CITY of NOVI CITY COUNCIL

Agenda Item E
October 6, 2008

SUBJECT: Approval to award a contract for design engineering services for the Twelve Mile Road Paving project (east of Napier Road across Knightsbridge Gate frontage) to Spalding DeDecker Associates, Inc. for a not-to-exceed design fee of $8,918.

SUBMITTING DEPARTMENT: Engineering

CITY MANAGER APPROVAL:

EXPENDITURE REQUIRED	**$8,918**
AMOUNT BUDGETED	**$0 (to be included in 2nd Qtr budget amendment)**
APPROPRIATION REQUIRED	**$8,918**
LINE ITEM NUMBER	**204-204.00-805.022 (Municipal Street Fund)**

BACKGROUND INFORMATION:

Earlier this year, City Council adopted a Resolution to transfer the jurisdiction of the east-west segment of Twelve Mile Road between Napier Road and Grand River Avenue from the City of Wixom to the City of Novi. Novi did not have jurisdiction over Twelve Mile Road when the Knightsbridge Gate development's site plan was reviewed (January 2005), and the design of Twelve Mile Road paving along the frontage of the development was deferred because of objections from the City of Wixom.

Now that jurisdiction has been transferred to Novi, we have the authority to pursue the roadway improvements that would have been completed by the Knightsbridge Gate development had road jurisdiction not been an issue. The developer of Knightsbridge Gate, Grand Sakwa, has posted a financial guarantee in the amount of approximately $114,000 for construction of roadway and pathway improvements; however, Engineering's cost estimate is $156,000. This variance in costs is because Grand Sakwa's estimate of Twelve Mile Road improvements was made in 2004 and was based on less stringent City of Wixom standards. In addition to this $8,918 appropriation for engineering work, we will be asking Council to appropriate the additional $42,000 for construction at a future City Council meeting.

The proposed Twelve Mile Road improvements include the paving of approximately 600 feet of roadway, the construction of approximately 1,160 feet of 5-foot wide sidewalk, and the completion of the Twelve Mile approach to the development at Albert Street. A map has been included for reference.

The attached Request for Proposals (RFP) was sent to the six engineering consulting firms that have been pre-qualified for roadway engineering work. The engineering scope consists of designing plans and specifications for the improvements and assisting the city with bidding construction of the project.

Three proposals were received and each was evaluated using Qualifications Based Selection (QBS) procedures, with a greater weight assigned to cost given that some of the design was completed previously during the site plan review process. The results of staff review of the proposals are as follows:

Firm	Design Fee	Construction Engineering Fee %	Staff Review Score	Proposal Rank
Spalding DeDecker	**$ 8,918**	**4.39%**	**1190**	**1**
Anderson Eckstein & Westrick	$ 17,500	6.90%	980	2
URS Corporation	$ 17,000	10.60%	830	3

Construction engineering services will be awarded concurrent with construction award. This is because there often is a large variance between the construction cost that is estimated at the early stage of the project and the actual bid price, resulting in contract amendments to adjust engineering fee amounts. Once the construction bid price is known, we will award construction engineering phase services based on the construction engineering fee percentage proposed multiplied by the actual construction bid price awarded.

Of the three firms that submitted proposals, Spalding DeDecker Associates (SDA) had the highest staff review score and met all requirements listed in the RFP (see attached SDA proposal dated July 24, 2008 and Engineering staff's proposal scoring summary for reference). Additionally, SDA had the lowest design fee and the lowest overall construction engineering fee percentage. SDA has completed engineering services for the Crowe/Ingersol Drive project for the City of Novi, as well as several drain and water main projects.

Design engineering for this project will be completed this winter, bids solicited in early spring 2009, and construction completed in summer 2009.

RECOMMENDED ACTION: Approval to award a contract for design engineering services for the Twelve Mile Road Paving project (east of Napier Road across Knightsbridge Gate frontage) to Spalding DeDecker Associates, Inc. for a not-to-exceed design fee of $8,918.

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

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

Twelve Mile Reconstruction/Paving

Location Road and Sidewalk Improvements

CITY OF NOVI
DEPARTMENT OF PUBLIC WORKS
25300 DELWAL
NOVI, MI 48375-3024
(248) 735-5640
MAP AUTHOR: Ben Croy
Civil Engineer

0 100 200 400 600
FEET

1 INCH = 300 FEET

MAP PRINT DATE: September 23, 2008

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.

SCORING SUMMARY

Project Description: Engineering Services for 12 Mile Reconstruction/Paving at KBG

RANK 1= LOW, x= BEST (x = number of firms reponding)

Item weight:	*50*	*20*	*10*	*10*	*10*		
TOTAL SCORES	1	2	3	4	5	Totals	*Rank*
Anderson Eckstein & Westrick	10	11	8	9	9	**980**	2
Fishbeck Thompson Carr & Huber	*NO PROPOSAL*						
Orchard Hiltz & McCliment	*NO PROPOSAL*						
Stantec	*NO PROPOSAL*						
Spalding DeDecker	15	10	10	8	6	**1190**	1
URS Corporation	5	9	12	13	15	**830**	3
TOTALS	30	30	30	30	30		

SCORING CRITERIA

1. Engineering Fee
2. Evaluation of Schedule
3. Evaluation of Approach, Statement of Understanding of Project, and proposed staff
4. Analysis of subjective statements applicable to the project as required on the RFP (Value added items)
5. Evaluation of past performance on City projects

REQUEST FOR PROPOSALS
CITY OF NOVI

ENGINEERING SERVICES FOR
TWELVE MILE RECONSTRUCTION/PAVING
AND ROADSIDE IMPROVEMENTS

July 7, 2008

Project Description

The project includes the design, development of construction plans and project manual (front end documents and specifications), bidding services, construction staking, contract administration and construction inspection for the paving of approximately 650 feet of the unimproved portion of Twelve Mile Road from a point 600 feet east of Napier east along the frontage of the Knightsbridge Gate development. The project also includes the construction of the Twelve Mile entrance to Knightsbridge Gate, drainage improvements necessary for the road paving and the construction of 1,250 feet of sidewalk along the south side of Twelve Mile Road. The design of the road paving was initiated with the site plan for Knightsbridge Gate but was not constructed with the development. The jurisdiction of Twelve Mile Road was recently transferred from the City of Wixom to the City of Novi. The scope of service is as outlined below. **The City is requesting a separate fee for the following divisions of work: design engineering (which will not include bidding services), construction staking, and construction phase services (including but not limited to bidding services, contract administration and construction inspection).** The City estimates the construction cost to be approximately $240,000. The schedule should indicate construction completion this calendar year.

SCOPE OF SERVICES

The selected consultant shall conduct the following activities upon authorization by the City Engineer:

DESIGN PHASE

1. The Consultant shall meet with the City at the beginning of the project to verify the scope of the project.
2. The City will provide a preliminary plan initiated by the developer, however there is no survey or other digital information available. It is assumed that the consultant will provide topographic survey as part of the scope.
3. The Consultant shall review the existing preliminary plan for conformance with the above project description and the City's standards and specifications. Any nonconformance shall be corrected/redesigned as necessary.
4. The City will provide information as needed in the form of record drawings of existing roadways and utilities (as available), standard details, specifications, benchmarks, etc., as required to assist the Consultant in completing the work.
5. The Consultant shall provide legal description and exhibit for a temporary grading easement to construct the remainder of Albert Drive, a private road, extending into the Knightsbridge Gate development. Develop specifications for geotechnical services and obtain proposals from a minimum of three geotechnical consultants. The City will award a separate purchase order to the geotechnical consultant directly based on the recommendation from the Consultant
6. The Consultant shall contact and coordinate with all utility companies with facilities within the project limits. The utilities shall be identified on the construction plan set. If any relocations of utilities are required as part of the construction, the consultant shall coordinate the relocations with the utility companies prior to construction.

7. The Consultant shall complete a soil erosion and sedimentation control plan (including application and checklist) for the project in compliance with Part 91 of P.A. 451 of 1994, Chapter 29 of the Novi Code of Ordinances and the City of Novi SESC Program Manual.
8. The Consultant shall work on the City's behalf to provide a review set of plans to the City of Wixom for their review and comment. The consultant shall meet with the City of Wixom and City of Novi staff as required and make corrections to the plans.
9. The Consultant shall provide 5 sets of plans for the project at the time of 90% review. The plans shall be standard road plans which will include cross-sections, plan and profiles, striping and signage, traffic control, standard details and soil erosion plan. A revised construction cost estimate shall be provided at the time of 90% review by the City.
10. The City Forester will review the 90% set of plans for impacts to the existing trees within the right-of-way. The consultant shall work with the City Forester to determine the trees that require removal and protection as part of the project.
11. The Consultant shall submit five (5) sets of final drawings to the City following final approval of the plans by the City. The consultant shall also provide on CD or DVD a .pdf file containing the final approved plans for use in construction bidding, as well as a CD of the digital file converted to AutoCAD format.
12. The consultant shall attend the pre-construction meeting.
13. The consultant shall be available during construction for design related questions should they arise.

CONSTRUCTION STAKING

14. The consultant shall provide staking as directed by the City for use by the contractor throughout construction.

CONSTRUCTION PHASE SERVICES:

15. The Consultant shall prepare bid documents and provide assistance to the City Engineering and Purchasing Departments with the bidding of the project, including coordinating and facilitating the pre-bid meeting, preparation of contract addenda, plan revisions, responding to bidder inquiries, review of bids, and recommendation of award to City Engineering. The City will provide the contract and front-end documents to the consultant. The consultant shall provide specifications for use in the project manual.
16. The Consultant shall be responsible for specifying protection of existing survey monumentation and coordinating with the County surveyor as required.
17. Contract administration services shall include, but not be limited to: reviewing shop drawings furnished by the contractor at the pre-construction meeting, coordinating and running the pre-construction meeting, ensuring compliance with contract documents, regular consultation with City Engineering, interpretation of plans and specifications, preparation and certification of pay estimates, full-time construction inspection during active construction, and materials testing along with final testing and project review. The Consultant must also promptly attend to resident concerns and complaints as they become known.
18. Construction phase services shall also include submittal to City Engineering of all project reports and documents, and written recommendation regarding final acceptance of the project. The Consultant, within this phase, shall also prepare record drawings and transmit one (1) digital copy of as-built plan in .tif format (400 dpi minimum), two (2) plan copies, and a CD containing the digital file of the record drawings in the City standard format (AutoCAD), and provide such information to the Engineering Department within three (3) months following substantial completion of the project.
19. During the construction phase the Consultant shall be responsible for administering and enforcing the soil erosion and sedimentation control plan as an agent for the City under the Authorized

Public Agency (APA) program in compliance with the City of Novi *Authorized Public Agency Soil Erosion and Sedimentation Control Program Manual.* The Consultant shall also be responsible for soil erosion and sedimentation control inspections of the project for compliance with the approved soil erosion and sedimentation control plan. The inspections must be completed by an individual who has current certification through the Michigan Department of Environmental Quality under Part 91. The inspections must occur at regular intervals and soil erosion and sedimentation control inspection logs must be maintained and provided to City staff as required. The Consultant shall also be responsible for instituting corrective measures in the field to prevent soil erosion and sedimentation as required, and for overseeing the Contractor's Storm Water Operator.

CONSULTANT QUALIFICATIONS

The Consultant has been pre-qualified to provide engineering consulting services for 2008-2009 Roadway Projects.

CONSULTANT SELECTION

As a pre-qualified consultant, the selection for this roadway project will be based on an evaluation of the fee proposal, which is labeled as Exhibit A, in addition to the Consultant's project understanding, approach, schedule, staffing plan, past performance on City engineering projects, and value-added concepts that would improve the overall project (i.e., cost savings, time savings, innovation, etc.).

By submitting a proposal, the Consultant agrees that neither the firm, sub-contractors, nor suppliers will discriminate against any person with respect to hiring or employment on the basis of religion, race, color, national origin, age, sex, height, weight, marital status, or a handicap that is unrelated to the individual's ability to perform tasks particular to a job or position.

The selected consultant will enter into an agreement with the City of Novi to perform the services listed in this Request for Proposals. The City's standard Consulting Engineering Agreement is included as Exhibit C.

PROPOSAL SUBMITTALS

To be considered, sealed proposals (one UNBOUND original and five bound copies) must arrive at the Purchasing Department, 45175 W. Ten Mile Road, Novi, Michigan 48375 on or before **10:00 AM** Local Prevailing Time**, Thursday, July 24, 2008** addressed to Sue Morianti, Purchasing Official, and clearly labeled **ENGINEERING SERVICES FOR TWELVE MILE RECONSTRUCTION/PAVING AND ROADSIDE IMPROVEMENTS**. There will be no exceptions to this requirement and the City of Novi shall not be held responsible for late, lost, or misdirected proposals.

As a pre-qualified consultant, the selection for this roadway project will be based on the fee proposal, which is labeled as Exhibit A, in addition to the consultant's project understanding, approach, schedule, staffing plan, and past performance on City engineering projects. **USE OF CITY LOGO IN YOUR PROPOSAL IS PROHIBITED**. The selection criteria and their corresponding weights for this project are as follows:

Criteria	Weight
Engineering Fee	50%
Evaluation of Schedule, and Proposed Staff	20%
Evaluation of Approach and Understanding of Project	10%
Analysis of subjective statements included in the Consultant's proposal (Innovative and/or value-added items)	10%
Evaluation of past performance on City projects	10%

All proposals must remain valid for one hundred twenty (120) days from due date and cannot be withdrawn during this period.

Questions regarding this Request for Proposals may be directed to:

City Engineer, Rob Hayes, P.E. (248) 735-5606
-or-
Civil Engineer, Ben Croy, P.E. (248) 735-5635

The City of Novi reserves the right to accept any or all alternative proposals and to award the project to other than the firm with the lowest fee proposal, waive any irregularities or informalities, or both, to reject any or all proposals, and in general, to make award in any manner deemed by the City, in its sole discretion, to be in the best interests of the City of Novi.

EXHIBIT A
FEE PROPOSAL
CITY OF NOVI

ENGINEERING SERVICES FOR
TWELVE MILE RECONSTRUCTION/PAVING
AND ROADSIDE IMPROVEMENTS

We the undersigned propose to furnish to the City of Novi services consistent with the Request for Qualifications dated January 11, 2007 and Request for Proposals dated September 11, 2007, respectively. Design fees will be paid on an hourly basis for actual work performed to a maximum as proposed. A separate fee schedule is being provided should the City request additional work on an hourly basis.

Project	Phase	Total Fee
TWELVE MILE RECONSTRUCTION/ PAVING AND ROADSIDE IMPROVEMENTS	Design Phase-excludes Bidding Services and geotechnical services (not-to-exceed fee)*	$
	Construction Staking	$
	Construction Phase Construction Cost Estimate: $ _____	
	_____% of Construction Cost (from estimate above)	$
	TOTAL ESTIMATED FEE**	**$**

*The City will contract directly with a geotechnical consultant in coordination with the selected consultant.

**Total Estimated Fee consists of a not-to-exceed design phase fee, not-to-exceed construction staking fee and a fixed percentage construction phase fee which is used to estimate an approximate fee amount based on the cost estimate above. The actual construction phase fee will be established when the project is awarded to a contractor by multiplying the fixed percentage provided and the bid price of the successful bidder.

The City reserves the right to award each phase individually.

PLEASE TYPE:

Company Name: _____

Address: _____

Agent's Name: _____

Agent's Title: _____

Agent's Signature: _____

Telephone Number: _____ Fax Number: _____

E-mail Address: _____ Date: _____

SPALDING DEDECKER ASSOCIATES, INC.
905 South Boulevard East • Rochester Hills • Michigan 48307 • Tel 248 844 5400 • Fax 248 844 5404

July 24, 2008

Ms. Carol J. Kalinovik, Purchasing Director
City of Novi
45175 W. Ten Mile Road
Novi, Michigan 48375

Re: Request for Proposal: Engineering Services for Twelve Mile Reconstruction/Paving and Roadside Improvements
SDA Proposal: PR08-182

Dear Ms. Kalinovik:

Spalding DeDecker Associates, Inc. (SDA) is pleased to provide the following proposal for Engineering Services for Twelve Mile Reconstruction/Paving and Roadside Improvements pursuant to your RFP dated July 7, 2008. We have assembled a strong Team from our Transportation Design, Survey, and Construction Engineering departments for this project and believe we are exceptionally qualified for a number of reasons:

- Our design, survey, and construction engineering staff have extensive experience delivering projects on a fast-track schedule
- SDA's Project Team is ready to initiate work on this project immediately to meet the deadlines specified in the RFP and our proposal
- Our Design and Construction key personnel are familiar with the City of Novi construction standards and SDA maintains a local staff of qualified technicians working on projects in the City of Novi, managed from our new Brighton Township office
- During design and construction, we seek to identify and implement value added services for this project

We understand the City of Novi's challenges with regard to implementing infrastructure improvements along community borders with a variety of interests. Furthermore, we will work to deliver a successful project on all levels: within budget, within schedule, with utmost safety, and with minimal public inconvenience.

Attached, please find five (5) bound and one unbound original proposals for our services. We trust that you will find our proposal to be thorough with regard to your needs in providing engineering services for the Twelve Mile Road project. We look forward to the opportunity to further address your selection committee in an open discussion of our qualifications.

Very Truly Yours,
SPALDING DEDECKER ASSOCIATES, INC.

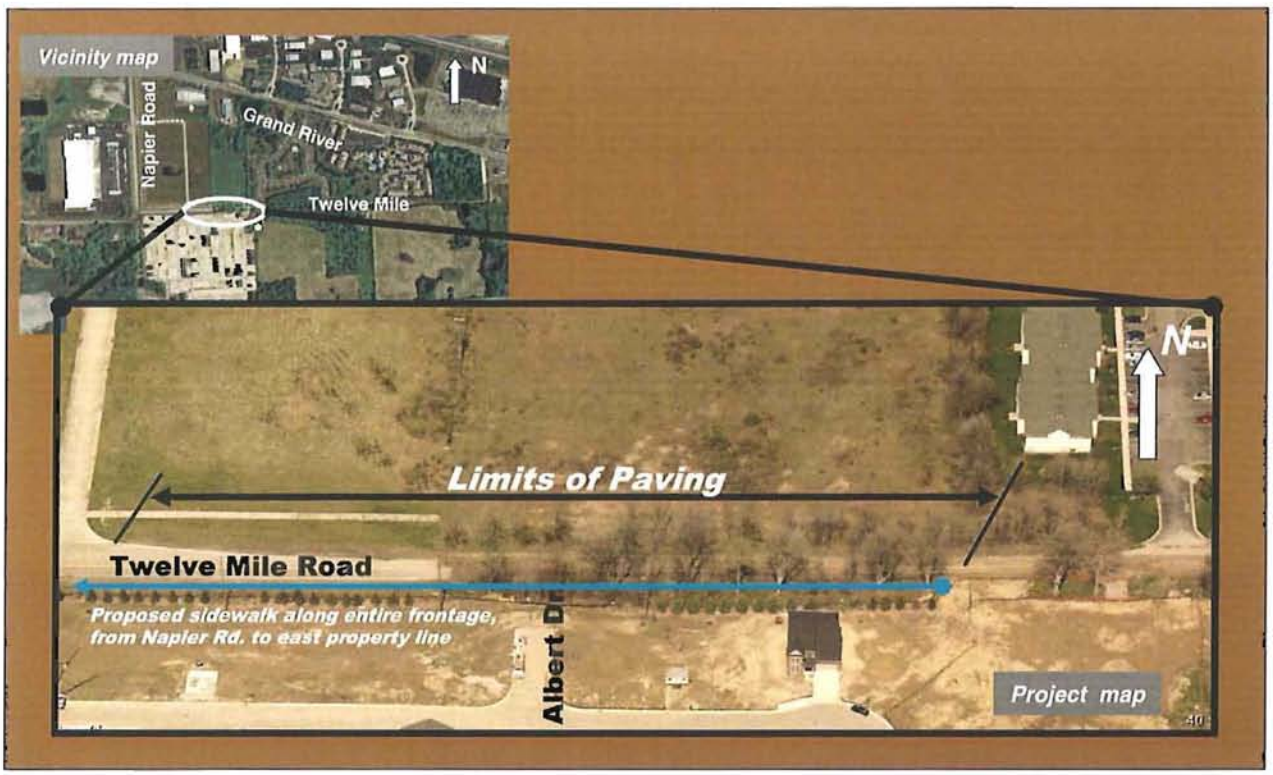
Cheryl L. Gregory, P.E.
Transportation Department Manager
cc: SDA Job File

Table of Contents

City of Novi
Engineering Services for Twelve Mile Reconstruction/Paving and Roadside Improvements
PR08-182
July 24, 2008

Understanding

Spalding DeDecker Associates, Inc. (SDA) has reviewed and understands the requirements detailed in the Request for Proposals dated July 7, 2008, for the **Twelve Mile Reconstruction, Paving and Roadside Improvements** east of Napier Road, adjacent to the Knightsbridge Gate development.



The adjacent Knightsbridge Gate community began development initially in 2004 with a preliminary plan to pave Twelve Mile Road. Right of way issues with neighboring Wixom precluded the road improvements from being constructed. Now that roadway jurisdiction issues have been resolved, design and construction of the proposed improvements may proceed in 2008.

The existing Twelve Mile Road gravel roadway will be paved with Hot Mix Asphalt in accordance with City of Novi standards, with a pavement design confirmed after a geotechnical investigation is completed. The proposed work will include drainage improvements, construction of an intersection with Albert Drive, and sidewalk construction along the south side of Twelve Mile Road for the entire frontage of Knightsbridge Gate development. Depending on the available right of way (ROW) width and offset requirements, the roadway drainage system may be partially or completely enclosed. Furthermore, the intersection tapers, lane alignment, and shoulder treatments will be designed within existing ROW limits. A temporary grading easement will be required for the intersection construction at Albert Drive and may be

Understanding

required for the sidewalk construction, as well.

Every effort will be made to design the improvements with minimal impact to mature trees. Utilities near Albert Drive may require relocation to accommodate proper intersection geometrics. SDA will develop a maintaining traffic plan which assures proper access driveways on the north side of Twelve Mile Road during construction.

To confirm pavement design and existing base material properties, soil borings will be obtained. The selected design consultant will solicit at least three proposals from qualified geotechnical firms to perform the investigation. The selected geotechnical firm will enter into a service contract with the City, but the field work and reports will be coordinated by the design consultant.

The final design plans must be completed by mid-September 2008, after which the consultant will administer the construction bid process to assure a 2008 construction start. To maintain this aggressive schedule, a design notice-to-proceed must be issued by August 12, 2008.

Full construction engineering and inspection services (including SESC inspection), as well as survey layout, will be provided by the selected consultant through the completion of the project. Upon construction completion, the selected consultant will provide record drawings, in both digital files and hard copies, for the City's future reference.

Spalding DeDecker Associates, Inc. strives to be "The Benchmark of Excellence" for our clients through applications of its Guiding Principles and Quality Procedures. SDA will provide innovative design and engineering solutions that ultimately result in a better quality of life for residents and visitors in the City of Novi. Thank you for considering our services.

Approach / Work Plan

Paving Twelve Mile Road and establishing access to the Knightsbridge Gate community will enhance Novi's transportation infrastructure and improve access for residents. The design, led by *Cheryl Gregory*, will address pavement and drainage improvements, in accordance with safety and geometric standards, and will also take into account the surrounding residential and rural character of the area. Our engineering team will draw from decades of experience to expedite all stages of the design process. Our overall goal will be to provide a practical, cost effective design that results in minimal disturbance to existing landscaping and mature trees. The project approach herein highlights the specific areas that our experienced engineers will carefully consider throughout the design and construction phases.

DESIGN PHASE

GEOTECHNICAL INVESTIGATION

SDA will oversee a geotechnical consultant to acquire soil borings to determine actual base conditions. A pavement design can then be developed with sufficient structural support and underlying drainability. Furthermore, accurate construction removal quantities can be estimated for removal of unsuitable base material, if necessary.

GEOMETRIC DESIGN

Alignment

The vertical profile varies from approximately 0-3% within the paving limits. Drainage in the flatter area near Albert Drive will be carefully designed to assure positive drainage. The horizontal alignment is not expected to vary.

Twelve Mile Road profile begins to slope upward toward the east limits of paving

Approach / Work Plan

Lane Width

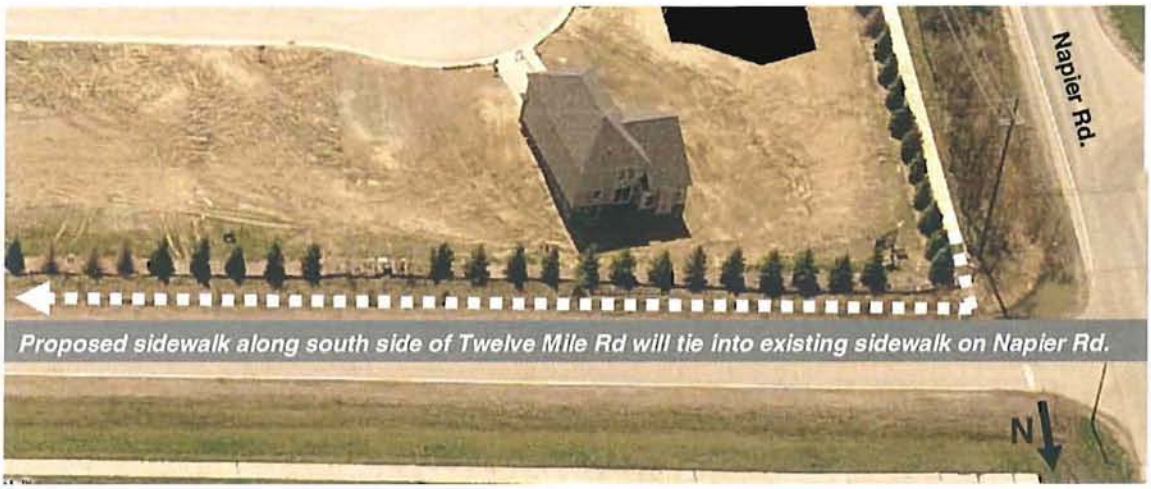
The proposed pavement will match the existing 24' pavement at the west end of the project limits. If the drainage system remains open, a 3' paved shoulder is recommended within the area of improvement.

Curb and Gutter / Shoulder

The drainage design will consider available outlets, right of way width, and offset requirements. On the south side of Twelve Mile Road at Albert Drive, a curb and gutter section is recommended to match the existing section at Albert Drive. Curb and gutter may be continued along the tapers and shoulder of Twelve Mile Road to an appropriate spillway or catch basin to avoid erosion from runoff.

Existing "dead end" of Albert Drive will be connected to Twelve Mile Road with a uniform valley gutter pavement section

Approach / Work Plan



Sidewalks

Proposed sidewalk will extend from Napier Road easterly for approximately 1250'. ADA compliant sidewalk ramps will be constructed at Albert Drive and Napier Road intersections.

Slopes, Trees, and Lawns

The slope along the south right of way of Twelve Mile Road will require a detailed design to minimize impacts to trees at the top of slope and provide protection during construction. Recently planted trees near Albert Drive will be relocated out of the proposed intersection. Additional relocations or replacements for trees that are unavoidably impacted will be discussed with the City's Forester.

DRAINAGE

Although adjacent properties have enclosed drainage systems, Twelve Mile Road drainage is an open-ditch system. SDA will evaluate ROW width, outlet elevations and drainage profiles to determine if the best drainage option is an open, closed or partially closed system.

UTILITIES

Early in the design phase, SDA will notify utility owners within the project limits of the proposed work and schedule. We will coordinate with each facility owner to resolve potential conflicts during design to assure that there are no surprises during construction. All public and private utilities will be shown on the construction plans. It is anticipated that a utility pole and guy wires near Albert Drive will need to be relocated to construct the intersection with Twelve Mile Road. Water main within the project limits is not expected to be in conflict; however, hydrant locations will be verified to assure they will not conflict with sidewalk construction.

MAINTAINING TRAFFIC CONCEPT

To facilitate an expedited Fall 2008 construction schedule, a full closure of Twelve Mile Road will be evaluated. Maximum production can be achieved under a full closure during the limited number of good-weather days available in the remaining construction season. SDA will recommend a

Work Day contract to complete the work in 2008.

Although no access is currently maintained from Twelve Mile Road to Knightsbridge Gate, access exists to properties on the north side of Twelve Mile Road. SDA will coordinate with emergency response agencies during design and property owners will be notified of the proposed work and schedule.

DETAILED TOPOGRAPHICAL SURVEY

We will prepare a complete topographical survey for the purpose of engineering design. Site limits will include the full right of way of Twelve Mile Road within the paving limits and along the entire south half of 12 Mile Road up to Napier Road. Site benchmarks will be established in relation to the NAVD88 datum and horizontal control will be measured in state plane coordinates for the Michigan South Zone according to the 1986 adjustment of the NAD83 datum. Road cross-sections will be obtained at fifty-foot intervals, and we will obtain additional elevations along the right of way and intersecting driveways and at apparent high and low points, as needed. Underground utilities will be shown based upon a combination of record information and actual field measurements, including measuring pipe invert elevations on Albert Drive. Right of will be graphically shown based upon actual field measurements.

PERMIT ACQUISTION

Upon the City's review of the Preliminary Plans, SDA will prepare the legal description and exhibit for a temporary grading easement to construct the remainder of Albert Drive. A permit application for the Road Commission of Oakland County or the City of Wixom will be prepared in the City of Novi's name to allow placement of construction signs within the Napier Road ROW. The permit application package will be forwarded to the City for review and submittal. Plans will also be submitted for a City of Novi Soil Erosion and Sedimentation Control (SESC) permit in accordance with Part 91 and Chapter 29 of the City Code. The SDA Design Team will provide permit follow-up and will field any questions or requests from permitting agencies, as directed by the City, necessary to secure permit approvals.

BID ADMINISTRATION

With the City's approval of final design plans, SDA will prepare a public advertisement for construction bidding. In the interest of time, and given the size of the proposed project, the City may consider soliciting bids by invitation only. The low-bid selection process will prevail.

CONSTRUCTION PHASE

CONSTRUCTION ADMINISTRATION

Ted Meadows will be the Contract Administrator for the project. Ted will conduct an internal kick-off meeting with the design group ensuring a smooth transition from design bid phase and award phase of the project.

In the comprehensive pre-construction meeting, all pertinent items will be addressed in a discussion led by Ted Meadows. Possession of required permits will be verified; emergency contact information will be exchanged; construction schedules will be submitted and reviewed; communication protocols will be established; pay estimate protocol will be explained; and project close-out and successful completion criteria will be established.

SESC

During the construction phase, SDA shall be responsible for administering and enforcing the SESC plan. The inspections shall be completed by Kim Danowski. Kim currently performs SESC inspections on behalf of the City of Novi for many private projects and has established relationships with key SESC-related Novi Personnel including C. J. Killebrew and Aaron Staup. Kim will work with Don Pashby to ensure that corrective measures are taken whenever deficiencies are found with the SESC control measures in place. Also, contractor SWO reports will be reviewed on a regular basis.

INSPECTION

Don Pashby shall perform the full time construction observation duties for the duration of the construction phase of the project. Don has worked on several projects over the past years in which entrances to new commercial, industrial, and residential were constructed. Projects have included the new ITC headquarters and the Novi Corporate Campus development among many others. Don shall work closely with the Contractor and the GeoTech subconsultant to prepare a solid sub-base, followed by a good limestone aggregate base and ultimate pavement cross-section per the final design specifications. Grades shall be checked by Don to confirm full depth cross-section dimensions are met along with formwork and string-lines for curb and gutter paving operations.

Don shall be documenting the project using Field Manager software; shall make as-built sketches where necessary; and shall capture project progress with digital photographs. A **web-based portal project site will be created specifically for this project**, and all construction daily reports, along with project photographs and engineer pay certificates, will be posted.

COMMUNICATION

SDA's assigned construction technician shall respond quickly to any residential queries likely coming from Knightsbridge Gate residents during the construction phase. Prior to the start of construction, Ted Meadows and Don Pashby shall establish relationships with Winnick Homes and Hunter-Pasteur Homes. Also, Ted shall work with the Novi Police Department to ensure the approved traffic control plan is being executed properly and that access for Fire and Rescue vehicles is maintained at all times.

MATERIAL TESTING

SDA will partner with a material testing agency to ensure the pavement cross-section meets the City of Novi QAQC specifications and standards for streets and roads. The material testing agency, in conjunction with the SDA construction technician, will provide proof rolls of the sub-base and base materials, density tests for the base material and any fill placed in the sub-base, and any material testing for the pavement. Reports will be generated and posted on the project portal for review.

CONSTRUCTION LAYOUT

SDA will perform layout for the proposed improvements, including sidewalk, pavement, curb and gutter, and underground storm sewer. We will set stakes at an appropriate offset and provide grades, with computations shown on cut-sheets.

AS-BUILTS

SDA will provide Record Documents according to Novi's ordinance number 07-124.17 effective June 1, 2007. This project entails pavement reconstruction and possible replacement of drainage structures. The drainage system itself will not be changed, only rim elevations may vary slightly from the existing; therefore, SDA will provide record rim elevations on the storm system where drainage structures have been replaced or where rims have been adjusted. The documents will contain all of the information required within Novi's "General Project Information" and all of the information required within Novi's "Road and Street Transportation Systems," as listed in "Requirements for Record Drawing (As-built) Submittals," revised August 22, 2007, version 1.04.

VALUE ADDED CONCEPTS

As described in greater detail throughout our Project Approach, SDA offers the following Value Added Concepts:

- **Stakeholder Involvement** – We will recommend proactively working with property owners to inform them of impending construction activities. We will actively seek out other methods to assure stakeholder involvement not only during design but construction as well.

- **Local Knowledge** – SDA's survey and design experience, as well as our continued presence in the City provides us with a great amount of local knowledge to make this project run smoothly and efficiently.

PROJECT WORK PLAN

Design Phase

- Meet with the City to confirm the scope of work and review alternative designs/innovations.
- Obtain all relevant information for completing the project from the City.
- Visit the site to confirm site conditions.
- Determine scope of work for soil borings and submit to three (3) qualified geotechnical firms for estimates to do the work as scoped. Based upon the geotechnical firm submittals, SDA will provide a recommendation to the City.
- Prepare a complete topographical survey for the purpose of engineering design. Site limits will include the full right of way (ROW) of Twelve Mile Road within paving limits, and the south half of ROW within proposed sidewalk construction area toward Napier Road.
- Contact each utility company in the area and verify size, type, and amount of facilities in the project area.
- Prepare Construction Permits for Road Commission of Oakland County and the City of Wixom to place construction signing in their ROW, as well as any construction required in each ROW.
- Develop Soil Erosion and Sedimentation Control Plan (SESC) in accordance with the City's Code of Ordinances and SESC Program Manual.
- Prepare 30% preliminary plans and cost estimate for review by the City. This stage of project development will show basic proposed cross section, profile, and plan. Special design elements will be identified for review, approval by the City of Novi, and implementation into the project.
- Prepare 90% complete plans, specifications, and estimate for review by the City. This stage of project development will show detailed cross sections, profile, and plan completed and relevant details completed and specifications complete. All quantities will be detailed and shown on plan sheets, and a 90% cost estimate will be prepared.
- Finalize the bid package and prepare for advertising.

Bid Assistance

- Coordinate with the City Engineering and Purchasing Divisions on all bidding arrangements for the project.
- Prepare and distribute contract documents to prospective bidders.
- Coordinate and facilitate a mandatory Pre-Bid Meeting, if necessary.
- Prepare answers to any questions. Prepare and distribute project addendum prior to bid opening.
- Facilitate bid opening, review bids and contractor qualifications, and provide award recommendation.
- Prepare executed contracts for Contractor and review Agreement, Bonds, & Insurance for conformance and final contract execution by the City of Novi.

Construction Contract Administration (CCA)

- Contract Administrator, Ted Meadows, shall coordinate and facilitate an internal kick-off meeting with the design team. Ted and the construction technician(s) assigned to the project will meet with Cheryl

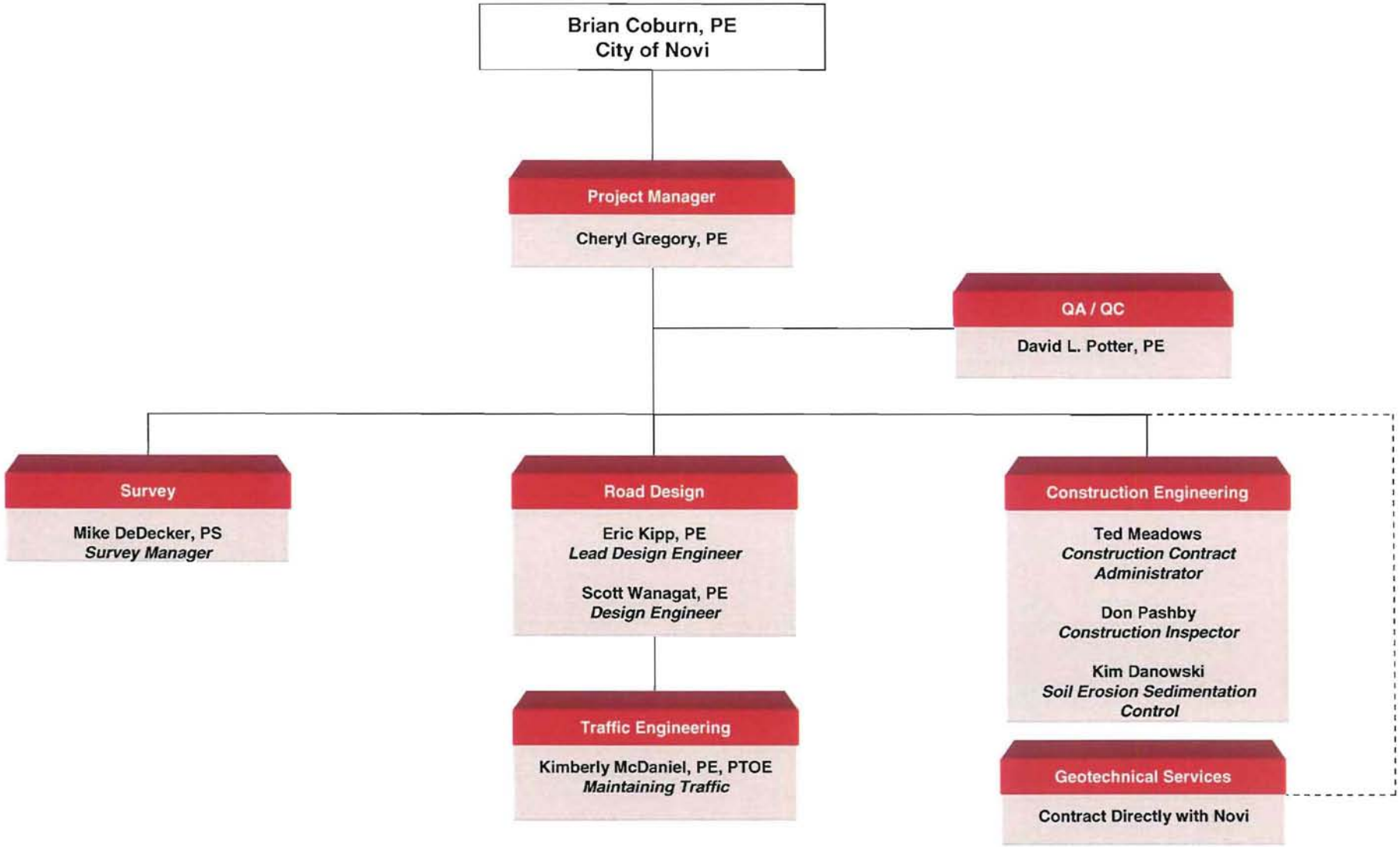
Gregory, PE and Eric Kipp, PE to review plans, specifications, and permit requirements, ensuring a smooth hand-off from the design/bid phase and the construction phase of the project.

- SDA will coordinate and facilitate a comprehensive pre-construction meeting with appropriate Contractor and City personnel.
- All shop drawings associated with the project will be reviewed by SDA, such as: storm sewer pipe; storm drainage structures and castings; HMA mix designs; and concrete mix designs.
- Ted will interpret the contract documents on behalf of the City, in response to contractor inquiries.
- Construction staking for the project will be coordinated between construction technicians and survey department under the direction of Mike DeDecker, PS. Surveyors will perform construction layout for the proposed road reconstruction. Cut-sheets will be prepared and provided. Surveyors will protect established survey monumentation at all times.
- Contract Administrator will coordinate with City of Novi Project Representative and construction technicians at all times during the project and will hold progress meetings at agreed upon intervals during the construction phase.
- Pay applications submitted by the contractor will be reviewed by the Lead Technician for quantities and Contract Administrator for payment recommendations. They will then prepare corresponding engineer pay certificates and forward with recommendation for payment to the City of Novi.
- SDA will ensure overall compliance with the contract documents.
- Ted Meadows, in conjunction with Mike DeDecker, will prepare a record set of drawings in hard copy and electronic format in concert with City GIS requirements.

Construction Observation

- SDA's Construction Engineering department will perform full time inspection of the road replacement, storm sewer upgrades, and sidewalk upgrades during ongoing work by the Contractor.
- SDA, in conjunction with selected qualified geotechnical sub-consultant, will provide all required material testing to a level that will establish compliance with contract documents.
- SDA will perform inspection to enforce SESC plan and City Ordinance under the City's APA program.
- All businesses' and residents' concerns and complaints will be promptly addressed by SDA, while keeping appropriate City Staff informed along the way of both the concern and the resolution.
- SDA will prepare a project punch list and write a recommendation for acceptance of the project when applicable.
- SDA will prepare and submit all daily inspection reports in Field Manager format with digital photos and sketches where appropriate. All relevant construction documents will be posted on a Web-based project portal site readily accessible by City staff.

Organization Chart



Resume

Cheryl L. Gregory, PE

Project Manager

Cheryl L. Gregory, PE has 5 years with SDA with 20 years of experience in the industry. Gregory manages and directs the Transportation Department. She is familiar with the variety of the engineering concepts, practices, and procedures needed to meet today's client's expectations. As the Transportation Department Manager, she plans and directs all aspects of transportation engineering activities within the organization. Cheryl ensures all engineering projects, initiatives, and processes are in conformance with SDA's established ISO 9001 policies and objectives, which ensures efficient coordination and completion of transportation projects.

Gregory has experience providing project management, design oversight and construction administration on various highway reconstruction / rehabilitation, roadway capital preventative maintenance and enhancement program projects for State, County, and Local jurisdictions. With over 15 years' prior experience with MDOT, she is well-versed in State and Federal design standards and policies, as well as the practical applications for local governments. Her engineering experience encompasses road design, traffic safety, environmental assessments, non-motorized paths, storm sewer systems, and utility coordination, permitting processes and geotechnical investigation. Cheryl is knowledgeable in funding issues. Her unique combination of construction, design and administrative experience enables her to oversee the production of high-quality construction plans and specifications.

RELEVANT EXPERIENCE

Professional Engineering Services for Highway and Bridge Design and Related Activities 2003-2008, Road Commission for Oakland County, MI – Department Manager and Project Manager - The as-needed services to be provided include: Bridge Design; Bridge Inspection; Preliminary and Construction Survey; Geotechnical Engineering Services; Roadway and Culvert Design; Construction Engineering, including testing; Right-of-Way Acquisition; Project Management; Traffic Signal Design, including Intelligent Traffic Systems (ITS) and SCATS (Sydney Coordinated Adaptive Traffic Signals); Advanced Traffic Management including design and evaluation of roundabouts; and Environmental Assessments and Impact Statements.

12 Mile Road Widening and Resurfacing, Farmington Hills, MI - Department Manager and Project Manager - The project, located between Middlebelt Road and Orchard Lake Road, included rehabilitation and widening of 12 Mile Road. Project included 3000 feet of widening with deep-strength hot mix asphalt, new concrete curb and gutter, drainage improvements and over one mile of hot mix asphalt overlay, including several hundred feet of Orchard Lake Road to the I-696 interchange. This project required detailed construction traffic staging to accommodate the large traffic volumes in this Orchard Lake/12 Mile Road intersection. Hydraulic analysis was also performed to upgrade the existing storm drainage necessary to accommodate the widening.

Belford Road, Paving existing gravel road, Holly Township, MI – Department Manager and QA/QC – Project involved paving 0.4 miles of Belford Road (existing gravel road) in preparation for the opening of the new National Veterans' Memorial Cemetery. Work

EDUCATION

BS Construction Engineering,
Lawrence Technological University

REGISTRATION

Professional Engineer, Michigan, 38185, 1992

PROFESSIONAL AFFILIATIONS

American Society of Civil Engineers
Institute of Transportation Engineers
Women's Transportation Seminar

SPECIALIZED TRAINING

MDEQ Storm Water Management - Construction Site, Certificate No. C-00674. Expires 7/1/10.

included HMA paving, concrete curb and gutter, enclosing drainage, and making intersection improvements at North Holly Road. Drainage and sight distance issues were addressed within limited ROW.

Long Lake Road, Livernois and Crooks Road concrete pavement replacement, Troy, MI – Project Manager and QA/QC for full-depth concrete pavement replacement of nearly two miles of roadway, including several signalized intersections. Work included full-depth pavement replacement, curb and gutter replacement, minor safety improvements, and maintaining traffic plans.

Livernois, Maple to Big Beaver, Troy, MI – Department Manager and QA/QC for this road project that involved crack and seating the existing concrete pavement, pavement repairs, traffic signal loops, crown correction, and overlay. ADA ramps were designed and replaced by the City of Troy as part of this project.

Stephenson Highway from 14 Mile Road to I-75, Troy, MI - Department Manager and Project Manager responsible for overseeing the design, plans, and specifications for 1.75 miles of pavement rehabilitation including concrete pavement repairs, HMA overlay, adding curb and gutter, drainage improvements, geometric improvements, ADA ramp upgrades, pedestrian signal upgrades, and signing upgrades for the City of Troy.

John R Rd Rehabilitation, N of 12 Mile Rd to 14 Mile Rd, Madison Heights, MI – Project Manager responsible for overseeing design of 1.7 miles of concrete pavement rehabilitation (cracking & seating, cold milling, and HMA overlay) of a 5-lane urban roadway for RCOC. The project also involved design of maintaining traffic plans, as well as pavement marking plans. Pedestrian and motorist access to numerous businesses along the roadway could not be interrupted during construction.

Inkster 2007 Street Repair Program, Inkster, MI - Department Manager and QA/QC for an extremely expedited design and construction project that involved over 17 miles of streets within the Inkster City Limits. Field reviews of all streets had to be conducted to determine the amount and extent of repairs. Plans and estimate were developed for each street and streets prioritized based on condition of the street.

Comprehensive Road Repair and Reconstruction Program, 2005-2008, Livonia, MI – Project Manager for the comprehensive road repair and reconstruction program including roadway evaluation and design for preventative maintenance, rehabilitation or reconstruction of over twenty miles of roadway constructed over three years. Two roadways, Newburgh Road and Schoolcraft Road, were prepared in accordance with MDOT standards and specifications and let as part of Governor Granholm's JOBS TODAY program in 2007. All street and road repair work was designed to meet MDOT, AASHTO and City of Livonia standards and specifications. Designs addressed geometric features such as cross slopes, ADA sidewalk upgrades, curb and gutter replacement, and minor drainage improvements. A Maintenance of Traffic special provision was tailored to the traffic volumes and safety needs for each street. Additional design features addressed drainage improvements, construction staging requirements and environmental issues.

Resume

M-3 (Gratiot Ave) Rehabilitation, Sunnyview St to Sandpiper St, Mt Clemens & Clinton Twp, MI – Project Manager responsible for design of rehabilitation (cold milling, concrete patching, and HMA overlay) of 4.1 miles of urban trunkline for MDOT. The project also involves reconstruction of Metro Pkwy intersection reconstruction, geometric improvements at intersections, signing and guardrail upgrades, and upgrading over 200 sidewalk ramps to current ADA standards. Coordinated with various stakeholders, including City of Mt. Clemens, Mt. Clemens Downtown Development Authority, Clinton Township, and the Michigan Transit Museum. Extensive maintaining traffic plans were also required for stage construction at the Metro Pkwy intersection, NB & SB M-3 bridges over the Clinton River, and other partial-reconstruction locations along the corridor.

Paint Creek Trail Resurfacing/Reconditioning, Oakland County, MI – Department Manager - The Paint Creek Trail is a multi-purpose recreational trail built on the former Penn Central Rail Line traversing Orion and Oakland Townships and the Cities of Rochester Hills and Rochester. The Paint Creek Trailways Commission owns and operates the non-motorized trail with the participation of all four communities through which it runs. The trail is approximately 8.5 miles long and 8 feet in width. The project involved resurfacing/reconditioning of the entire trail: Rochester 0.6 miles; Oakland Township 5.3 miles; Rochester Hills 1.4 miles; and Orion Township 1.2 miles. As Project Manager, coordinated with all four affected communities through which it runs to achieve consensus on the proposed work and budget.

M-29 from Broadway to Francis Street, Marine City and East China Twp, MI - Project Manager - The project was for the reconstruction of M-29 from Broadway Street in Marine City to 550 feet north of Francis Street in East China Township in St. Clair County. The project scope included 1.73 miles of full-depth reconstruction including deep-strength HMA, new concrete curb & gutter, water main replacement, drainage, safety improvements and sign upgrading. The preservation of trees was very important in the residential riverfront communities. Participated in public meetings to inform and receive feedback from residents necessary for successful **context sensitive design.**

Adams Road Bridge over Rouge River, Troy and West Bloomfield Township, MI – Department Manager/Project Manager – Oversaw the design of bridge reconstruction including superstructure replacement, substructure repair, and roadway approach work. Detailed detour route was developed for temporary maintenance of traffic.

M-29 Corridor Planning and Research, St. Clair, MI – Transportation Department Manager and Project Manager overseeing the traffic analysis and corridor planning for geometric and safety improvements within the M-29 corridor from Bree Rd. to Yankee Road. Operational issues include the operation of a drawbridge within the corridor, parking and business accessibility, pedestrian safety and planning for a non-motorized path. Identified opportunities for aesthetic enhancements. Participate in public informational meetings to get input regarding context sensitive design features, such as construction materials or potential bike-path alignments.

Southfield Rd Boulevard Reconstruction, 11 Mile Rd to N of 12 Mile Rd, Lathrup

Resume

Village & Southfield, MI – Project Manager responsible for designing the removal of an existing 5-lane urban arterial roadway with an open-ditch drainage system and construction of a 4-lane boulevard section with median left-turn crossovers with storm sewers and catch basins for RCOC. The project also required close coordination with Lathrup Village's DDA to mitigate on-street parking deficiencies, as well as accommodate streetscaping improvements, and a watermain upgrade project north of 12 Mile Rd. Access management options and ADA sidewalk ramp upgrades were also included as part of the design process. An extensive traffic-and-safety analysis was performed for placement of median left-turn crossovers and storage lengths of turn lanes.

M-59, from Wide Track to Opdyke Rd, Pontiac, MI – Project Manager responsible for design of concrete patching & HMA overlay of 2 miles of urban freeway & non-freeway boulevard sections, including geometric improvements, safety upgrades, and drainage improvements on the east side of Pontiac for MDOT. The project also involves minor geometric improvements to local cross-street intersections, municipal & private utility coordination, upgrading over 60 sidewalk ramps to current ADA standards, signing and guardrail upgrades. Also includes ROW and pavement marking plans.

M-97 (Groesbeck Highway) Bridge over the Clinton River, Clinton Township, MI – Department Manager – Oversaw the design of widening and superstructure replacement on the existing three-span bridge along M-97 (Groesbeck Hwy) over the Clinton River (B01 of CS 50031 – JN 77970). Included preparation of detailed maintenance of traffic plan and pavement marking plans.

M-15 Road Widening, Ortonville, MI – Project manager responsible for the design of safety improvement project, widening ½ mile for center left-turn lane, with minor geometric and drainage improvements, maintaining traffic plans and signing.

I-96, M-5, M-3, and M-1, Detroit, MI – Project Manager responsible for developing the complete scopes of work for future roadway rehabilitation or reconstruction of four State trunklines within the City of Detroit. Included Initial Site Assessments and Project Area Contamination Surveys, pavement condition surveys, maintenance of traffic concepts, 3R/4R geometric reviews, preliminary construction estimates and identifying all significant design issues prior to initiating plan design.

Lake Crest and Belle Harbor Subdivision Reconstruction, Van Buren Township, MI – Department Manager and Project Manager – 2.3 miles of HMA pavement reconstruction and rehabilitation of Wayne County residential roads. Project included base and drainage improvements, safety improvements, and extensive public involvement with residents. Project was developed through Wayne county approval process and designed to Wayne County standards.

2007 MDOT Road Scoping, Wayne County, MI – Project Manager – Preliminary engineering and geometric analysis for 2012 MDOT Call fro Projects. Projects corridors include I-96 from Newburgh to Telegraph/US-24 (Livonia/Redford), Michigan Ave/US-12 from Henry Ruff to Gulley (Inkster/Dearborn Heights), and I-375/M-10/Jefferson Ave from Griswold to M-3/Gratiot Ave (Detroit). Duties include crash analyses, safety analyses, time

Resume

of return analyses, field investigations, and preliminary construction estimates.

M-53 (Van Dyke Ave) at 7 Mile Rd & M-5 (Grand River Ave) at Lahser Rd Intersection Safety Improvements, Detroit – Project Manager responsible for designing intersection safety improvements such as increasing radii, adding turn lanes, and upgrading sidewalk ramps to current ADA standards at two major signalized intersections in Detroit for MDOT. Projects also involved traffic signal upgrades and extensive utility coordination within restricted ROW. Construction staging required extensive pedestrian detour layout and uninterrupted access to the businesses located on each quadrant of the intersections.

Resume

David L. Potter, PE

QA/QC

David L. Potter, PE has 7 years with SDA with 27 years of experience in the industry. Potter manages and directs the Municipal and Construction Engineering Department. He is familiar with the variety of the engineering concepts, practices, and procedures needed to meet today's client's expectations. As the Department Manager, he plans and directs all aspects of municipal and construction engineering services within SDA. Dave ensures responsive project planning and execution, as well as quality construction and performance. Project services include documentation tracking, detailed planning, preliminary and final design, permitting, scheduling, and contract administration of engineering projects. Dave also ensures that all initiatives and processes are in conformance with SDA's established ISO 9001 policies and objectives, which ensures efficient coordination and completion of construction engineering projects.

Potter's experience in civil engineering and construction engineering covers a wide variety of projects for both public and private clients. These have included municipal road bond programs, MDOT locally funded bridge and major roads, and special intersection signal projects. His experience includes tasks related to major public works ranging from the design and construction engineering of transmission water mains, deep interceptor sewers, water booster pump stations, sanitary pump stations, earthen dam construction, lake improvement projects, wetland mitigation projects, storm water master drainage plan development, and soil erosion and sedimentation control programs.

RELEVANT EXPERIENCE

Leavenworth Dam, City of Novi, Michigan – Project Manager and Design Engineer for the new regional storm water detention pond, including inlet and outlet works. Engineering included the hydrologic and hydraulic analysis of the existing storm water management system, as well as a study to evaluate existing environmental features on the project site. FEMA Floodplain maps were updated to reflect final conditions in accordance with State of Michigan standards and requirements. Newly designed environmental features consisted of several acres of mitigated wetland construction, including an in-line sediment control basin. The project was constructed in a residential neighborhood.

Soil Erosion and Sedimentation Control Services, Oakland County, Troy, MI - Department Manager in charge of Soil Erosion and Sediment Control inspections for the City of Troy. Responsible for conducting inspection of all Commercial and Industrial Sites under construction in the City. Prepared reports and digital photographs for the City of Troy, which document non-compliance issues on sites. Reports listing sites that are deficient are issued for action by the City of Troy.

Storm Water Management Master Plan - City of Novi, Michigan - Project Manager for the implementation, review and revisions to the Storm Water Management Master Plan. Responsible for the design and construction of 100-year regional storm water detention basins, and review of the impacts to the regulated FEMA Flood Insurance Study (FIS) floodplains. Responsibilities also included environmental and real estate reviews to

EDUCATION

B.S., Civil Engineering, 1985,
New Mexico State University
M.S., Civil Engineering, 1998,
Wayne State University

REGISTRATION

Professional Engineer, Michigan, 35821, 1990
Professional Engineer, California, 46109, 1989

PROFESSIONAL AFFILIATIONS

American Society of Civil Engineers (ASCE) Member since 1988
ASCE Michigan Southeastern Branch Board Member, 2008

SPECIALIZED TRAINING

MDOT FieldManager

Safe-2-Build Safety Training

Red Cross CPR and First Aid

ACEC/MDOT Materials Acceptance Process Training – 2004

Construction Specifications Institute Cert. Documents Technologist - 2005

CERTIFICATIONS

MDEQ Storm Water Operator Construction Sites 1994 No. C-00216

MDEQ Certificate No. 02-344 for Part 91, Soil Erosion and Sedimentation Control. Expires 8/21/07

MDEQ Storm Water Operator Industrial Sites 1996 No. I-02684

determine property needs, utility coordination, and hosting public meetings. Developed 5-year capital improvement programs with City staff. Responsible for project control and construction management from design to construction completion.

Review of Floodplain Hazard Analysis Reports – Project Engineer responsible for the review of the floodplain hazard reports for the Arbor Drug Warehouse Building Addition, Novi, and Providence Hospital - Westbrooke Site, Novi, Oakland County, Michigan.

National Rouge River Wet Weather Demonstration Project – City of Novi, Michigan. Project Manager responsible for authoring Grant Applications for the City of Novi - Rouge River GIS/Public Awareness Program, Rouge River Soil Erosion Control Blanket, and the Rouge River Streambank Stabilization. All applications were granted funding.

Kirkway Road Bridge Reconstruction for Road Commission for Oakland County, Bloomfield Township, MI - Construction Services and Inspection Services for replacement and widening of bridge, concrete retaining walls, reconstruction/ widening of approach roadway, relocation of water main and sanitary sewer, with by-pass pumping.

Decorative Signalization Design Criteria Project, Novi, MI - Project Manager and Technical Advisor for design and construction engineering of "Nostalgic Style" mast arm traffic signals and appurtenances. Project consisted of evaluating various commercial mast arms available and developing standard design criteria to be used by the City of Novi, Michigan on major road corridors. Project included coordinating Road Commission for Oakland County (RCOC) construction permit approvals, as well as permit approvals from the RCOC traffic signal department. Application of the design criteria successfully implemented on the Tri-Party funded project, Nine Mile/ Novi Road Intersection Improvements, a $550,000 project.

Livonia 2006 Asphalt Paving Program and Construction Engineering, Livonia, MI – Project Manager for 5.3 miles of asphalt roadway rehabilitation and reconstruction as part of their 2006 Asphalt Paving Program. This program received full review and oversight by the City of Livonia Department of Public Works. One roadway in the program, Newburgh Road, was partially funded through the MDOT Local Agency Program, and received full design oversight and review by MDOT. SDA provided all survey, design, and construction engineering services. A Professional Engineer reviewed daily construction reports, verified quantities against design requirements, processed pay certifications, negotiated change orders and contractor claims, and maintained contract documentation. Construction Inspectors and Engineers oversaw all work in accordance with MDOT and AASHTO standards and procedures. Project Cost $1,800,000.

2001 Road Bond Program, Novi, MI - Project Manager for the conceptual design phase for this $16.5 million dollar roadway improvement program. Project scope of work consisted of the conceptual design and preparation of project cost estimates of several new roads and intersection improvements. The project scope of work included traffic studies, warrant studies, evaluating real estate requirements and holding public meetings. The 2001 Road Bond program was passed.

Resume

1996 Road Bond Program, Novi, MI - Project Design and Construction Manager for this $18.5 million dollar roadway improvement program. Project consisted of the design and construction of a new four-lane bridge over CSXT railroad tracks, new two lane one-mile Meadowbrook Road, design of Crescent Blvd. East over the Middle Rouge River (Metric), five intersection improvements which included design and construction of additional turning lanes, improvements to vehicles storage, and the construction of "Nostalgic Style" mast arm traffic signals and appurtenances. The project scope of work included traffic studies, warrant studies, public meetings and real estate acquisition services. The project was delivered on schedule and within the budget.

M-29 Concrete Pavement Repair, Marysville, MI - Project Engineer responsible for the Construction Engineering Services including reviewing and approving progress payments, contract modifications, and request for extensions of time, in connection with 7.345 km (4.5 miles) of concrete pavement repair, a $1.0 million dollar project. The project entailed joint sealing, spall repair, crack sealing, and diamond grinding on M-29 from South of River Road to Gratiot Blvd. in Saint Clair County. To ensure superior ride quality, the joints were resawed and resealed. The project was completed while maintaining traffic flow with flag control and a single-lane closure. SDA used FieldManager and FieldBook to post items, compile data, and to generate all documents including Daily Reports, Inquiries, Contract Modifications, and Pay Estimates.

M-29 Resurfacing, Clay and Ira Townships, MI - Construction Department Manager and QA/QC for the construction engineering services for 4.36 km (2.71 miles) of cold milling and hot mix asphalt resurfacing and minor drainage improvements on M-29 from Flamingo Road northerly to Palms Road, a $1.5 million dollar project. The project was completed while maintaining traffic under flag control and a single-lane closure. Due to the environmental concern with adjacent regulated wetlands, this project also requires close supervision of soil erosion control procedures with St. John's Marsh on both sides of the road. This project was completed using MDOT FieldManager and FieldBook.

Fourth Street Asphalt Resurfacing, Royal Oak, MI - Construction Engineering Department Manager responsible for assignment of certified competent inspection personnel at the project site who reviewed and approved measurements, documentation and laboratory testing of materials and other such services that were required to assure performance of the project work in accordance with MDOT documents including the preparation of pay estimates and Contract modification.

Resume

Michael F. DeDecker, PS

Survey Manager

Michael F. DeDecker, PS has 13 years of experience in the industry. In his role as a Survey Project Manager, Mike is responsible for organizing the highly complex activities for the development and implementation of surveying and mapping projects. Project management involves the coordination of all aspects of a project including client relations and working with a project team to meet the requirements of the scope of work. DeDecker provides surveying expertise for the successful support and continuous improvement of survey and mapping projects to provide quality in workmanship and value for project budgets.

As Project Manager, DeDecker supervises project surveyors, survey draftsmen, and field crews. He performs project quality control, project research, boundary calculations, survey computations and field data analysis. Mike is experienced in various aspects of surveying including providing boundary and topographical surveys and overseeing large construction layout projects. He is proficient in preparing ALTA/ACSM Land Title Surveys and has particular experience in surveying for municipal infrastructure projects.

RELEVANT EXPERIENCE

Municipal Design Projects, Various Communities, MI - Project Manager in charge of providing topographical and right of way surveys to SDA design staff for numerous projects in the Townships of Clinton, Macomb, White Lake, Lenox, Van Buren, and West Bloomfield and the Cities of Troy, Detroit, Orchard Lake Village, Rochester Hills, and others. Projects included water main, sanitary sewer, storm sewer, and pavement design. Included updating benchmark records for the communities as part of each project. Subsequently oversaw the surveying layout for the individual projects.

As Needed Construction Staking Services, Port Huron, St. Clair County, MI - Survey Project Manager – As needed preliminary staking and verification staking for various state construction projects for the MDOT Port Huron TSC service area.

I-275, from I-96 to Six Mile Road, Livonia, Wayne County, MI - Survey Project Manager – Survey including establishing control, alignment, and performing mapping using MDOT feature codes and creating DTM in CAiCE. Survey was performed for SDA design of improvements including extending the existing dropped lane 1.55 miles.

Repair and Overlay of M-59, Pontiac, MI - Survey Project Manager – Photogrammetric control survey, right of way survey, and road design survey for approximately two miles of divided highway. Includes bridges, boardwalks, roads, section corners, slope staking, volumes, signage, guardrails and utility staking.

Lower Woodward Cross Streets Improvement Project, Detroit, MI- Survey Project Manager for improvements to sidewalk, Curb area-way, lighting system for portions of Adams, Park, Withereil, Griswold, Library, Farmer, Grand River, John R/Clifford, State Street and 13 alleys in downtown Detroit. The project included the design of 147 ADA ramps to MDOT and the CED special provisions.

EDUCATION

BS, Surveying Engineering, 1994, Ferris State University

REGISTRATION

Professional Surveyor, Michigan, 44282, 1998

PROFESSIONAL AFFILIATIONS

Michigan Society of Professional Surveyors, Southeast Chapter (President, 2005; Chapter Representative to State Board 2006)
American Congress on Surveying and Mapping (ASCM)

SPECIALIZED TRAINING

Courses Civil Engineering, 1995, Wayne State University
Courses , 1992, Michigan State University

Resume

ADA Ramps Investigation, Detroit, MI - Survey Project Manager for survey of 197 sidewalk ramps in the city of Detroit. The project covers segments of Broadway, Monroe, Woodward, and Washington in the Downtown area.

Palmer Woods Water Main and Lateral Sewer Replacement Project- DWSD, Detroit, MI. – Survey Project Manager for topographical survey and construction layout for the water mains and lateral sewers replacement in Palmer Woods. The project consists of the replacement of 30,000 linear feet of water mains and about 24,000 linear feet lateral sewers ranging in size from 12" to 36". Palmer Woods is high profile neighborhood in the City of Detroit. The contract was constructed in three phases totaling about 13 million dollars in construction cost.

M-3 (Gratiot) Concrete Pavement Repair and HMA Overlay, Mt. Clemens and Clinton Township, MI - Survey Project Manager – Control and pickup-survey including details for two bridge structures over the Clinton River, several miles of roadway, right of way in several areas, and hydraulic survey for the two bridge structures. Measurements were performed by conventional methods and required using a boat. Data was input into CAiCE and submitted to MDOT along with a survey portfolio. Hydraulic analysis was performed by the MDOT hydraulics group in Lansing, who met SDA in the field prior to the work.

M-15 Road Widening, Ortonville, MI - Survey Project Manager - The project, located on M-15, from South Street to Mill Street, Village of Ortonville, Oakland County, consisted of a 12-foot widening to accommodate a left turn lane from the intersection of M-15 and South Street to the north at Grange Hall/Mill Street intersections. The length of this project was 0.510 miles.

Lake Huron Water Treatment Plant, Springwell, MI - Project Manager in charge of providing the topographical survey for the design-build clear well project. Provided information for this DWSD project in an extremely quick timeframe due to the ambitious project schedule.

George W. Kuhn Drain Contract Number 4, Madison Heights, MI - Project Manager responsible for providing a detailed topographical and boundary survey to a multi-firm design team for design of $85-million in improvements to the underground Retention Treatment Facility (RTF). Survey involved establishing precise horizontal control using GPS and conventional traverse methods, and also establishing precise vertical control. Mapping utilized a combination of aerial mapping and conventional surveying measurements. Mapping was also performed in the underground RTF, which required special techniques to transfer the horizontal and vertical control from above into the RTF through access manholes. This also involved the survey crew using full safety gear and following detailed permit entry confined space entry procedures.

Southeast Macomb Sanitary District Construction Improvements, St. Clair Shores, MI - Manager responsible for providing topographical survey along Jefferson Avenue. The configuration of the infrastructure presented challenges in accurately mapping the underground utilities. Subsequently managed the surveying layout for this large project.

Resume

River North and River South, Trenton, MI - Project Manager responsible for providing topographical survey along an approximately four mile long route for the combined sewer overflow elimination project. Included creating a high-precision vertical network and corresponding benchmark book for the area. Vertical measurements were adjusted using least squares methods and software. Mapping combined aerial mapping and conventional measurements. Of particular difficulty was the mapping of the underground infrastructure.

South Washington County Interceptor: Lift Station L-73 Tunnel, Woodbury, MN - Survey Project Manager – Researched layout equipment and obtained technical data and oversaw computations performed by senior project surveyor. Project included two miles of tunneling for gravity sewer, with depths reaching seventy feet in some areas. SDA computed alignment with gradual curves that could be negotiated by the tunnel-boring machine. Computed the number of deflectors needed and necessary spacing to approximate the curves with a series of short chords, deflecting the tunnel guiding laser along this approximated curve. Provided data to contractor for placing targets in the field.

Allen Road Tunnel Survey, Taylor, MI - Survey Project Manager – Project manger responsible for computations and oversight of field layout work and office CAD work. The project included approximately 14,500 linear feet of tunneling work using a tunnel boring machine (TBM) for the installation of a gravity sewer. The engineering plans prepared by others contained a conceptual alignment, and required that the contractor submit for approval a detailed alignment plan. We were hired by Ric-Man Construction, Inc. to prepare the alignment submittals and physically set the alignment in the field. We worked with the client to establish the design criteria, taking into account the limitations on turning radius for the TBM. The alignment was revised during construction to accommodate the as-built location of mining shafts, which were moved from their proposed locations due to conflicts with underground utilities. The tunnel centerline was set in the field at regular intervals, and supplemental control was set during the course of the project. The project also included checking surface features for settlement before, during, and after the construction phase.

DWSD Garfield Road Interceptor, Macomb and Clinton Townships, MI – Project Surveyor -- Provided QA/QC and technical assistance for topographical and right of way survey for tunnel project for Detroit Water and Sewerage Department (DWSD).

DTW As Needed Surveying Services, Romulus, MI - Survey Project Manager – As needed surveying services, which may include horizontal and vertical control, topographical surveys, and boundary surveys.

FEMA Flood Study, Troy, MI - Survey Project Manager – Project manager for approximately 100 cross-sections and 14 structure details over 4.04 miles of drain for hydraulic survey performed according to *FEMA Guidelines and Specifications for Flood Hazard Mapping Partners* specifications. Used GPS to establish control and perform a portion of the cross-sections.

Resume

Eric M. Kipp, PE

Lead Design Engineer

Eric M. Kipp, PE has seven years with SDA for a total of ten years of experience in the industry. Kipp provides innovative approaches to complex projects. As the Project Engineer, Eric supports the project and Project Manager by performing design evaluations and providing recommendations to development and design that improve the quality of service. Through technical knowledge and excellent communication, he will ensure his workmanship is in conformance with the project's scope of work.

Kipp is responsible for design, development, implementation, and analysis of technical plans. He performs engineering design evaluation and recommends alterations to development and design to improve quality of services and/or procedures. Eric has gained experience in construction contract administration and inspection of highway construction projects such as roadway rehabilitation, bridge maintenance, storm sewer construction and inspection, and water main construction. He has served as a design engineer for roads, storm sewer and drainage, and roadway geometrics. Kipp is familiar with a variety of field concepts, practices and procedures. Other areas of work have included traffic engineering and preliminary engineering. He has blended a balanced background in both the design and construction areas of highway projects.

RELEVANT EXPERIENCE

12 Mile Road Widening and Resurfacing, Farmington Hills, MI - Project Engineer responsible for design of pavement rehabilitation and widening of 12 Mile Road. The four-to-five lane wide roadway required evaluation of existing distresses so repairs to the existing concrete and HMA pavement could be determined prior to widening to all five lanes and resurfacing the entire roadway. The project also included minor drainage improvements and signing upgrades.

Long Lake Rd Concrete Patching, Crooks Rd to Livernois Rd, Troy, MI – Project Engineer responsible for overseeing design of concrete pavement patching along a 1-mile long 4-lane boulevard section of Long Lake Rd, as well as a ½ mile long section of Crooks Rd and a ½ mile long section of Livernois Rd, including intersections and median left-turn cross-overs for RCOC. An extensive maintaining traffic plan was required to provide uninterrupted access to businesses, offices, and residents.

John R Rd Rehabilitation, N of 12 Mile Rd to 14 Mile Rd, Madison Heights, MI – Project Engineer responsible for overseeing design of 1.7 miles of concrete pavement rehabilitation (cracking and seating, cold milling, and HMA overlay) of a 5-lane urban roadway for RCOC. The project also involved design of maintaining traffic plans, as well as pavement marking plans.

Stephenson Highway Rehabilitation, 14 Mile Rd to I-75, Troy, MI - Project Engineer responsible for evaluating pavement distresses and failures in the field using a GPS system to gather data. The GPS system was used to locate and classify points along the four-lane

EDUCATION

BS Civil Engineering, 1998, Lawrence Technological University
MS Civil Engineering, 2001, Wayne State University

REGISTRATION

Professional Engineer, Michigan, 6201050419, 2003

SPECIALIZED TRAINING

Roundabout Design Training Seminar

Resume

divided highway in the field and then the data was entered into a database and sorted by distress type and severity. This information was then used to develop various pavement rehabilitation alternatives, from which the client made a selection to proceed with the pavement rehabilitation design plans. The project also included minor drainage improvements, geometric improvements, sign replacement, and designing approximately 40 sidewalk ramps to current ADA standards. (2002-2003, 2007)

Huron Parkway Bridge Rehabilitation and Geddes Road Intersection Improvements, Ann Arbor, MI – Project Engineer responsible for roadway design of intersection safety improvements, including geometric improvements, signal upgrading, ADA ramps, utility coordination, maintaining traffic plans (including pedestrian) and permanent signing.

Southfield Rd Boulevard Reconstruction, 11 Mile Rd to N of 12 Mile Rd, Lathrup Village & Southfield, MI – Project Engineer responsible for designing the removal of an existing 5-lane urban arterial roadway with an open-ditch drainage system and construction of a 4-lane boulevard section with median left-turn crossovers with storm sewers and catch basins for RCOC. The project also required close coordination with Lathrup Village's DDA to mitigate on-street parking deficiencies, as well as a watermain upgrade project north of 12 Mile Rd. An extensive traffic-and-safety analysis was performed for placement of median left-turn crossovers and storage lengths of turn lanes.

M-3 (Gratiot Ave) Rehabilitation, Sunnyview St to Sandpiper St, Mt Clemens & Clinton Twp, MI – Project Engineer responsible for design of rehabilitation (cold milling, concrete patching, and HMA overlay) of 4.1 miles of urban trunkline for MDOT. The project also involves reconstruction of Metro Pkwy intersection reconstruction, geometric improvements at intersections, signing and guardrail upgrades, and upgrading over 200 sidewalk ramps to current ADA standards. Extensive maintaining traffic plans were also required for stage construction at the Metro Pkwy intersection, NB & SB M-3 bridges over the Clinton River, and other partial-reconstruction locations along the corridor.

Paint Creek Trail Rehabilitation, Oakland County – Project Engineer – Responsible for gathering field data and assisting with pickup survey on aggregate reconstruction of 8.5 mile long non-motorized pathway in Lake Orion, Orion Twp, Oakland Twp, Rochester Hills, and Rochester.

M-29 Reconstruction, Marine City & East China Townships, MI - Project Engineer responsible for design of full-depth reconstruction of 1.73 miles of 2-lane HMA roadway, drainage improvements, and safety improvements adjacent to the St. Clair River. Also coordinated water main design for Marine City to avoid utility conflicts and to minimize impacts to a state-designated "Historical District". Right-of-way plans were also generated due to several areas of restricted ROW.

M-15 Road Widening, Ortonville, MI - Project Engineer - The project, located on M-15, from South Street to Mill Street, Village of Ortonville, Oakland County, consisted of a 12-foot widening to accommodate a left turn lane from the intersection of M-15 and South Street to the north at Grange Hall/Mill Street intersections. The length of this project was 0.510 miles.

Resume

M-29 Corridor Study, St. Clair, MI - Project Engineer - Planning and research on M-29 for a non-motorized path and possible corridor improvements from Bree Road to Yankee Road (approximately 2.8 miles long), primarily within the City of St. Clair, was required. The goal of the research was to identify ways to: Provide a continuous non-motorized path along the corridor; Help reduce noise; Encourage motorists' compliance with posted speed limits; Improve pedestrian crossings; Improve turn movements at intersections; Provide adequate on-street parking; and Improve aesthetics and suggest wayfinding signage. Recommended treatments had to satisfy MDOT's safety and geometric requirements, while helping the City of St. Clair meet their downtown improvement goals.

Indian Trail Reconstruction, Orchard Lake, MI - Staff Engineer responsible for the design of roadway geometrics, traffic engineering, and drainage.

M-59, from Wide Track to Opdyke Rd, Pontiac, MI – Project Engineer responsible for design of concrete patching & HMA overlay of 2 miles of urban freeway & non-freeway boulevard sections, including geometric improvements, safety upgrades, and drainage improvements for MDOT. Also includes detailed design of approximately 35 sidewalk ramps to upgrade to current ADA standards, as well as developing ROW and pavement marking plans. (2006-present)

M-53 (Van Dyke Ave) at 7 Mile Rd & M-5 (Grand River Ave) at Lahser Rd Intersection Safety Improvements, Detroit – Project Engineer responsible for designing intersection safety improvements such as increasing radii, adding turn lanes, and upgrading 16 sidewalk ramps to current ADA standards at two major signalized intersections in Detroit. Projects also involved traffic signal upgrades and extensive utility coordination. (2004-2008)

Resume

Scott Wanagat, PE

Design Engineer

Scott Wanagat, PE has 6 years of experience in the industry, all with SDA. He is a road and bridge engineer responsible for the design and development of roadway and bridge design plans, as well as associated maintenance of traffic, signing, and pavement marking plans. His roadway design experience includes several rehabilitation and reconstruction projects of freeways, highways, urban roadways, and residential streets. His bridge design experience includes rehabilitation and replacement of various structures within state, county, and local jurisdictions, as well as performing numerous bridge inspections. He has knowledge of commonly-used concepts, practices, and procedures within the engineering field and is proficient in both AutoCAD and Microstation software.

Mr. Wanagat has a wealth of experience for an engineer of his age. Scott is responsible for design, development, implementation, and analysis of technical plans for road, bridge, and traffic projects. His flexibility among projects makes him very effective and efficient in all of these areas. Scott's experience during his internship in SDA's survey, municipal, construction engineering, and urban infrastructure departments has also given him valuable insight into the civil engineering industry. Scott is a quick learner and his well-rounded experience makes him a versatile asset to SDA.

RELEVANT EXPERIENCE

Pinnacle Aeropark Road Improvements - Huron Township, MI - Road improvements included the reconstruction design of several roadways surrounding the proposed aeropark. Designs included constructing a boulevard roadway, road realignment, and culvert and drainage design.

Southfield Road Reconstruction – Responsible for profile design and drafting of other various plan sheets. Project included design of reconstruction of existing 5-lane roadway with open drainage ditches into a 4-lane boulevard with curb and gutter, median cross-overs, enclosed drainage, and intersection geometric improvements.

Livernois Road Resurfacing – Troy, MI - Design of repair and overlay of 1 mile of Livernois Road between Maple and Big Beaver Road through Troy. Project includes cracking and seating existing pavement, cold milling, structure adjustment, sidewalk retaining wall repair, and HMA overlay.

John R Repair and Overlay – Responsible for lead design of plan sheets including removal, construction, typical cross sections, and permanent pavement markings. Design includes drafting plans from aerial images, calculating quantities for removal and construction, adjustment of structures. Project includes cracking and seating existing pavement, cold milling, structure adjustment, and HMA overlay.

Long Lake Road Pavement Repair – Responsible for lead design of plan sheets including removal, construction, and typical cross sections. Project involves removing pavement damaged from alkali silica reactivity (ASR) and repairing and repaving the removed sections

EDUCATION

BS Civil Engineering, 2003, Purdue University – West Lafayette, IN

REGISTRATION

Professional Engineer, Michigan, 2008

SPECIALIZED TRAINING

Safety Inspection of In-Service Bridges Seminar – National Highway Institute Course No. NHI-130055, 2007

Michigan's Transportation Asset Management Council – PASER Training, 2007

and minor geometric improvements of a turn lane. Project area includes Long Lake Road between and including sections of Livernois and Crooks Roads.

Huron Parkway Bridge Rehabilitation and Geddes Road Intersection Improvements - Ann Arbor, MI - Design of bridge repair, intersection improvements with geometric improvements, paving, and maintenance of traffic. Project also included a full bridge inspection including, deck sounding, under deck inspection utilizing a Snooper crane, and structure condition inspection.

2007 City of Inkster Road Improvements – Engineer responsible for design of pavement rehabilitation and sidewalk ramp upgrade of 44 streets in the City of Inkster. The project was also on an accelerated schedule requiring final deliverables approximately 1 month from the notice to proceed.

M-3 (Gratiot Avenue) Rehabilitation – Responsible for drafting of various plan sheets. Project included design of concrete patching and HMA overlay (with minor geometric improvements), plus maintaining traffic, signing and pavement marking plans for 3.5 miles of NB and SB M-3 through downtown Mt. Clemens and portions of Clinton Township.

M-59 Rehabilitation from Wide Track to Opdyke Road - Pontiac, MI - Concrete patching & HMA overlay of 2 miles of urban freeway & non-freeway boulevard sections, including geometric improvements, safety upgrades, and drainage improvements. Also includes ROW and pavement marking plans.

Sheldon Road Grade Separation – Responsible for drafting of various plan sheets, calculating quantities, and cursory QA/QC reviews for submittals. Project included preliminary engineering services to MDOT standards including grade separation and road widening, stormwater pump station, a railroad bridge, temporary railroad turnabout, utility relocations, and a 36-inch DWSD water main.

I-94 Concrete Overlay and Pavement Reconstruction - Kimball & Port Huron Townships, MI - Design of 3.5 miles of 7" unbonded concrete overlay on a rural freeway, including partial reconstruction, ramp rehabilitation/reconstruction, minor geometric improvements, superelevation correction, drainage improvements, signing and guardrail upgrades, and extensive maintaining traffic staging plans.

I-275 NB Lane Extension, from 5 Mile to N. of 6 Mile Road - Livonia, MI -
Design of 1.5 miles of median lane extension and taper revision, including safety improvements, minor drainage improvements, and pavement marking plans.

Metro Region Road Scoping - Wayne County, MI - Road Scoping for concrete reconstruction of I-96 and mill and resurface of US-12 and I-375 in Wayne County – Field measurement, report writing, preliminary engineering estimate.

Metro Region Road Scoping - St. Clair County - Road Scoping for concrete reconstruction of I-94 and EB I-69 in St. Clair County – Field measurement, report writing, preliminary engineering estimate, 3R/4R review.

Resume

M-85 Crossing at CN/GTW Railroad – Responsible for design of plan sheets including detour routes, maintenance of traffic, construction and removal sheets. Project was on an accelerated schedule and involved design of approach, railroad crossing, MOT, and detour routes for NB & SB M-85 crossing the CN/GTW railroad in Trenton. Also responsible for conducting cursory QA/QC reviews on plan sheets.

PASER Street Evaluation - Mt. Clemens, MI - Evaluation of the City of Mt. Clemens street network utilizing the PASER visual condition rating system. Project involved establishing an inventory of 56 miles of City streets (surface type, width, rating, etc.) and providing an evaluation report with suggested methods of pavement management.

PASER Street Evaluation - Quincy, MI - Evaluation of the Village of Quincy street network utilizing the PASER visual condition rating system. Project involved establishing an inventory of 7 miles of City streets (surface type, width, rating, etc.) and providing an evaluation report with suggested methods of pavement management.

Resume

Kimberly McDaniel, PE, PTOE

Traffic Project Engineer

Kimberly McDaniel, PE, PTOE, is a Traffic Project Engineer responsible for the design and development of traffic engineering studies, signing and pavement marking plans, and roadway design plans. Her traffic engineering experience includes various traffic impact studies, capacity analyses, safety audits, crash analyses, and numerous maintenance of traffic, signing, and pavement marking plans. Her roadway design experience includes design of residential, high volume non-freeway, urban freeway, and rural freeway design. Kimberly is very familiar with MDOT standards, 3R/4R design criteria, specifications, and procedures, as well as the Michigan Manual on Uniform Traffic Control Devices. She has specialized training in many traffic modeling and analysis software packages, roadside safety training, and CAD software training.

Kimberly has developed her career in transportation and traffic engineering both in the field and office. Additionally, she has experience in the geotechnical industry, giving her a well-rounded approach to the infrastructure requirements in the transportation industry. Kimberly has a master's degree with specialization in traffic and transportation engineering, and is a licensed civil engineer in both Michigan and Louisiana.

RELEVANT EXPERIENCE

Crowe/Ingersol Roadways Rehabilitation, Novi, MI – Traffic Project Engineer – Rehabilitation of two roadways within a large retail center. Responsibilities included development of maintenance of traffic plans as well as permanent signing and pavement marking plans.

Detroit Metro Airport Traffic Impact Study, Wayne County, MI – Traffic Project Engineer – Conducted traffic impact analysis for proposed multi-use commercial development on property within the limits of Wayne County/Detroit Metro Airport. Analysis included a 3-dimensional video model of post-construction traffic conditions.

Pinnacle Aeropark, Huron Twp, MI – Traffic Project Engineer – Conduct full capacity and impact analyses for 2+ square mile development including office parks, trucking transport facilities, and a horse racing facility. Analysis included capacity study to determine size and types of roadway and traffic control needed, as well as the impacts to the surrounding roadway network. Also included are maintenance of traffic plans for all roadways in the development, and permanent signing and pavement marking plans.

Grand River Ave over Kent Lake Bridge Rehabilitation, Lyon Twp, MI – Traffic Project Engineer – Bridge rehabilitation which required temporary closure of structure. Responsibilities included design of traffic detour plan and advanced warning signing.

M-59 Rehabilitation, Pontiac, MI – Traffic Project Engineer – Concrete patching and HMA overlay of two mils of urban freeway and non-freeway sections, including geometric improvements, safety upgrades, and drainage improvements. Also includes ROW and pavement marking plans. Perform all traffic engineering aspects, including safety and crash analysis and preparation of maintenance of traffic, signing, and pavement marking

EDUCATION

BS Civil Engineering, 2003, Louisiana Tech University
MS Civil Engineering, 2005, Wayne State University

REGISTRATION

PE, #62010583727, MI, 2006
PE, #32973, LA, 2007
Professional Traffic Operations Engineer, 2007

PROFESSIONAL AFFILIATIONS

Institute of Transportation Engineers, 2004
Women in Transportation Seminar, 2004

SPECIALIZED TRAINING

In-Roads Design Software, Microstation
LandDesk Design Software, AutoCad
Highway Construction Zone Safety Training, MDOT
MTSIS Software Training, MDOT
Highway Capacity Software
SYNCHRO Traffic Simulation Software
SimTraffic Traffic Simulation Software
TSIS/CORSIM Traffic Modeling Training
Individualized MDOT Guardrail Design Training
Roundabout Design Training Seminar
Roadway Safety Audit Training

plans and provisions.

2007 MDOT Road Scoping, Wayne County, MI – Project Engineer – Preliminary engineering and safety analysis study for 2012 MDOT Call for Projects. Corridors include I-96 from Newburgh to Telegraph/US-24 (Livonia/Redford), Michigan Ave/US-12 from Henry Ruff to Gulley (Inkster/Dearborn Heights), and I-375/M-10/Jefferson Ave from Griswold to M-3/Gratiot Ave (Detroit). Duties include crash analyses, safety analyses, time of return analyses, field investigations, and preliminary construction estimates.

2007 Asphalt Paving Program, Livonia, MI – Project Engineer – Perform design and plan preparation for multiple roadways as part of the annual pavement program. Treatments include microsurfacing, preventative maintenance, rehabilitation, and reconstruction. Duties include road design, pavement markings, soil erosion and sedimentation control, and maintenance of traffic.

2007 City of Inkster Road Improvement Program, Inkster, MI – Project Engineer – Perform design and plan preparation for multiple roadways as part of the annual pavement program. Treatments included mill and resurface and reconstruction. Duties included road design, pavement markings, soil erosion and sedimentation control, maintenance of traffic, and preparation of contract documents.

Huron Parkway Bridge Rehabilitation and Geddes Road Intersection Improvements, Ann Arbor, MI – Lead Traffic Engineer – Perform design and plan preparation for painting and rehabilitation for 1,019-ft long Huron Parkway Bridge over the Huron River, the reconfiguration of and signal installation at the Geddes Road and Huron Parkway intersection, and the conversion of an access roadway to a non-motorized path. Duties include pavement markings and signing for the roadway and non-motorized path, maintenance of traffic, and road design.

2006 Asphalt Paving Program, Livonia, MI – Project Engineer – Performed design and plan preparation for several roadways as part of the annual pavement program. Treatments included microsurfacing, rehabilitation, and full reconstruction. Duties included road design, pavement markings, soil erosion and sedimentation control, and maintenance of traffic.

M-3 Rehabilitation, Clinton Township and Mt. Clemons, MI – Engineer – Performed design and plan preparation for the rehabilitation of M-3 boulevard (Gratiot Avenue). Treatment included HMA patch and overlay and other minor roadside improvements. Duties included design, signing, and pavement markings work.

Intersection Safety Improvement Projects – Detroit, MI – Engineer – Performed design and plan preparation for two MDOT Intersection Safety Improvement Projects. Design included the addition of right-turn and left- turn lanes, upgraded signing and pavement markings, improved corner radii, and milling and resurfacing. Duties included road design, pavement markings, signing, and maintenance of traffic.

Belle Harbor / Lake Crest Subdivision Reconstruction, Van Buren Twp, MI – Project Engineer – Performed design and plan preparation for 2.3 miles of two-lane subdivision

road reconstruction. Design included safety improvements, road reconstruction, significant drainage improvements, and signing. Duties included road design, signing, soil erosion and sedimentation control, maintenance of traffic, and drainage improvements design.

2004 MDOT Road Scoping, St. Clair County, MI – Engineer – Road scoping included Eastbound I-69 from M-19 to east of Taylor Road and I-94 from Macomb County Line to north of Allington Road in St. Clair County. Tasks included preliminary engineering analyses for roadway, safety, and drainage improvements for 20 miles of rural interstate freeway. Included cost estimates to bring roadways to current AASHTO and MDOT standards, identification of potential design issues, and recommended reconstruction fixes for both freeways.

Ambassador Gateway Project, Detroit, MI – Engineer - Assisted in the design of improved access to the Ambassador Bridge, the busiest national border crossing in North America. Worked as part of a design team to complete and submit a plan package for construction. Designed all pavement markings for the interchange and adjacent roadways and performed a study of existing signage in the area.

I-94 to I-96 Interchange Reconstruction, Detroit, MI – Engineer - Assisted in the design of the rehabilitation and reconstruction of this interchange. Worked as part of a design team to complete and submit a plan package for construction. Designed all pavement markings for the interchange and adjacent roadways.

Belford Road, North Holly Township, MI – Project Engineer - Designed a two-lane county roadway, upgraded from an aggregate surface. Design included horizontal and vertical alignments, drainage, residential access, two railroad grade crossings, signing, maintenance of traffic, and complete engineer's cost estimate.

M-5 at Lahser Rd & M-53 at 7 Mile Rd Intersection Safety Improvements, Detroit, MI – Traffic Engineer - Design of geometric improvements (right-turn lanes, center left-turn lanes, radii improvements), ROW plans, maintaining traffic plans, signing & pavement markings.

Southfield Road Reconstruction, 11 Mile Rd to 12 Mile Rd, Lathrup Village, MI – Traffic Project Engineer - Design of reconstruction of existing 5-lane roadway with open-drainage ditches into a 4-lane boulevard with curb & gutter, median crossovers, enclosed drainage, and geometric improvements.

Resume

Ted Meadows
Construction Contract Administrator

Ted has nine years of exceptional experience in municipal construction engineering. In his role as Construction Manager, Ted is responsible for managing public and private construction engineering projects. Construction Engineering (CE) management involves the coordination of all aspects of a project including client relations and working with a project team to meet the requirements of the scope of work. Ted provides field and office expertise for the successful support and continuous improvement of CE projects to provide quality in workmanship and value for project budgets.

Currently Mr. Meadows is the construction operations supervisor for projects within the City of Novi. Ted has worked in the construction phase of numerous public works and private development projects on behalf of our municipal clients. As the supervisor of the construction staff, Ted is responsible for the daily construction activities for all projects including staff scheduling, construction observation procedures, staff training, as-built plan review, walkthroughs, punch lists, and project close out.

RELEVANT EXPERIENCE

General Services

General Engineering and Construction Services, City of Novi, MI - Senior Construction Technician who supervised field and office construction technicians. Performed project quality control, construction contract administration, soil erosion and sedimentation control procedures, surveying, and observation of paving and tunneling operations. Oversaw work done in multifamily and single family developments throughout Oakland County.

General Engineering and Construction Services, Northville Township, MI - Senior Construction Technician who supervised field and office construction technicians. Performed project quality control, construction contract administration, soil erosion and sedimentation control procedures, surveying, and observation of paving and tunneling operations. Oversaw work done in multifamily and single family developments throughout Wayne County.

Pavement

Livingston/Mill Street Repairs, Village of Pinckney, MI – Senior Construction Technician responsible for removal and replacement of four blocks of bituminous road with associated storm sewer. Responsible for over seeing inspection of pavement and storm sewer, construction documentation, coordinating site testing, and quality control.

Northville Community Park Paving Improvements, Northville Township , MI - Senior Construction Technician responsible for observing construction of new bituminous parking lot and associated storm sewer and drainage. Responsible for observing construction of pavement and storm sewer, construction documentation, material testing, and quality control.

EDUCATION

BS Environmental Science, University of Kansas, 1997

SPECIALIZED TRAINING / CERTIFICATIONS

MDOT Certified Density Technician
MDOT Certified Aggregate Technician
MDOT Concrete Paving Inspector

Concrete Technician & Concrete Construction Inspector Level I
Concrete Field Testing Technician Level I

MDEQ Certificate of Training for Part 91 Soil Erosion and Sedimentation Control
Radiation Safety Officer
USDOT HAZMAT Certification
HDPE Pipe Fusion Academy

Resume

Water Main

2006 Northville Township Water Main Improvements, Northville Township, MI – Senior Construction Technician responsible for the replacement of one mile of existing water main in existing subdivisions and related pavement and site restoration. Responsible for over seeing inspection, contract documentation, and processing pay certifications.

Bradner and Franklin Road Water Main Replacement, Northville Township, MI - Senior Construction Technician responsible for the replacement of two miles of existing water main in an existing subdivision and related pavement and site restoration. Responsible for over seeing inspection, contract documentation, and processing pay certifications.

Northville Road Water Main Replacement, Northville Township, MI - Senior Construction Technician responsible for the replacement of one mile of existing water main with directionally drilled HDPE water main through the Middle Rouge Watershed site. Responsible for over seeing inspection, site restoration, contract documentation, and processing pay certifications.

Five Mile Road Water Main Replacement, Phase I, Northville Township, MI - Senior Construction Technician responsible for the replacement of one mile of existing water main with directionally drilled ductile iron lock joint pipe in existing subdivisions. Responsible for over seeing inspection, pavement and site restoration, contract documentation, and processing pay certifications.

Wastewater

SAD 170 Phase 1B and 2B, City of Novi, MI – Senior Construction Technician responsible for the supervision of installation of over 10,000 feet of new trunk line sanitary sewer. Responsible for over seeing inspection, pavement and site restoration, contract documentation, and processing pay certifications.

Storm Water Management

Detention Pond Retrofit, Fish Habitat and Streambank Erosion Assessment, and Water Quality Monitoring and Assessment Project, Northville Township, MI – Senior Construction Technician

Stormwater GIS and GPS Projects, Northville Township, MI – Senior Construction Technician responsible for assisting Township in meeting requirements of NPDES Voluntary General Stormwater Permit. Assisted in obtaining grant funding to map approximately 150 Johnson Creek Outfalls using handheld GPS. Canoed along Johnson Creek, using the GPS to obtain the location and attributes of the outfalls along the creek. Attribute information included outfall shape, diameter, width, material, condition, and photographs. Possible illicit discharges were tracked by rating, color, clarity, floatables, odor, and flow source, among others. The resultant GIS provided Township staff with the capability of "visiting" the site by hotlinking the respective photographs with inventory results.

Resume

Donald Pashby, CST III
Construction Inspector

Donald Pashby, CST III has 12 years with SDA with 27 years of experience in the industry. Pashby has multi-faceted experience in all phases of construction from Land Balance to Final Punch List. He has extensive experience in the monitoring of activities at construction sites. His experience and training ensures construction progresses as scheduled and contract specifications are adhered to. As the Construction Inspector he will inspect construction sites daily and works with contractors to schedule deliveries.

Specific tasks on private and public development projects that Don has performed in 2006, 2007, and currently in the City of Novi are as follows: attend preconstruction meetings, review plans for possible for possible utility conflicts, review of project survey cut sheets (Over 23 years of survey experience), material certifications review, inspection of installation for sanitary sewers, storm sewers, water main and bituminous and concrete pavement, enforcement of city's standards and details, water main pressure and bacteria testing, flushing of poly pigs for cleaning of water main, coordination and inspection of water main tie-ins, sanitary sewer air testing, sanitary sewer televising, proof rolls of sub-base for pavement, inspection of concrete and bituminous grade preparation and paving operations, and site walkthroughs and punch list distribution. Additional inspections Mr. Pashby performs for the city would include footing and grading certifications.

The following is a list of various projects Don has been the senior inspector which have included public utilities, roads, or right of way improvements: 2006 – Novi Corporate Campus, 12 Oaks Mall Expansion, Taft Knoll Phase II, Normandy Hills Estates, Premier Medical Office Building and Meadowbrook Office Building. 2007 – Ryder Systems, ITC Headquarters, Hilton Garden Inn, D.L. Biotech Office Building, Cross Pointe Meadows Church, Alcan Beck West Lots 28 & 29. 2008 – Haggerty Corridor Corporate Park Phase II, 11 Mile Delwal Water Main, and Evergreen Estates.

Pashby is accomplished at keeping a good line of communication between the Clients and Surveyors, Engineers, Superintendents, and Tradesmen. He is accomplished at keeping a good line of communication between the Project Owner, the project Residents, the Contractor and the Engineer.

RELEVANT EXPERIENCE

Conner Creek Greenway, Detroit, MI – Construction Technician/Inspector for a green belt project along Conner Ave. from three fifths of a mile north of Gratiot Ave. south through Conner Playfield to Harper Ave. The focus of this project is the nine thousand feet of asphalt bike path and adjacent seating areas. Crucial to the success of the project was the coordination of security fence removal and replacement while maintaining access control along the eastern perimeter of the Detroit City Airport. This four thousand foot interface with a public R.O.W. demanded a close working relationship with Airport Operations and strict adherence to the regulation set forth by the F.C.C. and the Department of Homeland Security. The construction in the Right of Ways had to meet M.D.O.T. specifications. The

REGISTRATION

Certified Survey Technician (CST), Level III, MI, 1999

PROFESSIONAL AFFILIATIONS

Michigan Society of Professional Surveyors
National Society of Professional Surveyors

SPECIALIZED TRAINING

MDOT Training for
Concrete Inspection and
Bituminous Inspection
MDOT Field Book
MDEQ Soil Erosion Control Certification

Resume

client was a cooperative of citizens action groups which were communicated with and reported to on a regular schedule. Contract Administration was an additional responsibility and was coordinated with M.D.O.T. for execution of the contract.

Ferndale Streetscape Project, Ferndale, MI – Construction Technician/Inspector for a streetscape project along Nine Mile Road in Ferndale that turned a four-lane street into a pedestrian friendly two-lane city street. The goal of this project was to provide streetscape design and construction administration services to enhance and improve the overall image of Nine Mile Road in Ferndale. Responsibilities included contract administration for the roadway reconstruction.

Harmonie Park, Madison Avenue, Detroit Opera House Streetscape, MI – Construction Technician/Inspector for the Harmonie Park mixed use program was a three-phase rehabilitation project which includes office, commercial, and residential development. Total investments exceed $20 million. The project encompassed Harmonie Park, Madison Avenue and the Detroit Opera House bounded by Randolph Street, Broadway Street and Witherall Street. SDA subsequently performed detailed construction layout for the streetscape improvements.

DWSD CS-1292 Palmer Woods, Detroit, MI – Construction Technician/Inspector for topographical survey; establishment of ROW lines; staking ROW; staking of grades of new street grades; monumentation setting; and assisting the construction contractors to establish grades for the reconstructed pavements. The SDA Team provided contract administration for over $700,000 pump station improvements at the Imlay Pump Station.

Jefferson Avenue Pumping Station, Trenton, MI – Construction Technician/Inspector for the design engineering and construction observation and record services for improvements at the Waste Water Treatment Plant (WWTP), construction of a new Jefferson Ave. Pump Station and demolition of existing Jefferson Ave. Pump Station. The City of Trenton Engineering Department decided to build a new Jefferson Ave. Pump Station as the existing Pump Station's Wet Well was unsound and analysis revealed it to be too expensive to modify the old Wet Well. The WWTP and present Jefferson Ave. Pump Station are both owned and operated by the City of Trenton. The estimated projected cost for WWTP improvements, construction of the New Pump Station and demolition of the existing Pump Station, is 1.8 Millions and is being funded by State of Michigan SRF.

Manhole Rehabilitation Program, Rochester Hills, MI - Construction Technician responsible for inspection services and day-to-day field operations. This project consists of structure adjustments including an exterior and interior lining project, and manhole lining programs including over 700 manholes throughout the city.

West Bloomfield Township Civic Center Parking Improvements, West Bloomfield Township, MI. - Lead Technician for the reconstruction and paving project which spanned the fall of 2004 and spring and summer of 2005. The extensive parking expansion required unique solutions to drainage problems involving extensive and fragile wetlands surrounding the Civic Center. His varied surveying experience helped resolve numerous potentially difficult problems.

Resume

Cherry Hill/Pelletier Road 2004 Paving and Reconstruction Project, City of Orchard Lake Village, MI. – Lead Technician on the City's 2004 paving and road reconstruction program. The project consisted on reconstruction of residential streets in very high profile subdivisions. The project required someone able to communicate well with residents expecting a very high level of personal service. In addition to the paving, the project consisted of surface drainage corrections in both open and enclosed ditches and pertinent receiving drains.

2005 City of Orchard Lake Village Reconstruction Project, City of Orchard Lake Village, MI. – Lead Technician for the 2005 paving program with the same personnel requirements as the 2004 project. Close work with the Contractor and the City's personnel solved many pre-existing surface drainage problems adjacent to the very large and pristine Orchard Lake, one of Oakland County's largest and prestigious lakes.

Pontiac Lake Low Pressure Sanitary Sewer System, White Lake Township, MI - Lead Construction Technician responsible for the full-time construction observation for the construction of the $4.9 million low pressure sanitary sewer extension in the residential communities surrounding Pontiac Lake located in White Lake Township. Mr. Pashby prepared construction technician daily reports and worked with the construction manager to resolve contractor claims. This project utilized low-pressure sewer and grinder pump systems and included approximately 25,000 lineal feet of 2-inch to 6-inch directionally drilled low pressure sanitary HDPE sewer pipe and 430 grinder pump stations and service panels. The project was located in well-established tree lined subdivisions, containing small lot widths with minimal side lot set-backs. The project required complex coordination with contractors, residents and Township Officials. This project featured State Revolving Funds from the State of Michigan with extensive coordination required throughout its construction. The Project was completed on time and within budget. Both the Township officials and the residents were satisfied with the project.

Resume

Kimberly Danowski

SESC Construction Technician/Specialist

Kimberly Danowski has one and 1/2 years of experience with SDA and 15 years in the construction Industry. Kim has numerous responsibilities within various levels of engineering. She has a thorough understanding of engineering concepts, practices, and procedures that are expected throughout the engineering profession. Kim's work experience is a combination of field work on infrastructure projects and the associated contract administration that is required to implement such projects. Kim has performed construction inspection, processed material certifications, shop drawings, pay estimates, and contract modifications, and has reviewed construction plans and specifications. Kim is knowledgeable in the areas of project scheduling, project estimating and cost control.

Kim has field experience as a Construction Engineering Inspector. This includes the inspection of construction operations with water main, sanitary and storm drain installation, She has experience with FieldBook and FieldManager while working as a Construction Engineer. Kim also has experience in Microsoft Excel and Microsoft Project. She also performs Land Improvement reviews with the Municipal Department.

RELEVANT EXPERIENCE

General Construction Engineering Services for the Cities of: Troy, Novi, Mount Clemens, and the Township of Lenox - Services included but not limited to: Construction Inspection and Contract Administration for various utility and other infrastructure projects in municipalities throughout southeastern Michigan. Services include: field measurement and interpretation of design plans & specifications for QA/QC; written, drawn, and photographic documentation of site activities; the processing of pay estimates, change orders, shop drawings, and material certifications. In addition, Soil Erosion and Sedimentation Control Inspection services, Storm Water Operator services, and footing and final grade inspections in several municipalities.

General Engineering Services for the City of Novi, MI
Municipal Department responsibilities include: reviewing Residential LIP plans for proper compliance with overall grading and drainage plans in newer residential development
Construction Department Manages the required SESC inspections for approx 40 Construction sites in the City of Novi. Responsibilities include: conducting SESC inspections for the City of Novi as required by the MDEQ. preparing SESC reports with photos and Notice of Deficiencies; contacting and following-up with the contractors to gain compliance with any violations.

Numerous Municipalities throughout Southeastern Michigan – Served as Construction Technician on behalf of numerous municipalities in Southeastern Michigan. Services included processing shop drawings and reviewing material certifications. Inspection duties included the supervision and documentation of construction operations on a variety of commercial and retail sites including water main/sanitary sewer/storm drain installation,

EDUCATION

BS Civil Engineering, 1987
Concentration in Construction Management
University of Michigan

SPECIALIZED TRAINING

MDEQ Certificate No 07-0256 for part 91, Soil Erosion and Sedimentation Control, Expires 2/28/12

MDEQ Storm Water Management Construction Site A-1, No C-13490, Expires 7/1/12

MDOT Concrete Paving Inspection Module completed January 2007

Resume

Previous Experience

Project Engineer for a General Contractor - assisted Project Managers with project organization and scheduling. Reviewed shop drawings, attended OAC progress meetings

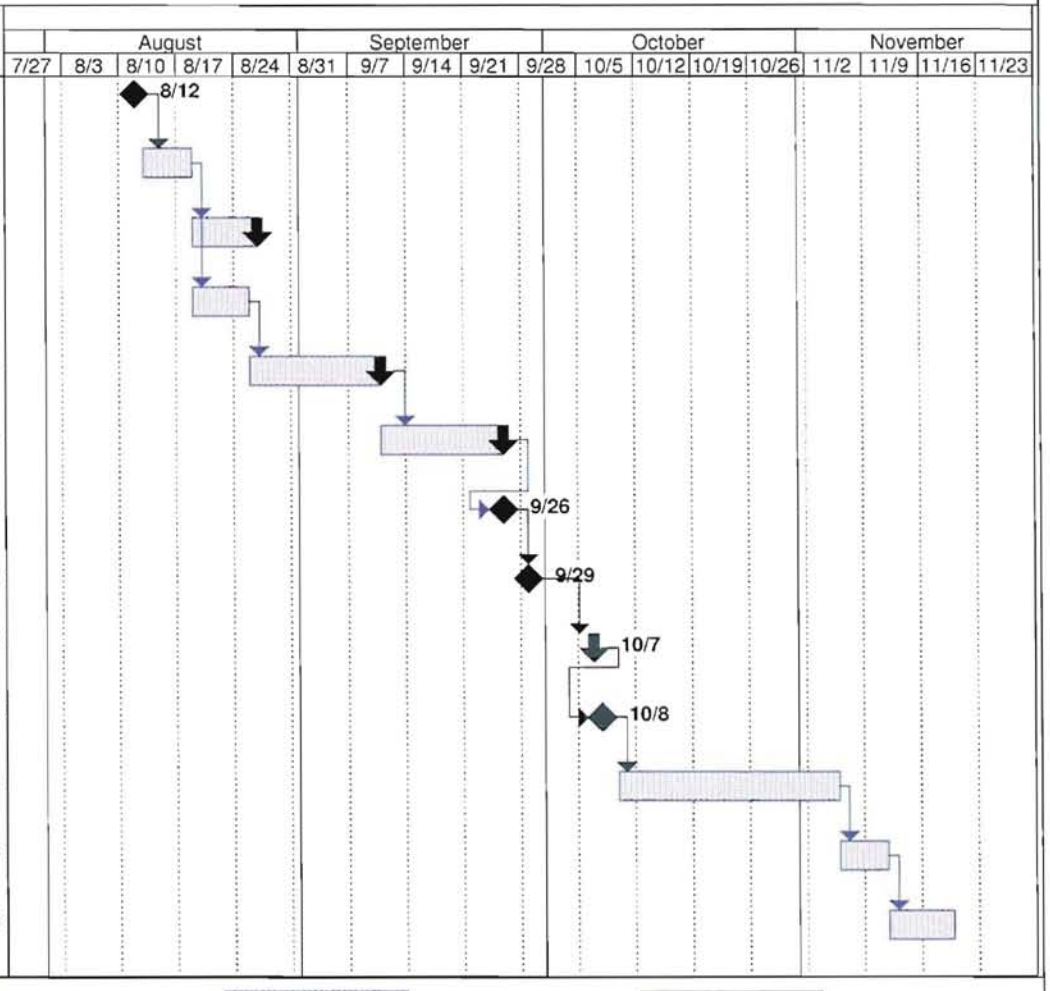
Various Municipalities - Responsibilities have included Plan reviewer, Building Inspector, Property Maintenance and Zoning Inspector

Turner Construction - Field Engineer for Two Prudential Plaza; Special Projects Division; (SPD) Project Manager

TWELVE MILE ROAD RECONSTRUCTION/PAVING

Design and Construction Phases

Task No.	Task Name	Start	Finish
1	Authorization to Proceed	Tue 8/12/08	Tue 8/12/08
2	Design survey	Wed 8/13/08	Mon 8/18/08
3	Base Plans for initial utilty/agency coord	Tue 8/19/08	Tue 8/26/08
4	Provide easement info	Tue 8/19/08	Mon 8/25/08
5	Dev. 90% Plans/Review	Tue 8/26/08	Wed 9/10/08
6	Prepare Bid Package & Advertise	Thu 9/11/08	Thu 9/25/08
7	Receive Bids	Fri 9/26/08	Fri 9/26/08
8	Issue Notice of Intent to Award	Mon 9/29/08	Tue 9/30/08
9	Award Contract	Tue 10/7/08	Tue 10/7/08
10	Conduct Pre-Con Meeting	Wed 10/8/08	Thu 10/9/08
11	Construction	Fri 10/10/08	Wed 11/5/08
12	Cleanup-Restoration (or Spring 2009)	Thu 11/6/08	Tue 11/11/08
13	Prepare As-Builts	Wed 11/12/08	Wed 11/19/08



City of Novi
Twelve Mile Improvements
Updated July 24, 2008

Task
Split
Progress
Milestone
Summary
Rolled Up Task
Rolled Up Split
Rolled Up Milestone
Rolled Up Progress
External Tasks
Project Summary
External Milestone
Submittal

DESIGN AND CONSTRUCTION PHASES

cityofnovi.org

EXHIBIT A
FEE PROPOSAL
CITY OF NOVI

ENGINEERING SERVICES FOR
TWELVE MILE RECONSTRUCTION/PAVING
AND ROADSIDE IMPROVEMENTS

We the undersigned propose to furnish to the City of Novi services consistent with the Request for Qualifications dated January 11, 2007 and Request for Proposals dated September 11, 2007, respectively. Design fees will be paid on an hourly basis for actual work performed to a maximum as proposed. A separate fee schedule is being provided should the City request additional work on an hourly basis.

Project	Phase	Total Fee
TWELVE MILE RECONSTRUCTION/ PAVING AND ROADSIDE IMPROVEMENTS	Design Phase-excludes Bidding Services and geotechnical services (not-to-exceed fee)*	$ 8,918.00
	Construction Staking	$ 2,700.00
	Construction Phase Construction Cost Estimate: $ 240,000.00	
	4.392 % of Construction Cost (from estimate above)	$ 10,541.00
	TOTAL ESTIMATED FEE**	$ 22,159.00

*The City will contract directly with a geotechnical consultant in coordination with the selected consultant.

**Total Estimated Fee consists of a not-to-exceed design phase fee, not-to-exceed construction staking fee and a fixed percentage construction phase fee which is used to estimate an approximate fee amount based on the cost estimate above. The actual construction phase fee will be established when the project is awarded to a contractor by multiplying the fixed percentage provided and the bid price of the successful bidder.

The City reserves the right to award each phase individually.

PLEASE TYPE:

Company Name: Spalding DeDecker Associates, Inc.

Address: 905 E. South Blvd., Rochester Hills, Michigan 48307

Agent's Name: Cheryl Gregory, P.E.

Agent's Title: Transportation Department Manager

Agent's Signature: Cheryl Gregory

Telephone Number: (248) 844-5400 Fax Number: (248) 844-5400

E-mail Address: cgregory@sda-eng.com Date: July 24, 2008

Detailed Hours/Costs by Task

NAME OF PRIME CONSULTANT	DATE
Spalding DeDecker Associates, Inc.	July 24, 2008

JOB NUMBER	PROJECT DESCRIPTION
TBD	Twelve Mile Paving and Roadside Improvements

Task Description		Proj Mgr	Proj Engr	Proj Surv	Eng/ Design	Sr. Eng/ Surv	Surv.Crew	CADD or Inspect	QA/QC	Total by Task
Design	Hours	12	18	4	18	2	10	16	2	**82**
	Rate (+/-)	$ 140	$ 103	$ 103	$ 94	$ 121	$ 159	$ 73	$ 140	
	Labor	$ 1,680	$ 1,854	$ 412	$ 1,692	$ 242	$ 1,590	$ 1,168	$ 280	**$ 8,918**
Construction, including Bid Admin, Survey Layout	Hours	32	2	1	2		16	100		**153**
	Rate (+/-)	$ 100	$ 103	$ 103	$ 94		$ 159	$ 70		
	Labor	$ 3,200	$ 206	$ 103	$ 188	$ -	$ 2,544	$ 7,000	$ -	**$ 13,241**

Estimated Materials Testing Costs	**$3,600**
Total Proposed Budget (Design and Construction)	**$25,759**

Spalding DeDecker Associates, Inc.
City of Novi, Michigan
"Hourly Rate Schedule"

PROFESSIONAL SERVICES

The engineering and surveying services of SDA will be performed under the overall supervision of Principals and Department Managers of our firm. Fees will be based upon the time worked on the project by engineering, surveying, technical, construction technicians and clerical personnel assigned to the project.

Classification	Hourly Rate
Department Manager	$140.00
Project Manager	$123.00
Senior Project Engineer/Senior Project Surveyor +	$121.00
Project Engineer/Project Surveyor/Resident Project Representative +	$103.00
Project Accountant +	$103.00
Operation & Maintenance Specialist+	$ 99.00
Engineer +	$ 94.00
Surveyor+	$ 94.00
Designer/Mapping Specialist +	$ 87.00
Drafter/Technician/Surveyor Assistant/Engineering Assistant +	$ 73.00
Two-person Survey Crew (Crew Chief & Instrumentman w/truck and equipment) or Sewer Crew +	$159.00
Additional Survey/Construction Tech Assistants (if necessary) +	$ 54.00
Construction Technician I +	$ 68.00
Construction Technician II +	$ 75.00
Senior Construction Technician +	$ 91.00

\+ Overtime services will be charged at a rate equal to 1.3 times the indicated rate. "Overtime" is time worked in excess of 8 hours per day.

REIMBURSABLE EXPENSES: The following items are reimbursable to the extent of 110% of actual expenses (including subcontracting expense) accrued for the project.

1. Printing and Reproduction
2. Subcontracted Services.
3. Shipping and Handling Charges

RESOLUTION
OF THE CITY COUNCIL OF THE
CITY OF NOVI

WHEREAS, Twelve Mile Road from Napier easterly 3870 feet (see attached map/drawing, Exhibit A) is a city street under the jurisdiction and control of the City of Wixom; and,

WHEREAS, the City of Wixom and the City of Novi agree that it would be appropriate for Novi to assume jurisdiction and control over said street; and,

WHEREAS, both 1951 PA 35 as amended, being MCL 124.1, et seq., and 1967 PA 8, as amended, being MCL 124.531, et seq., provide for governmental entities to undertake mutually beneficial agreement for the provision of services and for the undertaking of joint governmental action; and 1969 PA 296, as amended, being MCL 247.851, et seq., contemplates that transfers of jurisdiction with respect to roads shall be by written agreement.

NOW, THEREFORE, BE IT RESOLVED that this City Council hereby consents to the transfer of jurisdiction of the subject portion of road from the City of Wixom to the City of Novi and authorizes the execution of the Agreement between the City of Wixom and the City of Novi, which Agreement identifies the effective date of transfer of jurisdiction as being January 22, 2008. (See Exhibit B). The Agreement provides that the City of Wixom shall not be required to improve, renovate, or reconstruct any portion of Twelve Mile Road in such area; that liability for claims regarding design of the said road shall be as provided by law; and that the City of Wixom shall remain responsible for the maintenance of the said portion of road only until the transfer of jurisdiction becomes effective on the date set forth above.

The Agreement further provides that the City of Novi will use good faith efforts under and within the law to seek agreement by the owners or developers of properties abutting Twelve Mile Road to undertake paving and drainage improvements along that portion of Twelve Mile Road that abuts Novi and remains unpaved, as such properties are developed in the future. The Agreement likewise provides that the City of Wixom will use good faith efforts under and within the law to seek agreement by the owners or developers of properties abutting Twelve Mile Road to undertake paving and drainage improvements along that portion of Twelve Mile Road that abuts Wixom and remains unpaved, as such properties are developed in the future. The Agreement also provides that the City of Novi will submit to the City of Wixom plans for any development proposed along this section of Twelve Mile Road for comment by the City of Wixom, at Wixom's own cost and expense. With respect to the remaining vacant land located in the City of Wixom along the section of Twelve Mile Road in question, the City of Novi will not

City of Novi
45175 W. Ten Mile Road
Novi, Michigan 48375
248.347.0460
248.347.0577 fax

cityofnovi.org

unreasonably withhold any access to or driveway permits to Twelve Mile Road for these Wixom properties.

BE IT FINALLY RESOLVED that this transfer of jurisdiction shall and does hereby include all existing drainage easements and road rights-of-way secured in conjunction with the above-described road, and all things now existing for highway purposes upon and along such portions of road and appurtenant thereto, but does ***not*** include, however, any water lines, sanitary sewer lines, or other utilities in, on, or around said road that are not as of the date of this Agreement under the ownership or control of the City of Novi and/or are as of the date of this Agreement under the ownership or control of the City of Wixom.

CERTIFICATION

I, Maryanne Cornelius, duly appointed Clerk of the City of Novi, do hereby certify that the foregoing is a true and complete copy of a Resolution adopted by the City Council of the City of Novi at a Regular meeting held this 22nd day of January, 2008.

Maryanne Cornelius

Maryanne Cornelius, City Clerk

City of Novi
45175 W. Ten Mile Road
Novi, Michigan 48375
248.347.0460
248.347.0577 fax

cityofnovi.org

Exhibit B

STATE OF MICHIGAN

COUNTY OF OAKLAND

AGREEMENT REGARDING JURISDICTION, CONTROL AND MAINTENANCE, OF A PORTION OF TWELVE MILE ROAD FROM CITY OF WIXOM TO THE CITY OF NOVI

THIS AGREEMENT, made and entered into this 2ND day of JANUARY, 2008, by and between the City of Wixom, County of Oakland, State of Michigan (hereinafter "WIXOM") and the City of Novi, County of Oakland, State of Michigan (hereinafter "NOVI"), states as follows:

WHEREAS, Twelve Mile Road from Napier Road to Grand River Avenue is a city street, under the jurisdiction and control of WIXOM; and

WHEREAS, WIXOM has offered to transfer jurisdiction of a portion of said street from WIXOM to NOVI; and

WHEREAS, 1951 PA 35, as amended, being MCL 124.1 et seq., and 1967 PA 8, as amended, being MCL 124.351, et seq., provide for governmental entities such as WIXOM and NOVI to undertake mutually beneficial agreement for the provision of services and for the joint undertaking of governmental action; and

WHEREAS 1969 PA 296, as amended, being MCL 247.851, et seq., contemplates that transfers of jurisdiction over roads shall be by written agreement; and

WHEREAS, by Resolution adopted JANUARY 22, 2008, NOVI did consent to the transfer of jurisdiction of a portion of the above-described street from WIXOM to NOVI and, in said Resolution, did authorize the execution of this written agreement; and

WHEREAS, by Resolution adopted JANUARY 8, 2008, WIXOM did consent to the transfer of jurisdiction of a portion of the above-described street from WIXOM to NOVI and, in said Resolution, did authorize the execution of this written agreement.

NOW, THEREFORE, in consideration of the mutual covenants set forth herein, and in contemplation of the provisions of the above-referenced statutes, it is mutually agreed by the parties hereto as follows:

1. Jurisdiction and control of the following described public street within the City of Wixom is transferred to the City of Novi, effective JANUARY 11, 2008. The general description of the road is:

> Twelve Mile Road, from Napier Road easterly approximately 3870 to the north-south leg of Twelve Mile Road. (See attached map/drawing, Exhibit A.)

This transfer of jurisdiction shall include all drainage easements and road rights-of-way existing in connection with the above-described road and all things now existing for highway purposes upon and along such road in appurtenant thereto, whether recorded or not; provided, however, that nothing in this Agreement shall be construed to transfer ownership or any maintenance, repair, or any obligation whatsoever with regard to any water lines, sanitary sewer lines, or other utilities in, on, or around said road that are not as of the date of this Agreement under the ownership or control of the City of Novi and/or are as of the date of this Agreement under the ownership or control of the City of Wixom.

2. The City of Wixom shall not, while this Agreement is in force and effect, be required to improve, renovate, maintain, repair, or reconstruct the portion of said roadway.

3. The City of Wixom shall remain responsible for maintenance of the portion of said road as described in Paragraph 1, above, until the transfer of jurisdiction becomes effective on the date set forth above.

4. Responsibility for design of the subject portions of road subsequent to the transfer of jurisdiction shall be as provided by law.

5. With respect to the remaining vacant land located in the City of Novi along the subject section of Twelve Mile Road, the City of Novi will use good faith efforts under and within the law to seek agreement by developers of such properties to undertake paving and drainage improvements along that portion of Twelve Mile Road as such properties are developed in the future. In reviewing plans for such developments as relates to the discharge of storm water into or in the area of the Twelve Mile Road Right-of-way and related drainage easements, the City of Novi will apply and enforce the requirement that a hydraulic analysis of the downstream conveyance system be conducted by a licensed professional engineer and that the discharge of storm water from a development onto adjacent property occur no more than at an agricultural rate (0.15 cfs/acre) to avoid adverse impacts to downstream property owners and watercourses; provided, however, that the City shall retain the authority under its ordinances and regulations to make reasonable deviations and accommodations in unusual circumstances where the standards and requirements for such deviations or accommodation are met; and further provided, however, that where such deviations and accommodations have been requested, the City of Novi shall give the City of Wixom notice of such request and Wixom shall have the right to appear and comment at any public meeting held to consider the deviations or accommodations.

6. With respect to the remaining vacant land located in the City of Wixom along the section of Twelve Mile Road in question, the City of Novi will not unreasonably withhold any access to or driveway permits to Twelve Mile Road for these Wixom properties. The City of Wixom will use good faith efforts under and within the law to seek agreement by developers of

such properties to undertake paving and drainage improvements along that portion of Twelve Mile Road as such properties are developed in the future.

7. The City of Novi shall supply the City of Wixom with copies of engineering plans for future proposed development in Novi along Twelve Mile Road in the above-described area for comment by the City of Wixom. Wixom may, at its own expense, make comments to Novi at appropriate times during the Novi plan review and approval process. Wixom shall also submit to the City of Novi all plans for development in Wixom in the above-described area. Novi may, at its own expense, make comments to Wixom at appropriate times during the Wixom plan review and approval process.

8. No waiver of any breach of this Agreement shall be construed to be a waiver of any other or subsequent breach. All remedies afforded in this Agreement shall be taken and construed as in addition to any other remedy provided by law or ordinance.

9. This Agreement shall be construed under the laws of the State of Michigan. If any part, terms, or provision is held to be illegal or in conflict with any law of the State of Michigan or the United States, the validity of the remaining portions or provisions shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if the Agreement did not contain the particular part, term, or provision held to be invalid.

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

WITNESSES:

Anna Pottermond
Anna Pottermond

Susan Grimes
SUSAN GRIMES

CITY OF WIXOM,
a Municipal Corporation

Kevin W. Hinkley
By: Kevin Hinkley
Its: Mayor

By: Linda Kirby
Its: Clerk

STATE OF MICHIGAN)
) ss.
COUNTY OF OAKLAND)

On this 9 day of January, 2008, before me appeared Kevin Hinkley and Linda Kirby, who stated that they had signed this document of their own free will on behalf of the City of Wixom in their respective official capacities, as stated above.

ANNA ROTTERMOND
NOTARY PUBLIC, STATE OF MI
COUNTY OF OAKLAND
MY COMMISSION EXPIRES MAR 9, 2011
ACTING IN COUNTY OF OAKLAND

Anna Rottermond
Notary Public
Oakland County, Michigan
My Commission Expires: 3.9.2011

WITNESSES:

Marilyn A. Troutman
MARILYN S. TROUTMAN

Charlene McLean
CHARLENE McLEAN

CITY OF NOVI,
a Municipal Corporation

By: David Landry
Its: Mayor

By: Maryanne Cornelius
Its: Clerk

STATE OF MICHIGAN)
) ss.
COUNTY OF OAKLAND)

On this 22ND day of JANUARY, 2008, before me appeared David Landry and Maryanne Cornelius, who stated that they had signed this document of their own free will on behalf of the City of Novi in their respective official capacities, as stated above.

Marilyn A. Troutman
Notary Public
Oakland County, Michigan
My Commission Expires: Oct. 13, 2011

MARILYN S. TROUTMAN
NOTARY PUBLIC, STATE OF MI
COUNTY OF OAKLAND
MY COMMISSION EXPIRES Oct 13, 2011
ACTING IN COUNTY OF OAKLAND

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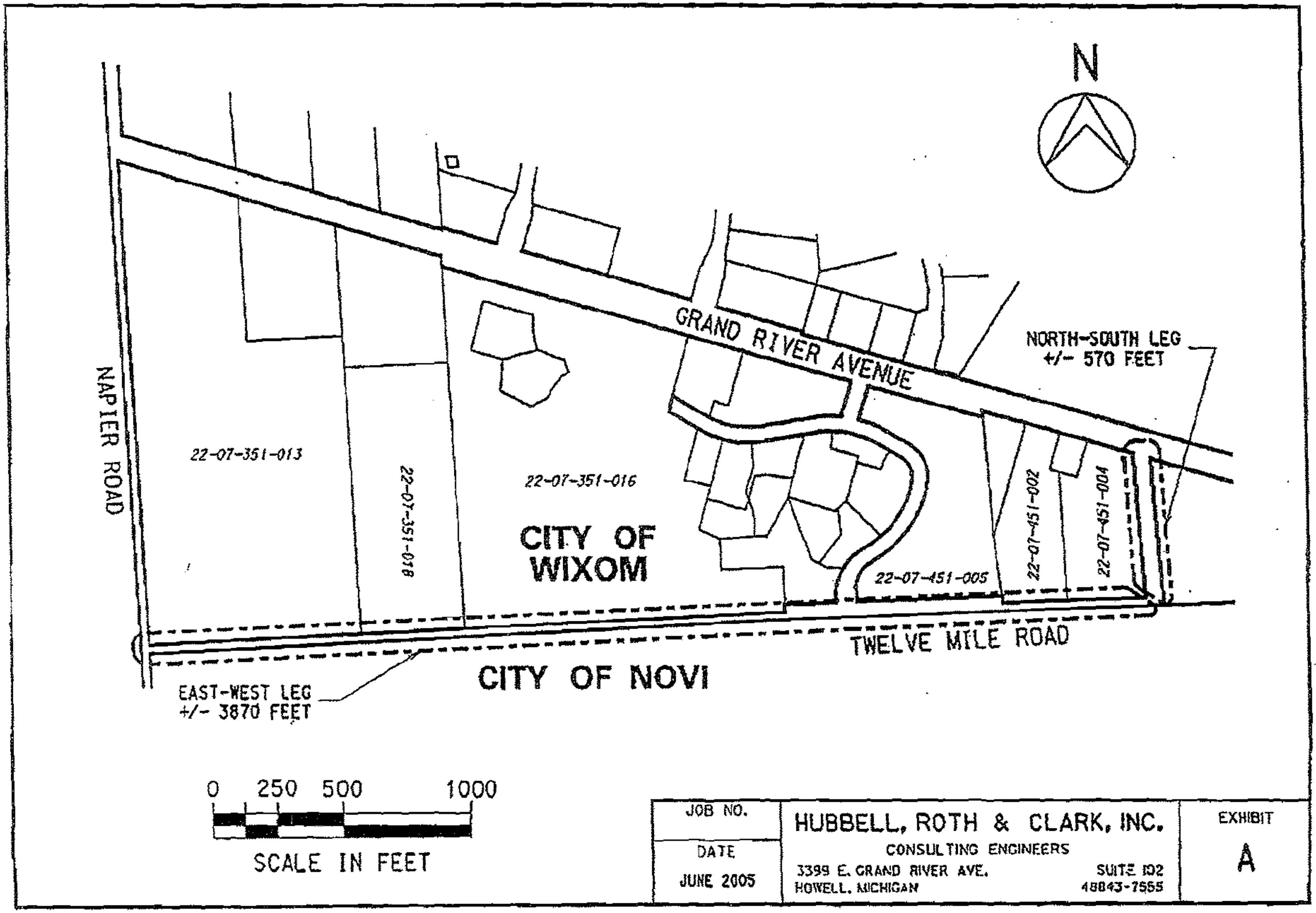
N
GRAND RIVER AVENUE
NORTH-SOUTH LEG
+/- 570 FEET
NAPIER ROAD
22-07-351-013
22-07-351-018
22-07-351-016
CITY OF
WIXOM
22-07-451-005
22-07-451-002
22-07-451-004
TWELVE MILE ROAD
CITY OF NOVI
EAST-WEST LEG
+/- 3870 FEET
0 250 500 1000
SCALE IN FEET
JOB NO.
DATE
JUNE 2005
HUBBELL, ROTH & CLARK, INC.
CONSULTING ENGINEERS
3399 E. GRAND RIVER AVE.
SUITE 102
HOWELL, MICHIGAN
48843-7555
EXHIBIT
A

RESOLUTION
OF THE CITY COUNCIL OF THE
CITY OF WIXOM

WHEREAS, Twelve Mile Road from Napier easterly 3870 feet (see attached map/drawing, Exhibit A) is a city street under the jurisdiction and control of the City of Wixom; and,

WHEREAS, the City of Wixom and the City of Novi agree that it would be appropriate for Novi to assume jurisdiction and control over said street; and,

WHEREAS, both 1951 PA 35 as amended, being MCL 124.1, et seq., and 1967 PA 8, as amended, being MCL 124.531, et seq., provide for governmental entities to undertake mutually beneficial agreement for the provision of services and for the undertaking of joint governmental action; and 1969 PA 296, as amended, being MCL 247.851, et seq., contemplates that transfers of jurisdiction with respect to roads shall be by written agreement.

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The Agreement further provides that the City of Novi will use good faith efforts under and within the law to seek agreement by the owners or developers of properties abutting Twelve Mile Road to undertake paving and drainage improvements along that portion of Twelve Mile Road that abuts Novi and remains unpaved, as such properties are developed in the future. The Agreement likewise provides that the City of Wixom will use good faith efforts under and within the law to seek agreement by the owners or developers of properties abutting Twelve Mile Road to undertake paving and drainage improvements along that portion of Twelve Mile Road that abuts Wixom and remains unpaved, as such properties are developed in the future. The Agreement also provides that the City of Novi will submit to the City of Wixom plans for any development proposed along this section of Twelve Mile Road for comment by the City of Wixom, at Wixom's own cost and expense. With respect to the remaining vacant land located in the City of Wixom along the section of Twelve Mile Road in question, the City of Novi will not unreasonably withhold any access to or driveway permits to Twelve Mile Road for these Wixom properties.

BE IT FINALLY RESOLVED that this transfer of jurisdiction shall and does hereby include all existing drainage easements and road rights-of-way secured in conjunction with the above-described road, and all things now existing for highway purposes upon and along such portions of road and appurtenant thereto, but does not include, however, any water lines, sanitary sewer lines, or other utilities in, on, or around said road that are not as of the date of this Agreement under the ownership or control of the City of Novi and/or are as of the date of this Agreement under the ownership or control of the City of Wixom.

WITNESSES:

Anna Pottermond
Anna Pottermond

Susan Grimes
SUSAN GRIMES

Dated: 1-9, 2008

CITY OF WIXOM
a Municipal Corporation

Kevin W. Hinkley
By: Kevin Hinkley
Its: Mayor

Linda Kirby
By: Linda Kirby
Its: Clerk