



CITY of NOVI CITY COUNCIL

Agenda Item E  
June 4, 2012

**SUBJECT:** Approval to award an amendment to the engineering services agreement with Orchard, Hiltz & McCliment, Inc. for construction engineering services related to the 2012 Regional Storm Water System Improvements project, in the amount of \$32,048.

**SUBMITTING DEPARTMENT:** Department of Public Services, Engineering Division *BTC*

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

<b>EXPENDITURE REQUIRED</b>	\$ 22,140.00	(Brookfarm Park Streambank Eng and Const)
	\$ 2,146.98	(Brookfarm Park Pathway)
	\$ 7,760.56	(NC#2 and White Pines Pathways)
	<b>\$ 32,047.54</b>	<b>TOTAL</b>
<b>AMOUNT BUDGETED</b>	\$120,000.00	(Brookfarm Park Streambank Eng and Const)
	\$ 0	(Brookfarm Park Pathway)
	\$ 0	(NC#2 and Autumn Park Pathways)
	<b>\$120,000.00</b>	<b>TOTAL</b>
<b>APPROPRIATION REQUIRED</b>	\$ 0	(Brookfarm Park Streambank Eng and Const)
	\$ 2,146.98	(Brookfarm Park Pathway)
	\$ 7,760.56	(NC#2 and Autumn Park Pathways)
	<b>\$ 9,907.54</b>	<b>TOTAL</b>
<b>LINE ITEM NUMBER</b>	<b>210-211.00-869.510</b>	(Brookfarm Park Streambank Eng and Const)
	<b>208-691.00-974.060</b>	(Brookfarm Park Pathway)
	<b>204-204.00-974.429</b>	(NC#2 and Autumn Park Pathways)

**BACKGROUND INFORMATION:**

This project consists of several smaller projects that were combined into one project in an effort to realize cost savings by completing projects that either have similar scopes or work that is in close proximity to another project's location. This project includes the following storm water and non-motorized work:

- Regional Basin Improvements (Leavenworth, Lexington Green and Thornton Regional Detention Basins)
- Sidewalk Gap Construction in Autumn Park Subdivision
- Brookfarm Park Streambank Stabilization
- Brookfarm Park Pathway along Ingersol Creek
- Neighborhood Connector 2 through Brookfarm Park

Detention Basin Improvements (including sidewalk construction work near Thornton Basin)

The City of Novi was awarded a Federal grant through the Rouge River National Wet Weather Demonstration Project to improve the Leavenworth, Lexington Green and Thornton Regional Detention Basins. The Leavenworth Basin is located south of Grand River Avenue between Taft Road and Novi Road; the Lexington Green Basin is located south of Nine Mile Road between Taft Road and Beck Road; and the Thornton Basin is located north of Nine Mile Road between Beck Road and Taft Road (see attached

location map). DPS's Engineering Division staff applied for and the City was awarded a 50% matching grant for improvements to the three basins. Improvements to these basins were recommended by the Phase II Storm Water Master Plan completed in 2007. Following this project, all CIP projects recommended in the Storm Water Master Plan will be complete.

The Federal grant is administered by the Rouge Project Office and the Wayne County Department of Environment. The total project cost was estimated to be \$405,000, making the grant amount \$202,500. The interagency agreement (attached) with Wayne County that was required to receive the grant was approved by City Council at the February 7, 2011 meeting, and was also approved by Wayne County.

The goals of the detention basin improvements project are to reduce the frequency of bank-full storm water flows downstream of each basin while also creating habitat and restoring native vegetation. This project included a hydraulic analysis to evaluate attenuation concerns. The recommended improvements are based on the hydraulic evaluation and will include: retrofitting outlet structures to provide additional regional attenuation for high frequency storm events (1-year and 2-year recurrence intervals), removal of invasive species, and planting native vegetation buffers.

Both design and construction engineering fees, a total of \$136,418, were awarded at the April 18, 2011 council meeting as required by the Rouge Project Office, the agency administering the grant. The engineering fees are paid on an hourly basis for the actual work performed. Based on the contractor's bid price and the crew days contained in the contractor's bid, the previously awarded construction phase engineering fees for the detention basins will be reduced by \$28,081.

During the design process it was determined that since the Thornton Basin improvements portion of the project is near five sidewalk gaps within the Autumn Park subdivision, the sidewalk gaps could be completed along with this project. Completion of these five segments will result in continuous paths along White Pines Drive and Whitehall Drive in this area (see attached location map).

#### Brookfarm Park Improvements

The scope of this award includes two projects identified and funded in the Capital Improvements Program. A project for streambank stabilization near the confluence of Bishop Creek and Ingersol Creek was approved in FY09-10 for a total project budget of \$37,100 (\$6,400 for engineering and \$30,700 for construction). A project for streambank stabilization along Ingersol Creek in Brookfarm Park (upstream of the confluence) was approved for FY10-11 for a total project budget of \$120,000.

The improvements include:

- Streambank stabilization along Ingersol Creek from Willowbrook Dr to Bishop Creek, including at the confluence of Ingersol Creek and Bishop Creek
- Rehabilitation of footings for the existing pedestrian bridge crossing Ingersol Creek
- Construction of Neighborhood Connector #2 pathway between Ripple Creek Road and the pedestrian bridge
- Construction of a pathway along a portion of the Ingersol Creek streambank to be stabilized.

The City owns the property along the north side of Ingersol Creek (Brookfarm Park) and Village Oaks Elementary School is located on and owns the south side of the creek. City staff has contacted the school and will coordinate as necessary with school staff for the work on the south side of the creek.

The construction phase engineering fees for the entire project are determined using two components: 1) the contract administration fee, which is determined using the fee percentage in Exhibit B of the Agreement For Professional Engineering Services for Public Projects, and 2) the construction inspection fee determined using a cost per inspection (crew) day from Exhibit B of the consultant's agreement that is then multiplied by the number of days of inspection specified by the contractor. The construction phase fees for this project include a contract administration fee of \$4,372.54 (7.5% of the \$58,300.50 construction bid for the sidewalk improvements) and an inspection fee of \$27,675.00 (\$615 per crew day, multiplied by the 45 days provided in the contractor's bid) for a total fee of \$32,047.54. It should be noted that OHM has waived their construction administration fee for the streambank work as presented in OHM's proposal because the City combined the streambank project with the detention basin improvement project. Also, estimated contract administration and inspection fees associated with the original detention basin project were awarded with design, and are not accounted for in the above amounts.

The construction contract award is proposed for consideration elsewhere on this agenda. It is anticipated that the construction of the project will begin this summer and be completed this construction season.

**RECOMMENDED ACTION:** Approval to award an amendment to the engineering services agreement with Orchard, Hiltz & McCliment, Inc. for construction engineering services related to the 2012 Regional Storm Water System Improvements project, in the amount of \$32,048.

	1	2	Y	N
<b>Mayor Gatt</b>				
<b>Mayor Pro Tem Staudt</b>				
<b>Council Member Casey</b>				
<b>Council Member Fischer</b>				

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

# City of Novi

## RPO Round X - Part B

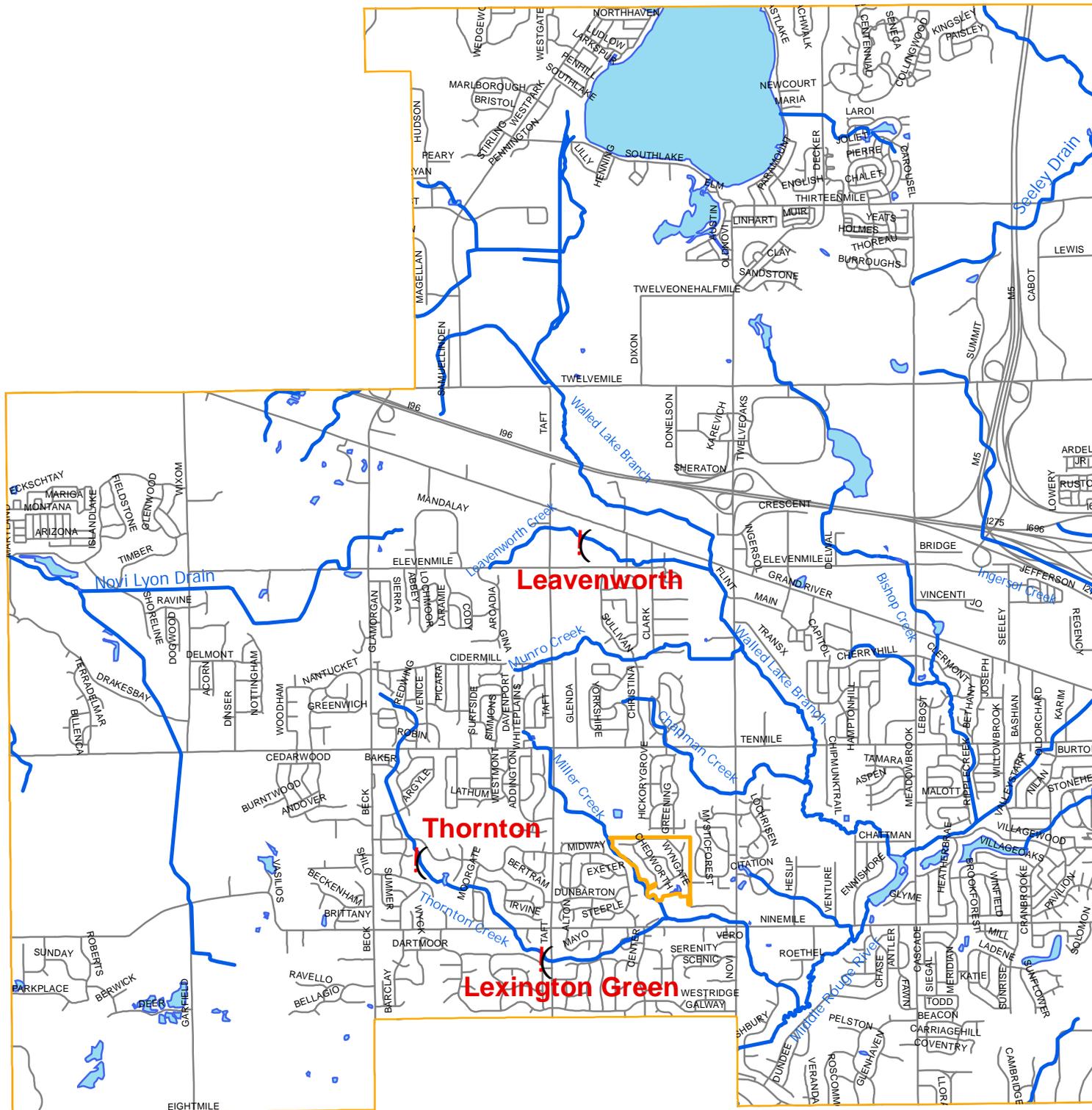
### Regional Basin Retrofits for Water Quality Improvements

#### Site Location Map

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-  Detention Basin Location
-  Streams
-  Open Water
-  City of Novi Boundary

0 0.5 1 Miles



# City of Novi

## RPO Round X - Part B

### Regional Basin Retrofits for Water Quality Improvements

#### Site Location Map Leavenworth Basin

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— Streams

▭ Open Water

0 250 500 Feet



City of Novi

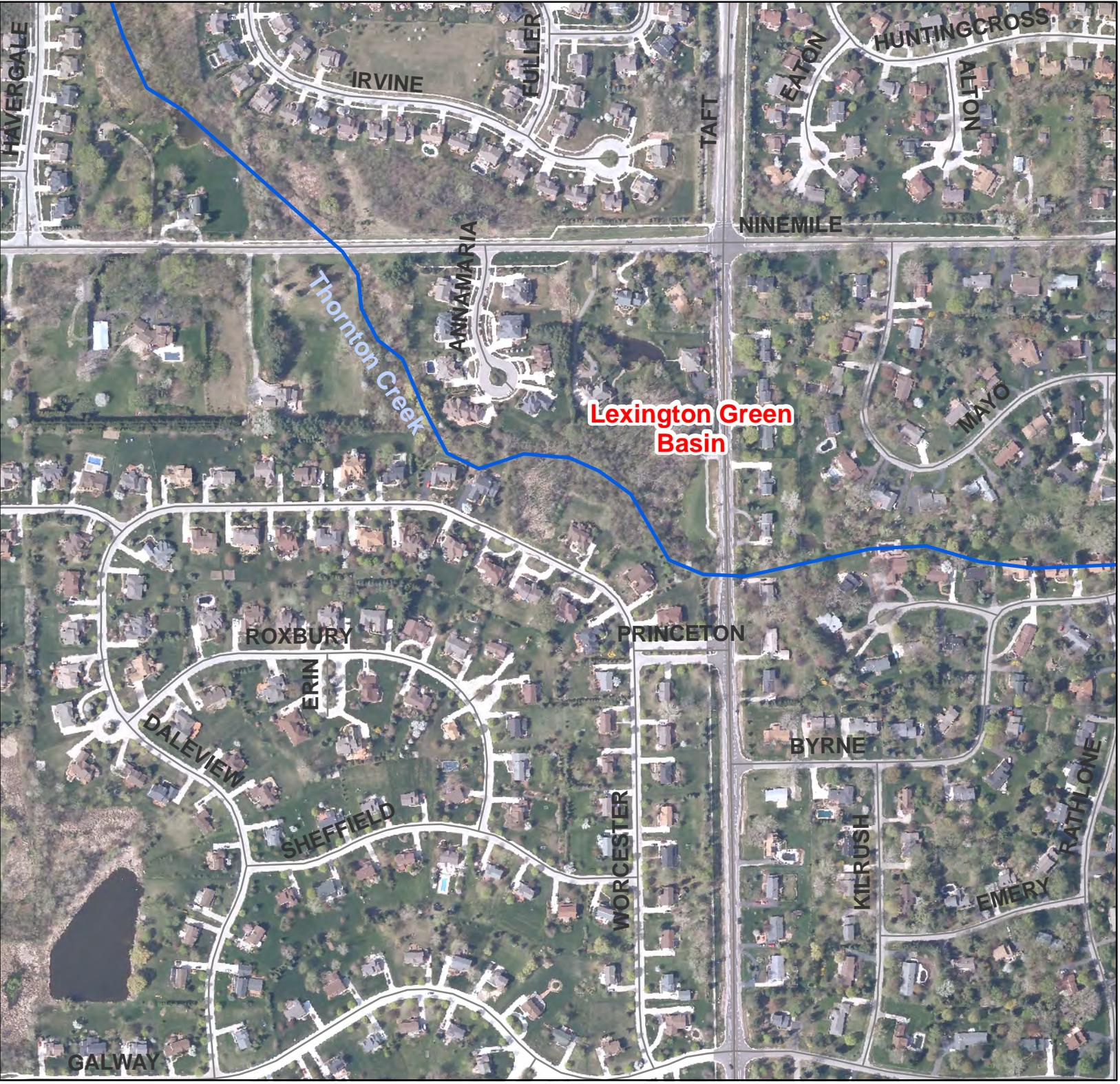
RPO Round X - Part B

Regional Basin  
Retrofits for Water  
Quality Improvements

Site Location Map  
Lexington Green Basin



-  Streams
-  Open Water



City of Novi

RPO Round X - Part B

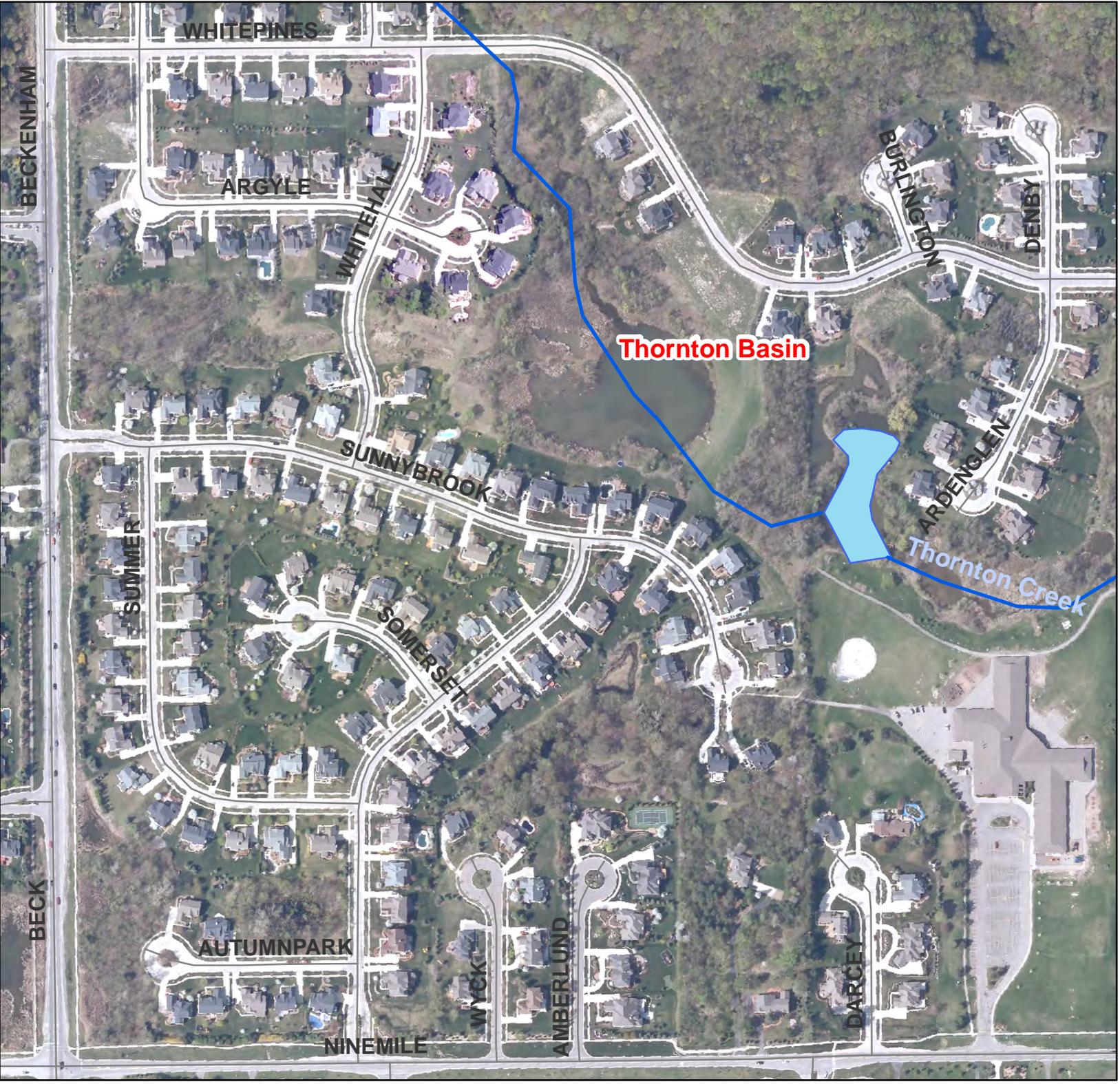
Regional Basin  
Retrofits for Water  
Quality Improvements

Site Location Map  
Thornton Basin

—

- Streams
- Open Water

0 250 500 Feet



# Brookfarm Park



LEGEND

Map Produced Using the  
City of Novi, Michigan  
Internet Mapping Portal

0 100 200 400  
Feet  
1 inch = 199 feet

**MAP INTERPRETATION NOTICE**  
Map information depicted is not intended to replace or substitute for any official or primary source. This map was intended to meet National Map Accuracy Standards and use the most recent, accurate sources available to the people of the City of Novi. Boundary measurements and area calculations are approximate and should not be construed as survey measurements performed by a licensed Michigan Surveyor as defined in Michigan Public Act 132 of 1970 as amended. Please contact the City GIS Manager to confirm source and accuracy information related to this map. This map was produced under the terms of the City's Internet Site Use Policy available at <http://cityofnovi.org/Resources/SiteUsePolicy.asp>

11/9/11  
11/29/11 REV.

PAVED PATH POTENTIAL FUTURE PATH INGERSOL CREEK

CDR

# White Pines/Whitehall Sidewalk Gaps

(Constructed with Thornton Basin Improvements)

Location Map

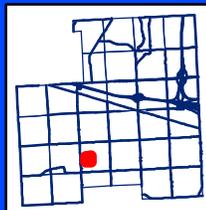


Map Author: Croy  
Date: 5/29/12  
Project: 2012 Stormwater Improvements  
Version #: v1.0



## Map Legend

Proposed Sidewalk



City of Novi

Engineering Division  
Department of Public Services  
26300 Delwal Drive  
Novi, MI 48375  
cityofnovi.org



1 inch = 125 feet

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**FIRST AMENDMENT TO THE  
SUPPLEMENTAL PROFESSIONAL ENGINEERING SERVICES AGREEMENT  
REGIONAL STORM WATER DETENTION BASIN IMPROVEMENTS  
(THORNTON, LEXINGTON GREEN, LEAVENWORTH)**

First Amended Agreement between the City of Novi, 45175 W. Ten Mile Road, Novi, MI 48375-3024, hereafter, "City," and Orchard, Hiltz & McCliment, Inc., whose address is 34000 Plymouth Road, Livonia, Michigan 48150, hereafter, "Consultant," relating to modifications of the fee basis for engineering services. The following sections of the Supplemental Professional Engineering Services Agreement, as made and entered into on November 9, 2009 shall be amended as follows:

**Section 2. Payment for Professional Engineering Services,** The following Paragraphs shall be amended as follows:

1. Basic Fee.

a. *Unchanged*

b. Delete 1.b. in its entirety and replace with the following language:

Construction Phase Services: The Consultant shall complete the construction phase services as described herein according to the fee schedule as described below:

i. Contract Administration: The Consultant shall complete Contract Administration services for a lump sum fee of \$14,579, which is 6.0% of the awarded construction cost (\$242,991) as indicated on the Design and Construction Engineering Fee Curve. Since estimated contract administration fees were previously awarded with the design phase fees, the existing Purchase Order for this project will be adjusted to match the above amounts. Construction Inspection: The Consultant shall complete Construction Inspection services for \$615 per crew day as described in the request for proposals. "Crew days" shall be defined by the construction contract documents as an 8 hour day. Crew days shall be billed in 4 hour increments rounded to the next half day, therefore a 10 hour day shall be 1.5 crew days, a 3 hour day is 0.5 crew days, a 6 hour day shall be 1.0 crew days. The minimum crew day charged for a no-show by the contractor shall be 2 hours (0.25 crew days) which is reflective of the actual cost to the Consultant for traveling to the site and traveling back to the office. There will be no payment to the consultant for extra crew days that were not charged to the contractor. The Consultant acknowledges that intent of using crew days for inspection services is to provide a method for the consultant to recoup costs associated with slow progress by the contractor.

2. *Unchanged*

Except as specifically set forth in this First Amendment, the Supplemental Professional Engineering Services Agreement remains in full force and effect.

WITNESSES

Orchard, Hiltz & McCliment, Inc.

\_\_\_\_\_

\_\_\_\_\_

By:

Its:

The foregoing \_\_\_\_\_ was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_,  
20\_\_\_\_, by \_\_\_\_\_ on behalf \_\_\_\_\_.

\_\_\_\_\_  
Notary Public

\_\_\_\_\_ County, Michigan

My Commission Expires: \_\_\_\_\_

WITNESSES

CITY OF NOVI

\_\_\_\_\_

\_\_\_\_\_

By:

Its:

The foregoing \_\_\_\_\_ was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_,  
20\_\_\_\_, by \_\_\_\_\_ on behalf of the City of Novi.

\_\_\_\_\_  
Notary Public

Oakland County, Michigan

My Commission Expires: \_\_\_\_\_