



# City of Norman, OK

Municipal Building  
Council Chambers  
201 West Gray  
Norman, OK 73069

## Master

**File Number: K-1920-49**

**File ID:** K-1920-49

**Type:** Contract

**Status:** Consent Item

**Version:** 1

**Reference:** Item 29

**In Control:** City Council

**Department:** Public Works  
Department

**Cost:** \$274,022.31

**File Created:** 10/01/2019

**File Name:** Design Services Contract with Stantec Engineering  
Services, Inc for the Traffic Management Center

**Final Action:**

**Title:** CONTRACT K-1920-49: A CONTRACT BY AND BETWEEN THE CITY OF NORMAN, OKLAHOMA, AND STANTEC CONSULTING SERVICES, INC., IN THE AMOUNT OF \$274,022.31 TO PROVIDE PROFESSIONAL ENGINEERING SERVICES FOR THE DESIGN OF A NEW TRAFFIC MANAGEMENT CENTER.

**Notes:** ACTION NEEDED: Motion to approve or reject Contract K-1920-49 WITH Stantec Consulting Services, Inc., in the amount of \$274,022.31; and, if approved, authorize the execution thereof.

ACTION TAKEN: \_\_\_\_\_

**Agenda Date:** 11/12/2019

**Agenda Number:** 29

**Attachments:** Contract K-1920-49, Location Map, Aerial Map,  
Requisition No. 315422, Master

**Project Manager:** Angelo Lombardo, Transportation Engineer

**Entered by:** michelle.rudder@NormanOK.gov

**Effective Date:**

### History of Legislative File

Ver- sion:	Acting Body:	Date:	Action:	Sent To:	Due Date:	Return Date:	Result:
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### Text of Legislative File K-1920-49

Body

**BACKGROUND:** A Traffic Management Center or TMC is a component of a transportation management system that improves traffic flow and incidence response. Many cities throughout the country, including Oklahoma City, Tulsa and Edmond in the state of Oklahoma, have TMC's designed to better manage the flow of traffic on their streets.

TMCs collect information about the transportation network and combine it with other operational and control data to manage the transportation network and to provide traveler information.

TMCs communicate transportation-related information to the media and to the motoring public. It is a place where agencies can coordinate their responses to transportation situations and conditions. The TMC uses closed circuit video equipment, and roadside count stations to enable decision makers to identify and react to an incident in a timely manner based on real time data.

For the last two decades, the City has been working on the development of an Advanced Traffic Management System (ATMS) and communication network of underground fiber optic cable. There are currently ten closed-loop traffic signal coordinated systems and approximately 60 miles of fiber optic cable in the ground connecting 119 of the City's 153 traffic signals. The remaining 34 signals are stand-alone signals and are not part of a coordination system at this time.

The city utilizes video detection systems as its primary means of detection; however, a few intersections do feature in-pavement loop detectors. Where fiber optic cable is available at a given intersection with video detection, the feeds from these cameras are linked to the offices of the Transportation Engineer in the Municipal Complex and the Traffic Control Division Building located in North Base, using the ATMS software. All of the City's school zone flashers utilize cellular modems to provide communications to and from the office through a wireless communication system. The City also maintains a number of driver feedback speed limit signs with and without school zone flashing beacons.

The City of Norman has already laid the foundation for the establishment of a TMC with its robust fiber optic communication network, state of the art traffic signal controllers and modern vehicle video detection systems. The next logical step is to merge these assets into a new TMC with the allocation of needed resources to staff its operation.

On April 2, 2019, Norman citizens approved a \$72 million proposition to fund 19 transportation projects, including \$366,000 earmarked for the design of a TMC that will ultimately be constructed using federal transportation funds.

**DISCUSSION:** The Public Works Department prepared a Request for Proposal (RFP) to solicit the engineering services associated with the design of the TMC co-located within the new Emergency Operations Center (EOC) / Dispatch Center scheduled for construction later this year. The scope of services in the RFP was structured in two phases in order to comply with the federal regulations that allow the use of federal funds for the construction of the TMC.

Phase 1 will include two parts. Part 1 will be the Systems Engineering Analysis required in the federal regulations, and Part 2 will be the staffing evaluation for the City's TMC and the Traffic Control Division. Phase 2 will consist of the Final Design for the TMC.

The systems engineering analysis will include an assessment of the current and future needs of an advanced transportation management system that emphasizes traffic signal system operations. The process will produce a plan that will guide the City of Norman in its efforts to ensure that future Intelligent Transportation System (ITS) deployments complement both the Oklahoma Statewide and the Oklahoma City Area Regional Transportation Study (OCARTS) ITS architectures. Understanding how the Statewide and Regional Architectures may, or may

not, match the City of Norman's ITS plans is an essential step in achieving seamless integration between future ITS deployments. The ITS Implementation Plan will identify all complementary ITS deployments adjacent to the City of Norman with which the City's future ITS deployments may be integrated. It is paramount that these efforts map the City's ITS elements to the Regional ITS Architecture. Without such, this deployment would be ineligible for Federal ITS Earmark funds under 23CFR940 which, as of April 5, 2005, requires all agencies to comply with statewide or regional architectures to qualify for Federal ITS funding.

The second element of Phase 1 is a study to assess the current and future staffing needs for the Traffic Control Division. Since the proposed TMC will become part of the Division, it is appropriate to determine proper funding levels with and without the TMC being a part of the Division. Currently, the Traffic Control Division is responsible for the maintenance of traffic signals, flashing school beacons, flashing intersection beacons, in-pavement lighted crosswalk systems, and some street lighting as well as the locating of the City's fiber optic infrastructure. Additional Division responsibilities include the fabrication, installation, and maintenance of traffic signing within the City of Norman; the installation of pavement markings in the rural areas of Norman; the maintenance and collection of parking meters and pay stations in downtown Norman, around the Cleveland County Courthouse, and in the Campus Corner area; and the collection of traffic and speed data for various traffic studies. Current staffing levels have remained largely constant over the past ten years and need to be re-evaluated.

Phase 2 is the final design for implementation of the TMC. This phase will use the findings of the systems engineering analysis in Phase 1 to develop a scalable, cost effective and sustainable TMC compatible with the State and Regional ITS architectures.

The City is in the final stages of design for the construction of a new Emergency Operations Center (EOC)/Dispatch facility that will have space allocated for the TMC. The final design in the proposed TMC contract will include all of the elements needed to equip the new TMC (e.g., video wall, software, work station(s), servers, etc.) including appropriate interface with the EOC.

Staff received two proposals for the requested service. A Selection Committee was formed of Angelo Lombardo - City Transportation Engineer, David Riesland - City Traffic Engineer, Brian McNabb - Traffic Signal Supervisor, and two citizen-volunteers (former Council Member Dr. James Griffith and retired Norman Police Officer Robert Post). The proposals were reviewed by members of the committee and Stantec Consulting Services, Inc., a regional engineering firm that specializes in the design of Intelligent Transportation Systems, was selected as the best suited firm for the project.

Staff negotiated a \$274,022.31 contract fee with Stantec Consulting Services, Inc. to provide engineering design services (see contract in Attachment No. 1). Funding for the work is budgeted in the FYE 2020 Capital Improvement Plan in Traffic Management Center Study - Design (account Org 50594019, Object 46201; project BP0422).

The systems engineering analysis component of the contract is scheduled to be completed in the summer of 2020. At that point, approval of the process and recommendations will be requested through the Federal Highway Administration to establish funding eligibility.

Construction of the project, contingent on the availability of federal funds, is anticipated in FYE 2024.

**RECOMMENDATION:** Staff recommends approval of Contract K-1920-49 with Stantec Consulting Services, Inc. in the amount of \$274,022.31 for the engineering services associated with the design of a new Traffic Management Center.