

CITY of NOVI CITY COUNCIL

Agenda Item C
August 22, 2011

SUBJECT: Approval to award a contract for design engineering services for the Meadowbrook Road and Nine Mile Road Signal Modernization and Reconstruction project to Orchard, Hiltz & McCliment for a design fee of \$11,602.

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

CITY MANAGER APPROVAL: 

EXPENDITURE REQUIRED	\$ 11,602
AMOUNT BUDGETED	\$ 0
APPROPRIATION REQUIRED	\$ 11,602 (To be included in 1st quarter budget amendment)
LINE ITEM NUMBER	To be determined (Municipal Street Fund)

BACKGROUND INFORMATION:

In 2010, DPS Engineering staff applied for a federal safety improvement grant to reconstruct and modernize the traffic signals at the intersection of Nine Mile Road and Meadowbrook Road. The City of Novi was the only community in Oakland County that was awarded safety grant funding in 2011 (see attached MDOT letter dated July 1, 2011). This intersection scored well because of the frequency and severity of vehicle crashes at the intersection, many due to the lack of a left turn phase for the signal.

The existing traffic signals at Nine Mile Road and Meadowbrook Road are the only remaining City-owned signals that are not part of the FAST-TRAC coordinated signal system through the Road Commission for Oakland County. The project includes the removal and replacement of the existing signals in a box span configuration. The new signals will include a left turn phase as well as pedestrian signals. The grant covers 80% of the construction costs, with the City responsible for the remaining 20%. (For the purpose of the grant application, the construction costs were estimated to be \$152,000, of which \$30,400 would be the City's share). The engineering costs are not part of the grant award.

OHM'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 \$11,602 (8.75% of the estimated construction cost of \$132,584). 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 schedule.

RECOMMENDED ACTION: Approval to award a contract for design engineering services for the Meadowbrook Road and Nine Mile Road Signal Modernization and Reconstruction project to Orchard, Hiltz & McCliment for a design fee of \$11,602.

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

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



BT
File

RICK SNYDER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF TRANSPORTATION
LANSING

KIRK T. STEUDLE
DIRECTOR

July 1, 2011 (Revised*)

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

Dear Mr. Hayes:

CS STH 63609 - JN 113649A
Safety Improvement Project – \$152,000.00 Total Project Amount
Meadowbrook Road @ Nine Mile Road
Upgrade Traffic Signals to Box Span Configuration & Install Countdown Pedestrian Signals

We are pleased to inform you that the subject safety project has been approved for federal funding in the 2012 fiscal year. All agencies were previously notified by telephone and approved projects have been posted on the Michigan Department of Transportation's (MDOT) website. This project will be funded with 80 percent federal funds and 20 percent local funds. Unless otherwise approved in writing by MDOT at the time of obligation, the federally participating project costs for the 2012 STH Program are limited to the project costs submitted with the application and listed above, plus the lesser of an increase of 20 percent or \$20,000 above the total project cost. The maximum amount of federal funds allowed per project is \$400,000 for the construction phase let to contract, as long as the above listed limits are not exceeded. Preliminary engineering, construction engineering, and right-of-way costs are not eligible for reimbursement. As a reminder, non-participating construction items of work may be included in the overall project estimate, but are not reimbursable for federal funding. Items such as decorative lighting, brick sidewalk, street pavers, or any items that are not safety related in nature are not eligible for federal aid. These items will be reviewed once the preliminary plans are developed.

This project should be obligated in fiscal year (FY) 2012. In order to accomplish this, the programming application form must be completed and returned to our office when the engineer's estimate is completed. The programming application form must also be completed, and is available on MDOT's website at www.michigan.gov/mdot. In the "favorite links" area, click on MDOT Forms. Form #0258 is for Bridge Projects, and Form #0260 is for Road Projects. As final plans near completion, a grade inspection can then be scheduled with our office. Federal funds cannot be obligated until a grade inspection has been held, any environmental, historical, permits, and/or right-of-way issues are cleared, and final plans are completed. MDOT staff will add this project to the State Transportation Improvement Program. Provided MDOT has obligational authority remaining, STH funds can be obligated up through August 31, 2012, therefore it is imperative that the final project package is completed and submitted to MDOT by August 24, 2012*, to ensure that funds are obligated prior to this date. The project should follow

Mr. Rob Hayes, P.E.
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July 1, 2011 (Revised*)

the milestone dates established in the FY 2012 Local Agency Programs Project Planning Guide, which can be accessed at www.michigan.gov/mdotlap, and contains the milestone dates required for a GI submittal in order to obligate your project this fiscal year.

Given the latest information currently available under the federal transportation bill, every effort has been given to maintain a fiscally constrained program and maximize the use of limited available funds.

Projects will be handled on a first come, first served basis, so please make every effort to stay on schedule. **STH funds do not carry over to the next fiscal year and expire at the end of the fiscal year in which the project was selected for.** If your project is not obligated in the approved fiscal year, the project will be withdrawn and you will be required to re-submit your project under a future call for projects. Any changes in the scope of work which can not be justified will be denied.

If your local agency wishes to obligate and construct your project prior to the fiscal year in which it was selected for, MDOT will consider obligating FY 2012 projects prior to the start of FY 2012, depending on the availability of FY 2011 STH funds.

Please send the programming application form, GI and final plans to:

Jim D'Lamater, P.E.
Michigan Department of Transportation - Local Agency Programs
425 W. Ottawa Street
P.O. Box 30050
Lansing, Michigan, 48909

If you have any questions, please contact Mr. D'Lamater at (517) 335-2224.

Sincerely,



Bradley C. Wieferich, P.E.
Engineer of Design

cc: Jim D'Lamater, MDOT Local Agency Programs

SUPPLEMENTAL PROFESSIONAL ENGINEERING SERVICES AGREEMENT

MEADOWBROOK AND NINE MILE SIGNAL MODERNIZATION AND RECONSTRUCTION

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 the design and the preparation of plans and specifications for the removal and replacement of the existing traffic signal. The design will involve upgrading the traffic signals to a box span configuration, adding permissive-protected left-turn phasing, replacing the fixed signal timing with fully-actuated operation, and installing countdown pedestrian signals, ADA-compliant ramps and striped crosswalks.

The project shall be designed in accordance with MDOT Local Agency Program guidelines as the project is being partially funded with MDOT STH funds (see attached MDOT Approval Letter, dated July 1, 2011).

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 \$11,602, which is 8.75 % of the estimated construction cost (\$132,584) 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. 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 Stevens, P.E.

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:
Its:

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.

EXHIBIT A - Scope of Services

Meadowbrook and 9 Mile Box Span Signal Upgrade

Orchard, Hiltz & McCliment, Inc. is pleased to provide engineering services to the City of Novi. We understand that the City wishes to upgrade the traffic signal at the intersection of Meadowbrook and Nine Mile Road Drive from an existing diagonal span to a box span. In addition the signal will be fully actuated and include left turn phasing. Pedestrian countdown signals will also be included in the project.

1. Perform Topographical survey of the project area as necessary based upon the planned improvements.
2. Conduct an initial site design visit. The field information pertaining to the following plan elements would be gathered to produce useable drawing(s):
 - a. Streets laneage, lane use, parking, stop bars, and crosswalks on each leg.
 - b. Curb radius, sidewalks, poles, pedestals, fire hydrant, right-of-way, buildings, and any other existing above-ground facilities.
 - c. All existing traffic signal equipment such as controller, traffic signal heads, pedestrian signals, and all pole/pedestal supports.
 - d. Posted speeds for all approaches.
2. Prepare a drawing (1"=30') with all the above features shown. We will request information from the utility companies that may be located in the vicinity of the proposed project. We will utilize this information in the design to avoid conflicts, aerial and underground, with proposed signal structures. If the design cannot be adjusted to avoid utility conflicts, we will organize and attend a utility coordination meeting to resolve any conflicts.
3. Arrange an on-site meeting with representatives designated by the City of Novi, including staff from the City, Road Commission for Oakland County (RCOC), and (if applicable) various utility companies that may be located in the vicinity of the proposed project. At the on-site meeting, using the knowledge of attending representatives and/or our own investigations, obtain all necessary information to produce a traffic signal design preliminary plan, which shows the following:
 - a. Removal plan with appropriate bid items.
 - b. Removal cable diagram showing the routing of all traffic signal wiring through conduit, manholes, handholes and each traffic/pedestrian signal head numbered.
 - c. Installation plan drawing showing traffic and pedestrian signal head placement, supporting structures (poles and pedestals), useable existing conduit, new conduit, handholes, controllers, signal head mounting details, any necessary phasing diagrams or span calculation diagrams, the reinstallation of any other items disturbed by this design such as street lights, etc., and material list showing all appropriate pay items and quantities.
4. Coordinate with the City's Geotechnical Engineer on soil borings, if applicable.
5. Prepare the plans and specifications in accordance with the MDOT LAP process, including the preparation of programming forms and ROW certification. We will send preliminary plans for review to the City of Novi, RCOC, and other concerned agencies. Plans will be modified based on recommendations by the reviewing agencies. We will schedule necessary on-site visit(s) to resolve any conflicts with all parties involved.

6. Prepare final plans with any changes that have occurred due to utility conflicts. Prepare final special provisions, specifications, measurement and payment items, and engineer's estimate.
7. Provide paper copies and email electronic files of the final plans, proposal and engineer's estimate to the City of Novi. Submit final documents to MDOT for the bidding process.

The following services are not anticipated to be required for this project and have not included:

- ▼ Permit or application fees
- ▼ Coordination or design for utility relocations or repairs
- ▼ Remediation or removal of contaminated or hazardous soils or materials.
- ▼ Preparation of signal timing permit.

We can perform any of these above-mentioned services. In the event any of these services are required, an addendum to the supplemental engineering agreement will be submitted for your approval prior to performing said services.

Tentative Schedule:

1. Design completed by November 23rd, 2011
 - Initial on-site meeting with City of Novi, RCOC, and utilities – September 1st, 2011
 - Preliminary plan submittal to City of Novi and RCOC – September 22nd, 2011
 - Receive review comments – October 5th, 2011
 - Utility coordination and preliminary final plan submittal – October 26th, 2011
 - OEC submittal – November 9th, 2011
 - Final submittal – November 23rd, 2011
2. Bids received by mid-December.
3. Construction to begin April 2011.

City of Novi

9 Mile & Meadowbrook Signal Upgrade

Preliminary Engineer's Opinion of Probable Construction Cost



15-Aug-11

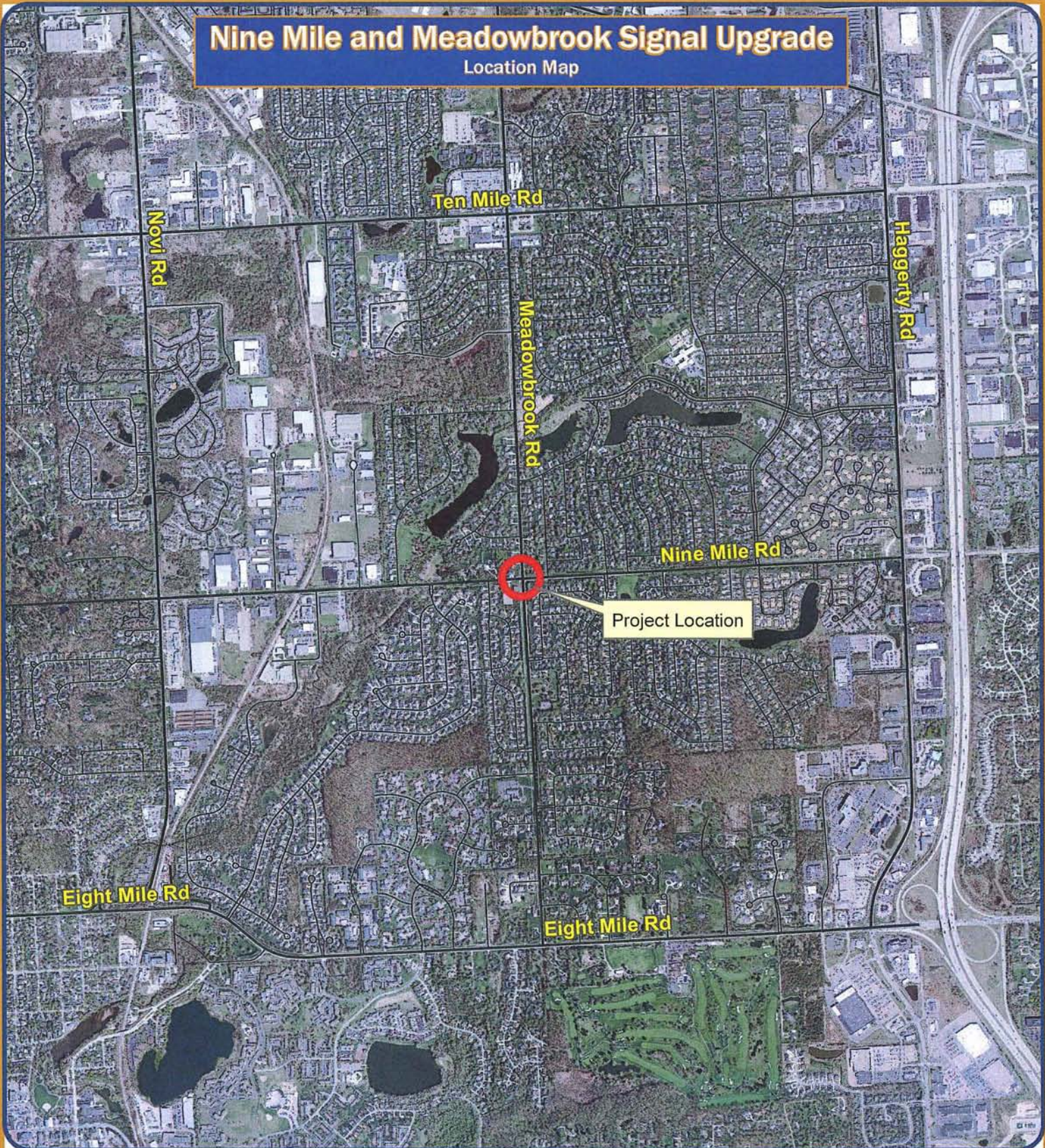
Pay Item	Description	Unit	Unit Price	Quantity	Cost	Notes and Assumptions
1000001	Mobilization, Max. 5%	LS	\$6,300.00	1	\$6,300.00	
2040006	Curb and Gutter, Rem	Ft	\$8.00	100	\$800.00	for new ramp cuts at intersection
2040011	Pavt, Rem	Syd	\$5.00	60	\$300.00	contingency if needed when removing curb
2040013	Sidewalk, Rem	Syd	\$6.00	25	\$150.00	remove existing walk/ramp for new
2057051	Project Earthwork	LS	\$4,000.00	1	\$4,000.00	for ramp/sidewalk work
2080006	Erosion Control, Inlet Protection, Fabric Drop	Ea	\$80.00	4	\$320.00	catchbasins
2080025	Erosion Control, Silt Fence	Ft	\$3.00	300	\$900.00	as needed for ramp work
3020016	Aggregate Base, 8 inch	Syd	\$7.50	85	\$637.50	for pavement, sidewalk, curb
5020061	HMA Approach	Ton	\$80.00	10	\$800.00	as needed for HMA repairs at curb ramps
8020040	Curb and Gutter, Conc, Det F6	Ft	\$15.00	100	\$1,500.00	for new ramp cuts at intersections
8030010	Detectable Warning Surface	Ft	\$18.00	55	\$990.00	8 ramps
8030036	Sidewalk Ramp, Conc, 6 inch	Sft	\$6.50	275	\$1,787.50	one ramp 6' long per curb cut
8030046	Sidewalk, Conc, 6 inch	Sft	\$4.50	650	\$2,925.00	new sidewalk/landings
8110200	Pavt Mrkg, Polyurea, 6 inch, Crosswalk	Ft	\$3.00	440	\$1,320.00	four crosswalks
8120001	Barricade, Type III, High Intensity, Furn	Ea	\$100.00	2	\$200.00	as needed
8120002	Barricade, Type III, High Intensity, Oper	Ea	\$2.00	2	\$4.00	as needed
8120030	Flag Control	LS	\$2,000.00	1	\$2,000.00	for lane closure when working on ramps
8120040	Lighted Arrow, Type B, Furn	Ea	\$500.00	1	\$500.00	for lane closure when working on ramps
8120041	Lighted Arrow, Type B, Oper	Ea	\$100.00	1	\$100.00	for lane closure when working on ramps
8120050	Minor Traf Devices	LS	\$2,000.00	1	\$2,000.00	
8120100	Plastic Drum, High Intensity, Furn	Ea	\$30.00	50	\$1,500.00	for lane closure when working on ramps
8120101	Plastic Drum, High Intensity, Oper	Ea	\$5.00	50	\$250.00	for lane closure when working on ramps
8120120	Sign, Type B, Temp, Prismatic, Furn	Sft	\$5.00	400	\$2,000.00	
8120121	Sign, Type B, Temp, Prismatic, Oper	Sft	\$1.00	400	\$400.00	
8167011	Surface Restoration, Seeding	Syd	\$5.00	250	\$1,250.00	topsoil, seed, mulch, fertilizer and watering
8190029	Conduit, DB, 1, 3 inch	Ft	\$8.00	200	\$1,600.00	
8190261	Hh, Square	Ea	\$300.00	4	\$1,200.00	as needed
8190398	Cable, Sec, 600V, 1,2/C#4, #6 Ground	Ft	\$5.00	100	\$500.00	
8190418	Cable, Sec, Triplex, 1, 3/C#4	Ft	\$4.00	250	\$1,000.00	
8200020	Case Sign, Rem	Ea	\$100.00	1	\$100.00	remove existing lt turn lane sign
8200031	Controller and Cabinet, Rem	Ea	\$250.00	1	\$250.00	remove existing controller
8200035	Controller and Cab, Solid State Actuated	Ea	\$2,500.00	1	\$2,500.00	new controller (install)
8200036	Controller and Cab, Solid State Actuated, Deliv	Ea	\$17,500.00	1	\$17,500.00	new controller (furnish & deliver)
8200121	Pushbutton and Sign	Ea	\$525.00	8	\$4,200.00	8 new pushbutton pedestals
8200123	Pushbutton Pedestal, Alum	Ea	\$450.00	8	\$3,600.00	8 new pushbutton pedestals
8200130	Safety Switch	Ea	\$850.00	1	\$850.00	
8200140	Span Wire	Ea	\$600.00	4	\$2,400.00	Box Span (4)
8200141	Span Wire, Rem	Ea	\$150.00	1	\$150.00	
8200151	Strain Pole Fdn, Uncased	Ft	\$250.00	30	\$7,500.00	two 15' fdn's for new poles
8200157	Strain Pole, Steel, Anchor Base, 36 foot	Ea	\$4,500.00	2	\$9,000.00	two new poles, NW & SE quads
8200182	TS, Span Wire Mtd, Rem	Ea	\$150.00	2	\$300.00	remove existing signals
8200313	TS, One Way Span Wire Mtd (LED)	Ea	\$900.00	8	\$7,200.00	8 signal heads (2 each direction)
8200314	TS, One Way Span Wire Mtd, FYA (LED)	Ea	\$1,000.00	4	\$4,000.00	4 left turn arrow heads
8200339	TS, Ped, Two Way Bracket Arm Mtd (LED) CD	Ea	\$1,450.00	4	\$5,800.00	4 pole mounted ped heads
8200374	Bracket, Truss, With 6 Foot Arm	Ea	\$750.00	8	\$6,000.00	for camera mounting
8200381	Video Traf Detection Camera	Ea	\$3,000.00	8	\$24,000.00	assume 8 cameras

Subtotal = \$132,584.00
 10% Contingency = \$13,259.00
Total = \$145,843.00

RCOC Force Account (Estimated) \$15,000.00

Nine Mile and Meadowbrook Signal Upgrade

Location Map



Map Author: Croy
Date: 8/15/11
Project: 9 Mile/Meadowbrook Signal
Version #: V1.0



1 inch = 1,892 feet

MAP INTERPRETATION NOTICE

Map information depicted is not intended to replace or substitute for any official or primary source. This map was intended to meet National Map Accuracy Standards and use the most recent, accurate sources available to the people of the City of Novi. Boundary measurements and area calculations are approximate and should not be construed as survey measurements performed by a licensed Michigan Surveyor as defined in Michigan Public Act 132 of 1970 as amended. Please contact the City GIS Manager to confirm source and accuracy information related to this map.



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