDA

Presentation Outline

Qualifications

- > Team and Key Staff
- > Relevant Project Experience

Ability to Furnish Required Services

- > Design Approach
- > Public Involvement
- > Management Approach
- > Schedule
- > Workload/Availability
- > Quality Control

KEY PROJECT GOALS

- Update 2010 Design
- Improve Traffic Flow and Safety
- Multi-Modal Improvements
- Restart Stakeholder Coordination
- Restart Utility Coordination
- Acquire New Permits





FIRM OVERVIEW

Full-service, Transportation Engineering Firm 45 Years in Business

100 + Staff in Orlando and Tampa Offices
Orlando Office is in Downtown
25 Miles to the Project Site

37 miles to Lake County's Office

Top 500 Engineering Firms as Reported by ENR

- Project Spotlight



CR 437 Improvements





EXPERIENCED PROJECT MANAGEMENT

Roger Rossitto, PE, Project Manager (PM)

available

70%



- Managed 25+ transportation projects
- Responsive to client needs
- Familiarity with all disciplines
- Proactive PM
- Schedule driven
- Fully committed to this project's success
- Single point of contact



CR 437, Lake County

- Serving as PM
- 1 mile of new alignment
- Improving traffic conditions and incorporating multi-modal improvements
- Three new roundabouts
- Lighting, signals, S&PM, MOT
- Utility coordination
- Permitting
- Public involvement



Two Segments of SR 40 Widenings, D5

- Served as PM
- Both +/- 6-mile-long capacity projects
- Marion and Volusia Counties
- Two-lane to a four-lane divided typical section
- Major drainage improvements
- Permitting
- Public involvement



PROJECT TEAM



Kevin Tasillo, PE, PTOE Roadway Design/MOT

years of experience

- Extensive experience in transportation project management and roadway design
- Expertise with roadway widening and multi-modal projects

Relevant Work Experience

- SR 20, Alachua County
- SR 40, Marion County
- SR 40, Volusia County
- SR 22 (Wewa Highway), Bay County



Thierry Ku, PE Drainage Design

years of experience

- Extensive experience in stormwater design and permitting
- Expertise includes coordinating with permitting agencies

Relevant Work Experience

- CR 437, Lake County
- SR 20, Alachua County
- SR 40, Marion County



Dr. Fathy Abdalla, PE, PTOE

Signals, S&PM, Lighting, Safety



years of experience

- Prepared numerous transportation/ traffic studies for local authorities
- Expertise in analyzing traffic capacity and LOS for widening projects

Relevant Work Experience

- CR 437, Lake County
- SR 20, Alachua County
- SR 50, Hernando and Sumter Counties
- SR 40, Volusia County



PROJECT TEAM



Martin Horwitz Environmental/Permitting

years of experience

- Experience with wetland delineation, protected species surveys, PD&E,
- NEPA documentation, and environmental permitting

Relevant Work Experience

KISINGER CAMPO

- CR 437, Lake County
- SR 25/US 301 RRR, Marion County
- SR 500 RRR, Orange County
- SR 528 Widening, Brevard County



Colin Jewsbury, PE (Ardaman)

Geotechnical

years of experience

- Geotechnical projects throughout Central Florida
- Ardaman is the geotechnical firm from original Hartwood Marsh Rd. project

Relevant Work Experience

- Hartwood Marsh Rd., Lake County
- Citrus Grove Rd. Phases I, III, V, Lake County
- Lake County Continuing Services Contracts
- City of Orlando Continuing Contract



Edwin Munoz, Jr., PSM (SSMC) Surveying/Mapping



- Extensive experience in all aspects of surveying and mapping
- SSMC is the surveyor from original Hartwood Marsh Rd. project

Relevant Work Experience

- Lake County General Projects
- Partin Settlement Road Widening, Osceola County

ORGANIZATIONAL CHART

Entire Team Has Worked Together Similar Roadway Widening Experience KCA to Perform Major Disciplines

Selected Highly Qualified Subconsultants

- Long Histories of Collaborating with KCA
- Local Offices
- Experience Working with Lake County
- Two MBE Subs

There is no learning curve with KCA due to our vast experience providing design services for roadway widening projects as well as our ongoing working relationship with Lake County.

PRINCIPAL-IN-CHARGE Guillermo Madriz, PE (24)	PROJECT MANAGER Roger Rossitto, PE (32)	QUALITY ASSURANCE/ QUALITY CONTROL
Guillermo Madriz, PE (24)	Roger Rossillo, FE (32)	Richard Harrison, PE (38)
		<i>Dedicated QC reviewer per design discipline (see below)</i>
SIGNALS, S&PM, LIGHTING,	ROADWAY DESIGN/TTC	DRAINAGE DESIGN
PEDESTRIAN SAFETY	Kevin Tasillo, PE, PTOE (16)	Tara Spieler, PE (25)
Fathy Abdalla, Ph.D., PE, PTOE (25) Burak Konuk, PE, PTOE (12)	Mark Bintz, PE (6) Darren Brandes, PE (35)	Thierry Ku, PE (9)
Diana Albarracin (17)	QC: John Mazeres, PE (34)	QC: Ali Tayebnejad, PE (34)
QC: Josh Robinson, PE (33)		
ENVIRONMENTAL/PERMITTING	STRUCTURES DESIGN	PUBLIC INVOLVEMENT
Martin Horwitz (15) Megan Nicely (7)	Simon Hagedoorn, PE (26) Fabricio Muro, PE (10)	Catherine Winter, PE (18) – Valeri Eric Trull (10) – Valerin
QC: Robert Whitman, Jr. (39)	QC: Thomas Lovett, PE (42)	Chuck Thompson (35) – Valerin
UTILITIES: COORDINATION	GEOTECHNICAL/CONTAMINATION	SURVEYING/MAPPING
	Charles Cunningham, PE (40) –	Thomas Snow, PSM (30) – SSMC
Carlo Pilia, PE (17) – ECHO Trisha Miller (18) – ECHO	Ardaman Colin Jewsbury, PE (21) – Ardaman	Edwin Munoz, PSM (10) – SSMC Steven Fensterer (38) – SSMC

SUBCONSULTANTS (■MBE)

Ardaman & Associates, Inc. (Ardaman) ECHO UES, Inc. (ECHO)■ Southeastern Surveying and Mapping, Corp. (SSMC) The Valerin Group, Inc. (Valerin)■



SIMILAR PROJECT EXPERIENCE



SR 20 from Alachua County Line to SW 56th | FDOT District Two

- Location: Putnam County
- Same EOR and key personnel
- Rural to urban, 2 to 4-lane reconstruction
- 7-mile-long, 2 to 4-lane widening

- Utility relocation, wetland impacts, R/W acquisition, signal replacement
- Plans update for widening



SR 22 (Wewa Highway) | FDOT District Three

- Location: Bay County
- Same EOR and key personnel
- 3-mile-long, 2 to 4-lane reconstruction
- New bridge over Lake Martin

- R/W acquisition, Bay Line Railroad (RR) coordination, signals, extensive utilities
- Extensive typical section modifications not considered during PD&E



SR 40 (Two Separate Segments) | FDOT District Five

- Location: Volusia and Marion Counties
- 6-mile-long capacity projects
- Same PM, EOR, and key personnel

- 2-lane roadway to a four-lane widening
- Major drainage improvements
- Permitting and public involvement



CR 54, SR 56 to Magnolia Boulevard | Pasco County

- Location: Pasco County
- Same key personnel
- Two-lane undivided rural roadway to a six-lane divided urban

- 3.1 miles
- Intersection improvements, signalization
- Drainage improvements, environmental/ permitting



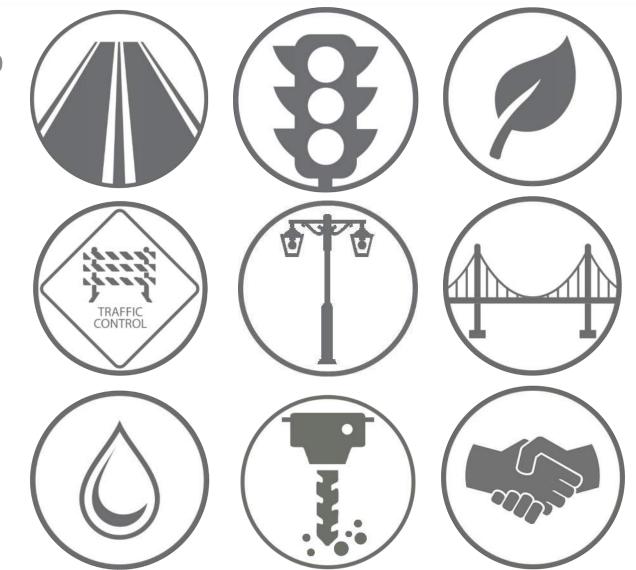
UNDERSTANDING OF SCOPE

2008 SJRWMD Permit Expired in 2013 Final S&S Phase I Plans Submitted March 11, 2010 Plans Need to Account for Changes Since 2010 Plans Need to be Updated to Current FDOT, County, and MUTCD Standards

- Roadway/Drainage
- MOT
- Erosion Control
- S&PM
- Signalization

Survey All Changes Since 2010 Re-certify Geotechnical Engineering Update Environmental Permitting Utility Coordination Public and Stakeholder Engagement Update Pay Items and Cost Estimate Sign and Seal Plans and Documents

- "Successor Professional Engineer" rules:
 - > Florida Administrative Code, Chapter 61G15-27
 - > Florida Statutes, Section 471.025(4)





Lake County | Engineering and Design Services for Hartwood Marsh Road, Phase I | RSQ No.: 21-0921 | Slide 10

CORRIDOR CHANGES SINCE 2010

- US 27 Improvements
- **Circle K Gas Station**
 - WB Double Right-Turn Lanes No Longer Fit at US 27
- **New Entrances and Turn Lanes**
 - Florida Discount Self Storage Entrance
 - Hartwood Marsh Residential Development Entrance and Turn Lanes
 - Hancock Road Intersection Improvements and Turn Lanes
 - First Baptist Church of Clermont Entrance
 - Hunters Creek Entrance and Turn Lanes
- **Pond 1 Outfall Pipe Constructed**
- South Hancock Road is Currently Being Extended Southward
- Imagine South Lake Charter School Crosswalk
- 30-foot TCE at Florida Discount Self Storage Expired June 22, 2009
- (ORB 3213, Page 1735) Coordinate New TCE or Design Gravity Wall
 Confirm Need/Desire for Kings Ridge Sound Wall with HOA

ORB 3213, pa	age 1735
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	CFW 2006108973 Bk 03213 Pss 1735 - 1738; DATE: 07/18/2006 11:01:02 JAMES C. WATKING, CLERK DF LAKE COUNTY
13-23-25-0800-035-00000 Hartwood Marsh Rd. (#0854) Site Plan	RECORDING FEES 35.50 DEED DOC 0.70
This instrument prepared by: Sanford A. Minkoff, County Attorney P.O. Box 7800, Tavares, FL 232778	
Return to: Lake County Public Works Dept R/W 123 N. Sinclair Ave., Tavares, FL 32778	
TEMPORARY NON-EXCLUSIVE EASEMENT DEED (Corporation)	23
THIS INDENTURE, made this 3 ^{Rb} day of FLORIDA DISCOUNT SELF-STORAGE NO. 4, LLC Company (formerly known as Bailes Holding, LLP)	Jaly 2006, between ; a Florida Limited Liability
6424 Pine Castle Blvd., Suite A, Orlando, Florida 32	809-6674
County of <u>Lake</u> , State of <u>Florida</u> "Grantor"; and	, hereinafter referred to as
LAKE COUNTY, a political subdivision of th Tavares, Florida 32778-7800. WITNESSETH, that Grantor, for and in consid	
(\$10.00) and other good and valuable consideration, t hereby acknowledged, has granted, bargained, sold successors and assigns, the following described ease County, Florida:	, and conveyed to Lake County, its
AS SET FORTH ON EXHIBIT "A" ATTACHED HERE	TO AND INCORPORATED HEREIN
This easement is granted for the purpose of all people and equipment to grade and provide adequal and grade driveway during the construction of the Ha	te slopes, a maximum 2 to 1 slopes,
This easement shall expire upon the completion June 22, 2009, whichever comes first.	on of the above-described activity, or
IN WITNESS WHEREOF, Grantor has exec provided by law, on the day and year first above writte	
2009	



DESIGN CRITERIA

Design Criteria

- Collector
- Context Class C3R
- Design Speed = 45 mph
- Clear Zone = 24 feet
- Median Width = 22 feet (15.5-foot min)
- G-foot Sidewalk/10-foot Shared-Use Path
- **Utilize Lessons Learned**
- **Design Controls: Rural to Urban Typical**
 - Off-Site Drainage Needs
 - Utility Accommodations
 - Driveway/Side Street Tie-ins

Design Element		2008-2010 PPM Criteria	2021 FDM Criteria
	G	eneral	
Functional Classification	1	Urban Arterial	Collector
Context Classification		C3R	C3R
Posted Speed (MPH)		40	40
Design Speed (MPH)		45	45
Design Vehicle		WB-62FL	WB-62FL
Access Classification		3	3
	Typic	al Section	
Lane Widths		12'	11'
Median Widths		22'	22'
Border Width		33' and 14'	14'
Cross Slopes (Travel Lanes)		0.02	0.02 - 0.03
Clear Zone		22'	24'
	Front Slope	1:2 Max.	1:2 Max.
Roadside Slopes	Back Slope	1:2 Max.	1:2 Max.
Base Clearance		1'	3'
	Vertica	I Geometry	
Value for Vertical Curvature	Sag Curve	79	79
C value for vertical Curvature	Crest Curve	98	98
Curve Length	Sag Curve	135'	135'
curve cengtri	Crest Curve	135'	135'
Grades		6.0% Max.	6.0% Max.
Gibdes		$\Delta \le 0.7\%$ w/o V.C.	$\Delta \leq 0.7\%$ w/o V.C.
		Grades ≤ 2% = 360	Grades ≤ 2% = 360
	1 1	3% = 378'	3% = 378'
	Downgrade	4% = 385'	4% = 385'
	1 1	5% = 392'	5% = 392'
Stopping Sight Distance		6% = 400'	6% = 400'
	Upgrade	Grades ≤ 2% = 360	Grades ≤ 2% = 360
		3% = 344'	3% = 344'
		4% = 339'	4% = 339'
	1 1	5% = 335'	5% = 335'
		6% = 331'	6% = 331'
	Horizont	tal Geometry	
		1°00'00"	0°45'00" for flushed
) (Max w/o H.C.)			shoulder roadways
			1°00'00" for curbed
0.000		Carl	roadways
R (Min.)		675'	694
R (Min Length / Desired Length)		400' / 675'	400' / 675'
e (Max)		0.05	0.05
e (Min. Length)		1:150 or 75'	1:150 or 75'
Min. Longitudinal Grade		0.000	0.5% Min. Long. Grad
Through Transition Sections		0.30%	or

0.5% Min FOP Grade



Provide Flared Driveway Connection Per Standard Plans Index 522-003

Match Existing Driveway Material After the Concrete Apron

Vertical Profile

Analyze Driveway Profiles with Mainline Profile

DRIVEWAY CONNECTIONS

Verify TCE Status/Previous Coordination with Property

Field Review to Verify All Existing Locations and Widths

- > Avoid setting driveway profile in sag vertical
- > Utilize FDM 214.4.1 driveway profile on curbed roadways
 - Commercial Driveways: 10% Max. Grade
 - Residential Driveways: 28% Max. Grade
- > Adjust profile to minimize driveway grades/tie-down lengths

Evaluate Special Cases

Initial Review of Corridor

Evaluate All Existing Driveways

> Determine appropriate driveway widths

9 Commercial

Owners

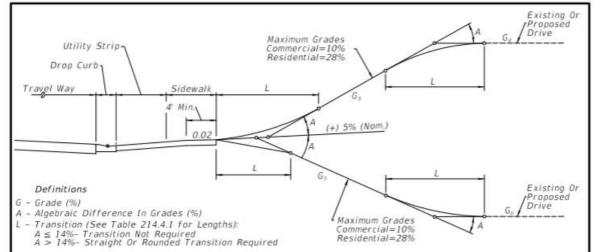
- Clermont Fire Station No. 2
- Delivery Trucks
 - > Low body delivery trucks
 - > Fuel tankers

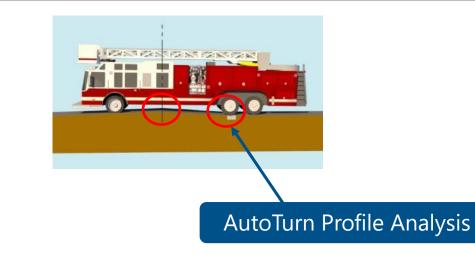
KISINGER CAMPO

ASSOCIATES

Utilize AutoTurn to Avoid Bottom Out Points in Profile

Figure 214.4.2 Curbed Roadway Driveway Profiles







SIDE STREET DESIGN

Coordinate with County:

- Verify maintained side streets
- County Design Standards (if applicable)

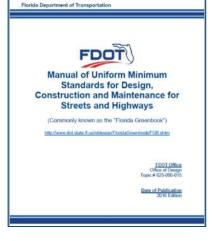
Review Side Street Connections

Verify R/W

FDOT Greenbook

Utilize a Design Speed=30 mph (20 mph Min.)





KISINGER CAMPO

SSOCIATE

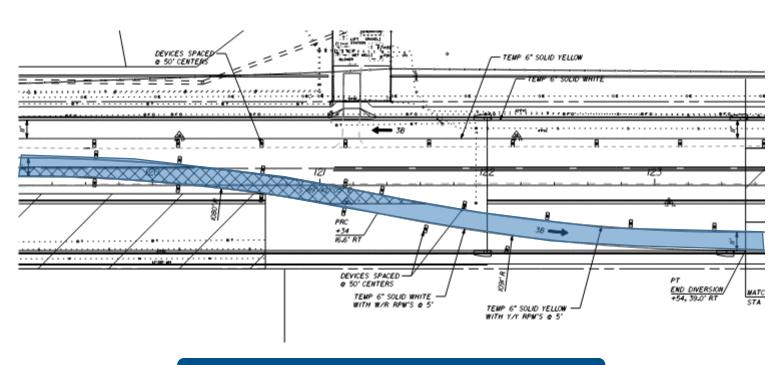
Side Streets

- Danbury Mill Blvd.
 Hancack Pd. (N85)
- Hancock Rd. (N&S)Hartwood Pine Way

TTC DESIGN

Design Requirements

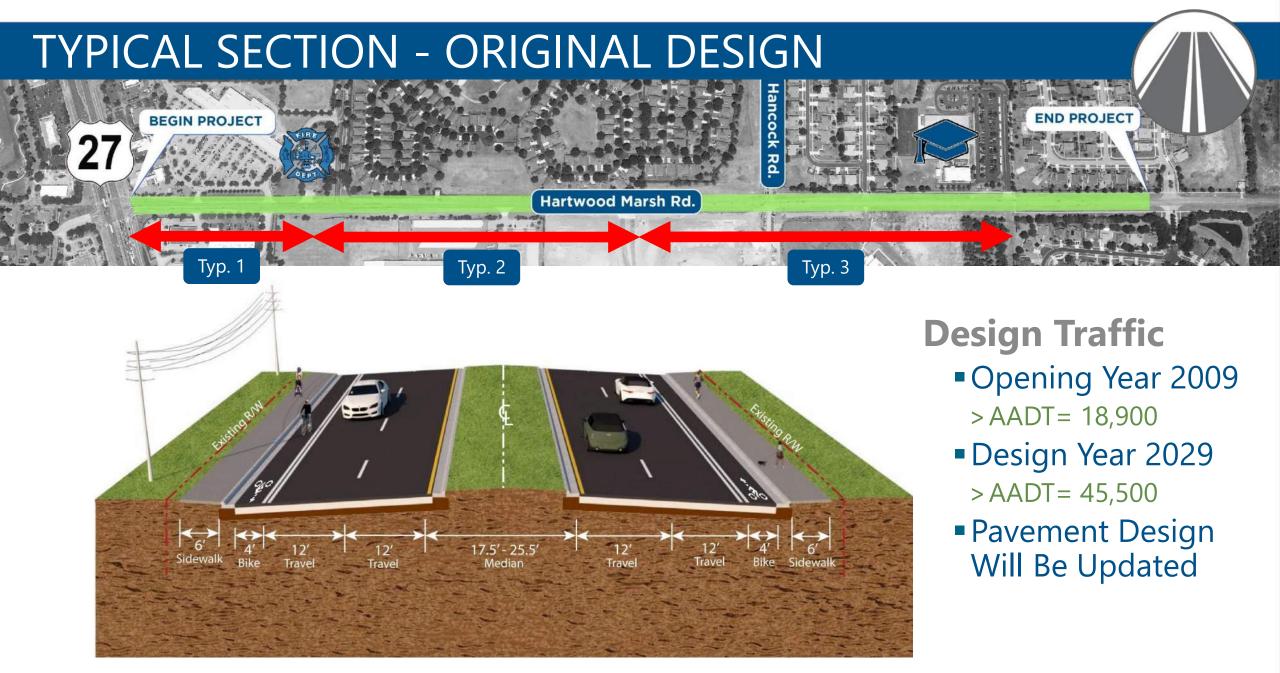
- Level II TCP
 - > Four primary phases
 - > Eliminate need for temp. diversions Simplify construction phasing
 - > Review corridor and maintain all existing turn lanes
- Posted Speeds During Construction
 > 45 mph
- Drop-offs (Index 102-600, Sheet 8 of 11 or LPBW)
- Advance Warning Signing Hartwood Marsh and Hancock Road
- Lane Closure Analysis "Night Work Only"
 - > Coordinate with Imagine School South Lake
 - > HOA regarding noise wall construction
- Maintaining Side Street/Driveway Access
- Special Events Notes



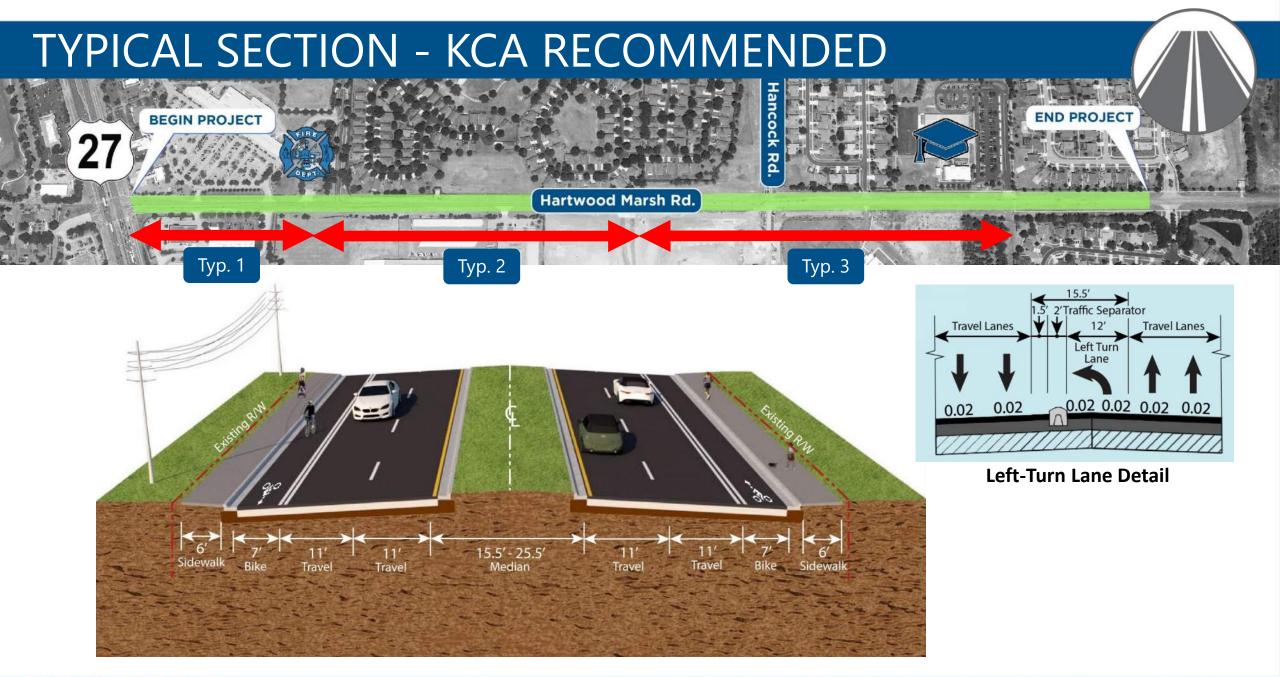
TRAFFIC

Phase III Temporary Diversion









KISINGER CAMPO

DESIGN ENHANCEMENTS

5

Hartwood Marsh Rd.

Rd

WB Turn Lane to Self Storage

SHOT STOP AS I

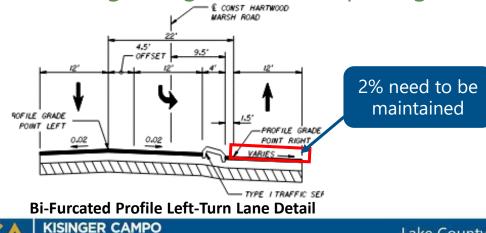
Bi-furcated Profile

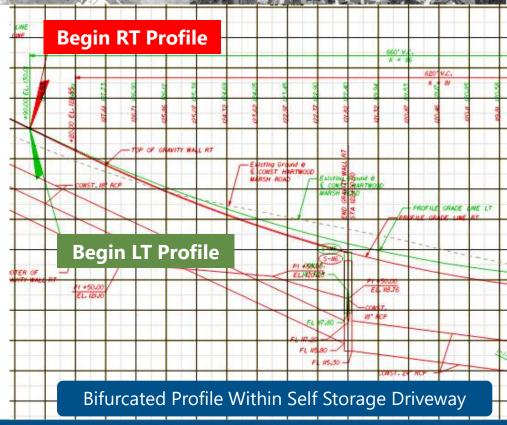
> EB lane cross slope- "varies"

BEGIN PROJECT

> Review need for bifurcation

> Provide grading at median opening





END PROJECT



DESIGN ENHANCEMENTS

Hancock Road Intersection

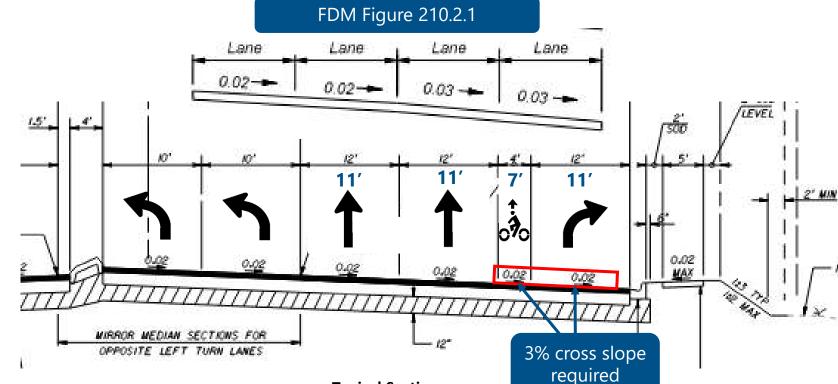
Cross Slopes

- > Five lanes sloped at 2% in EB direction
 - Drainage issue spread

BEGIN PROJECT

E . Marine

- In consistent with FDM 210.2.4
- > Correct to 0.03
- Lane Widths
- Reduce to 11-foot Through and Right-Turn Lane
 Bicycle keybole lane increases
 - > Bicycle keyhole lane increases to 7 feet



Rd

Hartwood Marsh Rd.

END PROJECT



DESIGN ENHANCEMENTS

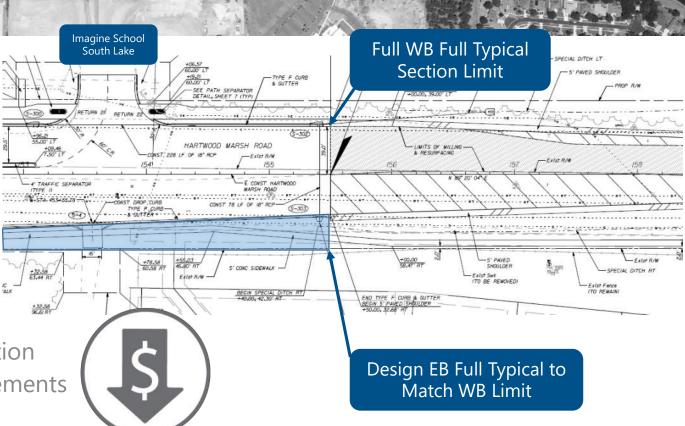
Full Typical Section Limit

- End Project Transition Area
 - > Two to Four Lanes> FDM Exhibit 210-1

BEGIN PROJECT

Extend EB Full Typical Limit

- > Stripe Transition Within This Area> Benefits:
 - Avoid future partial widening/reconstruction
 - Common tie in point for Phase II improvements



Hartwood Marsh Rd

END PROJECT



DRAINAGE DESIGN

Investigate Effects of Pond Changes

- Review Applicable Criteria
 - > Ocklawaha River hydrologic basin
 - 10-year 24-hour
 - 25-year 24-hour
 - > Closed basin criteria
 - 25-year 96-hour
 - > Lake County Stormwater Management
 - 25-year 24-hour
 - > City of Clermont Land Development Code
 - 50-year 24-hour
- Maintain Existing Drainage Patterns
 - > Verify three existing basins identified in previous plans





DRAINAGE DESIGN

Hydraulic and Hydrologic Modeling

- Verify Supporting Pond Calculations
- > Hartwood Marsh residential
- > Hartwood Marsh Road
- > First Baptist Church of Clermont
- Verify Storm Sewer Layout and Design
 - > Examine how our recommended design changes will affect the layout
 - > Verify Tailwater Conditions
 - > Examine Spread Concerns





ENVIRONMENTAL

Wetlands/Surface Waters

- No Wetlands in Project Area
- Upland Cut Ditches (OSWs)
- Non-jurisdictional to USACE
- FDEP 404 Program Jurisdiction

Protected Species (Wildlife and Plants)

- State Species
 - > Gopher Tortoise
 - Conduct survey to verify no permit required
- Federal Species Consultation Area
 - > Sand Skink Mapped suitable soils
 - USFWS coordination regarding Skink Coverboard Survey requirement
 - Eliminate areas along Hartwood Marsh Rd. where soils have been altered
 - > Florida Scrub-Jay No suitable habitat
 - > Everglade Snail Kite No suitable habitat

Anticipated Permits

- SJRWMD ERP Permit
 - > Hartwood Marsh Residential (Permit No. 158467-1) includes pond for a portion of Hartwood Marsh Rd.
 - > Proposed pond site on First Baptist Church of Clermont property
- FDEP 404 Program No Permit Required
- FDEP NPDES Construction Generic Permit











SAFETY / TRAFFIC DESIGN

Crash Data Analysis

- Five Year Crash Data 31 total crashes
 - > 18 rear-end, 8 angle, 3 nighttime, and 3 injury crashes
 - > 55% of all crashes at Hancock Road intersection

S&PM

- Midblock Crosswalk at the Imagine School
 - > Push button activated RRFBs
 - > Stop bar and advanced warning signs

Signalization/ITS

- KCA Eliminated the Need to Reconstruct US 27 Signalization
- Signal Reconstruction at Hancock Road and Fire Station Emergency Signal
 Introduce advanced warning signs to alert drivers before Hancock Road signal
- Lake County TSM&O Plan
 - > Countywide plan for TMC system improvements
 - New CCTV camera at Hancock Road signal. US 27 intersection has an existing one
 - Relocation of impacted fiber optic lines and maintaining connectivity during construction

Lighting

- Intersection Lighting
 - > No existing lighting
 - > Recommend adding LED lighting at signalized intersections
- Pedestrian Lighting
 - > Proposed lighting at Imagine School midblock crosswalk
 - Satisfies vertical illumination criteria for pedestrians









TRAFFIC PLANNING

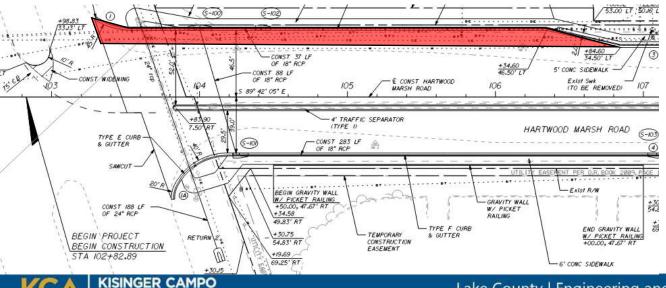
South Hancock Extension Plan

- Final phase of construction has yet to be completed
 - > Hancock Road signal reconstruction will accommodate future project

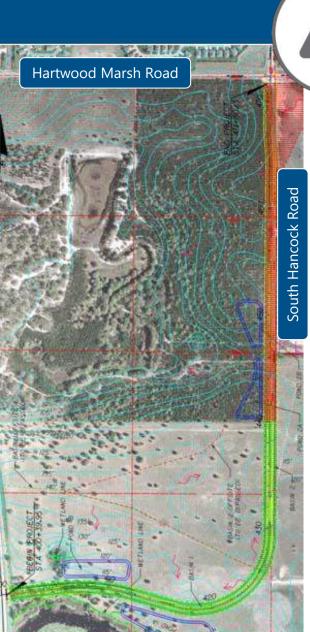
2004 PD&E Study

SSOCI

- 2010 roadway alignment completed using traffic projections from the study
 - > Dual WB right-turn lane onto US 27 shown in Phase I plans
 - New Circle K gas station on NE corner
 - Providing a single right turn will
 - Eliminate R/W needs
 - $\,\circ\,$ Existing signal poles can remain, and full signal reconstruction is avoided
 - $\,\circ\,\,$ Eliminate the need for FDOT access permit







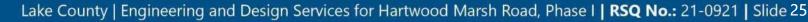


Utility Agency	Utility Type
Bright House Networks dba Charter/Spectrum	CATV, Fiber, Telephone
CenturyLink	Fiber, Telephone
CenturyLink fka L3	Fiber
City of Clermont (2)	Fiber, Water, Sewer
Lake Apopka Natural Gas	Natural Gas
Opticaltel	CATV
Summit Broadband	Fiber, Telephone
Sumter Electric Cooperative	Electric
Utilities Inc. of Florida	Water
Verizon	Communication Lines, Fiber
ZayoGroup fka Lightwave	Fiber



Process Overview

- Contact Utilities at Phase Submittals
- Review Marked-up (RGB) Plans
- Update Utility Info in Plans
- Identify Potential Conflicts
- Create Utility Conflict Matrix
- Hold Utility Conference at 60%
- Use SUE to Confirm/Resolve Conflicts
- Review Relocation Schedules
- Execute Legal Agreements As Needed
- Complete Constructability Review of MOT Phasing For All Relocations
- Certify Utility Efforts Complete
- Provide County with Complete Certification Package







- Hartwood Pines
- King's Ridge Shopping MallRoyal Oaks Plaza

A

First Baptist Church of Clermont

Imagine South Lake Charter School
Windy Hill Middle School
Lake County Schools

- Transportation
- School Board







Lake County, FL









PUBLIC INVOLVEMENT APPROACH

Conventional Engagement

Collateral

- Informative
- Educational

Plain Language

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Mailers

Public Meetings | Workshops Community Listening Sessions One on One Stakeholder Meetings (Grassroots)

Modern Engagement

- QR Codes
- Surveys | Digital
- Social Media Platforms | Websites
 - > Lake County

 (\mathbf{x})

- > Local Partners
- Community Walking Tours
- Virtual Public Meetings
- Small Group Virtual Meetings

INNOVATIVE SERVICES

- Rendering and visualization capabilities for public involvement activities
- In-house drone for aerial photography, traffic counts, and construction documentation
- In-house Highway Traffic Noise analysis for sound walls
- In-house CEI staff to perform constructability/biddability reviews

Drone Imagery of US 27 Intersection at Hartwood Marsh Road Looking West



Intersection Rendering





MANAGEMENT APPROACH

Provide Lake County with Highly Experienced Team

Experienced PM

- > Mr. Rossitto has 32 years of Transportation Design and PM Experience
- > Primary point of contact for County's PM
- Experienced Designers and Engineers
- Same KCA staff from CR 437 Realignment project
- Provide a Team That Can
 - Get It Done On Time
 - High availability of staff
 - PM has 70% availability
 - Subconsultants picked for their ability to do the work on schedule
- Use Solid QC Practices to Provide a Quality Product





MANAGEMENT APPROACH

Open Communications

- Direct Line of Communication with County's PM
- Bi-weekly Internal Team Meetings
- Regular Update Meetings with County PM

Monthly Progress Reports

Schedule Updates

- > Completed milestones
- > Upcoming milestones

Project Tracking

- > Percentage complete
- > Ongoing or new concerns
- > Utility contacts, work schedules, clearances, etc.
- > Status of permits
- >Agency coordination





Bi-Weekly Internal Meetings





SCHEDULE

- After Selection, KCA and County to Hold a Scope of Services Review Meeting
 - Used to refine the scope before staff hours/fee is developed
- After Negotiations, Board Approval and Issuance of Purchase Order:
 - Begin data gathering survey, environmental, utilities, etc.
 - Begin plans development

KISINGER CAMPO

- Proceed with 30%, 60%, 90%, and 100% design submittals and reviews
- Engineering estimates provided at 60% and 100%
- 18 months from NTP to 100% plans and permits





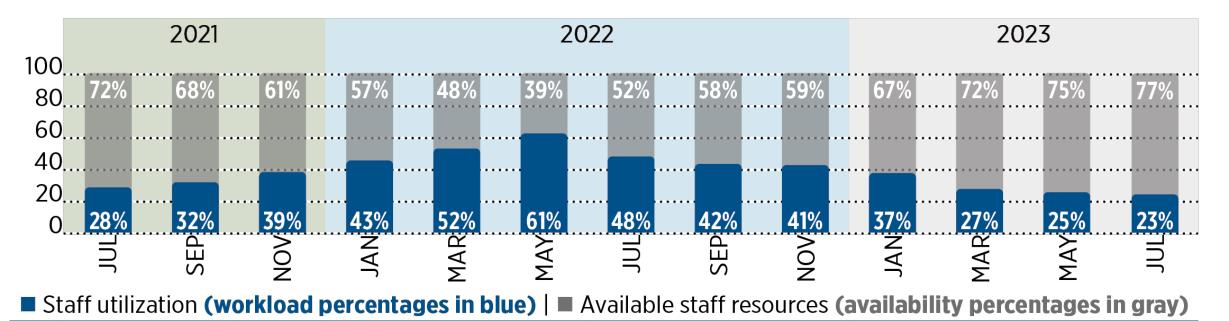
AVAILABILITY/WORKLOAD

Mr. Rossitto's Primary Project Management Assignment

KCA Staff Available to Begin Work Immediately

- 15 Orlando Employees
- 298 Employees Firmwide
- 72 Professional Engineers

The KCA team takes great pride in our history of providing quality, timely services for our clients. We strive toward developing improvements for project delivery and cost savings for our clients, and we are confident we have the available, dedicated staff to meet Lake County's needs.



Overall staff availability (next 2 years)





- Submit QC Plan within 20 days of NTP
- QC begins at onset and continues throughout a task

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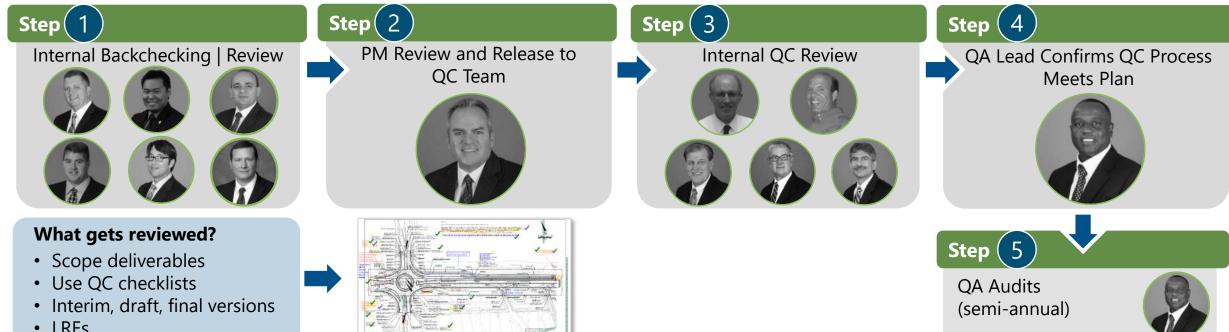
SOCIAT

Richard Harrison, PE

- KCA will review QC plan and deliverables
- Perform QA on all submittals
- Keep copies of QC'd documents

Process

- Peer reviews
- Five-step process official QC process
- QC tracking and management
- Final assurance and certification
- Consistent with FDOT QC template



• LREs



KEY BENEFITS OF THE KCA TEAM?

Trained Technical Staff with Extensive Expertise

Highly Available PM and Design Team

Similar Experience and History of Collaboration

Thorough Understanding of Project Issues

Lake County Experience from CR 437 Realignment

Solid Management/Public Engagement Plan



