



City of Norman, OK

Municipal Building Council
Chambers
201 West Gray Street
Norman, OK 73069

Master

File Number: K-1011-135 AMD #1

File ID: K-1011-135 AMD #1

Type: Contract

Status: Consent Item

Version: 1

Reference: Item No. 20

In Control: City Council

Department: Public Works
Department

Cost: \$52,661.00

File Created: 10/27/2013

File Name: Cedar Lane-Amd #1 to K-1011-135

Final Action:

Title: AMENDMENT NO. ONE TO CONTRACT NO. K-1011-135: BY AND BETWEEN THE CITY OF NORMAN, OKLAHOMA, AND CARDINAL ENGINEERING, INC. INCREASING THE CONTRACT AMOUNT BY \$52,661 FOR A REVISED CONTRACT PRICE OF \$403,291 TO PROVIDE ADDITIONAL DESIGN SERVICES FOR THE CEDAR LANE ROAD WIDENING PROJECT.

Notes: ACTION NEEDED: Motion to approve or reject Amendment No. One to Contract No. K-1011-135 with Cardinal Engineering, Inc. increasing the contract amount by \$52,661 for a revised contract price of \$403,291; and, if approved, authorize the execution thereof.

ACTION TAKEN: _____

Agenda Date: 11/12/2013

Agenda Number: 20

Attachments: Text File Amendment Cedar Lane.pdf,
K-1011-135#1.pdf, K-1011-135.pdf, Location map,
PR Cardinal.pdf

Project Manager: Josh Malwick, Capital Projects Engineer

Entered by: pam.jones@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-1011-135 AMD #1

body

BACKGROUND: The Cedar Lane Road Widening Project is one of the 2012 bond projects that was approved in the August 28, 2012 Bond Election to finance the local share of eight transportation/storm water improvement projects. Please see the attached location map showing the project boundaries.

On February 8, 2011, City Council approved engineering services Contract No. K-1011-135 with Cardinal Engineering, Inc. for the design of the Cedar Lane Road Widening Project for \$350,630 or 3.5% of the total estimated project cost. The Cedar Lane Road Widening Project involves the construction of a new four-lane roadway that will include on-street five foot bike lines and off-street sidewalks on each side of the road. The project will also include improvements at the intersections with 12th Avenue S.E., 24th Avenue S.E., and U.S. Highway 77 and at the Burlington Northern Santa Fe (BNSF) railroad crossing. A new traffic signal will be installed at the intersection of the 12th Avenue S.E. and Cedar Lane Road to relieve traffic congestion at peak

travel times during the day.

On November 22, 2011, City Council approved programming Resolution No. R-1112-60 requesting federal funds to widen Cedar Lane Road. This resolution states the City's commitment to adhere to the terms and conditions of a federally funded project including engineering design, acquisition of all necessary rights-of-way and relocation of utilities and encroachments at 100% the City's cost. In return, the Association of Central Oklahoma Governments (ACOG), through the Oklahoma Department of Transportation (ODOT), agrees to provide 80% of the construction cost estimated at \$6,231,280, and administration of the construction with the matching share from the City of Norman.

On April 23, 2013, City Council approved Contract No. K-1213-183, a Right-of-Way and Utility Agreement with ODOT, for the construction of the Cedar Lane Road Widening Project. This agreement requires the City to acquire right-of-way and relocate utilities for this project. Currently, all right-of-way has been acquired. All utility companies have been given a notice to proceed with several of the utility companies already completing their relocation.

DISCUSSION: Per the agreement with ODOT, the City is responsible for the design of the Cedar Lane Road Project. The attached contract amendment with Cardinal Engineering, Inc. addresses additional surveying and engineering design services that are necessary for completion of the project. It establishes the expenditures for extending the US-77 design, the cost for utility locates, the addition of a second left turn lane on 12th Avenue S.E., and a storm water pipeline location adjustment.

Survey services were included in the original contract with Cardinal Engineering, Inc. based on the expected project boundaries and normal project assumptions. As the design has progressed, the supplemental surveying services needed for the project design exceeded the original estimated cost. Following is a discussion of the additional surveying services that are required:

1. The additional survey services are needed for staking right-of-way during the right-of-way acquisition process and to allow some property owners to install temporary fences for livestock and to provide others the ability to see their new property line.
2. Along with staking right-of-way, Cardinal Engineering Inc. is tasked with correcting legal descriptions which changed after OG&E completed their relocation plans. Because the City is widening Cedar Lane Road, OG&E's transmission and distribution line, which runs along the north side of Cedar Lane Road, required the City to purchase utility easements to meet OG&E's standards. Initially, OG&E's alignment was within the boundaries of the 100-foot roadway right-of-way. Once OG&E established the location of their transmission line, Cardinal Engineering Inc. is required to correct previously written easements and develop additional easements for the properties adjacent to the transmission line relocation.
3. The design of Cedar Lane Road began in February 2011. Since that time, the construction of Campus Crest Apartments was initiated, including the installation of a 12-inch (12") sanitary sewer line. Because the sewer line was installed after the initial survey, it is necessary for Cardinal Engineering Inc. to conduct a second survey of the sewer line. Knowing the locations of all utilities is vital when designing and constructing a roadway.
4. Before construction of the Links at Norman Apartments, a traffic study was completed for the intersection of Cedar Lane Road and US-77. The study determined that dual left turn lanes onto Cedar Lane Road from US-77 (Classen Boulevard) are needed in both directions when the City of Norman improves the intersection. In the scoping of the project, the length of the left turn bay was estimated that 500 feet north and south of the intersection would be sufficient for the design of the left turn lanes. After design began, that length was increased to 800 feet north and south because of the length of the taper and the turn lanes required for the amount of traffic on US Highway 77 (Classen Boulevard). Increasing the length of the project requires an increase in the survey boundaries.

Utility Potholes:

Another fee included in the original contract included the number of utility locates that were necessary. The utility locates are used to determine the exact location and depth of utilities which may be in conflict with the

new construction. The locating contractor digs "potholes" with special equipment that will not cause damage to the utility, but allows them to determine the exact location and depth of the utility. In order to locate the utility, the process is repeated until the pothole intersects the utility in question. The contractor charges for every pothole whether or not the utility is discovered. Utility companies do not provide this level of accuracy through the OKIE One Call System. In the original scope of the project, staff estimated there was a potential for 25 locations where utilities could conflict with construction that would require pothole services. Once staff began the utility relocation process, it was clear that the number of potholes required to verify all possible conflicts was approximately 100. After completing the utility locates, the contractor dug 112 potholes.

Double Left Turn Lane:

Cardinal Engineering's contract only included one left turn lane from southbound 12th Avenue S.E. onto Cedar Lane Road. Traffic studies were completed in 2012 and 2013 for the Campus Crest Apartments and the Park 7 development. The studies recommended the addition of a second left turn lane for southbound traffic on 12th Avenue S.E. onto eastbound Cedar Lane Road. The dual turn lanes will allow more traffic to flow through the intersection, thus reducing the length of the traffic queue. This requires additional services as a part of the design of the project. Both of the developments were required to pay traffic impact fees to fund a portion of the necessary improvements of the intersections. These funds will be used for the construction of this project.

OG&E vs. City Storm Water System:

During the utility relocation process, a design change to shift the storm water system located west of the BNSF railroad tracks was required. In order to have plans for the utility companies to review, it is necessary for the consultants to re-design the storm water system. Typically, the utility companies are capable of designing their relocation to avoid the storm water system. However, the proposed storm water system design was in conflict with the OG&E required power line locations based on their latest requirements for clear zone from overhead obstructions to allow for distance the wire can swing under high winds. The clear zone prevents anyone from building a structure within the area. To meet City of Norman and OG&E standards, the most feasible decision was to relocate the storm water system under the roadway and place OG&E as close to the curb as possible. This relocation of the storm water system also kept the City from having to purchase more right-of-way which OG&E would have required for their new alignment.

Cardinal Engineering, Inc. will provide complete plans and specifications for this project and provide technical assistance to the City as needed. The consultant will perform the additional work for a cost of \$52,661 or an increase of 15% over the current contract amount of \$350,630. If approved, the total contract amount with Cardinal Engineering, Inc. will be \$403,291 or 4.1% of the estimated project cost of \$9,846,786. Funds are available to cover the design cost of Amendment No. 1 in the project construction account (Account 050-9079-431.61-01, Project No. BP0196).

If approved, this contract amendment will allow the Cedar Lane Road Project, the first of eight 2012 Bond Projects, to remain on schedule. The bid letting for the project is scheduled in February 2014. Construction is anticipated to begin in May, 2014 and be complete by July, 2015. The project is being financed with \$6,231,280 in federal transportation funds, \$3,615,506 in City Bond funds, and \$161,861 in development and traffic impact fees.

RECOMMENDATION: Staff recommends approval of Amendment No. 1 to Contract No. K-1011-135 with Cardinal Engineering Inc. for the additional engineering design services for the Cedar Lane Road Widening Project in the amount of \$52,661.