



CITY of NOVI CITY COUNCIL

Agenda Item D
November 8, 2010

SUBJECT: Approval to award a contract for design engineering services for the Civic Center Regional Detention Basin Upgrades to Spalding DeDecker Associates, Inc. (SDA) for a not-to-exceed design fee of \$14,824.

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

CITY MANAGER APPROVAL: *[Signature]* *R24*

EXPENDITURE REQUIRED	\$14,824
AMOUNT BUDGETED	\$26,700
LINE ITEM NUMBER	210-211.00-805.023

BACKGROUND INFORMATION:

The purpose of this project is to repair and improve the Civic Center Regional Detention Basin, located in Section 27 south of Power Park. The Civic Center basin is located at the southern limits of the Civic Center property. It is an in-line basin serving approximately 489 acres upstream along Miller Creek and is the final storm water detention basin upstream of Northville Township. The basin is maintained by the City of Novi, was recommended for improvements in the 2007 Storm Water Master Plan Phase II, and was funded in the 2010-11 Capital Improvement Program. This project will also address some repairs needed for the adjacent Power Park storm water basin which serves the Civic Center Campus and Novi High School and discharges into the Civic Center basin. A location map has been attached for reference.

The Civic Center basin project will include improved access to the basin, retrofitting the outlet control structure to reduce clogging, the repair and stabilization of eroded areas in the vicinity of the basins, the evaluation of both basin control structures to potentially further restrict high frequency storms, and the repair/replacement of the inlet and outlet pipes of the Power Park basin. The complete scope is detailed in the attached supplemental agreement.

SDA's engineering fees are based on the fixed fee schedule established in the Agreement for Professional Engineering Services for Public Projects. The design fees for this project will be \$14,824 (12.75% of the estimated construction cost of \$92,736, plus \$3,000 for a hydraulic analysis of the outlet control structures for each basin). The construction phase engineering fees will be awarded at the time of construction award and will be based on the contractor's bid price and the fee percentage established in the Agreement for Professional Engineering Services for Public Projects. A draft of the Supplemental Professional Engineering Services Agreement for this project is enclosed and includes the project scope and estimate.

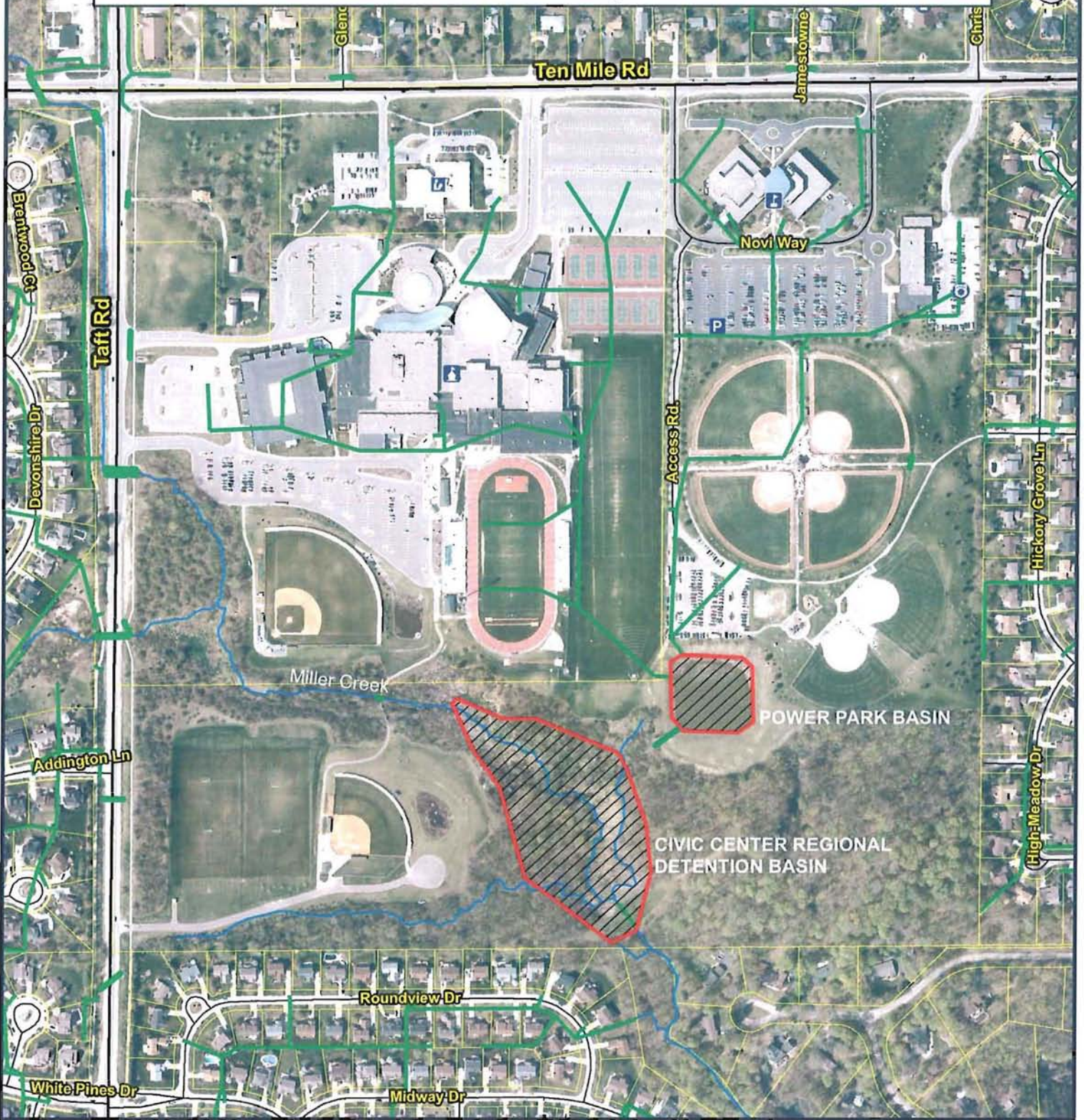
SDA completed engineering services for the West Oaks Regional Detention Basin Improvements project in 2009. This project is anticipated to begin in the summer of 2011 and be completed by the end of the 2011 construction season.

RECOMMENDED ACTION: Approval to award a contract for design engineering services for the Civic Center Regional Detention Basin Upgrades to Spalding DeDecker Associates, Inc. (SDA) for a not-to-exceed design fee of \$14,824.

	1	2	Y	N
Mayor Landry				
Mayor Pro Tem Gatt				
Council Member Crawford				
Council Member Fischer				

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

Civic Center Basin/Power Park Basin Improvements Location Map



Map Author: Ben Croy
 Date: October 27, 2010
 Project: Civic Center Basin Improvements
 Version #: 1.0

Amended By:
 Date:
 Department:

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.



City of Novi
 Department: Division
 Department Name
 45175 W Ten Mile Rd
 Novi, MI 48375
 cityofnovi.org

SUPPLEMENTAL PROFESSIONAL ENGINEERING SERVICES AGREEMENT

CIVIC CENTER REGIONAL DETENTION BASIN IMPROVEMENTS

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 Spalding DeDecker Associates, Inc., whose address is 905 South Boulevard East, Rochester Hills, MI 48307, 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 the design and the preparation of plans and specifications for the Civic Center Regional Detention Basin Improvements project. The project will involve repair and upgrade of the Civic Center basin along with some repairs to the adjacent Ella Mae Power Park basin that discharges into the Civic Center basin. The design will include improved access to the basins, retrofitting the outlet control structure to reduce clogging, the repair and stabilization of eroded areas, the evaluation of both basin control structures to potentially further restrict high frequency storms, and some repairs to the inlet and outlet pipes of the Ella Mae Park basin.

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. Basic Fee.

- a. Design Phase Services: The Consultant shall complete the design phase services as described herein for a lump sum fee of \$11,824, which is 12.75% of the estimated construction cost (\$92,736) as indicated on the design and construction engineering fee curve provided in Exhibit B of the Agreement for Professional Engineering Services for Public Projects.

- b. Hydraulic Evaluation: The Consultant shall complete the hydraulic evaluation of the Civic Center and Ella Mae outlet control structures as needed for a lump sum fee of \$3,000.
- c. Construction Phase Services will be awarded at the time of construction award, should it occur.

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: James L. Van Tiflin, P.E., Project Manager

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 permissible 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

Spalding DeDecker Associates, Inc.

By: James L. Van Tiflin, P.E.
Its: Project Manager

The foregoing _____ was acknowledged before me this ____ day of _____,
20____, by _____ on behalf of

_____.

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: _____

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
Civic Center Regional Detention Basin and
Ella Mae Power Park Detention Basin Rehabilitation
Project Scope**

Per our site visit on Tuesday, October 19, 2010, Spalding DeDecker Associates, Inc. (SDA) proposes to design the following upgrades to the detention basins.

SDA will prepare a topographic survey, plans and specifications, acquire, on behalf of the City, the necessary permits, and assist in the bidding process as required.

Civic Center Regional Detention Basin

- Modify primary outlet structure by elevating a new grate to allow moderate sized debris to pass through
- Construct 15 foot wide access drive from parking area to outlet structures
 - Provide grass pavers for first 50 feet from parking area
 - Research barrier alternatives at parking area
 - Provide gravel drive from pavers to outlet structures in existing grass areas. The existing drive through the wooded area will not need to be modified. Loop drive around outlet structures.
- Repair/reinforce outlet to Miller Creek due to undercutting
- Evaluate retrofitting existing primary outlet structure to provide greater restriction for smaller rain events (bank full)

Ella Mae Power Park Detention Basin Rehabilitation

- Rehabilitate inletting pipe at northeast corner of basin
 - Reset pipe joints from outlet to nearest upstream manhole as necessary
 - Remove and replace last existing section of pipe into basin
 - Install one additional section of pipe at outlet with end section. Regrade and reinforce outlet.
- Repair outletting pipe from overflow structure to outlet
 - Evaluate the possibility of lining existing pipe
 - Remove and replace pipe and end section if necessary
 - Clear and grub access to outlet
- Evaluate retrofitting existing primary outlet structure to provide greater restriction for smaller rain events (bank full)



SPALDING DEDECKER ASSOCIATES, INC.

905 South Boulevard East • Rochester Hills • Michigan 48307 • Tel 248 844 5400 • Fax 248 844 5404

**CIVIC CENTER REGIONAL DETENTION BASIN AND
ELLA MAE POWER PARK DETENTION BASIN REHABILITATION
PRELIMINARY CONSTRUCTION COST**

PROJECT NAME: Civic Center Regional Detention Basin and Ella Mae Power Park Detention Basin Rehabilitation
CLIENT NAME: City of Novi
PREPARED BY: B. McKissen

PROJECT NO: N/A
SAD NO: N/A
DATE: 10/28/2010

CHECKED BY: J. Van Tiffin

NO.	ITEM	QUANTITY	UNIT	UNIT PRICE	AMOUNT
Civic Center Regional Detention Basin					
	Bonds, Insurance, & Initial Setup	1	LS	\$ 1,703.55	\$ 1,703.55
	Audio-Visual Tape of Construction Area	1	LS	\$ 500.00	\$ 500.00
	15' Wide Gravel Access Drive (4" Topsoil Removal w/ over excavation as needed, 6" Aggregate Base)	915	SY	\$ 12.00	\$ 10,980.00
	15' Wide Grass Paver Drive	585	SY	\$ 55.00	\$ 32,175.00
	Retrofit Existing Overflow Structure	1	LS	\$ 1,500.00	\$ 1,500.00
	Repair Outlet to Miller Creek	1	LS	\$ 3,300.00	\$ 3,300.00
	Seed and Mulch	2,010	SY	\$ 3.00	\$ 6,030.00
	Bypass Pumping	1	LS	\$ 1,000.00	\$ 1,000.00
	Soil Erosion Control Fence	500	LF	\$ 2.00	\$ 1,000.00
	Outlet Control Structure Stone Filter	1	LS	\$ 300.00	\$ 300.00
	Sub Total				\$ 58,488.55
Ella Mae Power Park Detention Basin					
	Bonds, Insurance, & Initial Setup	1	LS	\$ 997.50	\$ 997.50
	Audio-Visual Tape of Construction Area	1	LS	\$ 500.00	\$ 500.00
	Reset Existing 27" RCP Joints	50	LF	\$ 75.00	\$ 3,750.00
	Furnish 27" RCP	16	LF	\$ 150.00	\$ 2,400.00
	Furnish 27" RCP End Section w/ Rip Rap	1	EA	\$ 2,500.00	\$ 2,500.00
	Backfill Outlet into Basin	30	CY	\$ 20.00	\$ 600.00
	Clear and Grub	200	SY	\$ 15.00	\$ 3,000.00
	Remove and Replace 15" Outlet Pipe	165	LF	\$ 60.00	\$ 9,900.00
	Furnish 15" RCP End Section w/ Rip Rap	1	EA	\$ 2,000.00	\$ 2,000.00
	Detention Basin Dewatering	1	LS	\$ 1,000.00	\$ 1,000.00
	Seed and Mulch	2,000	SY	\$ 3.00	\$ 6,000.00
	Soil Erosion Control Fence	650	LF	\$ 2.00	\$ 1,300.00
	Outlet Control Structure Stone Filter	1	LS	\$ 300.00	\$ 300.00
	Sub Total				\$ 34,247.50
OPINION OF PRELIMINARY PROBABLE CONSTRUCTION COST					\$92,736.05
<p><i>In providing opinions of probable construction cost, the Client understands that the Consultant has no control over the cost or availability of labor, equipment or materials, or over market conditions or the Contractor's method of pricing, and that the Consultant's opinions of probable construction costs are made on the basis of the Consultant's professional judgement and experience. The Consultant makes no warranty, express or implied, that the bids or the negotiated cost of the Work will not vary from the Consultant's opinion of probable construction cost.</i></p>					



SPALDING DEDECKER ASSOCIATES, INC.

905 South Boulevard East • Rochester Hills • Michigan 48307 • Tel 248 844 5400 • Fax 248 844 5404

**CIVIC CENTER REGIONAL DETENTION BASIN AND
ELLA MAE POWER PARK DETENTION BASIN REHABILITATION
OPINION OF PROBABLE PROJECT COST**

PROJECT NAME: Civic Center and Ella Mae Power Park Detention Basin Rehabilitation
CLIENT NAME: City of Novi
PREPARED BY: B. McKissen

CHECKED BY: J. Van Tiflin

PROJECT NO: N/A
SAD NO: N/A
DATE: 10/28/2010

I CONSTRUCTION			
A	Civic Center Regional Detention Basin		\$58,488.55
B	Elle Mae Power Park Detention Basin		\$34,247.50
C	Preliminary Construction Cost		\$92,736.05
D	Contingency (10%)		\$9,270.00
TOTAL ESTIMATED CONSTRUCTION COST			\$102,006.05
II ENGINEERING			
E	Evaluate Outlet Hydrology/Hydraulics for Retrofit to Better Control Bankful Events for Each Basin		\$3,000.00
F	Design Engineering	12.75%	\$11,823.85
G	Construction Administration	7.00%	\$6,491.52
H	Inspection Days	20 Days	\$615.00
TOTAL ESTIMATED ENGINEERING COST			33,615.37
OPINION OF PROBABLE COST (CONSTRUCTION & ENGINEERING)			135,621.42



CITY OF NOVI

Civic Center and Ella Mae Power Park Detention Basin Rehab Project Schedule

ID	Task Name	Duration	Start	Finish	2011											
					Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
1	CIVIC CENTER AND ELLA MAE POWER PARK BASINS	238 days	Tue 10/19/10	Thu 9/15/11	[Solid bar spanning from Oct 2010 to Sep 2011]											
2	Pre-Design	15 days	Tue 10/19/10	Mon 11/8/10	[Solid bar from Oct 19 to Oct 31, 2010]											
3	Site Visit	1 day	Tue 10/19/10	Tue 10/19/10	[Solid bar on Oct 19, 2010]											
4	Council Mtg	1 day	Mon 11/8/10	Mon 11/8/10	[Solid bar on Nov 8, 2010]											
5	Design	101 days	Mon 11/15/10	Mon 4/4/11	[Solid bar from Nov 15, 2010 to Apr 4, 2011]											
6	Topographical Survey	12 days	Mon 11/15/10	Tue 11/30/10	[Stippled bar from Nov 15 to Nov 27, 2010]											
7	Preliminary Design	11 days	Wed 12/1/10	Wed 12/15/10	[Stippled bar from Dec 1 to Dec 11, 2010]											
8	30% City Review	17 days	Thu 12/16/10	Fri 1/7/11	[Stippled bar from Dec 16 to Jan 1, 2011]											
9	Detailed Design	16 days	Mon 1/10/11	Mon 1/31/11	[Stippled bar from Jan 10 to Jan 26, 2011]											
10	60% City Review	11 days	Tue 2/1/11	Tue 2/15/11	[Stippled bar from Feb 1 to Feb 11, 2011]											
11	Permits (MDNRE / SESC)	21 days	Wed 2/16/11	Wed 3/16/11	[Stippled bar from Feb 16 to Mar 7, 2011]											
12	90% Review (incl Specs)	13 days	Thu 3/17/11	Mon 4/4/11	[Stippled bar from Mar 17 to Mar 30, 2011]											
13	Bidding	35 days	Tue 4/5/11	Mon 5/23/11	[Solid bar from Apr 5 to May 11, 2011]											
14	Advertise	1 day	Tue 4/5/11	Tue 4/5/11	[Solid bar on Apr 5, 2011]											
15	Plan Pick Up	15 days	Wed 4/6/11	Tue 4/26/11	[Stippled bar from Apr 6 to Apr 21, 2011]											
16	Bid Opening	6 days	Wed 4/27/11	Wed 5/4/11	[Stippled bar from Apr 27 to May 3, 2011]											
17	Award	13 days	Thu 5/5/11	Mon 5/23/11	[Stippled bar from May 5 to May 18, 2011]											
18	Construction	83 days	Tue 5/24/11	Thu 9/15/11	[Stippled bar from May 24 to Sep 6, 2011]											