

Space Coast Transportation Planning Organization
Traffic Management Center Design Phase Technical Scope and Cost Estimates
Work Order 17-01H
Scope of Services

A. INTRODUCTION

The Space Coast Transportation Planning Organization (TPO) adopted its Intelligent Transportation Systems Master Plan in 2015. One of the recommended projects from the master plan was for a new Traffic Management Center (TMC). The primary purpose of the TMC is to maximize the benefits of current and future Intelligent Transportation System (ITS) deployments to the traveling public and the agency stakeholders in the region. This shared use facility will accommodate the needs of maintaining, planning, and emergency response agencies within Brevard County.

This scope of services and attached fee estimate identify the work to be performed by HNTB Corporation, herein referred to as the “CONSULTANT,” in support of developing a technical scope and cost estimates for the design phase of a traffic management center. The design phase will include all required documentation to satisfy Federal Highway Administration’s (FHWA) Systems Engineering approach for ITS projects.

Section B describes the work tasks to be performed as part of developing the technical scope and cost estimates for final design phase and construction of a traffic management center for Brevard County.

B. TECHNICAL WORK TASKS

Task 1. Data Collection

The CONSULTANT shall coordinate with the TPO and stakeholder agencies to collect all data necessary for development of the technical design scope and design and construction cost estimates. Data elements will include, but not be limited to, the following items:

- Number of traffic signals and ITS devices with existing communications,
- Breakdown of traffic signals and ITS devices by maintaining agency,
- Regional ITS Architecture,

- Extent of existing and planned communications network (including fiber, wireless, and copper twisted pair),
- Number of emergency response providers and limits of jurisdiction,
- Inventory of systems currently in use, or planned, such as BlueToad, ATMS.now, SynchroGreen, MIMS, SunGuide, FL511, Transit Automatic Vehicle Location (AVL) systems, Transit Signal Priority (TSP), etc.

This data will be discussed and requested at a project kick-off meeting to be held with the TPO and stakeholders. The list of stakeholders will be developed by the CONSULTANT and reviewed and approved by the TPO. Data will be organized and distributed to firms seeking to provide final design services for the TMC during the procurement process.

Task 2. Preliminary Site Plan and Floorplan

The CONSULTANT will coordinate with the TPO to develop a preliminary floorplan and site plan for the TMC. The preliminary site plan will identify property boundaries using readily available data such as property appraiser's aerial photographs or Graphic Information Systems (GIS) layers. The preliminary site plan will include the building pad, parking layout, driveway locations, and estimated stormwater treatment area(s). Applicable land development code criteria will be applied.

A preliminary floor plan will be developed in coordination with the TPO. The preliminary floor plan will include exterior walls, interior walls, doorways, hallways, and windows for up to three floors. It is assumed that the TMC will occupy one entire floor. The CONSULTANT will engage our architectural designers to assist with this task.

Task 3. TMC Needs

The TMC needs will be established based on the functional needs for the center. The functional needs will be determined using data collected in Task 1. For example, the number of operators/personnel by shift will be established based on the number of facilities managed. Spaces will be allocated according to the need for interaction. For example, since the City of Melbourne and City of Palm Bay maintain several systems that extend across jurisdictional boundaries, it may make sense to provide proximal operator

workstations. Office spaces in the TMC will be evaluated based on the sensitive nature of job functions and levels of responsibility. Lastly, after space needs are established, video wall layout based on sight lines will be finalized. This task will also include identifying Information Technology (IT) needs such as server space and data storage requirements.

Task 4. Cost Estimates

The CONSULTANT shall prepare preliminary construction and design cost estimates for budgeting purposes. Construction cost estimates will be developed using data from recent TMC construction projects such as the new FDOT District 5 Regional TMC (RTMC) and the FDOT District 2 RTMC. Construction costs will be used to determine design costs using a percentage of construction approach.

Task 5. Preparation of Draft and Final Technical Design Scope

The CONSULTANT will compile the results of each of the technical work tasks into a concise technical design scope. The technical design scope will be used to procure final design services for the TMC. Other standard Request for Proposal (RFP) documents will not be complied by the CONSULTANT unless a supplemental agreement is executed. The draft scope will be submitted electronically in PDF or Microsoft Word format for staff review and comment. The CONSULTANT will respond to all comments and update the draft scope. Upon TPO approval, the CONSULTANT will prepare a final scope and submit two (2) bound full-color copies. Digital copies of the scope (in Adobe PDF format) and all supporting exhibits will be supplied to TPO staff for internal use and distribution on the TPO's web site. The CONSULTANT will also provide all the preliminary plans in Microstation or AutoCad format. The Technical Design Scope will include all documentation necessary to meet FHWA's System's Engineering requirements and FDOT's Local Agency Program (LAP) requirements.

Task 6. Project Management / Team Meetings

The CONSULTANT will keep in continuous contact with TPO staff throughout the project. Progress reports and coordination telephone calls will be provided as needed. The team will attend up to three progress meetings with TPO staff at the TPO's office, including:

- Kick-off meeting; and
- Two progress meetings to discuss project status.

C. SCHEDULE AND BUDGET

The CONSULTANT will prepare and submit a detailed project schedule identifying major tasks, their durations, and tasks relationships. The CONSULTANT is responsible for keeping the schedule up to date. The beginning date of the services shall commence upon receipt of an executed task work order. Any schedule changes necessitated by circumstances outside the CONSULTANT's control will be coordinated with TPO staff.

This work will be completed as a lump sum task order. The project budget for the TMC Technical Design Scope and Cost Estimate is provided in **Attachment A**.

Space Coast Transportation Planning Organization

General Planning Consultant Services

FY 16/17

FINANCIAL PROJECT #: TBD
Work Order # 17-01H

Traffic Management Center Technical Design Scope and Cost Estimate

LTG
PROJECT NUMBER:

Task							Senior Project Engineer/ Planner	Total Staff Hours by Activity	Salary Cost
	RATE						\$150.00		
Task 1 - Data Collection									\$0.00
Task 2 - Preliminary Site Plan and Floorplan									\$0.00
Task 3 - TMC Needs							12.00		\$1,800.00
Task 4 - Cost Estimates									\$0.00
Task 5 - Preparation of Draft and Final Technical Design Scope									\$0.00
Task 6 - Project Management / Team Meetings									\$0.00
	0.0	0.0	0.0	0.0	0.0	0.0	12.0	0.0	

Salary Related Costs **\$1,800.00**

Expenses 0.00% \$0.00

Work Order Total **\$1,800.00**