

cityofnovi.org

CITY of NOVI CITY COUNCIL

Agenda Item 3
April 18, 2011

SUBJECT: Approval to award an engineering services contract for design and construction engineering services related to the 2011 Regional Basin Retrofit Projects (Leavenworth, Lexington Green, and Thornton Creek Regional Storm Water Detention Basins) to Orchard, Hiltz & McCliment in the amount of \$136,418 (50% offset by grant revenue).

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

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

EXPENDITURE REQUIRED	\$136,418
AMOUNT BUDGETED	\$ 82,000
APPROPRIATION REQUIRED	\$ 54,418 (To be included in next budget amendment)
LINE ITEM NUMBER	210-211.00-805.687 (Drain Fund)

BACKGROUND INFORMATION:

The City of Novi has been awarded a federal grant through the Rouge River National Wet Weather Demonstration Project for improving the Leavenworth, Lexington Green and Thornton Regional Retention 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). Improvements to these basins were recommended by the Phase II Storm Water Master Plan completed in 2007. DPS's Engineering Division staff applied for and the City was notified in June 2010 that it would be awarded a 50% matching grant for improvements to the three basins.

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

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. The proposed project will include a topographic survey, a hydraulic analysis to evaluate attenuation concerns, and design and construction of improvements. The recommended improvements will be based on the hydraulic evaluation and will also include retrofitting outlet structures to provide additional regional attenuation for the more frequent events (1-year, 2-year recurrence intervals), dam modifications, habitat creation, removal of invasive species, and planting native vegetation buffers.

A Request for Proposals was sent to the City's three pre-qualified firms for public projects. Staff reviewed the proposals and selected OHM for the project (summary of review scores is attached).

Per the requirements of the grant, the design and construction engineering fees for this project will be structured such that costs are to be paid on a cost plus fixed fee basis. The fees for completing the project scope of work are as follows:

- Fees for design phase services shall not exceed \$71,618, and
- Fees for construction phase services shall not exceed \$64,800 (being awarded with the design phase services at the request of the grant coordinator).

Both design and construction engineering fees, a total of \$136,418, are being recommended at this time as requested by the Rouge Project Office, the agency administering the grant. The engineering fees are paid on an hourly basis for the actual work performed. OHM's scope of services and fee breakdown are attached.

The engineering fees for this project are higher than other similar detention basis projects due to the grant requirements for this specific project, such as hydrologic and hydraulic modeling (Task 1), Dam Safety regulations and permitting (Task 3), and Grant Administration (Task 4). The remaining tasks (Tasks 2, 5 and 6) for design, contract administration and construction inspections services match the standard fee curves in Exhibit B of the Agreement for Professional Engineering Services for Public Projects.

Construction is scheduled to begin in October 2011 and completion is anticipated by summer 2012.

RECOMMENDED ACTION: Approval to award an engineering services contract for design and construction engineering services related to the 2011 Regional Basin Retrofit Projects (Leavenworth, Lexington Green, and Thornton Creek Regional Storm Water Detention Basins) to Orchard, Hiltz & McCliment in the amount of \$136,418 (50% offset by grant revenue).

	1	2	Y	N
Mayor Landry				
Mayor Pro Tem Gaff				
Council Member Fischer				
Council Member Margolis				

	1	2	Y	N
Council Member Mutch				
Council Member Staudt				
Council Member Wrobel				

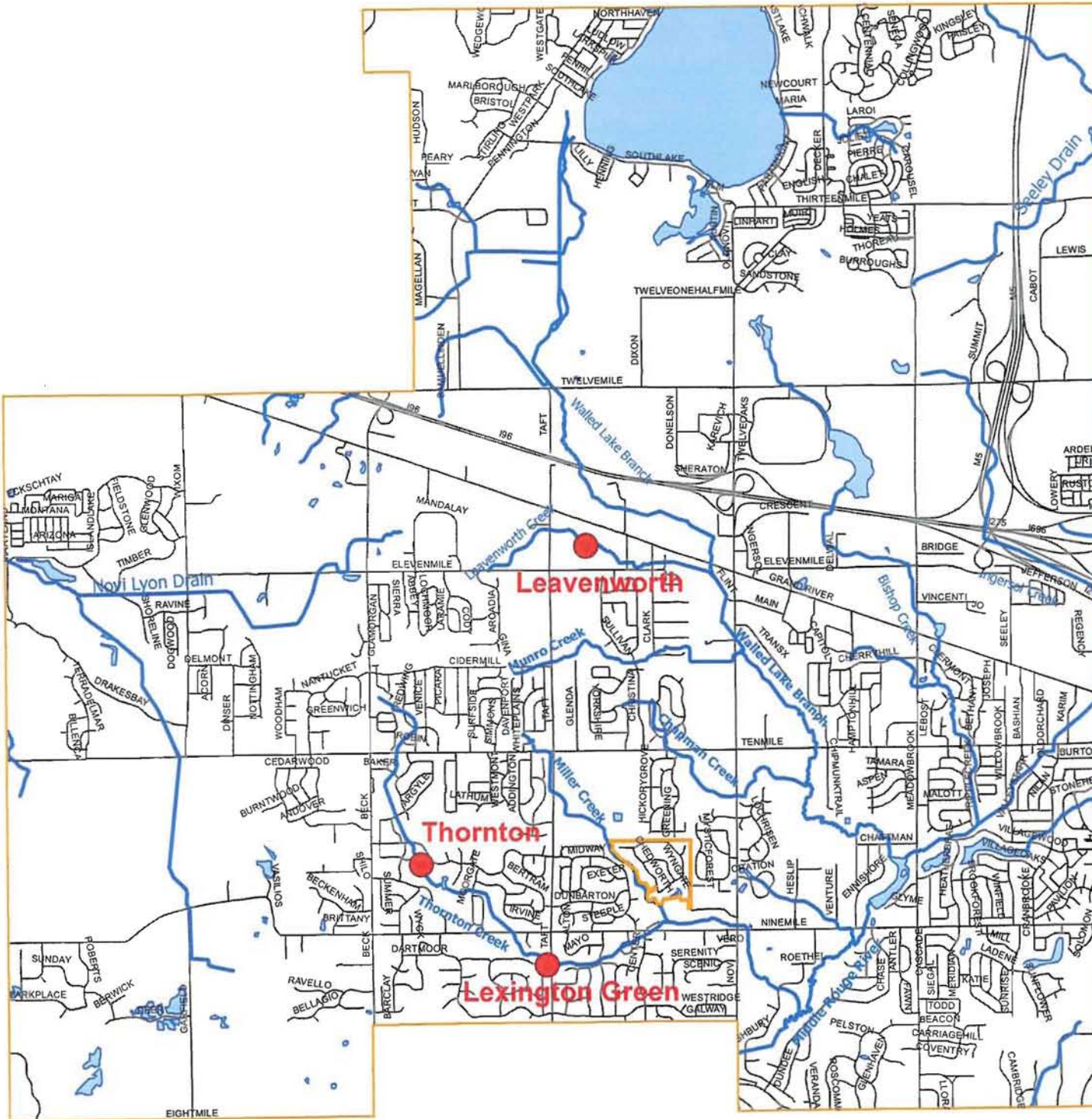
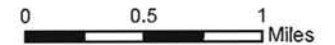
City of Novi
RPO Round X - Part B

Regional Basin
Retrofits for Water
Quality Improvements

Site Location Map



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



EIGHT MILE

REGIONAL STORM WATER DETENTION BASIN IMPROVEMENTS Proposal Review Scoring Summary

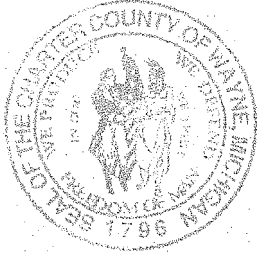
Project Description: ENGINEERING SERVICES FOR REGIONAL STORM WATER DETENTION BASIN IMPROVEMENTS
(THORNTON, LEXINGTON GREEN, LEAVENWORTH)

RANK 1= LOW, 3= BEST

<i>FIRM:</i>	<i>Item weight:</i>	50	30	20	<i>Total</i>	<i>Rank</i>
OHM		1	2	3	880	1
URS		3	3	7	380	3
SDA		6	6	3	540	2
TOTALS		18	18	18		

SCORING CRITERIA

1. EVALUATION OF APPROACH AND UNDERSTANDING OF PROJECT (50%)
2. ANALYSIS OF SUBJECTIVE STATEMENTS - What makes them stand out / Value-added items they can provide. (30%)
3. PROPOSED STAFF AND RELEVANT EXPERIENCE (20%)



Robert A. Ficano
County Executive

June 24, 2010

Mr. Brian Coburn, P.E.
City of Novi
26300 Delwal Drive
Novi, MI 48375

**RE: Rouge River National Wet Weather Demonstration Project
Round X, Part "B" Grant Program for Storm Water General Permit Activities
Regional Basin Retrofits for Water Quality Improvements Project (RXB-13)**

Dear Mr. Coburn:

The Wayne County Department of Public Services has reviewed your proposal for the above-referenced project under the Rouge River National Wet Weather Demonstration Project (Rouge Project), Round X – Part "B" Grant Program for Storm Water General Permit Activities. Wayne County received 20 proposals requesting \$2.55 million in federal funding under Part B. These projects were reviewed and ranked based on the criteria identified in the March 1, 2010 Rouge Project document "Notice of Grant Availability, Round X for Permit Compliance Activities" and on federal and Rouge Project requirements and goals. Based on the review team's evaluation and recommendation, your proposal dated April 12, 2010 for **the above-referenced project has been selected for funding under the Rouge Project Round X-Part B Grant Program for Storm Water General Permit Activities**. This selection is pending approval of the list of projects recommended for Rouge Project grant funding by the Wayne County Executive and the Wayne County Commission. Additionally, the Executive Committee of the Alliance of Rouge Communities (ARC) will also review the list of projects recommended for Round X Rouge Project grant funding at their June 29, 2010 meeting.

Please note that we had to be selective in the award of projects and we may need you to refine the scope of work and/or cost estimates for this project in order to receive Rouge Project funding for its implementation. Please contact Mr. Razik Alsaigh at (313) 967-2283 to discuss the grant-funded scope of work, budget and schedule for your project and to begin development of the interagency agreement.

As described in the Notice of Grant Availability, please note that the interagency agreement for this project will include a requirement that your community remain a member of good standing in the ARC for the duration of the agreement. If your community chooses not to remain an ARC member during the term of the agreement, Wayne County may terminate the agreement before project completion.

Congratulations on your successful proposal. We look forward to continuing to work with you to restore and protect the Rouge River.

Very truly yours,

Kelly A. Cave, P.E.
Director, Water Quality Management Division

cc: Razik Alsaigh, Wayne County DPS-WQMD

SUPPLEMENTAL PROFESSIONAL ENGINEERING SERVICES AGREEMENT

**ENGINEERING SERVICES FOR
REGIONAL STORM WATER DETENTION BASIN IMPROVEMENTS
(THORNTON, LEXINGTON GREEN, LEAVENWORTH)**

This Agreement shall be considered as made and entered into as of the date of the last signature hereon, and is 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."

RECITALS:

This Agreement shall be supplemental to, and hereby incorporates the terms and conditions of the AGREEMENT FOR PROFESSIONAL ENGINEERING SERVICES FOR PUBLIC PROJECTS, and attached exhibits, entered into between the City and the Consultant on September 24, 2009.

The project includes improvements to the Thornton, Lexington Green and Leavenworth regional detention basins to be determined following a hydrologic and hydraulic analysis of the three basins. The project will be designed and constructed in accordance with grant requirements.

NOW, THEREFORE, in consideration of the foregoing, the City and Consultant agree as follows:

Section 1. Professional Engineering Services.

For and in consideration of payment by the City as provided under the "Payment for Engineering Services" section of this Agreement, Consultant shall perform the work described in the manner provided or required by the following Scope of Services, which is attached to and made a part of this Agreement as Exhibit A, all of said services to be done in a competent, efficient, timely, good and workmanlike manner and in compliance with all terms and conditions of this Agreement.

Exhibit A Scope of Services

Section 2. Payment for Professional Engineering Services.

1. Budget.
Engineer's total fee for completing the project scope of work as described in Section 1 shall not exceed \$71,618 for design phase services and \$64,800 for construction phase services, for a total of \$136,418.

1. Compensation.
The federal regulations require that projects funded through the Environmental Protection Agency be structured such that costs are to be paid on a cost plus fixed fee basis.

The Engineer will perform professional services as described in Section 1 on an hourly cost plus federally approvable overhead not-to-exceed 1.87 plus fixed fee

basis, with a Not-to-Exceed maximum fee stipulated as described herein. The consultant will bill labor costs for each hour of Engineer staff time spent on the project at the actual hourly salary cost of employees assigned, plus federally approvable overhead not-to-exceed 1.87 times salary to cover overhead and fringe benefits. The fixed fee shall be calculated based on 15 percent of consultant direct labor costs and overhead. Subconsultants will be procured by the Consultant. Subconsultant staff shall be billed to Engineer on an hourly basis, using the actual hourly salary cost of the employees assigned plus an overhead rate time salary to cover overhead and fringe benefits. The subconsultant fixed fee shall be calculated based on 15 percent of subconsultant direct labor costs and overhead. The Subconsultant shall document this calculation in support of staff utilized.

2. Payment Schedule for Professional Engineering Services Fee.

Consultant shall submit monthly statements for professional engineering services rendered. The statements shall be based on Consultant's estimate of the proportion of the total services actually completed for each task as set forth in Exhibit A at the time of billing. The City shall confirm the correctness of such estimates, and may use the City's own engineer for such purposes. The monthly statements should be accompanied by such properly completed reporting forms and such other evidence of progress as may be required by the City. Upon such confirmation, the City shall pay the amount owed within 30 days.

Final billing under this agreement shall be submitted in a timely manner but not later than three (3) months after completion of the services. Billings for work submitted later than three (3) months after completion of services will not be paid. Final payment will be made upon completion of audit by the City.

3. Payment Schedule for Expenses.

All expenses required to complete the scope of services described herein, including but not limited to costs related to mileage, vehicles, reproduction, computer use, etc., shall be included in the basic fee and shall not be paid separately. However, as compensation for expenses that are not included in the standard scope of services, when incurred in direct connection with the project, and approved by the City, the City shall pay the Consultant its actual cost times a factor of 1.15.

Section 4. Ownership of Plans and Documents; Records.

1. Upon completion or termination of this agreement, all documents prepared by the Consultant, including tracings, drawings, estimates, specifications, field notes, investigations, studies, etc., as instruments of service shall become the property of the City.

2. The City shall make copies, for the use of the Consultant, of all of its maps, records, laboratory tests, or other data pertinent to the work to be performed by the Consultant under this Agreement, and also make available any other maps, records, or other materials available to the City from any other public agency or body.

3. The Consultant shall furnish to the City, copies of all maps, records, field notes, and soil tests that were developed in the course of work for the City and for which compensation has been received by the Consultant.

Section 5. Termination.

1. This Agreement may be terminated by either party upon 7- days' prior written notice to the other party in the event of substantial failure by the other party to fulfill its obligations under this agreement through no fault of the terminating party.

2. This Agreement may be terminated by the City for its convenience upon 90 days' prior written notice to the Consultant.

3. In the event of termination, as provided in this Article, the Consultant shall be paid as compensation in full for services performed to the date of that termination, an amount calculated in accordance with Section 2 of this Agreement. Such amount shall be paid by the City upon the Consultant's delivering or otherwise making available to the City, all data, drawings, specifications, reports, estimates, summaries, and that other information and materials as may have been accumulated by the Consultant in performing the services included in this Agreement, whether completed or in progress.

Section 6. Disclosure.

The Consultant affirms that it has not made or agreed to make any valuable gift whether in the form of service, loan, thing, or promise to any person or any of the person's immediate family, having the duty to recommend, the right to vote upon, or any other direct influence on the selection of consultants to provide professional engineering services to the City within the two years preceding the execution of this Agreement. A campaign contribution, as defined by Michigan law shall not be considered as a valuable gift for the purposes of this Agreement.

Section 7. Insurance Requirements.

1. The Consultant shall maintain at its expense during the term of this Agreement, the following insurance:

- A. Worker's Compensation insurance relative to all Personnel engaged in performing services pursuant to this Agreement, with coverage not less than that required by applicable law.
- B. Comprehensive General Liability insurance with maximum bodily injury limits of \$1,000,000 (One Million Dollars) each occurrence and/or aggregate and minimum Property Damage limits of \$1,000,000 (One Million Dollars) each occurrence and/or aggregate.
- C. Automotive Liability insurance covering all owned, hired, and non-owned vehicles with Personal Protection insurance to comply with the provisions of the Michigan No Fault Insurance Law including Residual Liability insurance with minimum bodily injury limits of \$1,000,000 (One Million Dollars) each occurrence and/or aggregate minimum property damage limits of \$1,000,000 (One Million Dollars) each occurrence and/or aggregate.

D. The Consultant shall provide proof of Professional Liability coverage in the amount of not less than \$1,000,000 (One Million Dollars) per occurrence and/or aggregate, and Environmental Impairment coverage.

2. The Consultant shall be responsible for payment of all deductibles contained in any insurance required hereunder.

3. If during the term of this Agreement changed conditions or other pertinent factors should in the reasonable judgment of the City render inadequate insurance limits, the Consultant will furnish on demand such additional coverage as may reasonably be required under the circumstances. All such insurance shall be effected at the Consultant's expense, under valid and enforceable policies, issued by the insurers of recognized responsibility which are well-rated by national rating organizations and are acceptable to the City.

4. All policies shall name the Consultant as the insured and shall be accompanied by a commitment from the insurer that such policies shall not be canceled or reduced without at least thirty (30) days prior notice to the City.

With the exception of professional liability, all insurance policies shall name the City of Novi, its officers, agents, and employees as additional insured. Certificates of Insurance evidencing such coverage shall be submitted to Sue Morianti, Purchasing Manager, City of Novi, 45175 West Ten Mile Road, Novi, MI 48375-3024 prior to commencement of performance under this Agreement and at least fifteen (15) days prior to the expiration dates of expiring policies.

5. If any work is sublet in connection with this Agreement, the Consultant shall require each subconsultant to effect and maintain at least the same types and limits of insurance as fixed for the Consultant.

6. The provisions requiring the Consultant to carry said insurance shall not be construed in any manner as waiving or restricting the liability of the Consultant under this Agreement.

Section 8. Indemnity and Hold Harmless.

A. The Consultant agrees to indemnify and hold harmless the City, its elected and appointed officials and employees, from and against any and all claims, demands, suits, losses and settlements, including actual attorney fees incurred and all costs connected therewith, for any damages which may be asserted, claimed or recovered against the City by reason of personal injury, death and/or property damages which arises out of or is in any way connected or associated with the actions or inactions of the Consultant in performing or failing to perform the work.

The Consultant agrees that it is its responsibility and not the responsibility of the City to safeguard the property and materials used in performing this Agreement. Further, this Consultant agrees to hold the City harmless for any loss of such property and materials used pursuant to the Consultant's performance under this Agreement.

Section 9. Nondiscrimination.

The Consultant shall not discriminate against any employee, or applicant for employment because of race, color, sex, age or handicap, religion, ancestry, marital status, national origin, place of birth, or sexual preference. The Consultant further covenants that it will comply with the Civil Rights Act of 1973, as amended; and the Michigan Civil Rights Act of 1976 (78. Stat. 252 and 1976 PA 4563) and will require a similar covenant on the part of any consultant or subconsultant employed in the performance of this Agreement.

Section 10. Applicable Law.

This Agreement is to be governed by the laws of the State of Michigan and the City of Novi Charter and Ordinances.

Section 11. Approval; No Release.

Approval of the City shall not constitute nor be deemed release of the responsibility and liability of Consultant, its employees, associates, agents and subconsultants for the accuracy and competency of their designs, working drawings, and specifications, or other documents and services; nor shall that approval be deemed to be an assumption of that responsibility by the City for any defect in the designs, working drawings and specifications or other documents prepared by Consultant, its employees, subconsultants, and agents.

After acceptance of final plans and special provisions by the City, Consultant agrees, prior to and during the construction of this project, to perform those engineering services as may be required by City to correct errors or omissions on the original plans prepared by Consultant and to change the original design as required.

Section 12. Compliance With Laws.

This Contract and all of Consultants professional services and practices shall be subject to all applicable state, federal and local laws, rules or regulations, including without limitation, those which apply because the City is a public governmental agency or body. Consultant represents that it is in compliance with all such laws and eligible and qualified to enter into this Agreement.

Section 13. Notices.

Written notices under this Agreement shall be given to the parties at their addresses on page one by personal or registered mail delivery to the attention of the following persons:

City: Rob Hayes, P.E., Director of Public Services and Maryanne
Cornelius, Clerk, with a copy to Thomas R. Schultz, City Attorney

Consultant: Ron Cavallaro, P.E., Orchard, Hiltz & McCliment, Inc.

Section 14. Waivers.

No waiver of any term or condition of this Agreement shall be binding and effective unless in writing and signed by all parties, with any such waiver being limited to that circumstance only and not applicable to subsequent actions or events.

Section 15. Inspections, Notices, and Remedies Regarding Work.

During the performance of the professional services by Consultant, City shall have the right to inspect the services and its progress to assure that it complies with this Agreement. If such inspections reveal a defect in the work performed or other default in this Agreement, City shall provide Consultant with written notice to correct the defect or default within a specified number of days of the notice. Upon receiving such a notice, Consultant shall correct the specified defects or defaults within the time specified. Upon a failure to do so, the City may terminate this Agreement by written notice and finish the work through whatever method it deems appropriate, with the cost in doing so being a valid claim and charge against Consultant; or, the City may preserve the claims of defects or defaults without termination by written notice to Consultant.

All questions which may arise as to the quality and acceptability of work, the manner of performance and rate of progress of the work, and the interpretation of plans and specifications shall be decided by the City. All questions as to the satisfactory and acceptable fulfillment of the terms of this agreement shall be decided by the City.

Section 16. Delays.

No charges or claims for damages shall be made by the Consultant for delays or hindrances from any cause whatsoever during the progress of any portions of the services specified in this agreement, except as hereinafter provided.

In case of a substantial delay on the part of the City in providing to the Consultant either the necessary information or approval to proceed with the work, resulting, through no fault of the Consultant, in delays of such extent as to require the Consultant to perform its work under changed conditions not contemplated by the parties, the City will consider supplemental compensation limited to increased costs incurred as a direct result of such delays. Any claim for supplemental compensation must be in writing and accompanied by substantiating data.

When delays are caused by circumstances or conditions beyond the control of the Consultant as determined by the City, the Consultant shall be granted an extension of time for such reasonable period as may be mutually agreed upon between the parties, it being understood, however, that the permitting of the Consultant to proceed to complete the services, or any part of them, after the date to which the time of completion may have been extended, shall in no way operate as a waiver on the part of the City of any of its rights herein set forth.

Section 17. Assignment.

No portion of the project work, heretofore defined, shall be sublet, assigned, or otherwise disposed of except as herein provided or with the prior written consent of the City. Consent to sublet, assign, or otherwise dispose of any portion of the services shall not be construed to relieve the Consultant of any responsibility for the fulfillment of this agreement.

Section 18. Dispute Resolution.

The parties agree to try to resolve any disputes as to professional engineering services or otherwise in good faith. In the event that the parties cannot resolve any reasonable dispute, the parties agree to seek alternative dispute resolution methods agreeable to both parties and which are legally permissive at the time of the dispute. The parties agree to use their best efforts to resolve any good faith dispute within 90 (ninety) days notice to the other party. In the event the parties cannot resolve that dispute as set forth above, they may seek such remedies as may be permitted by law.

WITNESSES

Orchard, Hiltz & McCliment, Inc.

By: Vyto Kaunelis, P.E.
Its:

The foregoing _____ was acknowledged before me this ____ day of _____,
2011, 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 _____,
2011, by _____ on behalf of the City of Novi.

Notary Public
Oakland County, Michigan
My Commission Expires: _____

EXHIBIT A - SCOPE OF SERVICES

Consultant shall provide the City professional engineering services in all phases of the Project to which this Agreement applies as hereinafter provided. These services will include serving as the City's professional engineering representative for the Project, providing professional engineering consultation and advice and furnishing customary civil, structural, mechanical and electrical engineering services and customary engineering services incidental thereto, as described below.

A. Basic Services.

[see attached]

B. Performance.

1. The Consultant agrees that, immediately upon the execution of this Agreement, it will enter upon the duties prescribed in this agreement, proceed with the work continuously, and make the various submittals on or before the dates specified in the attached schedule. The City is not liable and will not pay the Consultant for any services rendered before written authorization is received by the Consultant.
2. The Consultant shall submit, and the City shall review and approve a timeline for submission of plans and/or the completion of any other work required pursuant to this Scope of Services. The Consultant shall use its best efforts to comply with the schedule approved by the City.
3. If any delay is caused to the Consultant by order of the City to change the design or plans; or by failure of the city to designate right-of-way, or to supply or cause to be supplied any data not otherwise available to the Consultant that is required in performing the work described; or by other delays due to causes entirely beyond the control of the Consultant; then, in that event, the time schedules will be adjusted equitably in writing, as mutually agreed between the City and the Consultant at the moment a cause for delay occurs.
4. Since the work of the Consultant must be coordinated with the activities of the City (including firms employed by and governmental agencies and subdivisions working with the City), the Consultant shall advise the City in advance, of all meetings and conferences between the Consultant and any party, governmental agency, political subdivision, or third party which is necessary to the performance of the work of the Consultant.



CITY OF NOVI

**REGIONAL STORM WATER DETENTION BASIN IMPROVEMENTS
(THORNTON, LEXINGTON GREEN, LEAVENWORTH)
SCOPE OF SERVICES**

March 3, 2011

PROJECT UNDERSTANDING

The City of Novi currently maintains jurisdiction and control over the storm water drainage system within its borders. This drainage system includes fifteen (15) regional storm water detention basins with most of these basins being constructed in the 1980's with the most recent basins, the Dunbarton Pines Regional Detention Basin and the Haggerty Regional Detention Basin, being constructed between 2004 and 2006. A detailed evaluation of these regional storm water detention basins was performed with the 2007 Master Plan Phase II to determine the necessary improvements to increase existing regional detention basin effectiveness in improving stream water quality and flood protection. General issues relating to the performance of the detention basins were outlined in the 2007 Master Plan Phase II and included the following:

1. Jurisdictional and maintenance issues
2. Lack of buffer areas adjacent to the regional storm water detention basins
3. Inlet and outlet pipes in need of repair
4. Excessive sedimentation within the regional storm water detention basins
5. Lack of attenuation

As part of the storm water management capital improvements plan proposed in the 2007 Master Plan Phase II, the City has implemented improvements to the Taft, Bishop and West Oaks Basins. In continuing with the capital improvements plan, the City is seeking proposals for design, bidding, contract administration, and construction oversight services for improvements to Thornton, Lexington Green, and Leavenworth regional storm water detention basins in an effort to address identified issues. The detailed issues for each of the project basins are described in the following sub-sections.

Thornton Regional Storm Water Detention Basin

The Thornton Basin is an inline regional detention basin located between Beck and Taft Roads and 9 Mile and 10 Mile Roads. The basin was constructed to detain flows within Thornton Creek. Approximately 475 acres drain to this basin. The Thornton Dam is regulated by the State's dam safety regulations. The 1983 Storm Water Management Master Plan indicates that there was flooding in the Brookland Farms and Dunbarton Pines Subdivisions, located in this watershed, downstream of the proposed location of this basin. Two detention basins along the Thornton Creek (including the Thornton Basin) and two detention basins along the Miller Creek were planned to alleviate this flooding. The field reconnaissance that was performed during the 2007 Master Plan Phase II resulted in the following findings and recommendations:

- The grates at the outlet structure have potential to collect debris and the lowest level pipe at the outlet structure is currently buried. A total existing outlet structure redesign and reconstruction is necessary to minimize the potential for debris collection and to have a fully operational system with no sediment blockage.
 - The lawn on the east side of the basin is being mowed resulting in little if any buffer zone. Installation of native plant buffers around the pond along with "no mow" signs is necessary
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CITY OF NOVI

REGIONAL STORM WATER DETENTION BASIN IMPROVEMENTS (THORNTON, LEXINGTON GREEN, LEAVENWORTH)

SCOPE OF SERVICES

March 3, 2011

- to provide an adequate buffer zone.
- A small degree of erosion observed around a storm manhole near the outlet and at the 30-inch CMP outlet pipe. Installation of soil stabilization measures near the area of erosion is necessary.
- There is limited access for DPW vehicles available at the site. Installation of an access drive to the basin is necessary.

Lexington Green Regional Storm Water Detention Basin

The Lexington Green Basin is an inline regional detention basin that was constructed in 1990 and is located south of 9 Mile Road and just west of Taft Road. The basin was constructed to detain flows in the middle/lower portion of Thornton Creek. Runoff from approximately 255 acres drains to this basin. The 1983 Storm Water Management Master Plan indicated that the Lexington Green Basin was one of four regional detention basins planned for the Thornton Creek Drainage District. The 2005 Storm Water Master Plan Update indicated that the Lexington Green Basin may have little or no attenuation. A review of the hydrology and hydraulics from the 2005 Storm Water Master Plan Update, and a field reconnaissance performed during the 2007 Storm Water Master Plan Phase II indicate the following findings and recommendations:

- There were dead ash trees observed in the forested area adjacent to the basin (to the north). It was recommended that these trees be left in place.
- The grassed area near the outlet structure was mowed up to the stream banks. Installation of native plant buffers around the pond along with "no mow" signs is necessary to provide an adequate buffer zone.
- A review of previous hydrologic/hydraulic calculations indicates attenuation is minimal during bank full and 2-year events. A retro-fit to the existing outlet structure is necessary to maximize attenuation.

Leavenworth Regional Storm Water Detention Basin

The Leavenworth Basin is an inline regional detention basin that was constructed in 1995 and is located just north of 11 Mile Road and just east of Taft Road. The basin was constructed to detain flows in the middle reaches of Leavenworth Creek. Runoff from approximately 398 acres drains to this basin. This basin is regulated under the State's dam safety regulations. The 1983 Storm Water Management Master Plan indicated that the Leavenworth Basin was chosen as a first priority regional detention basin because the downstream area is currently experiencing flooding at Lanny's and 11 Mile Roads. This basin's design included two "pre-treatment" basins to treat point storm water runoff prior to entering into the basin area. Also, wetlands were mitigated for the project's wetland disturbance. A review of the hydrology and hydraulics from previous studies and a field reconnaissance performed during the 2007 Storm Water Master Plan Phase II indicate the following findings and recommendations:

- The pre-treatment basin had significant sediment accumulation and the first flush basin exhibited standing water during dry conditions. This finding would indicate that
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CITY OF NOVI

**REGIONAL STORM WATER DETENTION BASIN IMPROVEMENTS
(THORNTON, LEXINGTON GREEN, LEAVENWORTH)**

SCOPE OF SERVICES

March 3, 2011

underdrains are blinded with sediment inhibiting infiltration into the underdrains. Sediment deposition in the pre-treatment sedimentation basin at the Leavenworth (Grand River) Basin should be removed to design grades, the outlet control structure should be retrofitted to current first flush and bankfull standards, and the existing underdrains should be abandoned because of the extensive maintenance required.

- A hydraulic analysis should be performed on the existing outlet control structure to evaluate if adequate attenuation is provided for the low flow storm events. The existing outlet structure may need to be upgraded to provide additional attenuation for the bank full and 2-year events.
- The grates at the outlet structure have potential to collect debris. This may lead to premature embankment overtopping. The grates on the existing outlet structures may need to be upgraded to prevent clogging. It should be noted that at multiple visits to this site over the last 15 years, we have not noted outlet structure clogging. This finding will be confirmed with the Novi DPW.
- White pines were observed in the wetland mitigation area in an area that may be too wet to sustain the growth of these trees. White pines in the wetland mitigation area should be relocated to a higher elevation
- The access to this basin is limited. Installation of an access drive to the basin is necessary to provide adequate DPW access to the site.

WORK PLAN

▼ **TASK 1: HYDROLOGIC AND HYDRAULIC ANALYSIS & ALTERNATIVES ANALYSIS**

OHM will develop a hydraulic model of the existing and proposed conditions to determine the sizing of the basin outlet structure retrofits. Water surface elevations and hydraulic data will be computed to support the project design and permitting process. Stage-discharge relationships will be developed for each existing structure. The proposed retrofits will maximize attenuation by picking the smallest retrofitted outlet size that shows decreased flow rates for the smaller storms (e.g. 1-year, 2-year, 10-year) while maintaining the stage for the 100-year flow. Using the results of the hydrologic and hydraulic analysis, OHM will develop preliminary plans for the basin retrofits at Leavenworth, Lexington Green, and Thornton Basins. A meeting will be held with the MDEQ and stakeholders to obtain input. Specific work efforts include:

<p>Benefit: The MDEQ has approved the proposed stage-discharge hydraulics methodology on previous basin improvements projects within the City such as the Bishop and Taft Basin Improvements Projects.</p>

- Visit each basin and conduct a habitat assessment downstream of the Leavenworth, Lexington Green, and Thornton basins. Existing site conditions will be documented in digital field notes and digital photographs linked to a database for efficient processing.
- Obtain flow rates at each basin from the MDEQ and existing FEMA studies for the 1, 2, 10, 50 and 100-year recurrence interval events.



CITY OF NOVI
REGIONAL STORM WATER DETENTION BASIN IMPROVEMENTS
(THORNTON, LEXINGTON GREEN, LEAVENWORTH)
SCOPE OF SERVICES

March 3, 2011

- The flow rate and survey information on the existing outlet structures will be used to develop the stage-discharge hydraulics for existing conditions using the EPA SWMM model. If attenuation for the smaller storm events (e.g. 1-year, 2-year, 10-year) is found to be inadequate, stage-discharge relationships for the proposed retrofit structures will be developed using an iterative procedure. The first step in the iterative procedure involves selecting smaller low level (low flow) outlet sizes and computing the hydraulics. Simply selecting a smaller low-level outlet size to attenuate low flow events will result in an increased 100-year surface elevation, so it will be necessary to increase the high level (high flow) outlet size to maintain the existing 100-year water surface elevation. This process will continue until the size configuration for the low and high level outlets results in the most attenuation for the largest range in events while matching the existing water surface elevation for the 100-year event.
- Based on the hydraulic results, determine the appropriate channel and floodplain size, channel slope, in-stream habitat structures and sizes of created wetland areas and associated control structure modifications.
- Prepare basis of design technical memorandum and submit to the City.
- OHM will develop conceptual design plans which may include retrofitting outlet structures, dam modifications, habitat creation, removal of invasive species, and planting native vegetation buffers. “No- mow” signs will also be incorporated into the design.
- The work on the Leavenworth Basin will include investigation and design of the sedimentation basin and sedimentation basin outlet structure improvements. Modifications to the basin outlet control structure located adjacent to 11 Mile Road may be warranted based on the results of the hydrologic/hydraulic analysis. It should be noted that the existing storm sewer diversion weir hydraulics will need to be verified for submergence and proper operation based on any recommended modifications to the outlet control structure.
- The work on the Thornton Basin will likely encompass total rebuilding of the outlet control structure to reduce the likelihood of grate clogging and to improve attenuation where possible.
- The work on the Lexington Green Basin will primarily involve minor modifications to the outlet control structure to improve attenuation and native plant buffers and “no mow” signs to improve basin buffer zones.
- The most recent MDEQ dam safety inspection reports for the Thornton and Leavenworth basins will be reviewed and comments will be addressed in the design, if applicable.

Benefit:

The Leavenworth and Thornton basins are regulated under the State of Michigan Dam Safety Act. Specific design elements, such as embankment protection, will have to be considered during conceptual design. OHM has experience in meeting dam safety requirements.



CITY OF NOVI

**REGIONAL STORM WATER DETENTION BASIN IMPROVEMENTS
(THORNTON, LEXINGTON GREEN, LEAVENWORTH)**

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- The conceptual plans will be provided to project partners, regulatory agency personnel and stakeholders. The plans will be revised based on input and submitted to the MDEQ for initial comments.
- OHM will develop preliminary construction cost estimates for all construction elements.

Task 1 Deliverables:

- ✓ Results of habitat assessment
- ✓ Hydrologic/hydraulic basis of design technical memorandum
- ✓ Conceptual design plans
- ✓ Meeting minutes
- ✓ Cost estimates

TASK 2: SURVEY/DESIGN

Under this task, OHM will perform a topographic survey in locations where re-grading is proposed. For this proposal, we have assumed that the only location of proposed re-grading is the Leavenworth pre-treatment basin. In addition, OHM will prepare final design and contract documents to competitively bid the project. Specific work efforts include:

- Obtain horizontal and vertical control for the topographic survey
- Obtain two (2) topographic survey cross sections downstream of each basin.
- Obtain updated elevation information on the outlet control structures for each basin.
- Obtain topographic survey of the Leavenworth pre-treatment basin including sediment depth probes, surface topography, diversion weir sizes and elevations, outlet structure sizes and elevations, and pond storage information. It should be noted that the existing storm sewer diversion weir hydraulics will need to be verified for submergence and proper operation based on recommended modifications to the outlet control structure.
- Preparation of final engineering plans and contract documents.
- Incorporation of City comments into the plans.
- Prepare an Engineer's Estimate of project costs.
- OHM will assist the City to advertise and bid the project.
- Provide a recommendation of award to the City.

Task 2 Deliverables:

- ✓ Final plans and contract documents
-



**CITY OF NOVI
REGIONAL STORM WATER DETENTION BASIN IMPROVEMENTS
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- ✓ Engineer's Estimate
- ✓ Recommendation of Award
- ✓ Digital photo survey and field notes of basins.
- ✓ Basin surveys

▼ **TASK 3: REGULATORY COORDINATION, PERMITTING & DAM SAFETY DESIGN**

Under this task, OHM will coordinate activities with the appropriate regulatory agencies. Coordination and regular meetings will be held with regulatory agencies as needed to facilitate close communication. This task will also include the design effort required to address the recommended improvements per the November 2008 Dam Safety Inspection Reports. Specific work efforts include:

Benefit:
The OHM team has extensive experience with permitting of inline detention basins

- Meet with the MDEQ and project partners to set timetables and discuss initial concepts prior to initiating the design. A pre-application meeting will be held to initiate MDEQ permitting coordination.
- Based on the agreed upon conceptual design, OHM will prepare and submit for the MDEQ permit.
- OHM will prepare MDEQ permit application materials and obtain Joint Permit.
- The dam safety improvements include design of the replacement of the concrete end section for the low-level inlet at the Thornton Basin. The Thornton Basin Dam Safety design effort will also include re-design of the spillway inlet such that debris buildup is reduced.
- Prepare dam safety maintenance plans as noted in the 2008 MDEQ inspection for the Thornton and Leavenworth Basins.
- Submit Dam Safety close-out documents and meet with the MDEQ Dam Safety Unit at the site upon completion of as-builts.

Task 3 Deliverables:

- ✓ Joint Permit
- ✓ Dam Safety Design Recommendations
- ✓ Final Dam Safety Close-out Documents

▼ **TASK 4: GRANT ADMINISTRATION**

For this task, OHM will provide oversight and administration of the grant management process to ensure that the project is implemented consistent with the requirements of the Wayne County Rouge Project Office (RPO). These requirements may include accounting for Disadvantage Business Enterprise (DBE) requirements and

Benefit:
OHM has worked with the Rouge Project Office since its inception. We have worked on over 20 grant projects with total construction costs of over



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**REGIONAL STORM WATER DETENTION BASIN IMPROVEMENTS
(THORNTON, LEXINGTON GREEN, LEAVENWORTH)**

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other grant requirements. We have assumed that the DBE requirements can be met during the construction phase of the project. If a DBE is required for the design portion of the project, OHM will use our qualified DBE subconsultant, Niswander Environmental, to perform the restoration and native plantings design for the detention basins. The quarterly progress reports that are to be submitted to the RPO will also serve as reimbursement requests, so that the City will be reimbursed with grant funding on a regular basis. This task will also include preparation of a final grant closeout report. The report will include a summary of the project, lessons learned, and before and after photographs.

Task 4 Deliverables:

- ✓ Quarterly progress reports to Wayne County Rouge Project Office
- ✓ Final RPO closeout report

TASK 5: CONSTRUCTION ADMINISTRATION

Under this task, OHM will administer construction of the project to verify that the basin improvements are consistent with the contract plans and specifications. Specific work efforts include:

- Process contract documents
- Conduct preconstruction meeting
- Construction coordination
- Process contractor pay requests and other construction documents including close-out documentation
- Conduct substantial completion and final walk-through
- Prepare as-builts of the completed project

Task 5 Deliverables:

- ✓ Monthly pay estimates
- ✓ Final punch list
- ✓ Final walk through
- ✓ Project closeout documentation
- ✓ As-built drawings

TASK 6: CONSTRUCTION OBSERVATION

Under this task, OHM will provide full-time construction observation for the project to verify that the basin improvements are consistent with the contract plans and specifications. For this task, we have assume that a majority of construction would take place over a four (4) month period and that full-time observation would be provided for this period. Specific work efforts include:



CITY OF NOVI
REGIONAL STORM WATER DETENTION BASIN IMPROVEMENTS
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- Provide overall project observation on a full-time basis
- Prepare construction observation reports

Task 6 Deliverables:

- ✓ Field reports for construction observation

PROJECT SCHEDULE

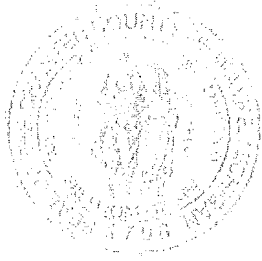
City of Novi
 RPO Round X - Part B
 Regional Basin Retrofits for Water Quality Improvements

Project Schedule

Month:	Apr 2011	May 2011	Jun 2011	Jul 2011	Aug 2011	Sep 2011	Oct 2011	Nov 2011	Dec 2011	Jan 2012	Feb 2012	Mar 2012	Apr 2012	May 2012	Jun 2012
Task 1: Project Administration, External Coordination and Reporting															
Task 2: Field Investigation & Topographic Survey															
Task 3: Hydrologic and Hydraulic Analysis															
Task 4: Conceptual Design															
Task 5: Regulatory Coordination and Permitting															
Task 6: Final Engineering Design and Preparation of Contract Documents															
Task 7: Project Construction and Construction Administration															
Task 8: Final Project Report															

CITY OF NOVI
Inline Detention Basin Upgrades - Leavenworth, Lexington Green, Thornton Basins
Cost and Hours Estimate
March 3, 2011

	QAQC Ron Cavallaro, P.E.	Project Manager Tim Kuhns, P.E.	Project Engineer Pat Droze, P.E.	Surveyor III	Surveyor I	Professional Surveyor Andy Schipsema, P.S.	CAD Operator	Field Engineer	Admin.	BUDGET TOTALS
Tasks	\$150.00	\$114.00	\$104.00	\$92.00	\$70.00	\$114.00	\$81.00	\$76.88	\$50.00	
Task 5 - Construction Administration										
Process Contract Documents		4	8						2	
Conduct Pre-con meeting		8	8							
Construction Coordination		8	22							
Process Pay Requests			8						24	
Substantial/Final Completion Walk Thrus	8	8	8							
As-builts			16	8	8		16			
TOTAL HOURS	8	28	70	8	8	0	16	0	26	164
TOTAL COSTS	\$1,200	\$3,192	\$7,316	\$736	\$560	\$0	\$1,296	\$0	\$1,300	\$15,600
Task 6 - Construction Observation										
Full Time Construction Inspection (4 months @ 160hrs/mo)								640		
TOTAL HOURS	0	0	0	0	0	0	0	640	0	640
TOTAL COSTS	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$49,200	\$0	\$49,200
SUBTOTAL TASKS 1, 3 & 4 (Tasks outside of standard fee curve)	\$3,000	\$11,172	\$27,456	\$0	\$0	\$0	\$3,240	\$0	\$100	\$44,968
SUBTOTAL TASK 2 (In standard design fee curve based on construction cost of \$260,000)	\$1,200	\$2,736	\$9,152	\$3,680	\$2,800	\$1,140	\$5,832	\$0	\$110	\$26,650
SUBTOTAL TASK 5 (In standard construction administration fee curve)	\$1,200	\$3,192	\$7,316	\$736	\$560	\$0	\$1,296	\$0	\$1,300	\$15,600
SUBTOTAL TASK 6 (Hourly construction observation estimate)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$49,200	\$0	\$49,200
TOTAL HOURS	36	150	422	48	48	10	128	640	30	1,513
TOTAL COSTS	\$5,400	\$17,100	\$43,924	\$4,416	\$3,360	\$1,140	\$10,368	\$49,200	\$1,510	\$136,418



Robert A. Ficano
County Executive

March 25, 2011

Mr. Benjamin Cory, P.E.
Department of Public Services-Engineering Division
City of Novi
Field Services Complex
26300 Delwal Drive
Novi, MI 48375

**RE: Rouge River National Wet Weather Demonstration Project
Round X, Part "B" Grant Program for Storm Water General Permit Activities
Regional Basin Retrofits for Water Quality Improvements Project (RXB-13)**

Dear Mr. Cory:

Please find enclosed executed copy of the Inter-Agency Agreement (IAA) with associated attachments for the project indicated above. This agreement will provide funds for the Round X Project "Regional Basin Retrofits for Water Quality Improvements". Note that reports on expenditures and project status are required quarterly.

Please contact Mr. Razik Alsaigh at (313) 967-2283 regarding any issues for this project. Thank you for your participation in the Round X Projects. We look forward to continuing our support of your efforts to help restore the beneficial uses of the Rouge River.

Sincerely,

A handwritten signature in cursive script that reads "Kelly A. Cave".

Kelly A. Cave, P.E.
Director, Water Quality Management Division

cc: Razik Alsaigh, WCWQMD

**ROUGE RIVER NATIONAL WET WEATHER DEMONSTRATION PROJECT
ROUGE RIVER GENERAL PERMIT PROJECTS
GRANT AGREEMENT
BETWEEN THE COUNTY OF WAYNE AND
THE CITY OF NOVI**

THIS AGREEMENT is entered into this 15th day of MARCH, 2011, between the County of Wayne, Michigan, a body corporate and Charter County ("County") and City of Novi ("*Entity*").

RECITALS

WHEREAS, the County is the recipient of, and is responsible for the administration of certain federal grant funds referred to as the Rouge River National Wet Weather Demonstration Project Grant ("Grant").

WHEREAS, the United States Environmental Protection Agency ("USEPA") has established Grant conditions and regulations that require the County to act as the responsible party with respect to the Grant, including those provisions described within 40 CFR § 31.

WHEREAS, the USEPA will supervise the Grant and Grant conditions in order that the Grant be used in accordance with the requirements of the law.

WHEREAS, the parties have agreed to follow certain administrative procedures and cooperate on the various tasks to be undertaken in order for the County to comply with the Grant's requirements and objectives.

WHEREAS, the Rouge River National Wet Weather Demonstration Project ("Rouge Project") is a comprehensive watershed-wide program addressing wet weather pollution problems ranging from controlling combined sewer overflows ("CSO") to storm water runoff in the Rouge River.

WHEREAS, one of the purposes of the Grant is to enable the County and local units of government within the Rouge River Watershed to evaluate alternative approaches for controlling sources of water pollution.

WHEREAS, implementing the activities and projects for investigating and controlling CSOs and sanitary sewer overflows will further the Grant's goal to protect public health and improve water quality in the Rouge River.

WHEREAS, implementing the National Pollutant Discharge Elimination System (NPDES) Wastewater Discharge General Permit for Storm Water Discharges from Municipal Separate Storm Water Drainage Systems (MS4s) – Watershed General Permit (Permit No. MIG619000) or the NPDES Wastewater Discharge General Permit for Storm Water Discharges from MS4s –

Jurisdictional General Permit (Permit No. MIS049000) (“Storm Water General Permits”) issued by the Michigan Department of Natural Resources and Environment (“MDNRE”) for the local unit will further the Grant’s goal to improve water quality and recreational use of the Rouge River.

WHEREAS, illicit discharge elimination, public education and subwatershed management plan implementation are considered examples of the types of activities included in the Storm Water General Permits which will assist in restoring the water quality of the Rouge River.

WHEREAS, the *Regional Basin Retrofits for Water Quality Improvements Project*, set forth in this Agreement would further the goals of the Grant.

NOW, THEREFORE, IN CONSIDERATION OF THE MUTUAL COVENANTS CONTAINED HEREIN, the parties hereby agree as follows:

ARTICLE I SCOPE OF PROJECT

1.1 The County will provide a portion of the Grant to *Entity* to enable the *Entity* to do the activities described in Attachment “A.”

1.2 The budget presented in Attachment “A” along with the scope of work presented in Attachment “A” specify the performance of the work as anticipated at the time the contract is signed.

1.3 The *Entity* agrees to submit a Final Project Summary Report at the project end to assist the County in the grant close-out process. The Final Project Summary Report should generally include:

- A. A summarized clear description of the project. In addition to the project description, the report should include the following: project objectives; major elements of the project; project products completed (project products are listed in Attachment “A”); and project highlights.
- B. Comments on how the completion of this project benefited or is projected to improve the Rouge River.
- C. A written set of recommendations to other local governments and agencies that evaluates the benefits and cost effectiveness of the project. The evaluation should consider the total project cost. The recommendations should also summarize how the project was evaluated and the evaluation results of the effectiveness of the project.
- D. Comments on how the results of this project are transferable to other communities or agencies.
- E. List of all task products completed. The list should include the official name of the products.

ARTICLE II SCHEDULE OF WORK

2.1 The time frame for completion of the project milestones is contained in Attachment “A.”

**ARTICLE III
FINANCIAL PROVISIONS AND BUDGET**

3.1 The detailed budget is contained in Attachment "A" and will be considered an approximation based on the best information available at the time of this Agreement. The internal distribution of the monies allocated among project elements may be modified by the *Entity* up to a total cumulative transfer among direct cost categories not to exceed 10% of the total budget without written approval by the County. Other modifications to the budget will be only upon written Agreement between the County and the *Entity*.

3.2 The County will provide funds from the Grant to partially fund the approved, allowed, and eligible costs for activities outlined in Attachment "A." The total amount to be provided by the County from the Grant for this project shall not exceed \$202,500.00. The *Entity* shall provide a minimum match of \$202,500.00 or 50 percent of approved costs, which may be satisfied by demonstrating either cash or in-kind services from non-federal sources.

3.3 The County will hold the final 10 to 20 percent of the total federal funds allowable to the *Entity* until the completion of the project as identified in Attachment "A" by the *Entity*. Upon completion of all the tasks by the *Entity*, the approval of the *Entity's* task products by the County, and the approval of the *Entity's* submittal of the documentation of the final project cost by the County, the remaining 10 to 20 percent of the federal funds will be reimbursed to the *Entity*.

**ARTICLE IV
CONTRACT ADMINISTRATION AND PAYMENT**

4.1 This Agreement will be administered on a cost reimbursement basis. The *Entity* shall submit to the County project status reports and invoices on standard forms provided by the County.

4.2 All reports and invoices shall be submitted at least quarterly, no more than forty (40) days after each quarter end date. Reimbursements shall not be allowed without a status report submission.

4.3 Invoices must clearly identify:

- A. Total program outlays to the date of the invoice;
- B. The non-federal share of amount expended;
- C. The federal share of amount expended;
- D. The federal payments previously received;
- E. The reimbursements requested for the billing period;
- F. Project work element detail;
- G. Project direct costs and outside services;
- H. Time sheets for hourly employees and labor distribution sheets for salaried employees; and
- I. Documentation of all contractor costs.

4.4 The invoices must be certified for completeness and correctness by an appropriate *Entity* official.

4.5 All invoices will be paid by the County within thirty (30) days of receipt of funds from the USEPA.

4.6 The *Entity* will provide documentation to the County that demonstrates compliance with federal and state regulations before payments will be processed. The *Entity* will prepare all cost estimates for implementation of the planned activities, including a breakdown of eligible and ineligible cost items, with respect to grant funding. These cost estimates will be provided in a format to be established by the County.

4.7 The *Entity* will exercise the necessary contract oversight and administration of any subcontracts. These duties include, but are not limited to construction inspection and negotiating and executing change orders (where construction is to occur), monitoring project progress, responding to subcontractor or citizen complaints, coordinating between different subcontracts, and overseeing subcontractors' compliance with the approved project plans and specifications. These activities are to be done in accordance with procedures established by the Grant and by 40 CFR § 31.1, *et seq.*

4.8 All reports, invoices, and work products required under this Agreement will be transmitted to the Director of Water Quality Management Division, Department of Public Services, Wayne County, care of Mr. Razik Alsaigh, 400 Monroe Street, Suite 400, Detroit, Michigan 48226.

ARTICLE V AUDIT AND ACCESS TO RECORDS

5.1 The *Entity* will maintain and retain financial records and supporting documentation in accordance with generally accepted accounting procedures and in accordance with the requirements of federal and state regulations.

5.2 The *Entity* will cooperate with and assist the County with respect to federal or state audit review related to the use of Grant funds. This cooperation shall include preservation of the necessary documentation and access to the records until federal and/or state audit resolution processes have been completed and notification of records disposal has been received by the County. The *Entity* will cooperate with the County with respect to evaluating audit findings of this Agreement.

5.3 The *Entity* will be responsible for the reimbursement of any funds required to be returned to the USEPA due to *Entity* actions or omissions, as determined by audit findings, and hold the County harmless from any repayment therefrom.

**ARTICLE VI
GENERAL PROVISIONS**

6.1 This Agreement is expected to be funded in part with funds from the USEPA. The *Entity* will not enter into any agreements with either the United States or any of its departments, agencies, or employees, which are or will be a party to this Agreement or any lower tier sub-agreement for monies related to this specific project. This Agreement is subject to regulations contained in 40 CFR. § 31 in effect on the date of the assistance award for this project.

6.2 The *Entity* understands that the County has no funds other than the Grant funds to pay for the project costs. All costs other than the Grant funds associated with the activities which are the subject matter of this Agreement will be the responsibility of the *Entity*.

6.3 The *Entity* will cooperate with the County to ensure timely completion of the tasks undertaken as part of the project. Cooperation includes, but is not limited to sharing information and records, participation in applicable committees, and assisting in development and evaluation of water quality improvement alternatives.

6.4 The *Entity* warrants that it will comply with the provisions of 40 CFR § 31 and, as applicable, all provisions contained in the Grant. In the event there are any conflicts between the provisions of this Agreement and the terms of the Grant, the Grant terms will prevail. The fair share goals for the Grant as identified in that letter are as follows:

3% Minority Business Enterprise (MBE) 5% Woman Business Enterprise (WBE)

6.5 The *Entity* is responsible for securing all necessary permits from regulatory agencies and is responsible for obtaining any professional services necessary for the project activities. The *Entity* will act at all times in accordance with applicable federal, state, and local regulations, and will secure any permits and negotiate the terms of agreements in accordance with those requirements.

6.6 If the *Entity* secures any interest in lands, including easements, these acquisitions will be in accordance with applicable federal law and regulations including 49 CFR § 24 and state statutes related to the taking of interests in land.

6.7 With respect to construction projects, the *Entity* is responsible for conducting post-project evaluation and certifying that any construction meets the approved design criteria. These certifications will be submitted to Wayne County and the USEPA and MDNRE, where appropriate, in accordance with the Grant requirements and applicable regulations. If the project does not meet the design criteria, the *Entity* will be responsible for taking the necessary corrective measures.

6.8 The ownership of any facilities and/or infrastructure constructed and/or improved under this Agreement will remain with the *Entity*. The *Entity* agrees to operate and maintain the facility and/or infrastructure constructed and/or improved under this Agreement consistent with the Grant project goals and in accordance with the Grant conditions and requirements of applicable federal, state, and local ordinances, statutes and regulations.

6.9 The *Entity* warrants that it will comply with the provisions of 40 CFR § 31.32 relating to any equipment including computers and peripheral computer equipment purchased as part of this Grant assistance project.

6.10 Any amendment to this Agreement must be in writing, and signed and acknowledged by a duly authorized representative of each party.

6.11 The *Entity* warrants that it will comply with the provisions of 40 CFR § 31.36(d) relating to procurement of services as part of this Grant assistance project. For construction contracts the *Entity* shall use bid type contracts. For consulting contracts, the *Entity* shall use any of the four procurement procedures in the 40 CFR § 31. For most of the consulting contracts, the RFQ or RFP procurement procedure is the applicable one. The selection of the consultant can be based on qualification or on qualification and cost proposal. Upon consultant selection, procurement documentation must be submitted to the County. The procurement documentation should include:

- a. Rationale for method of procurement;
- b. Copy of advertisement, where it was published and for how long;
- c. Number of proposals received;
- d. Description of selection process (e.g., pre-established criteria of qualification, cost, or both); and
- e. Selection of type of contract to be used.

6.12 The *Entity* warrants that it will comply with the provisions of 40 CFR § 31.36(f) relating to contract cost or price of services as part of this Grant assistance project. Price/cost analysis must be performed by the *Entity* prior to award of any type of contract. The selected contractor must submit a cost proposal to the *Entity*, with cost identified by task. The cost proposal should consist of the following categories:

- a. Direct labor (with backup that establish this cost (hours and personnel));
- b. Overhead (backup to establish this rate);
- c. Other Direct Expenses (backup to establish this item);
- d. Subconsultant;
- e. Subconsultant Administrative Charge (if applicable);
- f. Total; and
- g. Fee (Fixed for a fixed fee contract).

The cost analysis consists of the *Entity* determining the reasonableness of the selected contractor's proposed cost (i.e., is the allowable overhead rate used, are correct pay rates used for employees, are expense charges accurate). Price analysis consists of the *Entity* comparing proposed prices received with other proposals submitted for this job, an independent estimate from the *Entity's* experience or cost estimate from existing master plan. Copies of price/cost analysis documentation should be submitted to the County. After completing the price/cost analysis, any type of the contracts indicated below can be executed:

- a. Cost plus fixed fee contract;
- b. Fixed price (lump sum) contract;
- c. Catalog price contracts (e.g., geotechnical investigations where the price of the tests are established in the market); or
- d. For certain contracts where the above types are not applicable, the County will allow contracts with proscribed billing rates (per diem contracts), which establishes pay rates for professional categories (e.g., Engineer I, Engineer II, Project Engineer, Field Technical Help, etc.).

These above types of contracts are applicable for the main contractor and for sub-contractors. "Cost plus a percentage of cost" and "percentage of construction cost" methods of contracting shall not be used.

ARTICLE VII WAIVER OF BREACH

7.1 No failure by a party to insist upon the strict performance of any term of this Agreement or to exercise any term after a breach, constitutes a waiver of any breach of the term. No waiver of any breach affects or alters this Agreement, but every term of this Agreement remains effective with respect to any other existing or subsequent breach.

ARTICLE VIII TERMINATION

8.1 This Agreement will terminate after the final audit and final resolution of any issues related thereto as described within 40 CFR §104.1, *et seq.*

8.2 This Agreement may be terminated in whole or in part in writing by the County for its convenience and/or if the *Entity* does not remain a Member in good standing (if eligible) or Cooperating Partner of the Alliance of Rouge Communities (ARC), for any reason for the duration of this Agreement. The *Entity* must be given: (1) not less than thirty (30) calendar days written notice of intent to terminate; and (2) an opportunity for consultation with the County prior to termination.

8.3 This Agreement may be terminated in whole or in part in writing by the *Entity* for its convenience. The County must be given: (1) not less than thirty (30) calendar days written notice of intent to terminate; and (2) an opportunity for consultation with the *Entity* prior to termination.

8.4 If termination is effected by the County or the *Entity*, an equitable adjustment in the Agreement price will be made. The equitable adjustment for any termination will provide for payment to the *Entity* for services rendered and expenses incurred prior to termination. Equitable adjustment also will include termination settlement costs reasonably incurred by the *Entity* and approved by the County, relating to personnel hired specifically for activities related to this Agreement, provided such costs are eligible and allowable under the terms of the Grant.

8.5 Upon receipt of a termination notice pursuant paragraphs 8.2 or 8.3, above, the *Entity* will:

(1) promptly discontinue all services affected (unless the notice directs otherwise), and (2) deliver or otherwise make available to the County all data, drawings, specifications, reports, estimates, summaries, and such other information and materials as may be accumulated by the *Entity* in performing this Agreement, whether completed or in process.

8.6 Upon termination pursuant to paragraphs 8.2 or 8.3, above, the County may take over the work and prosecute the same to completion by Agreement with another party or otherwise.

8.7 All notices of termination will be sent certified mail, postage prepaid and return receipt requested as follows:

If to the County:

Attn.: Director, Water Quality Management Division
Wayne County Department of Public Services
400 Monroe, Suite 400
Detroit Michigan 48226

If to the *Entity*:

Attn.: City Engineer
City of Novi
26300 Delwal Drive
Novi, MI 48375

ARTICLE IX LIABILITY

9.1 All liability, loss, or damage as a result of claims, demands, costs, or judgments arising out of activities of the *Entity* will be the sole responsibility of the *Entity* and not the responsibility of the County. Nothing herein will be construed as a waiver of any governmental immunity by the *Entity*, its agencies, or employees have as provided by statute or modified by court decisions.

9.2 All liability, loss, or damage as a result of claims, demands, costs, or judgments arising out of activities of the County will be the sole responsibility of the County and not the responsibility of the *Entity*. Nothing herein will be construed as a waiver of any governmental immunity by the County, its agencies, or employees have as provided by statute or modified by court decisions.

9.3 The provisions of Article IX shall survive the expiration or any termination of this Agreement for a period of three (3) years.

ARTICLE X INSURANCE

10.1 The *Entity* or its contractors', at its expense, must maintain during the term of this Agreement the following insurance:

- A. Professional Liability/Errors and Omissions coverage with minimum limits of One Million Dollars (\$1,000,000.00) on a claims made basis and Two Million Dollars (\$2,000,000.00) aggregate with three year tail insurance coverage.
- B. Workers' Compensation Insurance which meets Michigan statutory requirements.
- C. Commercial General Liability Insurance with minimum limits of One Million Dollars (\$1,000,000.00) per occurrence and One Million Dollars (\$1,000,000.00) aggregate for bodily injury and property damage.
- D. Commercial Automobile Liability Insurance (including hired and non-owned vehicles) with minimum limits for bodily injury of One Million Dollars (\$1,000,000.00) per occurrence and with minimum limits for property damage of Five Hundred Thousand Dollars (\$500,000.00) per occurrence.

10.2 The insurance must be effected under valid and enforceable policies, issued by recognized, responsible Michigan insurers which are well-rated by national rating organizations. Commercial General Liability and Commercial Automobile Liability Insurance policies must name the County as an additional named insured. The additional insured coverage shall be primary, non-contributory coverage and must not be canceled or materially changed without at least thirty (30) days prior notice from the *Entity* to the County. The *Entity* must submit certificates evidencing the insurance to County prior to commencing project services, and at least thirty (30) days prior to the expiration dates of expiring policies.

ARTICLE XI NON-DISCRIMINATION

11.1 In connection with the performance of project services under this Agreement, the *Entity* must comply with:

- A. Titles VI and VII of the Civil Rights Act (42 U.S.C. §§ 2000d et. seq.) and the United States Department of Justice Regulations (28 C.F.R. Part 42) issued pursuant to those Titles.
- B. The Age Discrimination Act of 1985 (42 U.S.C. §6101-07).
- C. Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. §794).
- D. The Americans with Disabilities Act of 1990 (42 U.S.C. §12101 et. seq.) and its associated regulations.
- E. The Michigan Civil Rights Act (P.A. 1976 No. 453) and the Persons With Disabilities Civil Rights Act (P.A. 1976 No. 220).

F. The anti-discrimination provisions of the Wayne County Code governing “Ethics in Public Contracting.”

11.2 *Entity* must notify any contractor of the obligations relative to non-discrimination under this Agreement when soliciting the contractor. *Entity* will include the provisions of this Article in any subcontract agreement.

11.3 The *Entity* is responsible for complying with all federal and state laws and regulations regarding competitive bidding.

ARTICLE XII ASSIGNABILITY

12.1 This Agreement will be binding upon and inure to the benefit of the parties hereto and their respective heirs and assigns.

12.2 Neither of the parties hereto may assign this Agreement without the prior written consent of the other.

ARTICLE XIII VALIDITY

13.1 If any provision of this Agreement or the application to any person or circumstance is, to any extent, judicially determined to be invalid or unenforceable, the remainder of the Agreement, or the application of the provision to persons or circumstances other than those as to which it is invalid or unenforceable, is not affected and is enforceable, provided the invalid provision does not substantially alter the Agreement or make execution impractical.

ARTICLE XIV ENTIRE AGREEMENT

14.1 This document, including any attachments, contains the entire Agreement between the parties.

14.2 Neither party has made any representations except those expressly set forth herein.

14.3 No rights or remedies are, or will be acquired, by either party by implication or otherwise unless set forth herein.

ARTICLE XV PATENTS, COPYRIGHTS, AND RIGHTS IN DATA

15.1 If this Agreement involves research, developmental, experimental, or demonstration work and any discovery or invention arises or is developed in the course of, or under this Agreement, the

Entity and the County shall retain joint authority to patent or license.

15.2 The parties agree that any plans, drawings, specifications, computer programs, technical reports, operating manuals, and other work submitted, or which are specified to be delivered under this Agreement, or which are developed or produced and paid for under this Agreement are subject to the rights of both parties and both parties shall retain an irrevocable license to reproduce, publish and use in whole or in part and to authorize others to do so.

15.3 This Agreement is funded in part by the USEPA and is therefore subject to the reporting and rights provisions of 40 CFR § 30 Subpart D including Appendix B and Appendix C.

15.4 This clause shall be included in all subcontracts.

ARTICLE XVI JURISDICTION AND GOVERNING LAW

16.1 This Agreement, and all actions arising from it, must be governed by, subject to, and construed according to the law of the State of Michigan.

ARTICLE XVII EFFECTIVE DATES

17.1 This Agreement becomes effective and shall allow for billing of costs incurred immediately upon signing by both parties. This Agreement, unless extended by mutual written agreement, expires on October 30, 2012. Should the USEPA require reimbursement by the County of funds transferred to the *Entity* for costs incurred prior to this Agreement, the *Entity* shall be responsible for any such reimbursement.

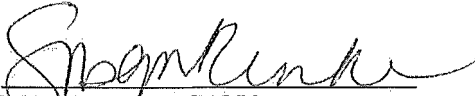
17.2 This Agreement may be executed in counterparts, each of which will be deemed an original but all of which together will constitute one Agreement.

ARTICLE XVIII PARTY REPRESENTATIVES

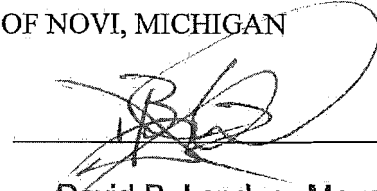
18.1 The County's representative for this Agreement is the Director of Water Quality Management Division, Department of Public Services, Wayne County. The *Entity* representative for this Agreement is the City Engineer for City of Novi. Either party may assign alternate representatives upon written notification of the other party.

IN WITNESS WHEREOF, the parties have caused this Agreement to be signed on the date first above written.

COUNTY OF WAYNE, MICHIGAN

By: 
Its: ROBERT A. FICANO
Wayne County Executive

CITY OF NOVI, MICHIGAN

By: 
Its: David B. Landry - Mayor