



cityofnovi.org

# CITY of NOVI CITY COUNCIL

## Agenda Item F October 20, 2008

**SUBJECT:** Approval of an engineering contract amendment to URS Michigan, Inc. for additional engineering services associated with the design phase of the Meadowbrook Lake Dam Improvement project in the amount of \$10,900.

**SUBMITTING DEPARTMENT:** Engineering *RH*

**CITY MANAGER APPROVAL:** *[Signature]*

<b>EXPENDITURE REQUIRED</b>	<b>\$ 10,900</b>
<b>AMOUNT BUDGETED</b>	<b>\$ 217,500 (of which \$56,985 was previously awarded for Engineering)</b>
<b>LINE ITEM NUMBER</b>	<b>210-211.00-805.685 (Drain Revenue Fund)</b>

### BACKGROUND INFORMATION:

The engineering for this project was originally awarded to URS by City Council at the September 10, 2007 meeting. The basic scope of the project is the implementation of several recommendations from the June 2005 "Streambank Stabilization Report," which was completed by Anderson Eckstein and Westrick (AEW) following the dredging of Meadowbrook Lake in 2004. While the AEW report provided a cursory analysis of the dam and the streambank erosion in the vicinity of the dam, this project has included a comprehensive evaluation of the dam, the design flows and bank erosion. A hydraulic analysis has been completed that identified some additional deficiencies that will be corrected as part of this project. The goal of the project remains to provide storm storage in the lake that will decrease the flow impacts of storm events (flashiness) downstream, and consequently assist with mitigating bank erosion and sedimentation.

As the final design is being developed, a few additional tasks have been added to the project that were outside of the original scope. These tasks are necessary to complete the project:

- Modeling and analysis of the culvert at Nine Mile Road, downstream of the dam, to determine if the culvert restriction was affecting the operation of the dam, and to meet permitting requirements.
- Additional meetings with residents and Department of Environmental Quality (DEQ) staff were necessary to involve the stakeholders in the project. The meetings with the residents were required to discuss potential easements needed to complete the project.
- Additional topographical survey to complete the sidewalk design. In order to facilitate future access to the dam to provide proper maintenance, the city intends to design and construct a wider sidewalk (from Ennishore to the controlled spillway) that is capable of supporting maintenance vehicles to limit the restoration required after each maintenance activity.
- Reimbursement for DEQ permit application fee.

The project design is approximately 70% complete. This fall and winter, staff and consultants will be meeting with the Homeowner's association and the residents that are adjacent to the dam to acquire easement rights over the entire dam not only for the work under this project but also for the long term maintenance of the dam. The permit application for the work is currently under review by DEQ pending the acquisition of the easement rights. The work on the dam is anticipated to begin in summer 2009 during the dry months to facilitate the work.

**RECOMMENDED ACTION:** Approval of an engineering contract amendment to URS Michigan, Inc. for additional engineering services associated with the design phase of the Meadowbrook Lake Dam Improvement project in the amount of \$10,900.

	1	2	Y	N
<b>Mayor Landry</b>				
<b>Mayor Pro Tem Capello</b>				
<b>Council Member Crawford</b>				
<b>Council Member Gatt</b>				

	1	2	Y	N
<b>Council Member Margolis</b>				
<b>Council Member Mutch</b>				
<b>Council Member Staudt</b>				



Mr. Rob Hayes, P.E.  
City Engineer  
City of Novi  
45175 W. Ten Mile Road  
Novi, MI 48375-3024

**RE: Additional services - Meadowbrook Lake Dam Renovation Project**

Dear Mr. Hayes:

During the course of the Meadowbrook Lake Dam Renovation project several activities were undertaken at the request of the City or required by the MDEQ that were not included in our original fee. At your request, this letter describes each task and the associated fee.

- **Analysis of Nine Mile Road Culvert and associated report** - This analysis was conducted to determine the capacity of the culverts and the backwater affects on the Meadowbrook Dam during large storms. \$2,600
- **Additional hydraulic modeling and associated report** - Due to the results of the culvert analysis, the hydraulic model was expanded to include the culverts at Nine Mile Road and used to assess their impact on water levels downstream of the dam. The MDEQ also required this report be submitted as part of the permitting process. \$3,800
- **Additional meetings** – Additional meetings have been attended with the Meadowbrook Lake Homeowners Association and affected homeowners. \$2,700
- **Sidewalk Improvements** - The existing five foot wide asphalt path will be replaced with a ten foot wide path capable of supporting vehicle traffic. \$1,600
- **Permit Fee** - The Joint Permit Application has an associated fee of \$200 for dam modification projects. This cost will be paid for by URS and reimbursed by the City. \$200

Additional costs requested to cover these services total \$10,900. Please review the above list and call to discuss any questions or concerns that you may have.

URS Corporation  
27777 Franklin Road, Suite 2000  
Southfield, Michigan 48034  
Tel: 248-204-5900  
Fax: 248-204-5901



This increase request will cover design costs through the preparation of bidding documents. No additional fees for the construction phase of the project are being requested.

We appreciate your consideration of these requests and thank you in advance.

Best regards,  
**URS Corporation**

A handwritten signature in black ink, appearing to read 'Troy R. Naperala'. The signature is fluid and cursive, written over a white background.

Troy R. Naperala, PE  
Senior Project Engineer

Jan M. Hauser, PE  
Director of Water Resources