

PROPOSED SOLUTION

On-Call Approach

The TJKM Team provides the County with the full range of traffic engineering and transportation planning capabilities necessary to address the many and varied requirements of this contract. Our approach to providing the required services is focused on adequately responding to the following key points:

Ensure a Staffing Capacity With the Necessary Range of Expertise and Experience. TJKM is a leader in providing services in the fields of traffic engineering, transportation planning, operational analysis and intelligent transportation systems. The experience offered by TJKM includes numerous examples of traffic engineering relevant to this contract. Our proposed team has demonstrated the ability to successfully manage both large and small projects and resolve issues through a proactive management process.

Provide Experienced Project Manager and Task Leaders. The TJKM Project Team is comprised of highly qualified individuals with extensive project management experience. Nayan Amin, TE has over 20 years of comprehensive transportation planning and engineering, traffic engineering, traffic operations and ITS experience and will serve as overall TJKM Principal-in-Charge. Roger Henderson, PE (FL), AICP will serve as Contract Manager, providing a single point of contact for the County. Our proposed team also includes task leaders with extensive experience in their field of expertise. Our proposed team has successfully delivered projects on time and within budget.

Understand County's Policies and Standards. Our local presence and ongoing involvement in the region's transportation and engineering projects, combined with our extensive national experience in conducting traffic studies and design work, gives the TJKM Team the knowledge and in-depth experience to efficiently complete task assignments. Our team members are very familiar with the County's Policies and Standards.

Ensure Responsiveness to both County Needs and Project Issues. With our available resources, TJKM can provide the level of responsiveness needed by the County. Our staff is adept in meeting client needs and being very responsive. The TJKM Team will develop an individualized approach to each assignment, specifically designed to the unique project issues and requirements. This, combined with an active project management and team-oriented approach, will ensure the delivery of timely, high-quality assignments.

Ensure Availability and Interest in the Projects. TJKM has dedicated traffic engineers who will be available to meet the County needs in being responsive and providing timely quality products. Our staff is adept at taking ownership in the projects they work on. This positive attitude provides a very high level of interest and assures the County a quality work product.



A Sound Approach. The TJKM project management approach has been consistently demonstrated to be effective through the success of past and current projects to be an effective manner in which to conduct on-call service contracts. Our approach to project management is characterized by three basic responsibilities:

- Ensure that each project assignment is completed on time;
- Ensure that the assignment is completed within budget; and
- Ensure that the assignment is completed with a high degree of quality and innovation.

On-Call Services

As a full-service, multi-disciplinary organization, the TJKM Team offers expertise in the following areas:

- Transportation Engineering Design:
 - Traffic Signals Design
 - Roadway Improvement Design
 - Development & Site Plan Review
 - Construction Support Services
 - Design Criteria, Schematic Design, & Alternatives
 - Project Phasing, Scheduling, & Estimating
 - Topographic Surveys
 - Government Agency Review & Coordination
 - PS&E Preparation
 - Intelligent Transportation Systems
 - Incident Management System
 - Communication Systems
- Traffic Operations:
 - Corridor Studies
 - Traffic Studies & Analysis
 - Traffic Simulation
 - Transit Priority & Bus Rapid Transit
 - Feasibility Studies
 - Noise Analysis
 - Traffic Surveys
 - Warrant Analysis
 - Traffic Signal Timing & Coordination
 - Adaptive Traffic Signal System
- Transportation Planning:
 - Transportation Impact Analysis
 - On-Street & Off-Street Parking
 - Neighborhood Traffic Calming Program
 - Parking Studies
 - Multimodal Studies
 - Environmental Impact Studies
 - Pedestrian & Bicycle Access & Safety
 - Traffic Impact Fee Program
 - Multimodal Impact Fee Program
- Safety Studies:
 - Systemic Safety Analysis
 - Local Road Safety Plan
 - Engineering & Traffic Studies
- Travel Demand Modeling:
 - Travel Demand Forecasting for all Modes
 - Transit Modeling & Simulation
 - Data Analytics
- Additional Consulting Services:
 - Staff Augmentation
 - Programming & Grant Application
 - Educational Material
 - Public & Staff Meeting Facilitation
 - Outreach
 - Peer Review
 - Civil Engineering Design

Expertise

Traffic Engineering Design

TJKM provides design services for traffic signal improvements, traffic signal interconnect communication systems, complete streets, bicycle facilities, signing and striping, and traffic handling plans. TJKM has designed more than 4,000 traffic signals in nearly 200 jurisdictions. Our design staff are very experienced in preparing plans for new and modified traffic signal systems, and pavement delineation to improve capacity and safety. TJKM'S design staff has field and hands-on experience for constructible designs, with an extensive track record of successful design projects, and our team is dedicated to providing high quality and accurate plans. Many of our traffic signal design projects require design for interconnect and coordination that include fiber optic, copper wire, and wireless communications. TJKM's staff routinely provides construction assistance for our design projects, including traffic calming devices and traffic signal systems. We attend pre-bid and pre-construction conferences to provide in-field assistance and work effectively with contractors. TJKM also designs traffic/construction zone control plans that show how traffic will be handled during construction periods.

Our multimodal planning and design studies focus on transportation facility design, and also traffic operations analysis. Multimodal design alternatives are typically prepared and reviewed with County staff and community members in public forums.

General Transportation & Planning

TJKM regularly assists public agencies with traffic engineering and planning tasks for municipal projects. Our range of services includes transportation circulation elements; transportation master plans that include public transportation, bicycle, and pedestrian improvements; and peer reviews of existing planning studies and documents. Many citywide planning projects, such as traffic impact fee studies and citywide circulation studies have been a regular service we provide.

Traffic Operations

In order to address operating conditions on arterials that perform either undesirably or inefficiently, TJKM often performs operational studies to develop measures that will improve traffic flow. Generally, these traffic operations are evaluated through a level of service (LOS) process. Public agencies set thresholds for acceptable traffic conditions and if the actual or predicted conditions are lower, measures must be taken to bring them within the agency's guidelines. TJKM's services include data collection. Many of our engineers and technicians collect field data, including turning movement and volume counts. Data collected then is input into a program, such as TRAFFIX, Synchro, or SimTraffic, and analyzed to determine if the amount of traffic within the study area is acceptable to that governing agency's standards. By observing traffic conditions personally, an engineer or project manager can then determine some of the more effective strategies that will actually work to improve operations rather than just sound good on paper. LOS analysis is a common type of study for TJKM, and we can perform analysis of a single intersection or an entire region/study area. TJKM's studies have evaluated



operations for a variety of land uses including infrastructure improvements, residential communities, regional shopping centers, industrial developments, public/private learning institutions, and more.

Complete Streets | Bicycle & Pedestrian

At TJKM, we look at each community's unique needs to design safe and efficient transportation alternatives that meet the needs of all users. The goal being to integrate all modes to achieve safer and more accessible communities. Our designated Project Manager, Roger Henderson, is a national expert in complete streets and multimodal studies, having facilitated more than 60 workshops with municipal government staff in 26 states since 2008.

TJKM has prepared preliminary designs and traffic operations studies for transportation projects that enhance the accessibility and safe accommodation of bicycle, pedestrian, and public transportation modes on roadways. These projects are consistent with the objectives of Complete Streets, which the National Complete Streets Coalition defines as facilities that "are designed and operated to enable safe access for all users."

Pedestrian & Bicycle Access & Safety Studies

TJKM has completed studies for Bicycle and Pedestrian Access and Safety studies. Our team members have developed bicycle and pedestrian safety programs for more than 30 local jurisdictions.

The TJKM Team has all the requisite technical experience that is required to complete any project successfully. Our team members have extensive knowledge and experience of traffic signal coordination, implementation and fine-tuning, traffic studies, intersection levels of service, freeway, and arterial operational studies, plans for signals and as-built plans, neighborhood and circulation plan studies, data collection, traffic handling plans, pedestrian and bicycle studies, traffic safety analysis, operational analysis and signing and striping. Our proposed team members have provided on-call traffic engineering services to numerous jurisdictions since 1974.

Through our extensive experience, our project team understands how to prepare scopes, budgets and schedules to translate County requirements into successful projects. Our team members have worked extensively with FDOT, local municipalities and agencies, counties, and private developers. Our staff members have worked on numerous projects requiring coordination between different agencies across jurisdictional boundaries.

Our proposed team members are fully conversant with applicable federal, state, and local roadway design standards, and engineering units of measurement. Our designers are also fully conversant with roadway improvement drafting standards, and extensive experience preparing plans.

Modeling

TJKM provides expert consultation for the review, development, implementation, application and calibration of transportation planning modeling systems. From data requirement specification to

system modeling and system implementation, TJKM's modeling department has the capabilities to complete projects of varying complexities successfully.

- Develop customized travel demand forecasting models for agencies of various sizes from cities, counties, MPOs to states.
- Develop extensive tools to improve reporting capabilities from the model, capture different model run outputs efficiently, and inform the analyst of anomalous model outputs and inputs.
- Develop special tools to integrate intersection Level of Service (LOS) analysis software with models.
- Forecast O-D based and/or link-based vehicle-miles traveled (VMT) and calculate greenhouse gas (GHG) emissions related to transportation and land use development projects.
- Perform sub-area analysis using Origin-Destination Matrix Estimation (ODME) demand adjustment and estimation process to closely replicate local conditions such as observed roadway segment volumes, intersection turning movement volumes and total trips generated.
- Develop GIS (ArcView, MapInfo) databases and integrate GIS with models.
- Develop traffic count databases.
- Develop traffic speed profiles using GPS technology.
- Analyze existing systems.
- Provide Maintenance of the model.
- Train professionals and students in the use of planning models.
- Coordinate different surveys to be used in modeling procedure.