



City of Norman, OK

Municipal Building
Council Chambers
201 West Gray
Norman, OK 73069

Master

File Number: K-1415-134

File ID: K-1415-134

Type: Contract

Status: Consent Item

Version: 1

Reference: Item 21

In Control: City Council

Department: Public Works
Department

Cost: \$143,000.00

File Created: 05/05/2015

File Name: Contract with Meshek and Associates for Hydraulic
and Hydrologic Study for Lower Imhoff Creek

Final Action:

Title: CONTRACT K-1415-134: A CONTRACT BY AND BETWEEN THE CITY OF NORMAN, OKLAHOMA, AND MESHEK AND ASSOCIATES, PLC, IN AN AMOUNT NOT-TO-EXCEED \$143,000 TO PROVIDE A COMPREHENSIVE HYDRAULIC AND HYDROLOGIC STUDY FOR LOWER IMHOFF CREEK.

Notes: ACTION NEEDED: Motion to approve or reject Contract K-1415-134 with Meshek and Associates, PLC, in an amount not-to-exceed \$143,000; and, if approved, authorize the execution thereof.

ACTION TAKEN: _____

Agenda Date: 06/09/2015

Agenda Number: 21

Attachments: Location Map Imhoff Creek, K-1415-134, PR Meshek

Project Manager: Joe Willingham, Storm Water Engineer/Fertilizer

Entered by: rachel.warila@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-1415-134

body

BACKGROUND: A Storm Water Master Plan (SWMP) was developed for the City of Norman by PBS&J and accepted by City Council in November, 2009. Among other things, this plan delineated the various watersheds in the City, identified stream segments which needed restoration and improvement, and identified projects to provide this restoration including concept designs. As stated in the SWMP, solutions for problems in the Imhoff Creek watershed are by far the most significant compared to solutions in other watersheds. One such stream segment is the Lower Imhoff Creek between Lindsey Street and Imhoff Creek's confluence with the Canadian River.

In the Storm Water Master Plan, Lower Imhoff Creek is divided into two problem areas, or "reaches": IC-1 and IC-2. IC-1 is that portion of Imhoff Creek between State Highway 9 and its confluence with the Canadian River (see Exhibit A in the contract). IC-2 is that portion of Imhoff Creek between State Highway 9 and a point some 2000 linear feet north of Imhoff Road. IC-2 is the focus of the current project (see Exhibit B in the contract).

The SWMP recommends design and installation of stream bank stabilization techniques along stream segments IC-1 and IC-2.

The SWMP identified the problem for IC-1 to be "800 LF of severe bank erosion along both banks downstream of Highway 9. The erosion along the banks has caused trees to fall into the creek". The identified problem in the SWMP for IC-2 is "4,200 LF of severe bank erosion along both banks beginning at the upstream face of Highway 9 to approximately 2,000 LF upstream of Imhoff Rd. The erosion along the banks has caused property fences and trees to fall into the creek." Please see the attached location map from the SWMP.

As Imhoff Creek adjusted to changing upstream conditions, down cutting and widening resulted in extreme bank and bed erosion, which are characteristic in this portion of Imhoff Creek. Continued development along the length of the stream has exacerbated the runoff problems leading to trees and fences falling into the creek, loss of property and threats to infrastructure including the Imhoff Road Bridge. In the past, conventional wisdom directed efforts away from form and function toward armoring of stream channel bottoms and slopes to address in-stream erosion problems. This approach increased water velocity and tended to take problems downstream which eventually work back upstream as erosion occurred at the interface of the natural stream and the hard armor surfaces. Utilizing more natural stream restoration techniques, which provide for form and function, has proven to be a more effective method of urban stream repair.

The property owner at 2802 Walnut Drive just south of Imhoff Road contacted the City of Norman concerning property damage and loss due to stream bank erosion in 2014. A project was proposed by City staff and discussed by Council for a preliminary stream study as part of the FYE 2015 Capital Budget process. Council approved an allocation of \$200,000 in the FYE 2015 Capital Budget for this project. Staff has continued to keep the affected property owner apprised of the project. The objective of this project is to provide conceptual engineering design and recommended phasing of stream improvements for Imhoff Creek Stream Segment IC-2. These conceptual designs and priority recommendations will be used to perform engineering design and construction plans for the identified stream improvements.

DISCUSSION: City staff prepared a request for proposal to solicit engineering services including the hydrology of Lower Imhoff Creek and the hydraulics of flow through the creek channel. The City received 12 proposals for this service from the following firms:

- RPS, Austin, TX
- Wilson and Company, Norman, OK
- Walter P. Moore, Tulsa, OK
- Cabbiness, Norman, OK
- Leidos Engineering, LLC, Oklahoma City, OK
- Red Plains, Edmond, OK
- Olsson Associates, Oklahoma City, OK
- Enercon, Oklahoma City, OK
- MacArthur, Oklahoma City, OK
- MKEC, Oklahoma City, OK
- EST, Oklahoma City, OK
- Meshek and Associates, Tulsa, OK

The selection committee included three (3) staff members consisting of Scott Sturtz, City Engineer; Joe Willingham, Storm Water Engineer; Todd McLellan, Development Engineer and two (2) private citizens including David Dary, Retired Professor Emeritus of the OU School of Journalism and resident of Lower Imhoff Creek, and Asha Prather, PhD, resident of Norman, who independently scored each proposal on a point scale as defined in the request for proposal. Upon review of the proposals by the selection committee, four firms were selected for interviews: Olsson Associates, RPS, Wilson and Company, and Meshek and Associates. After the interview process, Meshek and Associates was selected as the firm most qualified to provide the engineering services.

The firm of Meshek and Associates is a small, multi-disciplinary engineering services company with its office in Tulsa, Oklahoma. Meshek and Associates has provided services for these types of projects throughout

Oklahoma, specializing in Hydraulic and Hydrologic Engineering. Staff negotiated a contract with the design team to provide the above-mentioned services for a contract amount not to exceed \$143,000. This amount is within industry standards for a project of this scope. Staff had initially estimated the funds necessary for these services to be \$200,000.00 and this amount was budgeted in the FY2015 Capital Budget in Project DR0062, Account #050-9968-431.

The attached engineering services contract is written in a "Cost Not to Exceed" format. If approved, only the City Council has authority to amend the contract in the future including any changes to the compensation. The contract services include:

- Kickoff Meeting and Channel Walk
- Data Collection and Processing
- Easement and Right-of-Way Evaluation
- Hydrology and Hydraulic Modeling
- Ecological Inventory
- Development of Stream Restoration Alternatives and Recommendations
- Conceptual Engineering Design and Proposed Phasing of Projects
- Council and Public Meetings
- Surveying and Geotechnical Investigations

Upon completion of these services in December of 2015, the City will be prepared to move on to the next step of final engineering design of specific stream restoration projects and stream bank stabilization projects and to prioritize those projects to achieve the greatest positive impact on Imhoff Creek to restore form and function. Following project design and prioritization, the City can proceed to final construction of the phased improvements.

RECOMMENDATION: Staff recommends approval of Contract K-1415-134 with Meshek and Associates for the Preliminary Engineering Design of Lower Imhoff Creek in the amount of \$143,000.