

CTG specializes in travel demand modeling, transit and traffic forecasting, traffic engineering, travel market analysis, data-driven modeling techniques, New Starts Analysis, public transportation operations and implementation planning, long-range systems plans, and multimodal corridor projects.

CTG's traffic service group has extensive experience in traffic studies, safety studies, traffic forecasting and operational analysis with Florida DOT, North Carolina DOT, Virginia DOT and FHWA. With our strong data analytics capabilities, we can use mobile tracking data and real-time traffic data to identify traffic patterns and congestion conditions if reliable static traffic counts are unavailable. Our in-house travel demand modeling group can address more substantial issues, like truck volumes and traffic flow shift, when necessary. We have multiple servers that can run sophisticated travel demand models and efficiently process travel/speed data with billions of observation records. We own all the major traffic software licenses, including HCS, Synchro, SIDRA, TransModeler, and VISSIM, plus all of the major travel demand software.

TRAFFIC SERVICE AREAS

Traffic Operations & Signal Retiming

- Intersection Analyses
- Arterial Operation Analysis
- Freeway Merge/Diverge & Weaving Analysis
- Signal Retiming Prioritization
- Signal Timing Optimization

Safety Reviews

- Crash Analysis
- Resurfacing, Rehabilitation & Restoration (3R) Safety Review
- Fatal Crash Review
- Benefit/Cost Analysis
- HSM Analysis

Traffic Forecasting & Simulation

- Project Level Traffic Forecasting
- Forecasting Reviews
- Microscopic/Mesosopic/Macroscopic Simulation
- Performance Measures
- Freight Studies

Traffic Impact Studies & Interchange Access Request

- ITE Trip Generation
- Trip Distribution (Modeling)
- Traffic Impact Analysis
- Impact Mitigation
- IJR/IMR/IOAR Reports

Connetics Transportation Group, Inc. (CTG) is a small-sized consulting firm headquartered in Atlanta, with offices in South Florida, Orlando, Raleigh, Los Angeles, Chicago, and suburban Washington DC. CTG is certified as a Disadvantaged Business Enterprise (DBE) in 35 states and the District of Columbia, Small Business by FDOT, and County Business Enterprise (CBE) by Broward County.

For more information, please contact:

Hui Zhao, P.E.
Traffic Service Group Leader
Connetics Transportation Group, Inc.
3111 N University Dr, Suite 405
Coral Springs, Florida 33065



Office (754) 812-7246 • Cell (954) 599-6607 • hzhao@ctgconsult.com • www.ctgconsult.com



TRAFFIC SERVICE CAPABILITIES



Connetics Transportation Group, Inc. (CTG) provides data-driven, community-inspired, and implementable mobility solutions.

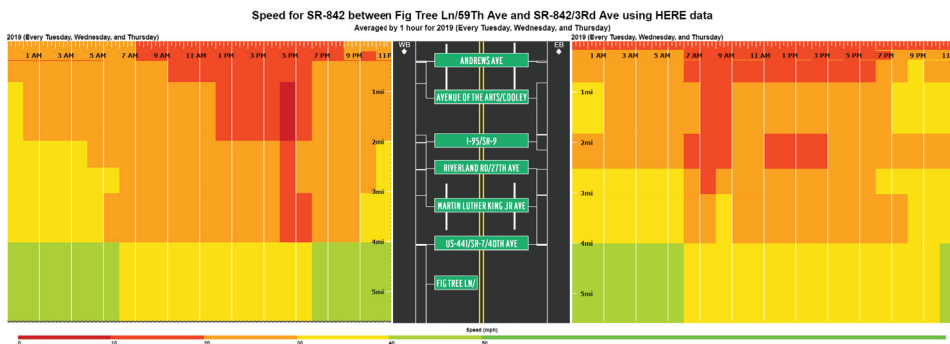
ctgconsult.com

RELEVANT PROJECTS

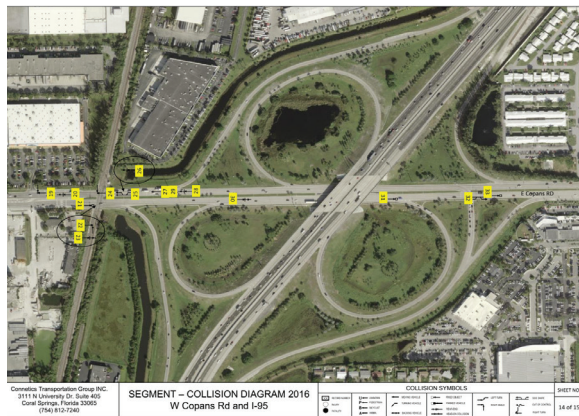


- FDOT District 4**
Districtwide Signal Retiming
- Corridor Prioritization
 - Speed Data Analytics
 - Operational Analysis
 - Timing Plan Development.

Traffic Signal – SR-7 @ Commercial Blvd, Broward County



CTG developed a program to transform billions of probe speed observations into useful metrics for signal retiming prioritization and corridor speed evaluation. This speed heat map could be used to visualize the congestion and bottlenecks along the corridor.

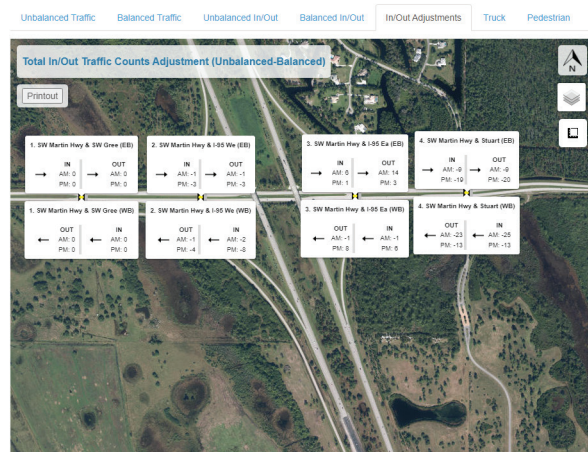


- FDOT District 4**
Copans Road Railroad Crossing Feasibility Study & Safety Review
- Traffic Forecasting
 - Safety Review

At left: Collision Diagram – I-95 @ Copans Road, Broward County

FDOT D4 TMC Balancing and Visualization

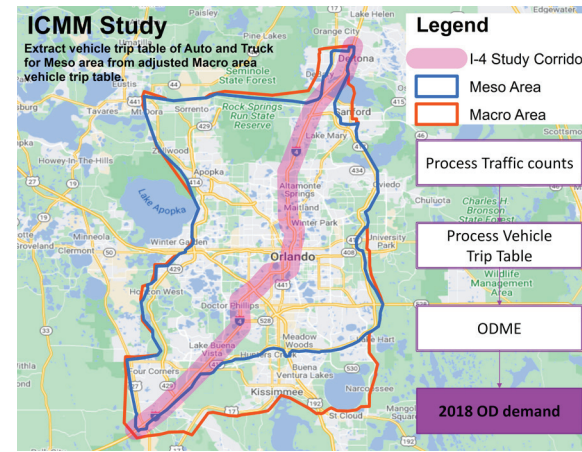
Demonstration Prepared by CTG



- FDOT District 4**
I-95 Treasure Coast Multimodal Master Plan
- Travel Demand Modeling
 - Traffic Forecasting.

CTG utilized in-house modeling practice for scenario planning to help make informed decisions on build scenarios efficiently by comparing the impacts of study area in terms of VMT, VHT, congested speed, and LOS.

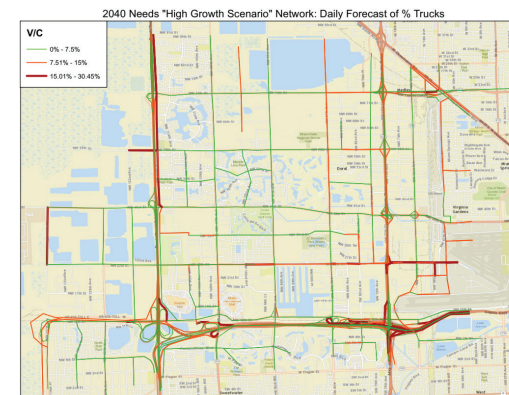
At left: TMC Balancing and Visualization Tool that automates the count balancing process and visualizes the unbalance and balanced counts



FDOT District 5
I-4 Integrated Corridor Management System Model Development

- Developed macro-model OD Traffic and Truck Flows
- Reviewed Traffic Counts on Limited-Access Facilities.

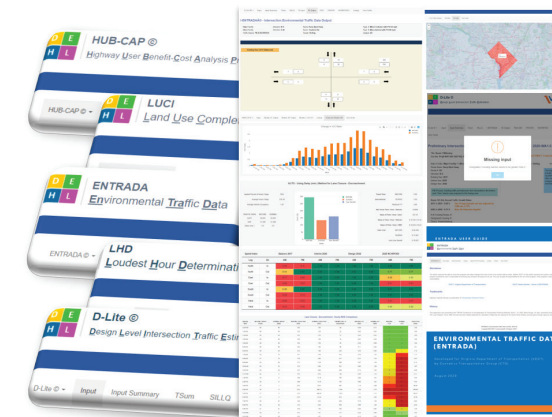
At left: ICMM Model Area and OD Traffic Development Process



FDOT District 6
Doral Freight Improvement Plan

- Travel Demand Modeling
- Subarea Validation
- Traffic Forecasting

At left: Estimate Truck Percentage



VDOT
Planning Web-Applications Development

- Traffic Impact Analysis
- B/C Analysis
- Turning Movement Forecasting Analysis

At left: Web App Interface

CTG's traffic service group has two senior staff, both of whom have worked on dozens of traffic projects over the last decade. For projects with scenarios, we have a robust, in-house modeling practice that can make the necessary adjustments to improve the traffic analysis. We also have an automated documentation program that can be customized to almost any document and formatting requirements the client may have, including graphics, figures and tables.



Hui Zhao, P.E. - Florida - Mr. Zhao has over 15 years of professional experience in traffic engineering and transportation planning for both public and private sectors. He has proven success in project management, traffic engineering studies, signal timing, traffic operational analysis, safety studies, traffic forecasting, travel demand modeling, corridor planning, interchange access request, and GIS support. He worked as the primary reviewer for FDOT D4 design traffic and traffic forecasting.



Li Jin, P.E. - North Carolina - Mr. Jin has over 13 years of extensive professional experience in transportation planning and engineering studies. He has contributed to various projects, including design traffic analyses, performance measures, growth management, modeling, traffic simulation, IJR/IMR studies, corridor studies, traffic impact studies, safety assessment, and signal performance measures. He has worked on over 50 traffic analysis projects for clients in Florida, North Carolina, and other states.