



T I E R R A

GEOTECHNICAL • MATERIALS
ENVIRONMENTAL • ENGINEERING



LAKE COUNTY
FLORIDA

Construction Engineering & Inspection (CEI) Services,
For CR 452 Safety Improvements Project

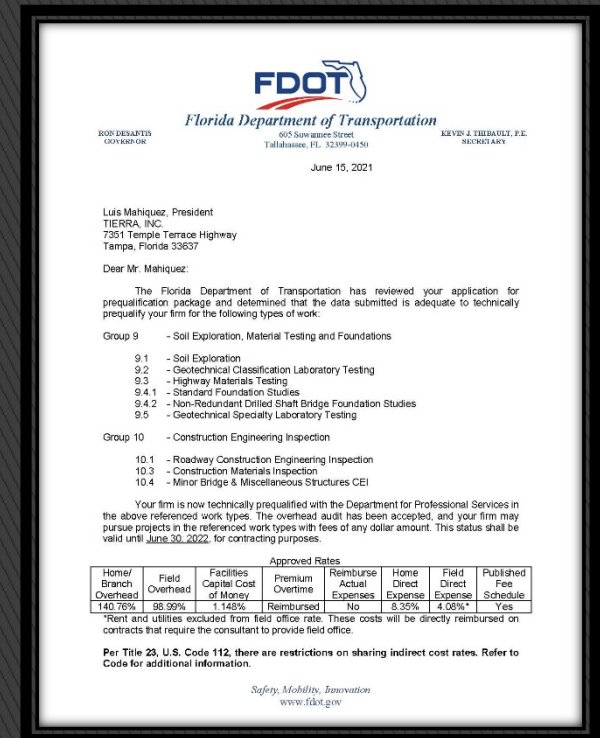
Professional qualifications necessary for satisfactory performance.

Key Members

- Jeffrey Begovich, P.E.: 30 years experience
Project Manager/Senior Engineer: 15 years experience with working with Lake County
- Robert Rudd, P.E.: Over 30 years experience
Project Engineer/Administrator: 15 years experience with working with Lake County
- Julia Eraso: 17 Years experience
Contract Compliance Officer: 10 years experience with working with Lake County

Senior Engineering Technicians/Inspectors

- Marc Ciolino – 20+ years experience (Lake County resident)
- Mike Garten – 20+ years experience (Lake County resident)
- Norman Curran – 20+ years experience (Polk County resident)
- Chris Anderson – 8 years experience (Lake County resident)
- 40 Support Technicians (11 Lake County residents)



Knowledge of Standards/Procedures

- Successfully completed more than 60 LAP projects in the last 10 years
- Successfully completed more than 20 LAP/ARRA project for Lake County

- All we do is CEI for Local Agencies
 - Lake County
 - Volusia County
 - Seminole County
 - Flagler County
 - City of Deltona
 - City of Longwood
 - City of Maitland
 - Citrus County

- 15 Years working the Lake County
 - Projects with various funding sources
 - Projects with various staff levels
 - Projects with various scopes



Specialized experience and technical competence in the type of work required.

Specialized Experience & Technical Competence

➤ Comparable Project By Key Members

- CR 450 Paved Shoulders – Lake County - LAP
- Doyle Road Paved Shoulders - Volusia County – LAP
- Stagecoach Trail – Citrus County – LAP/ARRA
- CR 48 – Lake County - LAP



Capacity to Accomplish the Work

- There are no changes to our proposed staff.
 - Mr. Robert Rudd, P.E.
 - Mr. Jeffrey Begovich, P.E.
 - Mrs. Julia Eraso
 - Selected Inspectors

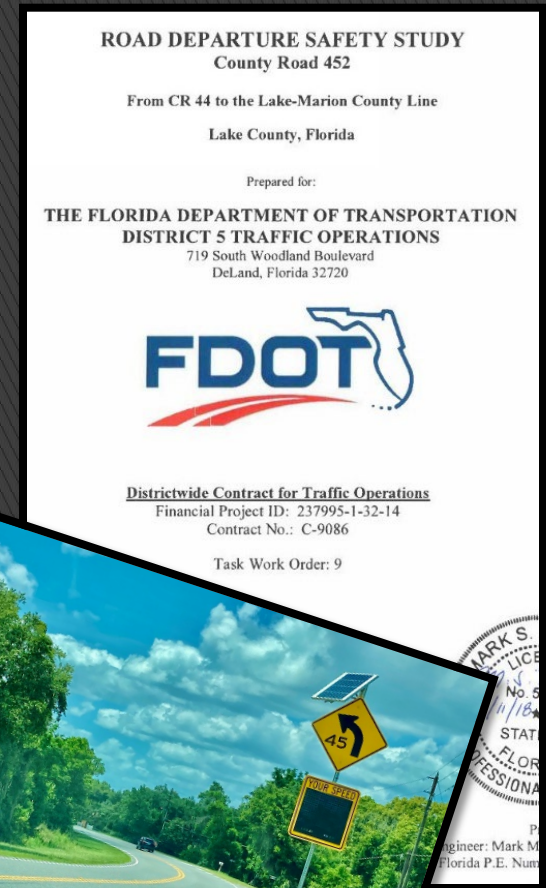
- Tierra only pursues work that staff is available for.

- Anticipate February start date, however available to start immediately with funding design issues.



Understanding of the Project

- Tierra has spent a significant time reviewing the available documents and performing multiple site visits.
- General Information
 - Project based off the FDOT Traffic Operations Road Departure Safety Study (April 2018) includes:
 - Shoulder widening (5' paved 3' stabilized) at curves (8)
 - Pavement safety edge
 - CR 452/CR 44 intersection improvements
 - Goose Prairie Road intersection left turn lane
 - Felkin Road intersection improvements – realignment
 - LAP funded project



Potential Issues

- Project Cost
 - Engineer Estimate \$1.74 million (attachment sheet 1)
 - Tierra Estimate \$2.78 million (attachment sheet 2)
- Shoulder widening locations
 - Safety shoulders do not match FDOT Safety Report (attachment sheets 3-11)
- New pavement
 - Safety shoulders 2 1/2" SP 9.5, 1" FC 9.5 recommend SP 12.5 for structural coarse: ideal – 1 1/2" FC 12.5 only (plan sheet 5 (sheet 12))
- Goose Prairie Road
 - Milling and resurfacing 1" FC 9.5
 - Widening & shoulders 2 1/2" SP 9.5 1" FC 9.5
 - Recommend: various options depending on milling depth
- Existing pavement condition
 - Wheel path pavement failure (sheet 13)
 - Railroad crossing pavement markings (2018 detail) (sheet 14)
 - Stabilized shoulders – mail delivery (sheet 15) drop-offs throughout
- Contract Language
 - Normal weather days, plus hurricane days, plus holidays, plus special events



Comparable Projects

- Lake County, CR-450 Paved Shoulders from Marlon County Line to Lake Yale Road (LAP) (3.91 miles, Lanes 11' to 12' Lanes and 4' Safety Shoulders with Safety Edge, \$2,500,051.38);
- Citrus County, CR480 (Stagecoach Trail) from CR491 (Lecanto Hwy) to CR581 (Pleasant Grove) Widening and Resurfacing (LAP, Direct FHWA Oversight Project) (5.56 miles, 9' Lanes to 11' Lanes, \$1,090,138.00);
- Volusia County, Doyle Road Widening and Paved Shoulders (LAP) (2.40 miles, 10' Lanes to 12' Lanes and 3.5' Safety Shoulders, \$2,450,000.00);

Approach to the Project

- Project constructed on time, within budget, safely and in strict accordance with the project documents;
- Influence the construction process so that the best possible results are obtained for Lake County;
- Provide Project Administration, Project Engineering, RCS services and Materials Inspection services required to insure full FHWA / FDOT project funding. Daily Inspection services can also be provided depending on Lake County requirements; Adapt to County's needs.
- CEI service process to accommodate funding constraints as much as possible. Resident Engineer, Project Administrator, Project Administration Assistant and RCS all would be part-time or as-needed on the project. Our Project Inspectors would change to match the type of work being performed. All Project Inspectors are also CTQP certified so only have one person on-site to cover both inspection and testing duties. Extremely flexible process provides cost effective CEI service without jeopardizing to Lake County.
- LAP related services: Monthly QAR reviews; Plan Revision and Change Order Concurrence; EEO reviews and documentation; Bulletin Board reviews and documentation; Davis-Bacon wage reviews and documentation; Employee interviews and documentation; OJT reviews, documentation and certifications; CUF's and DBE reviews and documentation; Project Closeout Documentation; and LAPIT data upload;
- New changer order forms (sheet 16)

Tierra Advantages

- Have demonstrated our commitment to Lake County
- One company – no subconsultants
- Significant LAP/County experience
- Ability to adapt
- Cost effective CEI services without jeopardizing quality

