



City of Norman, OK

Municipal Building
Council Chambers
201 West Gray
Norman, OK 73069

Master

File Number: K-1516-90

File ID: K-1516-90	Type: Contract	Status: Consent Item
Version: 1	Reference: Item 15	In Control: City Council
Department: Public Works Department	Cost:	File Created: 12/07/2015
File Name: Contract with ODOT for fiber optic upgrade on Main Street	Final Action:	

Title: CONTRACT K-1516-90: A MAINTENANCE AGREEMENT BY AND BETWEEN THE CITY OF NORMAN, OKLAHOMA, AND THE OKLAHOMA DEPARTMENT OF TRANSPORTATION FOR FEDERAL AID PROJECT STPG-214B(041)AG, STATE JOB 31510(04) FOR THE MAIN STREET TRAFFIC SIGNAL INTERCONNECT FIBER OPTIC UPGRADE AND ADOPTION OF RESOLUTION R-1516-67.

Notes: ACTION NEEDED: Motion to approve or reject Contract K-1516-90 with ODOT; and, if approved, adopt Resolution R-1516-67 and authorize the execution of the contract and resolution.

ACTION TAKEN: _____

Agenda Date: 12/22/2015

Agenda Number: 15

Attachments: Location Map, R-1516-90 and R-156-67

Project Manager: Angelo Lombardo, Transportation Engineer

Entered by: cydney.karstens@normanok.gov

Effective Date:

History of Legislative File

Ver- sion:	Acting Body:	Date:	Action:	Sent To:	Due Date:	Return Date:	Result:

Text of Legislative File K-1516-90

Body

BACKGROUND: The 2012 - Moving Ahead for Progress in the 21st Century (MAP-21) federal transportation funding bill allocates approximately \$21 Million in Federal funds per year for the implementation of eligible transportation improvements in the Oklahoma City metropolitan area. Ten percent of this appropriation is used to fund safety projects at 100% of their construction cost. Installation and upgrades of traffic signal interconnect systems are eligible for this level of funding.

The City of Norman began interconnecting its traffic signals in the late 1980's using copper wire in underground conduit and telephone modems for communications. Today, the City has signal interconnect systems along most of its arterial roadways (eleven systems in total). These systems promote the continuous movement of traffic along heavily traveled roadways, minimize overall delay and reduce traffic collision rates (~30% reduction nationally).

While some traffic signals fall into multiple corridors, the eleven interconnect systems in Norman include traffic signals along the following corridors:

- State Highway 9 (Ten Signals)
- Lindsey Street (SH 74A) (Sixteen Signals)
- Main Street (Sixteen Signals)
- Gray Street (Six Signals)
- Robinson Street (Thirteen Signals)
- 12th Avenue East (SH 77H) (Eight Signals)
- 24th Avenue West (Eight Signals)
- Tecumseh Road (Five Signals)
- 36th Avenue West (Five Signals)
- Jenkins Avenue (Eight Signals)
- Classen Boulevard (Five Signals)

In 2009, the Traffic Control Division began the process of upgrading interconnect cables from copper wire to fiber optics and implemented a new advanced traffic management system called *Centracs*. The system provides an integrated platform for traffic signal control, Intelligent Transportation System (ITS) field device monitoring and control, information management, graphical data display, advanced traffic algorithms, and much more. *Centracs* is also flexible, user friendly and cost-effective, and has enabled the City to realize significant mobility benefits. The flexible and scalable *Centracs* design has also provided the City with feature-rich options that best meet our evolving transportation needs. Several projects have been completed to date which has allowed 78 of the City's 147 traffic signals to be operated and managed using the *Centracs* traffic management system using the required fiber optic connectivity.

The City's Information Technology Systems Division has also benefited from the upgrade. The new fiber optic cable along with the extensive underground conduit system installed for the interconnection of traffic signals is also being used to enable high-speed communications and connectivity between satellite locations such as fire stations and related public safety facilities and the City's central computer network and mobile data systems. This collaboration continues and has allowed the City to network many of its remote sites at significant savings.

On November 25, 2014, City Council approved Resolution R-1415-55 which was forwarded to both the Association of Central Oklahoma Governments (ACOG) and the Oklahoma Department of Transportation (ODOT) requesting federal funds to pay for 100% of the construction cost of a project to upgrade the Main Street interconnect system, between 36th Avenue West and 24th Avenue West. The proposed project replaces the existing copper wire with new fiber optic cabling and upgrades several pull boxes along the corridor, which will allow the City to add five traffic signals to the *Centracs* system (Main Street @ 36th Avenue West, Ed Noble Parkway, I-35 SPU, Interstate Drive / 26th Avenue SW and 24th Avenue West). In the resolution the City agrees to the terms and conditions of a federally funded project by stating its willingness to assume the responsibility for the preparation of engineering plans, the purchase of any additional right-of-way, the relocation of public utilities and funding of the local share of the construction cost, which normally is 20% but for this safety project will be 0%. The project was submitted for consideration and is currently included in the Association of Central Oklahoma Governments' (ACOG) 2016 Regional Transportation Improvement Plan (TIP).

Traffic Control Division engineering staff has worked on the development of construction plans. Final plans have been completed and were submitted to ODOT with a request to include the project in their January 21, 2016 bid opening. Construction is anticipated to begin in mid-spring of 2016 and be completed in August of 2016.

The estimated construction cost of \$164,300, which includes construction inspection and administration, will be funded with 100% federal funds as a safety improvement project.

DISCUSSION: The Oklahoma Department of Transportation requires the City to execute a project agreement and to adopt it by resolution before letting the project to contract. The agreement addresses the responsibilities of the City and the Department during and after the construction of the project. The execution of three original

documents is required. Both the resolution and agreement have been reviewed by staff and approved by the City Attorney.

RECOMMENDATION: Staff recommends approval of Contract No. K-1516-90 and Resolution R-1516-67 with ODOT for the Main Street Traffic Signal Interconnect Upgrade project.