# NOVI cityofnovi.org

#### CITY of NOVI CITY COUNCIL

Agenda Item 8 January 21, 2014

**SUBJECT:** Approval to award an engineering services agreement with URS Corporation for design engineering services related to the 11 Mile Road (Town Center to Meadowbrook Road) Reconstruction project in the amount of \$108,799.

SUBMITTING DEPARTMENT: Department of Public Services, Engineering Division

CITY MANAGER APPROVAL:

	 1/
EXPENDITURE REQUIRED	\$108,799
AMOUNT BUDGETED	\$0
APPROPRIATION REQUIRED	\$108,799 (to be included in 3 <sup>rd</sup> quarter budget amendment)
LINE ITEM NUMBER	202-202.00-805.671

#### **BACKGROUND INFORMATION:**

Eleven Mile Road between Town Center Drive and Meadowbrook Road is a 0.70-mile long, concrete road that is approximately 22 years old. This segment of road has required repeated intensive maintenance over the past several years to repair failing joints. The road has deteriorated to a point that it is no longer serviceable and will need to be reconstructed (it would meet the criteria for a PASER rating of 2 if rated today).

The City's Non-Motorized Master Plan designates the section of Eleven Mile as a Neighborhood Connector On-Road Route. Therefore, the reconstructed road cross-section will be wider to accommodate bike lanes in both directions. Also, because the project will involve reconstruction, pathways will be constructed with the project to fill in the gaps on both the north and south sides of the road.

The eastern 550 feet of Eleven Mile was recently rehabilitated and will not be reconstructed (this asphalt section crosses Bishop Creek, and has been maintained separately from the remainder of the road). In this area the bike lanes may be transitioned into the adjacent pathway or remain in the road, as appropriate, based on a review as part of the design phase.

URS was selected as the consultant for this project and the 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 \$97,698.63 (6.35% of the estimated construction cost of \$1,538,561.07), plus an additional \$1,500 for wetland delineation and permitting and \$9,600 for the preparation of an additional 16 easement documents, for a total design fee of \$108,798.63. The construction phase engineering fees will be awarded at the time of construction award and will be based on the construction 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 schedule.

The design and easement acquisition process for a reconstruction project of this type will be extensive and will require a full year to complete; therefore, construction is not anticipated until 2015. In the meantime, DPS maintenance crews will continue to patch the road to the maximum extent possible to keep it open to traffic.

**RECOMMENDED ACTION:** Approval to award an engineering services agreement with URS Corporation for design engineering services related to the 11 Mile Road (Town Center to Meadowbrook Road) Reconstruction project in the amount of \$108,799.

	1 2 Y N
Mayor Gatt	
Mayor Pro Tem Staudt	
Council Member Casey	
Council Member Fischer	

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

# CONDITION OF 11 MILE ROAD WITH COLD PATCH REMOVED PRIOR TO SPRAY PATCH (LIMITED STRUCTURE IN THE REMAINING CONCRETE)







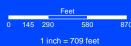


Map Author: Croy
Date: 1/10/14
Project: 11 Mile Reconstruction
Version #: v1.0

#### MAP INTERPRETATION NOTICE

Map information depicted is not intended to replace or substitute fo 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 are a 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









### City of Novi

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

#### SUPPLEMENTAL PROFESSIONAL ENGINEERING SERVICES AGREEMENT

## ELEVEN MILE RECONSTRUCTION TOWN CENTER DRIVE TO MEADOWBROOK ROAD

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 URS Corporation – Great Lakes., whose address is 27777 Franklin Road, Suite 2000, Southfield, MI 48034, 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 December 17, 2012.

The project includes the design and the preparation of plans and specifications for the reconstruction of Eleven Mile from Town Center Drive to Meadowbrook Road. The design shall include the addition of bike lanes on both sides of the road, and pathways where they don't currently exist on both sides of the road (8-foot wide on north side, 5-foot wide on south side). The eastern section of Eleven Mile recently rehabilitated will not be reconstructed, but will be only modified as necessary to accommodate the non-motorized facilities. This will involve consideration of one or more methods to transition the bike lanes into the vehicle travel lane or into the adjacent pathway.

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

#### Section 1. <u>Professional Engineering Services.</u>

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 \$97,699, which is 6.35% of

- the estimated construction cost (\$1,538,561) as indicated on the Design and Construction Engineering Fee Curve.
- b. Wetland Delineation and Permitting: The Consultant shall complete the required wetland delineation and survey at locations where wetlands may be present, and shall submit the required MDEQ permit application for a lump sum fee of \$1,500.
- c. Pathway Easements: The Consultant shall draft twenty-one pathway easements, which is sixteen (16) easements beyond the five easements assumed for typical projects. The consultant shall complete the additional easements for a lump sum fee of \$9,600 (\$600 per easement as indicated on the Design and Construction Engineering Fee Curve).
- d. 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 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. <u>Payment Schedule for Expenses.</u>

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. <u>Termination.</u>

- 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 claim and/or aggregate, and Environmental Impairment coverage. The retroactive date indicated on the policy shall either be unlimited, or, shall be the date that the Consultant established its initial coverage.

In the event that Consultant is sold or dissolved, Consultant shall provide purchase, at its expense, a "tail" or extended reporting period for the professional liability coverage for a period not less than 5 years.

- 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 hold harmless and indemnify the City, its officers, agents, employees from and against all claims, demands, suits liability, losses, damages or costs (including reasonable attorney fees and costs) arising out, of or resulting from the Consultant's tortious or negligent acts, errors, or omissions in performing this Agreement.
- B. The City agrees, to the extent permitted by law, to indemnify and hold harmless the Consultant, its officers, partners, employees, stockholders, and sub-consultants (collectively Consultant) from and against any and all claims, suits, demands, liability, losses, damages or

costs, including reasonable attorney's fees and costs arising out of or resulting from the City's tortious or negligent acts or errors in performing this Agreement.

C. Section 8(B) of this Agreement shall not apply to individual design and/or construction management projects.

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. <u>Nondiscrimination.</u>

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: Jan M. Hauser, P.E., Vice President Water/Wastewater

#### 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	URS Corporation – Great Lakes
	By: Jan M. Hauser
	Its: Vice President
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.

1. 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.

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January 10, 2014

Mr. Ben Croy, PE City of Novi Field Services Complex 26300 Delwal Drive Novi, MI 48375

Reference: 11 Mile Road Reconstruction Design Services

Town Center Drive to Meadowbrook Road

Dear Mr. Croy,

URS is pleased to submit this proposal for the above referenced project. 11 Mile Road is in very poor condition and we understand that reconstruction is planned for the concrete portion of the roadway. The widened *roadway* is to include bicycle lanes and 5 foot wide pathways are to be provided on the south side of the roadway with 8 foot wide pathways provided on the north side. Existing 8 foot wide pathways on the north side of the roadway will be retained where possible.

For the asphalt portion of the roadway near Meadowbrook Road, the existing roadway and pathway on the north side will remain. An eight foot wide pathway will be added on the south side of the roadway. The EPS lightweight fill blocks constructed in 2006 will remain and the bicycle lanes will not extend through this area. "Sharrow" pavement markings or transitioning the bicycle lanes onto the adjacent pathways will be considered for this area during design.

The following tasks will be completed for the project:

#### Initial Meeting and Scope Verification

The intent of this task is to meet with the City and verify the limits and scope of work for the project. The need for and location of soil borings and pavement cores will also be discussed and determined at the scope verification meeting. Upon completion of this task, the URS team will move forward with the surveying and preliminary design.

#### Survey and Base Plans

The intent of this task is to provide topographic survey and base mapping as needed for the proposed design work. A full topographic survey will be completed for project area. Base drawings will be created using available photography and the survey data.

As the necessary survey is completed, URS will prepare base plans (30%-40% complete) to identify the major design features. These plans will also be used to further the utility investigation and resolution of potential conflicts and geotechnical investigations.

Base plans will include the results of the survey information, utility information from response to our solicitations, and a preliminary estimate.

URS will distribute the base plan design set to the utility companies that have indicated that they have facilities in the project area. URS will incorporate the additional information that utility companies provide to URS into the plan set. On-site meetings may be necessary to further clarify coordination and clearance of particular overhead and underground utility facilities.



Mr. Ben Crov. PE January 10, 2014 Page 2

#### **Preliminary Plans**

Incorporating the information obtained from the above tasks, URS will prepare the preliminary plan set (90%) and This submission will include items such as the utility locations, typical cross sections, proposal package. materials/quantities and boring logs. Recommendations provided as a result of the geotechnical report prepared for the project will be incorporated into the design. The preliminary plan submittal will also include the Project Manual.

#### Final Plans and Proposal

Incorporating comments from the City, URS will develop the Final plans and Project Manual.

#### Advertisina

URS will respond to any final comments received from the City and will prepare the advertisement for bids. URS will distribute the contract documents to plan rooms and prospective bidders and answer questions and prepare addenda, as required, during the bidding.

#### Bid Opening and Award

URS will attend the bid opening, if requested, and analyze the bids received. A tabulation of bids and a letter with recommendations on award of a contract will then be prepared and submitted.

#### Construction

URS will provide full time inspection, contract administration, staking and coordinate materials testing as required for the project.

#### Schedule

Upon notification to proceed, it is estimated that the following schedule could be maintained:

Scope Verification Meeting Thursday February 13, 2014

Survey & Base Plans Submittal Friday June 6, 2014 Preliminary Plans Submittal Friday August 1, 2014 Final Plans Submittal Friday September 19, 2014

Advertise for Bids January 13, 2015 February 10, 2015 **Open Bids** 

Contract Award (By City) March 2 or March 9, 2015 May 10, 2015

**Begin Construction End Construction** August 21, 2015

#### Estimated Cost of Construction and Design Fees

Construction Cost is estimated at \$1,538,561based upon the detailed estimate which follows.

Base Fee: (6.35% x \$1, 538561) \$ 97,699 Videotaping Sewers Subconsultant \$ 5,000 16 easements @ \$600 each \$ 9,600 \$ 1,500 Wetland Delineation and Permitting TOTAL DESIGN FEE \$113,799



Mr. Ben Croy, PE January 10, 2014 Page 3

The construction cost was estimated using the following assumptions:

- For the concrete reconstruction area, roadway to include three traffic lanes and two bicycle lanes. 48 foot
  wide concrete pavement with integral curb, 8 inch aggregate base, 10 inches or subbase and continuous
  underdrain is assumed. A new continuous five woot wide pathway will be added on the south side.
  Pathway will be added on the north side to provide a continuous 8 foot wide pathway, with existing 8 foot
  wide pathways retained where possible.
- For the HMA section on the east end, no road widening or rehabilitation is planned and there will be no bicycle lanes in this area. An eight foot wide pathway is assumed to be added on the south side, located at the back of curb. No revisions to the existing EPS block fill are planned. Options for ending the bicycle lanes or transitioning the bicyle lanes onto the adjacent pathways will be examined.
- Horizontal alignment will match existing, with the centerline on the section line. Vertical alignment will also closely follow existing to allow for part width construction.
- Existing storm sewers will be videotaped and studied as part of the design and reused if feasible. Twelve
  additional drainage structures and 1000 feet of new storm sewer are assumed for the estimate. Two
  hydrodynamic separators are also included in the estimate.
- Pathway easements along with grading permits will be obtained for all 21 privately owned parcels in the project limits (does not include the DPS site).
- Water main and sanitary sewer work assumed to include only adjustment of existing covers.
- Wetlands will be delineated and surveyed. Wetland impacts will be minimized by use of steepened slopes.
- Part width construction will be required in order to maintain access to adjacent properties and the required specifications and plans will be developed.

We understand that the fees for construction services will be determined after a construction contract is awarded. Please contact our project manager, Sean Kelsch, if you have any questions or wish to discuss this submittal.

Sincerely,

**URS** Corporation -- Great Lakes

Jan Hauser, PE Vice President Sean Kelsch, PE

Manager, Highway Engineering Services

See Kelzer

#### City of Novi 11 Mile Road Reconstrruction Project **Town Center Drive to Meadowbrook Road Preliminary Estimate of Cost** 1/10/2013

1   Mobilization (5%)   LS		em Description	Unit	Quantity	Unit Price (\$)		Total Cost (\$)		
3   Maintaining Traffic			LS	1		66,604.38	\$	66,604.38	
4         Tree Protection         Each         10         \$           5         Pavt, Rem         Syd         13,000         \$           6         Sidewalk, Rem         Syd         475         \$           7         Clearing and Tree Removal         Acre         0.50         \$           8         Roadway Grading         Sta         31         \$           9         Pathway Grading         Sta         7         \$           10         Subgrade Undercutting         LS         1         \$           11         Silt Fence         Ft         5,000         \$           12         Modular Block Retaining Wall         Sft         1,000         \$           13         Curb and Gutter Inlet Filter         Ea         20         \$           14         Subbase, CIP         Cyd         5,500         \$           15         Aggregate Base, 21AA, 8 inch         Syd         17,100         \$           15         Aggregate Base, 21AA, 8 inch         Syd         17,100         \$           16         Sewer, 12 inch, Tr Det B         Ft         600         \$           17         Sewer, 18 inch, Tr Det B         Ft         100		o-Visual		1		3,000.00	\$	3,000.00	
5         Pavt, Rem         Syd         13,000         \$           6         Sidewalk, Rem         Syd         475         \$           7         Clearing and Tree Removal         Acre         0.50         \$           8         Roadway Grading         Sta         31         \$           9         Pathway Grading         Sta         7         \$           10         Subgrade Undercutting         LS         1         \$           11         Silf Fence         Ft         5,000         \$           12         Modular Block Retaining Wall         Sft         1,000         \$           12         Modular Block Retaining Wall         Sft         1,000         \$           13         Curb and Gutter Inlet Filter         Ea         20         \$           14         Subbase, CIP         Cyd         5,500         \$           15         Aggregate Base, 21AA, 8 inch         Syd         17,100         \$           16         Sewer, 12 inch, Tr Det B         Ft         600         \$           17         Sewer, 18 inch, Tr Det B         Ft         100         \$           18         Sewer, 18 inch, Tr Det B         Ft         100	_					25,000.00	\$	25,000.00	
6         Sidewalk, Rem         Syd         475         \$           7         Clearing and Tree Removal         Acre         0.50         \$           8         Roadway Grading         Sta         31         \$           9         Pathway Grading         Sta         7         \$           10         Subgrade Undercutting         LS         1         \$           11         Silt Fence         Ft         5,000         \$           12         Modular Block Retaining Wall         Sft         1,000         \$           13         Curb and Gutter Inlet Filter         Ea         20         \$           14         Subbase, CIP         Cyd         5,500         \$           15         Aggregate Base, 21AA, 8 inch         Syd         17,100         \$           16         Sewer, 12 inch, Tr Det B         Ft         600         \$           17         Sewer, 15 inch, Tr Det B         Ft         100         \$           18         Sewer, 18 inch, Tr Det B         Ft         100         \$           19         Sewer, 18 inch, Tr Det B         Ft         100         \$           20         Dr Structure Cover         Ea         12				10		50.00	\$	500.00	
7         Clearing and Tree Removal         Acre         0.50         \$           8         Roadway Grading         Sta         31         \$           9         Pathway Grading         Sta         7         \$           10         Subgrade Undercutting         LS         1         \$           11         Silt Fence         Ft         5,000         \$           12         Modular Block Retaining Wall         Sft         1,000         \$           13         Curb and Gutter Inlet Filter         Ea         20         \$           14         Subbase, CIP         Cyd         5,500         \$           15         Aggregate Base, 21AA, 8 inch         Syd         17,100         \$           16         Sewer, 12 inch, Tr Det B         Ft         600         \$           17         Sewer, 15 inch, Tr Det B         Ft         100         \$           18         Sewer, 18 inch, Tr Det B         Ft         100         \$           19         Sewer, 24 inch, Tr Det B         Ft         100         \$           20         Dr Structure A8 inch dia         Ea         12         \$           21         Hydrodynamic Separator         Ea						3.50	\$	45,500.00	
8         Roadway Grading         Sta         31         \$           9         Pathway Grading         Sta         7         \$           10         Subgrade Undercutting         LS         1         \$           11         Silt Fence         Ft         5,000         \$           12         Modular Block Retaining Wall         Stf         1,000         \$           13         Curb and Gutter Inlet Filter         Ea         20         \$           14         Subbase, CIP         Cyd         5,500         \$           15         Aggregate Base, 21AA, 8 inch         Syd         17,100         \$           16         Sewer, 12 inch, Tr Det B         Ft         600         \$           17         Sewer, 12 inch, Tr Det B         Ft         100         \$           18         Sewer, 18 inch, Tr Det B         Ft         100         \$           18         Sewer, 24 inch, Tr Det B         Ft         100         \$           20         Dr Structure, 48 inch dia         Ea         12         \$           21         Hydrodynamic Separator         Ea         2         \$           22         Dr Structure Cover         Ea         12 <td>,</td> <td></td> <td>Syd</td> <td>475</td> <td></td> <td>4.00</td> <td>\$</td> <td>1,900.00</td>	,		Syd	475		4.00	\$	1,900.00	
9         Pathway Grading         Sta         7         \$           10         Subgrade Undercutting         LS         1         \$           11         Silt Fence         Ft         5,000         \$           12         Modular Block Retaining Wall         Sft         1,000         \$           13         Curb and Gutter Inlet Filter         Ea         20         \$           14         Subbase, CIP         Cyd         5,500         \$           15         Aggregate Base, 21AA, 8 inch         Syd         17,100         \$           16         Sewer, 12 inch, Tr Det B         Ft         600         \$           17         Sewer, 15 inch, Tr Det B         Ft         100         \$           18         Sewer, 15 inch, Tr Det B         Ft         100         \$           19         Sewer, 24 inch, Tr Det B         Ft         100         \$           20         Dr Structure, 48 inch dia         Ea         12         \$           21         Hydrodynamic Separator         Ea         2         \$           22         Dr Structure Cover         Ea         12         \$           23         Underdrain, 6 inch         Ft         6,2		noval		0.50		5,000.00	\$	2,500.00	
10   Subgrade Undercutting   LS				31	\$	2,500.00	\$	77,500.00	
11   Silt Fence				7		1,000.00	\$	6,500.00	
12   Modular Block Retaining Wall   Sft   1,000 \$     13   Curb and Gutter Inlet Filter   Ea   20 \$     14   Subbase, CIP   Cyd   5,500 \$     15   Aggregate Base, 21AA, 8 inch   Syd   17,100 \$     16   Sewer, 12 inch, Tr Det B   Ft   600 \$     17   Sewer, 15 inch, Tr Det B   Ft   100 \$     18   Sewer, 18 inch, Tr Det B   Ft   100 \$     19   Sewer, 24 inch, Tr Det B   Ft   100 \$     20   Dr Structure, 48 inch dia   Ea   12 \$     21   Hydrodynamic Separator   Ea   2 \$     22   Dr Structure Cover   Ea   12 \$     23   Underdrain, 6 inch   Ft   6,200 \$     24   Utility Pole Relcoation   Ea   12 \$     25   Structure Cover Adjustments & Rehab   LS   1 \$     26   Culvert End Sections   Ea   2 \$     27   Concrete Pavement with Integral Curb   Syd   1,250 \$     28   Concrete Driveway   Syd   1,250 \$     30   Sidewalk, Conc, 4 inch   Sft   37,950 \$     31   ADA Detectable Warning Plate - New Construction   Sft   150 \$     32   Slope Restoration, Type B   Syd   14,000 \$     34   Permanent Signing   LS   1 \$     SUBTOTAL CONSTRUCTION ITEMS   Contingency (10%)		J		1	\$	25,000.00	\$	25,000.00	
13         Curb and Gutter Inlet Filter         Ea         20         \$           14         Subbase, CIP         Cyd         5,500         \$           15         Aggregate Base, 21AA, 8 inch         Syd         17,100         \$           16         Sewer, 12 inch, Tr Det B         Ft         600         \$           17         Sewer, 15 inch, Tr Det B         Ft         100         \$           18         Sewer, 18 inch, Tr Det B         Ft         200         \$           19         Sewer, 24 inch, Tr Det B         Ft         100         \$           20         Dr Structure, 48 inch dia         Ea         12         \$           21         Hydrodynamic Separator         Ea         12         \$           22         Dr Structure Cover         Ea         12         \$           23         Underdrain, 6 inch         Ft         6,200         \$           24         Utility Pole Relcoation         Ea         12         \$           25         Structure Cover Adjustments & Rehab         LS         1         \$           26         Culvert End Sections         Ea         2         \$           27         Concrete Pavement with Integral Curb <td></td> <td></td> <td></td> <td>5,000</td> <td></td> <td>1.50</td> <td>\$</td> <td>7,500.00</td>				5,000		1.50	\$	7,500.00	
14         Subbase, CIP         Cyd         5,500         \$           15         Aggregate Base, 21AA, 8 inch         Syd         17,100         \$           16         Sewer, 12 inch, Tr Det B         Ft         600         \$           17         Sewer, 15 inch, Tr Det B         Ft         100         \$           18         Sewer, 18 inch, Tr Det B         Ft         200         \$           19         Sewer, 24 inch, Tr Det B         Ft         100         \$           20         Dr Structure, 48 inch dia         Ea         12         \$           21         Hydrodynamic Separator         Ea         2         \$           22         Dr Structure Cover         Ea         12         \$           23         Underdrain, 6 inch         Ft         6,200         \$           24         Utility Pole Relcoation         Ea         12         \$           25         Structure Cover Adjustments & Rehab         LS         1         \$           26         Culvert End Sections         Ea         2         \$           27         Concrete Pavement with Integral Curb         Syd         16,400         \$           28         Concrete Driveway		ng Wall		1,000		25.00	\$	25,000.00	
15         Aggregate Base, 21AA, 8 inch         Syd         17,100         \$           16         Sewer, 12 inch, Tr Det B         Ft         600         \$           17         Sewer, 15 inch, Tr Det B         Ft         100         \$           18         Sewer, 18 inch, Tr Det B         Ft         200         \$           19         Sewer, 24 inch, Tr Det B         Ft         100         \$           20         Dr Structure, 48 inch dia         Ea         12         \$           21         Hydrodynamic Separator         Ea         12         \$           22         Dr Structure Cover         Ea         12         \$           23         Underdrain, 6 inch         Ft         6,200         \$           24         Utility Pole Relcoation         Ea         12         \$           25         Structure Cover Adjustments & Rehab         LS         1         \$           26         Culvert End Sections         Ea         2         \$           27         Concrete Pavement with Integral Curb         Syd         16,400         \$           28         Concrete Driveway         Syd         1,250         \$           29         Sidewalk, Conc, 4 inch		ilter		20		100.00	\$	2,000.00	
16         Sewer, 12 inch, Tr Det B         Ft         600         \$           17         Sewer, 15 inch, Tr Det B         Ft         100         \$           18         Sewer, 18 inch, Tr Det B         Ft         200         \$           19         Sewer, 24 inch, Tr Det B         Ft         100         \$           20         Dr Structure, 48 inch dia         Ea         12         \$           21         Hydrodynamic Separator         Ea         2         \$           22         Dr Structure Cover         Ea         12         \$           23         Underdrain, 6 inch         Ft         6,200         \$           24         Utility Pole Relcoation         Ea         12         \$           25         Structure Cover Adjustments & Rehab         LS         1         \$           26         Culvert End Sections         Ea         2         \$           27         Concrete Pavement with Integral Curb         Syd         16,400         \$           28         Concrete Driveway         Syd         1,250         \$           29         Sidewalk, Conc, 4 inch         Sft         37,950         \$           30         Sidewalk, Ramp, Conc, 8 inch<				5,500		15.00	\$	82,500.00	
17         Sewer, 15 inch, Tr Det B         Ft         100         \$           18         Sewer, 18 inch, Tr Det B         Ft         200         \$           19         Sewer, 24 inch, Tr Det B         Ft         100         \$           20         Dr Structure, 48 inch dia         Ea         12         \$           21         Hydrodynamic Separator         Ea         2         \$           22         Dr Structure Cover         Ea         12         \$           23         Underdrain, 6 inch         Ft         6,200         \$           24         Utility Pole Relcoation         Ea         12         \$           25         Structure Cover Adjustments & Rehab         LS         1         \$           26         Culvert End Sections         Ea         2         \$           27         Concrete Pavement with Integral Curb         Syd         16,400         \$           28         Concrete Driveway         Syd         1,250         \$           29         Sidewalk, Conc, 4 inch         Sft         37,950         \$           30         Sidewalk Ramp, Conc, 8 inch         Sft         2,000         \$           31         ADA Detectable Warning		., 8 inch		17,100		8.00	\$	136,800.00	
18         Sewer, 18 inch, Tr Det B         Ft         200         \$           19         Sewer, 24 inch, Tr Det B         Ft         100         \$           20         Dr Structure, 48 inch dia         Ea         12         \$           21         Hydrodynamic Separator         Ea         2         \$           22         Dr Structure Cover         Ea         12         \$           23         Underdrain, 6 inch         Ft         6,200         \$           24         Utility Pole Relcoation         Ea         12         \$           25         Structure Cover Adjustments & Rehab         LS         1         \$           26         Culvert End Sections         Ea         2         \$           27         Concrete Pavement with Integral Curb         Syd         16,400         \$           28         Concrete Driveway         Syd         1,250         \$           29         Sidewalk, Conc, 4 inch         Sft         37,950         \$           30         Sidewalk, Ramp, Conc, 8 inch         Sft         2,000         \$           31         ADA Detectable Warning Plate - New Construction         Sft         150         \$           32 <t< td=""><td></td><td></td><td></td><td>600</td><td></td><td>25.00</td><td>\$</td><td>15,000.00</td></t<>				600		25.00	\$	15,000.00	
19         Sewer, 24 inch, Tr Det B         Ft         100         \$           20         Dr Structure, 48 inch dia         Ea         12         \$           21         Hydrodynamic Separator         Ea         2         \$           22         Dr Structure Cover         Ea         12         \$           23         Underdrain, 6 inch         Ft         6,200         \$           24         Utility Pole Relcoation         Ea         12         \$           25         Structure Cover Adjustments & Rehab         LS         1         \$           26         Culvert End Sections         Ea         2         \$           27         Concrete Pavement with Integral Curb         Syd         16,400         \$           28         Concrete Driveway         Syd         1,250         \$           29         Sidewalk, Conc, 4 inch         Sft         37,950         \$           30         Sidewalk Ramp, Conc, 8 inch         Sft         2,000         \$           31         ADA Detectable Warning Plate - New Construction         Sft         150         \$           32         Slope Restoration, Type B         Syd         14,000         \$           33		В		100		30.00	\$	3,000.00	
20         Dr Structure, 48 inch dia         Ea         12         \$           21         Hydrodynamic Separator         Ea         2         \$           22         Dr Structure Cover         Ea         12         \$           23         Underdrain, 6 inch         Ft         6,200         \$           24         Utility Pole Relcoation         Ea         12         \$           25         Structure Cover Adjustments & Rehab         LS         1         \$           26         Culvert End Sections         Ea         2         \$           27         Concrete Pavement with Integral Curb         Syd         16,400         \$           28         Concrete Driveway         Syd         1,250         \$           29         Sidewalk, Conc, 4 inch         Sft         37,950         \$           30         Sidewalk Ramp, Conc, 8 inch         Sft         2,000         \$           31         ADA Detectable Warning Plate - New Construction         Sft         150         \$           32         Slope Restoration, Type B         Syd         14,000         \$           33         Permanent Signing         LS         1         \$           34         Per		В		200		45.00	\$	9,000.00	
21         Hydrodynamic Separator         Ea         2         \$           22         Dr Structure Cover         Ea         12         \$           23         Underdrain, 6 inch         Ft         6,200         \$           24         Utility Pole Relcoation         Ea         12         \$           25         Structure Cover Adjustments & Rehab         LS         1         \$           26         Culvert End Sections         Ea         2         \$           27         Concrete Pavement with Integral Curb         Syd         16,400         \$           28         Concrete Driveway         Syd         1,250         \$           29         Sidewalk, Conc, 4 inch         Sft         37,950         \$           30         Sidewalk Ramp, Conc, 8 inch         Sft         2,000         \$           31         ADA Detectable Warning Plate - New Construction         Sft         150         \$           32         Slope Restoration, Type B         Syd         14,000         \$           33         Permanent Signing         LS         1         \$           34         Permanent Pavement Markings         LS         1         \$           SUBTOTAL CONSTRUCTION		В	Ft	100	\$	55.00	\$	5,500.00	
22         Dr Structure Cover         Ea         12         \$           23         Underdrain, 6 inch         Ft         6,200         \$           24         Utility Pole Relcoation         Ea         12         \$           25         Structure Cover Adjustments & Rehab         LS         1         \$           26         Culvert End Sections         Ea         2         \$           27         Concrete Pavement with Integral Curb         Syd         16,400         \$           28         Concrete Driveway         Syd         1,250         \$           29         Sidewalk, Conc, 4 inch         Sft         37,950         \$           30         Sidewalk Ramp, Conc, 8 inch         Sft         2,000         \$           31         ADA Detectable Warning Plate - New Construction         Sft         150         \$           32         Slope Restoration, Type B         Syd         14,000         \$           33         Permanent Signing         LS         1         \$           34         Permanent Pavement Markings         LS         1         \$           SUBTOTAL CONSTRUCTION ITEMS         Contingency (10%)         Contingency (10%)         Contingency (10%)		ia	Ea	12	\$	1,100.00	\$	13,200.00	
23         Underdrain, 6 inch         Ft         6,200         \$           24         Utility Pole Relcoation         Ea         12         \$           25         Structure Cover Adjustments & Rehab         LS         1         \$           26         Culvert End Sections         Ea         2         \$           27         Concrete Pavement with Integral Curb         Syd         16,400         \$           28         Concrete Driveway         Syd         1,250         \$           29         Sidewalk, Conc, 4 inch         Sft         37,950         \$           30         Sidewalk Ramp, Conc, 8 inch         Sft         2,000         \$           31         ADA Detectable Warning Plate - New Construction         Sft         150         \$           32         Slope Restoration, Type B         Syd         14,000         \$           33         Permanent Signing         LS         1         \$           34         Permanent Pavement Markings         LS         1         \$           SUBTOTAL CONSTRUCTION ITEMS         Contingency (10%)         Contingency (10%)		or		2	\$	20,000.00	\$	40,000.00	
24Utility Pole RelcoationEa12\$25Structure Cover Adjustments & RehabLS1\$26Culvert End SectionsEa2\$27Concrete Pavement with Integral CurbSyd16,400\$28Concrete DrivewaySyd1,250\$29Sidewalk, Conc, 4 inchSft37,950\$30Sidewalk Ramp, Conc, 8 inchSft2,000\$31ADA Detectable Warning Plate - New ConstructionSft150\$32Slope Restoration, Type BSyd14,000\$33Permanent SigningLS1\$34Permanent Pavement MarkingsLS1\$SUBTOTAL CONSTRUCTION ITEMSContingency (10%)Contingency (10%)				12	\$	500.00	\$	6,000.00	
25 Structure Cover Adjustments & Rehab  26 Culvert End Sections  27 Concrete Pavement with Integral Curb  28 Concrete Driveway  29 Sidewalk, Conc, 4 inch  30 Sidewalk Ramp, Conc, 8 inch  31 ADA Detectable Warning Plate - New Construction  32 Slope Restoration, Type B  33 Permanent Signing  34 Permanent Pavement Markings  Contingency (10%)				6,200		5.50	\$	34,100.00	
26 Culvert End Sections  27 Concrete Pavement with Integral Curb  28 Concrete Driveway  29 Sidewalk, Conc, 4 inch  30 Sidewalk Ramp, Conc, 8 inch  31 ADA Detectable Warning Plate - New Construction  32 Slope Restoration, Type B  33 Permanent Signing  34 Permanent Pavement Markings  Contingency (10%)				12		5,000.00	\$	60,000.00	
27 Concrete Pavement with Integral Curb Syd 16,400 \$ 28 Concrete Driveway Syd 1,250 \$ 29 Sidewalk, Conc, 4 inch Sft 37,950 \$ 30 Sidewalk Ramp, Conc, 8 inch Sft 2,000 \$ 31 ADA Detectable Warning Plate - New Construction Sft 150 \$ 32 Slope Restoration, Type B Syd 14,000 \$ 33 Permanent Signing LS 1 \$ 34 Permanent Pavement Markings LS 1 \$ SUBTOTAL CONSTRUCTION ITEMS		ments & Rehab		1	_	2,500.00	\$	2,500.00	
28         Concrete Driveway         Syd         1,250         \$           29         Sidewalk, Conc, 4 inch         Sft         37,950         \$           30         Sidewalk Ramp, Conc, 8 inch         Sft         2,000         \$           31         ADA Detectable Warning Plate - New Construction         Sft         150         \$           32         Slope Restoration, Type B         Syd         14,000         \$           33         Permanent Signing         LS         1         \$           34         Permanent Pavement Markings         LS         1         \$           SUBTOTAL CONSTRUCTION ITEMS         Contingency (10%)         Contingency (10%)         Contingency (10%)				2		500.00	\$	1,000.00	
29 Sidewalk, Conc, 4 inch Sft 37,950 \$ 30 Sidewalk Ramp, Conc, 8 inch Sft 2,000 \$ 31 ADA Detectable Warning Plate - New Construction Sft 150 \$ 32 Slope Restoration, Type B Syd 14,000 \$ 33 Permanent Signing LS 1 \$ 34 Permanent Pavement Markings LS 1 \$ SUBTOTAL CONSTRUCTION ITEMS	,	ith Integral Curb	Syd	16,400		30.00	\$	492,000.00	
30 Sidewalk Ramp, Conc, 8 inch 31 ADA Detectable Warning Plate - New Construction 32 Slope Restoration, Type B 33 Permanent Signing 34 Permanent Pavement Markings SUBTOTAL CONSTRUCTION ITEMS Contingency (10%)				1,250	\$	35.00	\$	43,750.00	
31 ADA Detectable Warning Plate - New Construction Sft 150 \$ 32 Slope Restoration, Type B Syd 14,000 \$ 33 Permanent Signing LS 1 \$ 34 Permanent Pavement Markings LS 1 \$ SUBTOTAL CONSTRUCTION ITEMS  Contingency (10%)				37,950	\$	3.25	\$	123,337.50	
32 Slope Restoration, Type B Syd 14,000 \$ 33 Permanent Signing LS 1 \$ 34 Permanent Pavement Markings LS 1 \$ SUBTOTAL CONSTRUCTION ITEMS  Contingency (10%)				2,000		4.00	\$	8,000.00	
33 Permanent Signing LS 1 \$ 34 Permanent Pavement Markings LS 1 \$ SUBTOTAL CONSTRUCTION ITEMS  Contingency (10%)		ng Plate - New Construction			_	20.00	\$	3,000.00	
34 Permanent Pavement Markings LS 1 \$ SUBTOTAL CONSTRUCTION ITEMS  Contingency (10%)	_[;	e B	Syd	14,000		1.75	\$	24,500.00	
SUBTOTAL CONSTRUCTION ITEMS  Contingency (10%)			LS	1		2,000.00	\$	2,000.00	
Contingency (10%)		Markings	LS	1	\$	5,000.00	\$	5,000.00	
		JCTION ITEMS					\$	1,398,691.88	
TOTAL CONSTRUCTION COST							\$	139,869.19	
I TOTAL CONSTRUCTION COST	-	ON COST					\$	1,538,561.06	

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Wetland mitigation, if needed, is not included Does not include ROW Costs or Engineering

Does not include landscaping or lighting cost

Does not include water and sanitary sewer work

Includes partial replacement of storm sewer system

Traffic signal loop detector work not anticipated to be needed and is not included.

**URS** Corporation