MULTI-MODAL TRANSPORTATION BOARD
MONDAY, AUGUST 11, 2014
6:00 PM
CONFERENCE ROOM 203
151 MARTIN STREET, BIRMINGHAM

A. Roll Call
B. Introductions
C. Review of the Agenda

D. Approval of Minutes, Meeting of July 10, 2014

E. Review of Transportation Engineering Consultant Qualifications

F. Oak St. Update

G. Meeting Open to the Public for items not on the Agenda

H. Miscellaneous Communications:

   a. Communications – Harry Kokkinakis RE: West Maple
   b. Other Business

I. Adjournment

Notice: Due to Building Security, public entrance during non-business hours is through the Police Department—Pierce St. Entrance only. Individuals with disabilities requiring assistance to enter the building should request aid via the intercom system at the parking lot entrance gate on Henrietta St.

Persons with disabilities that may require assistance for effective participation in this public meeting should contact the City Clerk's Office at the number (248) 530-1880, or (248) 644-5115 (for the hearing impaired) at least one day before the meeting to request help in mobility, visual, hearing, or other assistance.

Las personas con incapacidad que requieren algún tipo de ayuda para la participación en esta sesión pública deben ponerse en contacto con la oficina del escribano de la ciudad en el número (248) 530-1800 o al (248) 644-5115 (para las personas con incapacidad auditiva) por lo menos un dia antes de la reunión para solicitar ayuda a la movilidad, visual, auditiva, o de otras asistencias. (Title VI of the Civil Rights Act of 1964).

CITY OF BIRMINGHAM
MULTI-MODAL TRANSPORTATION BOARD
THURSDAY, JULY 10, 2014
City Commission Room
151 Martin Street, Birmingham, Michigan

Minutes of the regular meeting of the City of Birmingham Multi-Modal Transportation Board held July 10, 2014. Chairperson Johanna Slanga convened the meeting at 6 p.m.

A. ROLL CALL

Present: Chairperson Johanna Slanga; Board Members Lara Edwards, Andy Lawson, Jeff Surnow, Amanda Warner

Absent: Adriana Tatuch

Administration: Mark Clemence, Deputy Chief of Police
Brendan Cousino, Asst. City Engineer
Jana Ecker, Planning Director
Chris Elliott, Planning Intern
Paul O'Meara, City Engineer
Carole Salutes, Recording Secretary

B. INTRODUCTIONS

Board members described their background and qualifications for appointment to the board. City staff also introduced themselves.

C. REVIEW AGENDA (approved)

D. APPROVAL OF MINUTES, MEETING OF JUNE 25, 2014

Moved and seconded to approve the Minutes of June 25, 2014.

Motion carried, 5-0.

E. REVIEW OF OAK ST. PARKING SURVEY

Survey

Mr. O'Meara advised that, as discussed at the last meeting, the design of Oak St. hinges on the level of parking that is provided on its various sections. If parking is not an important value to a majority of the homeowners on this corridor, then the City can consider options without it. It has been observed that parking there is typically not in high demand. If portions of it can be eliminated, other options

such as bike lanes or a narrower road become feasible. He went on to highlight the contents of a draft cover letter and survey that will be mailed to all Oak St. residents once this board has reviewed and endorsed it. A copy of the survey will also be e-mailed to the Quarton Lake Subdivision Homeowners Assoc. president, so that board is kept in the loop.

Ms. Warner suggested seven additional questions for the survey as follows:
1) What section of Oak do you live on?
2) What is your address?
3) How often do you personally park on Oak St.?
4) How often do your visitors park there?
5) How important is it to you to have the ability to park on Oak St.?
6) Do you support alternative opportunities on Oak St. rather than on-street parking?
7) Which of the following options for the Oak St. reconstruction project do you prefer?
Those questions capture whether residents actually use parking and whether it is important to them.

Other suggestions from board members were to ask how many times in the last week did you park on Oak St.; and to rank the importance of parking on Oak St. on a scale of strongly agree, agree, neutral, disagree, strongly opposed. Greg Moore from the Homeowners Association could probably provide home and e-mail addresses for the mailing. People will have a number of options to attend public hearings.

Options

a. Oak St., Chesterfield to Lakepark - 3 options
Mr. O'Meara noted that he reviewed the literature from AASHTO relative to bike lane design. The idea of a raised curb buffer that was suggested last month is generally not recommended unless the street is in an intense urban setting. Mr. Surnow thought a curbed bike lane buffer is more dangerous than a painted buffer. Mr. Clemence said narrowing the road and taking away on-street parking will increase traffic speed. Mr. O'Meara disagreed because the width reduction proposed is significant. A significant reduction in width will slow speeds.

Ms. Slanga suggested that a boulevard section be considered. It was noted an island in the middle would lower traffic speed but there would be extra cost to the City. Mr. O'Meara said it is not appropriate to offer something that the City Commission has not authorized, such as the long-term maintenance cost of a boulevard. Mr. Clemence added a boulevard would significantly impact snowplowing on that street. Mr. O'Meara recommended that a minimum median width should be at least 10 ft. in order to accommodate a big arc for making U-turns. It was also brought up that a traffic island may be an option.

Ms. Ecker summarized that the majority of the group would like to see an option with a median or island in the center. Also, they would like to know the cost, if the City Commission will even consider it before doing the survey. Mr. O'Meara agreed that staff could collect some rough maintenance costs and take that information to the City Commission meeting on July 28.

Mr. Cousino said there needs to be some consensus around the geometry. Schematics are needed, one of the boulevard and one of the traffic island. Chairperson Slanga recalled a provision in the Multi-Modal Plan where Norm might come back and offer guidance.

Members asked Mr. O'Meara to draw up another section that shows the option of a green median with and without a buffer for the bike lane, lay them out in plan view and see which ones work. Staff can run that by Norm informally and then e-mail it to the group. If everyone agrees Mr. Cousino will take it to the City Commission on July 28.

Therefore, Oak St. is tabled for the present.

b. Oak St., Chesterfield to Glenhurst - 3 options

Option A depicts what currently exists. Option B widens the road to get continuous bike lanes and leave parking lanes in place. It encroaches 0.5 ft. onto school property. Members thought the road may already be wide enough. Further, the school could say no to the encroachment, but then the student loading lane would be eliminated. Option C takes out the parking lane on the north after resident input.

It was decided that the survey should show Option C as the existing condition (in this case Option A is what exists except adding sharrows to 12 ft. wide drive lane.) Option B can be brought completely on to City property by reducing the south bike lane by 0.5 ft. Otherwise everyone was happy with the 3 options.

c. *Oak St., Glenhurst to West City Limit - 3 options*

Options B and C get rid of the parking and add bike lanes. This will be done by painting, because the road is not being redone. It was concluded that Option B would be modified to have an 11 ft. drive lane with a 2 ft. wide buffer and a 7 ft. wide bike lane.

There was consensus to Option A, the existing condition, as the last option, take out Option C, leaving Option B as adjusted.

F. REVIEW OF TRANSPORTATION ENGINEERING CONSULTANT REQUEST FOR QUALIFICATIONS

Ms. Ecker recalled that in November 2013 the City of Birmingham accepted a Multi-Modal Transportation Master Plan ("MMTP") as created by the Ann Arbor. firm of Greenway Collaborative. As one of the first significant actions suggested in the MMTP, the City created the Multi-Modal Transportation Board ("MMTB"). The City is currently seeking a transportation engineering consultant to assist the MMTB in reviewing all transportation and transportation-related projects proposed from a multi-modal perspective, conducting transportation studies or modeling, and otherwise providing transportation advice to the City as needed. The consultant will also assist the board in its duties regarding possible changes to signage and parking regulation, and addressing perceived traffic problems.

Prospective consultants shall submit their Statement of Qualifications by July 31, 2014. Seven double-sided copies plus an electronic version will be needed. It is hoped that the consultant will be selected in August 2014 and prepared to gather data in September so that final recommendations can be reviewed and finalized by November 2014. Ms. Ecker suggested that the board be given their copies so they could read them at home and fill out their sheets and then come in with the sheets filled out.

Mr. O'Meara noted that prospective consultants should be able to demonstrate similar types of projects done for other clients. They would like to have one person from the firm that is the regular attendee.

Add to the score sheet a question about how much work the consultant has with other clients, because they should either be partial to the City of Birmingham or neutral. Members were happy with the RFQ.

G. OVERVIEW OF W. MAPLE RD. 2016 PROJECT - CRANBROOK TO SOUTHFIELD

Mr. O'Meara indicated the city manager wanted this board to be aware that there has already been a lot of discussion about the upcoming W. Maple Rd. project. People are lining up against the idea that Maple Rd. should be a 3-lane road with bike lanes. The road will be resurfaced in Spring of 2016 and then it can be re-striped if decided. No matter what is done, the Federal funding will be there. This will be an endeavor that the transportation consultant will work on with the Engineering Dept.

A few options will be worked out and brought to this board. When the board is comfortable with the direction they are headed, it will be announced to the public.

It might be valuable to invite the stakeholders to be heard before anything has started. However, this approach has to be structured.

Mr. Stuart Boardmen spoke from the audience to stress that what is done on Oak St. may affect Maple Rd.

H. MEETING OPEN TO THE PUBLIC FOR ITEMS NOT ON THE AGENDA
(no one spoke)

I. MISCELLANEOUS BUSINESS AND COMMUNICATIONS

a. Communications

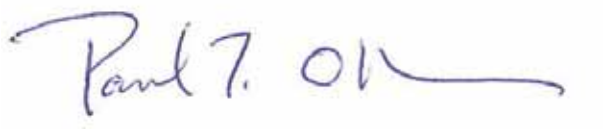
- Quarton Elementary School Principal

b. Other Business

K. ADJOURNMENT

No further business being evident, board members motioned to adjourn at 8:10 p.m.

Jana Ecker, Planning Director



Paul O'Meara, City Engineer

The next meeting will be on Thursday, August 7 at 6 p.m.

City of Birmingham
A Walkable Community

MEMORANDUM

ENGINEERING DEPARTMENT

DATE: **August 1, 2014**

TO: **Multi Modal Transportation Board (MMTB)**

FROM: **Brendan Cousino, Assistant City Engineer**

SUBJECT: **Review of Transportation Engineering Consultant Qualifications**

The City of Birmingham published the attached Request for Qualifications for Transportation Engineering Consultants and published it on the Michigan Inter-governmental Trade Network. The City received six submittals of qualifications in response from the following firms:

1. Giffels+Webster
2. Fleis & Vendenbrink
3. OHM
4. Anderson, Eckstein & Westrick
5. RS Engineering, LLC
6. WadeTrim

The attached score sheet has been prepared, and revised per the direction of the MMTB at the July 10 meeting. Please read and review each of the submitted statement of qualifications (provided under a separate cover) and provide a completed score sheet for the meeting.

Based on the results of the MMTB evaluation of the qualifications of the prospective consultants, the MMTB may consider requesting the top firms in consideration to interview at an upcoming meeting prior to making a recommendation to the City Commission on engaging one of these firms.

SUGGESTED RESOLUTION A:
To invite _____ to interview at the September 4, 2014 MMTB meeting prior to making a recommendation to the City Commission.

OR

SUGGESTED RESOLUTION B:
To recommend that the City Commission enter into a professional services agreement with _____ to provide Transportation Engineering Services as outlined in the Request for Qualifications.

CITY OF BIRMINGHAM, MICHIGAN
REQUEST FOR QUALIFICATIONS
TRANSPORTATION ENGINEERING
CONSULTANT SERVICES CONTRACT

INTRODUCTION

The City of Birmingham has a long history of maintaining and improving its infrastructure as it strives to be a premier community within southeast Michigan. As a part of that effort, in 2011, Birmingham adopted a Complete Streets resolution to improve multi-modal transportation by creating better conditions for walking, biking and transit. In November, 2013, the City accepted a Multi-Modal Transportation Master Plan (MMTP), as created by the Ann Arbor, MI firm of Greenway Collaborative.

As one of the first significant actions suggested in the Master Plan, the City created a Multi-Modal Transportation Board (MMTB). The board held its first meeting in June, 2014. The purpose of this standing committee is to review all transportation and transportation-related projects with reference to the MMTP, the 2010 Highway Capacity Manual, the Uniform Vehicle Code, the MDOT Complete Streets Policy 2012 and other related traffic, bicycle, pedestrian or transit guidelines in effect, and to provide formal recommendations to the City Commission. The Multi-Modal Transportation Board will advise the City Commission on the implementation of the MMTP, and review project phasing and budgeting, especially on streets that are not already included in the City's Capital Improvements Plan.

The Board has also taken over the duties of the previous Traffic & Safety Board. The Traffic & Safety Board worked with the Police Dept. and the City's contract Traffic Engineer to address resident concerns and requests related to signage, perceived traffic problems, and parking regulation.

CONSULTANT SKILLS

The successful candidate for this position shall be able to demonstrate the ability to assist the City as a professional engineer in the following two-fold manner:

1. *MULTI-MODAL DESIGN SKILLS*

The City regularly budgets and constructs several road improvement projects each year. Prior to full engineering design, the Board will be asked to review the street segments planned for improvement from a Multi-Modal perspective so that particular road segments that are identified for Multi-Modal improvements in the MMTP are fully reviewed, studied, and recommended for implementation if appropriate. The CONSULTANT will be asked to study

various traffic components of particular street segments, and provide technical expertise and guidance on how various multi-modal changes will impact all users of the street. The CONSULTANT shall be ready to provide guidance with respect to the impact to vehicular traffic flow, but also with respect to pedestrians, bicyclists, and transit users.

2. TRAFFIC ENGINEERING SKILLS

The Board will be asked to review and consider various traffic calming, signing, striping, or parking regulation changes that are requested by the public. If deemed appropriate, the Board will ask the CONSULTANT to study various elements of the proposal with respect to the impact to vehicular traffic flow, as well as with respect to pedestrians, bicyclists, and transit users, providing technical expertise and guidance to the Board. The CONSULTANT shall act as the City's Traffic Engineer as mandated in the Uniform Traffic Code as prepared by the Michigan State Police (see Attachment A). The CONSULTANT shall be able to operate accurate software that simulates traffic operations at signal-controlled intersections so that the Board may understand the ramifications of various options that can be implemented at particular intersections or segments.

SCHEDULE

The Board is currently meeting and reviewing projects that will be designed this fall, with construction planned for 2015. At least one of these projects will require study from the CONSULTANT. The particular project will impact a public elementary school and its traffic functions. It is hoped that the CONSULTANT will be selected in August, 2014, and prepared to gather data in September so that final recommendations can be reviewed and finalized by November, 2014.

STATEMENT OF QUALIFICATIONS CONTENT AND FORMAT

If you are interested in working with the City on this project, we ask that you submit a Statement of Qualifications to the City including the following information:

PERSONNEL

The City prefers to select a CONSULTANT that will have one particular staffperson (a registered, professional engineer) who will be assigned to oversee and personally assist in all activities that involve the Board. The one selected person shall be regularly available to attend Board meetings, currently being held on the first Thursday of each month, at 6:00 P.M. The City recognizes that the nature of the studies being requested may include gathering data such as counts, turning movements, site visits, traffic signal modeling, and analysis that may best be handled efficiently by various members of the staff or subconsultants. Describe the proposed consultant team composition by indicating how it intends to perform the work (e.g.: as an independent company, a partnership, a joint venture, or a combination of prime and sub-consultants). The role of each participating entity shall be fully described. The qualifications and experience of each participating entity shall be identified in the Statement of

Qualifications, especially as they relate to the particular areas of expertise that they will bring to this project.

QUALIFICATIONS OF THE TEAM AND PERSONNEL

The City wants to team with a CONSULTANT that has experience with Complete Streets concepts and has successfully implemented them for other clients. The Statement of Qualifications shall include summary resumes of the key personnel proposed on the team, particularly for the lead engineer that will be assigned to this account, along with descriptions of multi-modal projects that the CONSULTANT has been involved in. The City also wants a CONSULTANT that has acted in the role of Traffic Engineer for other road agencies. The Statement of Qualifications shall outline other jurisdicitions that the CONSULTANT has worked for, and specifically the role that they have played in providing Traffic Engineering services.

OTHER CLIENTS

The City requires a CONSULTANT that will have the City of Birmingham as its first priority when assisting the City on issues that involve other road agencies or other private interests. The CONSULTANT shall provide a statement that clarifies:

1. The average percentage of income earned by the consulting firm for the firm's past three fiscal years from the MI Dept. of Transportation.
2. The average percentage of income earned by the consulting firm for the firm's past three fiscal years from the Road Commission for Oakland Co.
3. The average percentage of income earned by the consulting firm for the firm's past three fiscal years from developers or private firms that are involved in the development of private projects within Oakland Co.

As a part of this disclosure, the CONSULTANT shall verify in writing that should they be selected for this position, the CONSULTANT shall be prepared to phase out all relationships with developers that are currently active in the development of private properties within the City of Birmingham.

CONSULTANT APPROACH

The Statement of Qualifications shall provide a paragraph that summarizes the philosophy of the firm, and how it will approach the various assignments given to it as the Transportation Services Consultant assisting in addressing the various technical needs of the Board.

CONSULTING FEES

Since there is a very broad scope of services to be provided on this project, compensation for the CONSULTANT work is expected to be based upon the hourly rates, plus reimbursable expenses for travel, copying, etc. The Statement of Qualifications shall include the prospective CONSULTANT'S proposed hourly rates for all personnel or subconsultants that are expected to

work on various assignments, along with rates for typical reimbursable expenses expected in the execution of these duties.

DUE DATE

Prospective CONSULTANTS shall submit **Seven (7) Copies** of their Statement of Qualifications containing the information noted above by **5:00 PM** on **July 31, 2014**.

CITY REVIEW AND CONSULTANT SELECTION

It is expected that the full membership of the Board will review each Statement of Qualifications based on a pre-determined set of criteria. The Board will then prepare a short list of candidates that will be invited to be interviewed later in August. The City will select a CONSULTANT based upon the approach to the described tasks, the qualifications of the firm(s), and the experience of the proposed project team, with particular attention to the lead engineer. The City may request additional information from prospective CONSULTANTS in their review of the materials.

A sample agreement for professional consulting services is attached for your reference. The final form of the consulting agreement and price may be negotiated based upon the final scope of the project.

The City reserves the right to reject all Statements of Qualification. The City is not responsible for any costs incurred by prospective consultants in submitting a Statement of Qualifications.

CONTACT INFORMATION

Please direct all responses to this Request for Qualifications to the following address:

City of Birmingham
Attn: Paul O'Meara, Jana Ecker, & Mark Clemence
P.O. Box 3001
Birmingham, MI 48012

Questions and requests for clarifications on this Request for Qualifications should be sent by email to all three of the following contacts:

Paul O'Meara, P.E.	Jana Ecker	Mark Clemence
City Engineer	Planning Director	Deputy Chief of Police
pomeara@bhamgov.org	jecker@bahamgov.org	mclemence@bhamgov.org

Responses will be in writing, and will be sent to all prospective consultants. No phone calls please.

ATTACHMENTS

Attachment A – Rule 125 and 126 of the Uniform Traffic Code (enumerating the duties of a municipal traffic engineer)
Attachment B – C. 110, Articles II and VII of the City Code (enumerating the duties of the Multi-Modal Transportation Board)
Attachment C - Sample Professional Consulting Agreement
Attachment D – Final approved Multi-Modal Transportation Master Plan for the City of Birmingham

ATTACHMENT A
EXCERPT FROM THE MICHIGAN UNIFORM VEHICLE CODE

R28.1125 Rule 125. Traffic engineer.

(1) The office of traffic engineer is hereby established. The traffic engineer shall be appointed in a manner prescribed by the ordinance making body and shall exercise the powers and duties provided in this code in a manner that is consistent with prevailing traffic engineering and safety practices and that is in the best interest of this governmental unit. If a traffic engineer is not appointed, then the authority of the engineer shall be vested in the chief of police.
(2) The traffic engineer is responsible for any duties specifically delegated to the local authority by the Act, unless another office is specifically designated by the Act or by this code or is by its nature the more appropriate office.

R28.1126 Rule 126. Duties of traffic engineer.

(1) The general duties of the traffic engineer are as follows:
   (a) To plan and determine the installation and proper timing and maintenance of traffic-control devices.
   (b) To conduct engineering analysis of traffic accidents and to devise remedial measures.
   (c) To conduct engineering investigations of traffic conditions.
   (d) To plan the operation of traffic on the streets of this governmental unit, including parking areas.
   (e) To cooperate with other officials of this governmental unit in the development of ways and means to improve traffic conditions.
   (f) To carry out the additional powers and duties imposed by the act and ordinances of this governmental unit.
   (g) To otherwise regulate the movement and parking of vehicles within the municipality consistent with the act.
(2) All duties carried out by the traffic engineer shall be in accordance with standard and accepted engineering practices as found in the Traffic Engineering Handbook, Fifth Edition, which s adopted by reference in these rules. The Handbook may be reviewed at the East Lansing Headquarters of the Michigan State Police, Special Operations Division, Traffic Services Section. The Handbook may be purchased from the Institute of Transportation Engineers, 1099 14th St., N.W., Suite 300 West, Washington DC, 20005-3438, or from the Michigan Dept. of State Police, Special Operations Division, Traffic Services Division, Traffic Services Section, 714 S. Harrison Road, East Lansing, MI 48823, at a cost as of the time of adoption of these rules of $110 each.

ATTACHMENT B
EXCERPT FROM THE BIRMINGHAM CITY CODE

CHAPTER 110, TRANSPORTATION SYSTEMS

ARTICLE II. MULTI-MODAL TRANSPORTATION BOARD

Sec. 110-26. Composition.

The Multi-Modal Transportation Board shall consist of three nonvoting ex officio members and seven members appointed by the city commission. The three nonvoting ex officio members shall be the city engineer, the planning director and the police chief, or their designated representatives. Insofar as possible, the city commission shall appoint members as follows:

(i) One pedestrian advocate member;
(ii) One member with a mobility or vision impairment;
(iii) One member with traffic-focused education and/or experience;
(iv) One bicycle advocate member;
(v) One member with urban planning, architecture or design education and/or experience; and
(vi) Two members at large from different geographical areas of the city.

Board members shall be electors or property owners in the city.

Sec. 110-27. Terms of members.

Initial members of the Multi-Modal Transportation Board shall serve for the following terms: two members shall be appointed for one year terms, two members shall be appointed for two year terms, and three members shall be appointed for three year terms. Thereafter, all appointments, except to fill vacancies, shall be for a term of three years. All appointments for the purpose of filling vacancies occurring otherwise than by expiration of term of office shall be for the unexpired term.

Sec. 110-28. Compensation.

All members of the Multi-Modal Transportation Board shall serve without compensation.

Sec. 110-29. Organization.

The Multi-Modal Transportation Board shall, from its appointed members, elect a chair who shall be the presiding officer of the board, and a vice-chair who shall serve in the absence of the chair. A secretary, who shall keep and maintain the proceedings of the

board, shall be appointed by the board. The secretary need not be a member of the board. The terms of office for such officers shall be one year and until their successors have been elected. The ex officio members of the board may not act as the chair or vice-chair but may serve as secretary.

Sec. 110-30. Meetings and quorum.

The Multi-Modal Transportation Board shall hold meetings at such time and place as may be established by the board. Special meetings may be called by the secretary at the written request of the chair or any three members of the board on at least two days' notice. A quorum for the transaction of business at the regular and special meetings shall be four appointed members and at least one ex officio member or their designated representative.

Sec. 110-31. Scope of authority.

The Multi-Modal Transportation Board is a non-administrative board serving solely in an advisory capacity. In that capacity the board may make recommendations to the city commission but may not assume any legislative or administrative authority of the city commission or any department or board established by the city commission except as specifically provided in this chapter.

Sec. 110-32. Purpose and duties.

The purpose of the Multi-Modal Transportation Board shall be to assist in maintaining the safe and efficient movement of motorized and non-motorized vehicles and pedestrians on the streets and walkways of the city and to advise the city commission on the implementation of the Multi-Modal Transportation Plan, including reviewing project phasing and budgeting. In furtherance of its purpose, the board shall endeavor to provide the following:

(1) Advice on the implementation of the city’s Multi-Modal Transportation Plan to the city commission.

(2) Review of the Multi-Modal Transportation Plan to assure that it remains current with citywide multi-modal transportation movements and regional transportation plans and initiatives.

(3) An objective and technical multi-modal evaluation of plans for all road reconstruction and road resurfacing projects, sidewalk and pedestrian crossing projects, intersection or bridge projects, bicycle and transit facility improvement projects.

(4) An objective and technical evaluation of transportation issues brought to the attention of or identified by the board.

(5) An objective and technical evaluation of the transportation plan submitted for proposed development or redevelopment, as referred to the board by the planning board.

(6) An objective and technical multi-modal evaluation of site plans submitted for proposed development or redevelopment, as referred to the board by the planning board.

(7) An objective and technical multi-modal evaluation of any ordinance amendments related to transportation issues, as referred to the board by the planning board or city commission.

(8) The application of accepted transportation engineering practices, multi-modal transportation planning and complete streets practices and national standards, including those published by the American Association of State Highway and Transportation Officials, in solving and preventing transportation problems.

(9) Objective and technical recommendations regarding transportation engineering safety issues to the city commission.

(10) A forum for the voluntary coordination of groups interested in transportation issues.

(11) A forum to review and decide appeals of administrative decisions made by the Police Department on transportation-related regulatory requests under Article VII of this chapter.

Secs. 110-33—110-55. Reserved.

ATTACHMENT C
SAMPLE CONSULTANT AGREEMENT

CITY OF BIRMINGHAM
ENGINEERING CONSULTANT CONTRACT

THIS AGREEMENT, made and entered into this ___ day of _____, 2014 by and between the **CITY OF BIRMINGHAM**, a Municipal Corporation located at 151 Martin Street, Birmingham, Michigan, 48009 (hereinafter referred to as the "CITY"), and

(hereinafter referred to as the "CONSULTANT").

W I T N E S S E T H:

WHEREAS, the CITY would like to engage the professional services of the CONSULTANT to perform engineering services; and,

WHEREAS, the CONSULTANT is willing to render such services desired by the CITY for the considerations hereinafter expressed.

NOW, THEREFORE, for and in consideration of the mutual undertakings of the parties hereto, all as hereinafter set forth, it is agreed by and between the parties as follows:

1. The CONSULTANT shall perform engineering services for the CITY, including, but not limited to, investigations, studies and preliminary engineering, customary civil, structural, design, mechanical and electrical engineering services, environmental services, architectural services, inspection services and surveying, and other services incidental thereto.

The CONSULTANT will provide said services only when requested to do so by the CITY'S Director of Engineering and Public Services, the Planning Director or the CITY's Police Department's designee.

2. The CONSULTANT shall perform all work under the direction of the CITY'S Director of Engineering and Public Services, the Planning Director or the CITY'S Chief of Police, or their respective designated representative.

3. The CITY agrees to pay the CONSULTANT for services rendered on the basis of an hourly fee as set forth in Exhibit A, which is attached hereto and made a part hereof. The CONSULTANT shall submit billings on a regular basis, but no more than once a month.

4. This Agreement shall commence upon execution of this Agreement by both parties, and shall terminate five (5) years after the dated of execution, unless terminated sooner under this Agreement or by agreement of the parties. Notwithstanding, the CITY and the CONSULTANT shall have the right to terminate this Agreement on thirty (30) days written notice. In the event of termination, the CONSULTANT shall receive compensation for services to the date the termination takes effect and the CITY shall be entitled to retain and use all work product prepared by the CONSULTANT through such date.

5. If the CONSULTANT fails to perform its obligations hereunder, the CITY may take any and all remedial actions permitted by law.

6. The CONSULTANT shall hire personnel of good character and fitness to perform the duties under this Agreement.

7. The CONSULTANT agrees that neither it nor its subcontractors will discriminate against any employee or applicant for employment with respect to hire, tenure, terms, conditions or privileges of employment, or a matter directly or indirectly related to employment because of race, color, religion, national origin, age, sex, height, weight or marital status. The CONSULTANT shall inform the CITY of all claims or suits asserted against it by the CONSULTANT'S employees who work pursuant to this Agreement. The CONSULTANT shall provide the CITY with periodic status reports concerning all such claims or suits, at intervals established by the CITY.

8. Any controversy or claim arising out of or relating to this Agreement, or the breach thereof, shall be settled either by commencement of a suit in Oakland County Circuit Court, the 48th District Court or by arbitration. If both parties elect to have the dispute resolved by arbitration, it shall be settled pursuant to Chapter 50 of the Revised Judicature Act for the State of Michigan and administered by the American Arbitration Association with one arbitrator being used, or three arbitrators, in the event any party's claim exceeds $1,000,000. Each party shall bear its own costs and expenses and an equal share of the arbitrator's and administrative fees of arbitration. Such arbitration shall qualify as statutory arbitration pursuant to MCL§600.5001 et. seq., and the Oakland County Circuit Court or any court having jurisdiction shall render judgment upon the award of the arbitrator made pursuant to this Agreement. The laws of the State of Michigan shall govern this Agreement, and the arbitration shall take place in Oakland County, Michigan. In the event that the parties elect not to have the matter in dispute arbitrated, any dispute between the parties may be resolved by the filing of a suit in the Oakland County Circuit Court or the 48th District Court.

9. To the fullest extent permitted by law, the CONSULTANT and any entity or person for whom the CONSULTANT is legally liable, agrees to be responsible for any liability, defend, pay on behalf of, indemnify, and hold harmless the CITY OF BIRMINGHAM, its elected and appointed officials, employees and volunteers and others working on behalf of the CITY OF BIRMINGHAM against any and all claims, demands, suits, or loss, including all costs and reasonable attorney fees connected therewith, and for any damages which may be asserted, claimed or recovered against or from and the CITY OF BIRMINGHAM, its elected and appointed officials, employees, volunteers or others working on behalf of the CITY OF BIRMINGHAM, by reason of personal injury, including bodily injury and death and/or property damage, including loss of use thereof, which arises out of or is in any way connected or associated with this Agreement. Such responsibility shall not be construed as liability for damage caused by or resulting from the sole act or omission of its elected or appointed officials, employees, volunteers or others working on behalf of the CITY OF BIRMINGHAM.

10. The CONSULTANT shall not commence work under this Agreement until it has, at its sole expense, obtained the insurance required under this paragraph. All coverages shall be with insurance companies licensed and admitted to do business in the State of Michigan. All coverages shall be with carriers acceptable to the CITY OF BIRMINGHAM.

A. Workers' Compensation Insurance: CONSULTANT shall procure and maintain during the life of this Agreement, Workers' Compensation Insurance, including Employers Liability Coverage, in accordance with all applicable statutes of the State of Michigan.

B. Commercial General Liability Insurance: CONSULTANT shall procure and maintain during the life of this Agreement, Commercial General Liability Insurance on an "Occurrence Basis" with limits of liability not less than **$1,000,000** per occurrence

combined single limit, Personal Injury, Bodily Injury and Property Damage. Coverage shall include the following extensions: (A) Contractual Liability; (B) Products and Completed Operations; (C) Independent Contractors Coverage; (D) Broad Form General Liability Extensions or equivalent; (E) Deletion of all Explosion, Collapse and Underground (XCU) Exclusions, if applicable.

C. Motor Vehicle Liability: CONSULTANT shall procure and maintain during the life of this Agreement Motor Vehicle Liability Insurance, including all applicable no-fault coverages, with limits of liability of not less than $1,000,000 per occurrence combined single limit Bodily Injury and Property Damage. Coverage shall include all owned vehicles, all non-owned vehicles, and all hired vehicles.

D. Additional Insured: Commercial General Liability and Motor Vehicle Liability Insurance, as described above, shall include an endorsement stating the following shall be *Additional Insureds*: The City of Birmingham, including all elected and appointed officials, all employee and volunteers, all boards, commissions and/or authorities and board members, including employees and volunteers thereof. This coverage shall be primary to any other coverage that may be available to the additional insured, whether any other available coverage by primary, contributing or excess.

E. Professional Liability: Professional liability insurance with limits of not less than $1,000,000 per claim if CONSULTANT will provide service that are customarily subject to this type of coverage.

F. Cancellation Notice: Workers' Compensation Insurance, Commercial General Liability Insurance and Motor Vehicle Liability Insurance (and Professional Liability Insurance, if applicable), as described above, shall include an endorsement stating the following: "Thirty (30) days Advance Written Notice of Cancellation or Non-Renewal, shall be sent to: Finance Director, City of Birmingham, PO Box 3001, 151 Martin Street, Birmingham, MI 48012-3001.

G. Proof of Insurance Coverage: CONSULTANT shall provide the City of Birmingham at the time the Agreement is returned for execution, Certificates of Insurance and/or policies, acceptable to the City of Birmingham, as listed below.

1) Two (2) copies of Certificate of Insurance for Workers' Compensation Insurance;

2) Two (2) copies of Certificate of Insurance for Commercial General Liability Insurance;

3) Two (2) copies of Certificate of Insurance for Vehicle Liability Insurance;

4) Two (2) copies of Certificate of Insurance for Professional Liability Insurance;

5) If so requested, Certified Copies of all policies mentioned above will be furnished.

H. Coverage Expiration: If any of the above coverages expire during the term of this Agreement, CONSULTANT shall deliver renewal certificates and/or policies to the City of Birmingham at least (10) days prior to the expiration date.

I. Maintaining Insurance: Upon failure of the CONSULTANT to obtain or maintain such insurance coverage for the term of the Agreement, the City of Birmingham may, at its option, purchase such coverage and subtract the cost of obtaining such coverage from the Agreement amount. In obtaining such coverage, the City of Birmingham shall have no obligation to procure the most cost-effective coverage but may contract with any insurer for such coverage.

11. If, after the effective date of this Agreement, any official of the CITY, or spouse, child, parent or in-law of such official or employee shall become directly or indirectly interested in this Agreement or the affairs of the CONSULTANT, the CITY shall have the right to terminate this Agreement without further liability to the CONSULTANT if the disqualification has not been removed within thirty (30) days after the CITY has given the CONSULTANT notice of the disqualifying interest. Ownership of less than one percent (1%) of the stock or other equity interest in a corporation or partnership shall not be a disqualifying interest. Employment shall be a disqualifying interest.

12. The CONSULTANT and the CITY agree that the CONSULTANT is acting as an independent contractor with respect to the CONSULTANT'S role in providing services to the CITY pursuant to this Agreement, and as such, shall be liable for its own actions and neither the CONSULTANT nor its employees shall be construed as employees of the CITY. Nothing contained in this Agreement shall be construed to imply a joint venture or partnership and neither party, by virtue of this Agreement, shall have any right, power or authority to act or create any obligation, express or implied, on behalf of the other party, except as specifically outlined herein. Neither the CITY nor the CONSULTANT shall be considered or construed to be the agent of the other, nor shall either have the right to bind the other in any manner whatsoever, except as specifically provided in this Agreement, and this Agreement shall not be construed as a contract of agency. The CONSULTANT shall not be considered entitled or eligible to participate in any benefits or privileges given or extended by the CITY, or be deemed an employee of the CITY for purposes of federal or state withholding taxes, FICA taxes, unemployment, workers' compensation or any other employer contributions on behalf of the CITY.

13. The CONSULTANT agrees that it will apply for and secure all permits and approvals as may be required from the CITY in accordance with the provisions of applicable laws and ordinances of the CITY, State of Michigan or federal agencies.

14. This Agreement shall be binding upon and apply and inure to the benefit of the parties hereto and their respective successors or assigns. The covenants, conditions, and the agreements herein contained are hereby declared binding on the CITY and CONSULTANT. It is further agreed that there shall be no change, modification, or alteration hereof, except in writing, signed by both of the parties hereto. Neither party shall assign any of the rights under this Agreement without prior approval, in writing, of the other. Any attempt at assignment without prior written consent shall be void and of no effect.

15. The CITY shall be the owner of all the drawings, specifications or other documents prepared by the CONSULTANT. Any modifications made to the drawings by the CITY shall be

clearly marked as such on the modified document. The CITY may not use these documents for any purpose other than pursuant to the activities provided for in this Agreement.

16. Notices shall be given to:

a. City of Birmingham
151 Martin Street
P.O. Box 3001
Birmingham, MI 48012-3001
Attention: Ms. Nancy Weiss

With copies to:

Timothy J. Currier, City Attorney
Beier Howlett, P.C.
200 E. Long Lake Road, Ste. #110
Bloomfield Hills, MI 48304

b. Consultant

17. The CONSULTANT acknowledges that in performing services pursuant to this Agreement, certain confidential and/or proprietary information (including, but not limited to, internal organization, methodology, personnel and financial information, etc.) may become involved. The CONSULTANT recognizes that unauthorized exposure of such confidential or proprietary information could irreparably damage the CITY. Therefore, the CONSULTANT agrees to use reasonable care to safeguard the confidential and proprietary information and to prevent the unauthorized use or disclosure thereof. The CONSULTANT shall inform its employees of the confidential or proprietary nature of such information and shall limit access thereto to employees rendering services pursuant to this Agreement. The CONSULTANT further agrees to use such confidential or proprietary information only for the purpose of performing services pursuant to this Agreement.

18. This Agreement shall be governed by and performed, interpreted and enforced in accordance with the laws of the State of Michigan. The CONSULTANT agrees to perform all services provided for in this Agreement in accordance with and in full compliance with all local, state and federal laws and regulations.

19. If any provision of this Agreement is declared invalid, illegal or unenforceable, such provision shall be severed from this Agreement and all other provisions shall remain in full force and effect.

20. "FAIR PROCUREMENT OPPORTUNITY: Procurement for the City of Birmingham will be handled in a manner providing fair opportunity for all businesses. This will be accomplished without abrogation or sacrifice of quality and as determined to be in the best interest of the City of Birmingham."

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the day and year first above written.

WITNESS:

_____

_____

_____

CITY OF BIRMINGHAM

_____
Scott Moore, Mayor

_____
Laura Pierce, Clerk

By: _____

APPROVAL:

_____
Paul O'Meara, City Engineer
as to Substance

_____
B. Sharon Ostin, Director of
Finance as to Financial Obligation

_____
Don Studt, Chief of Police
as to Substance

_____
Joe Valentine, City Manager as to
Substance

_____
Timothy J. Currier, City Attorney as to
Form

City of Birmingham
A Walkable Community

Proposal Submitted By: _____

Instructions:(1) Upon reviewing each proposal, indicate the number of scoring points that you believe each proposal should be given in each of the categories identified below

(2) After reviewing all proposals, assign each proposal with a ranking number from one (1) to five (5), with number one (1) representing the best proposal overall based on total score. Mark each proposal's ranking in the space provided at the end of your Evaluation Form.

	Score
Consultant's experience with similar Complete Streets projects • Experience with, and knowledge of, Complete Streets principles and design best practices, particularly in highly urbanized areas • Experience drafting Complete Streets recommendations for constrained environments • Evidence of effective implementation of plans prepared by consultant • Complete Streets plans and solutions in other communities	_____/30
Consultant's experience with municipal transportation engineering • Experience with other similar jurisdictions acting in the roll of Traffic Engineer • Experience with conducting studies relative to various modifications that a road jurisdiction will undertake to address current transportation-related problems • Experience with operating simulations in conjunction with road and/or traffic signal design. • Ability to act impartially when working for the City of Birmingham	_____/30

City of Birmingham
A Walkable Community

Professional qualifications of key employees to be assigned to the project • Focus shall be on resume of registered transportation engineer that will oversee all consultant efforts, attend Board meetings, and assist with discussions when needed. Planning, Complete Streets and urban design experience of key employees on team • Traffic engineer is fully experienced and able to consider and study ramifications of reduced traffic capacity proposals following AASHTO and MDOT standards and principals	**_____/20**
Study Approach to Project • Conveys understanding of the scope and nature of the work, including key issues • Clearly conveys problem solving approach • Problem solving approach appears well thought out and practical • Understands City's constraints, and demonstrates willingness and ability to work creatively and explore options within City constraints	**_____/10**
Content and Quality of Proposal • Consultant addressed all items outlined in the Request for Proposals • Presentation and layout of documents submitted • Effective use of illustrations and graphics • Use of clear, concise language	**_____/10**
TOTAL SCORE	
RANKING (1-5)	

City of Birmingham
A Walkable Community

MEMORANDUM

ENGINEERING DEPARTMENT

DATE: **August 1, 2014**

TO: **Multi Modal Transportation Board (MMTB)**

FROM: **Brendan Cousino, Assistant City Engineer**

SUBJECT: **Oak Street Update**

At their July 28, 2014 regular meeting, the City Commission considered the MMTB suggestion that a boulevard cross section be presented to the public as an option for the portion of Oak to be reconstructed between Chesterfield Ave. and Lakepark Drive. A copy of the staff report on this topic is attached for your reference. Due to the higher capital and ongoing maintenance costs involved, they opted to not endorse the idea of a boulevard cross section. However, several commissioners were complimentary of the creative ideas being generated by the MMTB, and were encouraging of bringing other creative solutions to the Commission for future consideration. They did endorse the idea of including a crossing island at the Lakepark Drive intersection, which can be further detailed later in the design process.

The Engineering Dept. is working with the City's public relations staff to perform the online surveys regarding the different cross section options for the difference sections of Oak Street. It is anticipated that these results will be available at the next MMTB meeting in September.

Feel free to let me know if you have any further questions regarding this project.

City of Birmingham
A Walkable Community

MEMORANDUM

ENGINEERING DEPARTMENT

DATE: July 21, 2014

TO: Joseph A. Valentine, City Manager

FROM: Brendan Cousino, Assistant City Engineer

SUBJECT: Oak Street Reconstruction
Revised Pavement Configurations

Oak Street between Glenhurst Drive and Lakepark Drive is scheduled for reconstruction in 2015, with a number of sewer and water system improvements, and complete pavement reconstruction. In accordance with the new City policy on reviewing all street reconstruction projects with the Multi-Modal Transportation Board (MMTB), the Engineering Department brought this project to the MMTB at their meeting on July 10, 2014 to consider the options for changing the road configuration as a part of this project. A copy of the materials included in the MMTB agenda packet for that meeting is attached for your reference.

There are three different sections of Oak Street to consider as a part of this project, and because they have different adjacent land uses and contexts, different roadway cross sections may be appropriate.

1. Chesterfield Ave. to Lakepark Drive – This stretch of Oak Street has short blocks and most of the houses with direct access to this street have their frontage on the side streets. There is only one house with only frontage on Oak on this portion of the street. The existing road surface is 40 feet wide, and slopes to the east from Chesterfield.
2. Glenhurst Drive to Chesterfield Ave. – This stretch of Oak Street has Quarton Elementary School on the south side, and a number of houses on the north side of the road that face Oak Street. There is an existing student drop off area on the south side of the street adjacent to the school, and during drop-off/pickup times there is a long queue of cars waiting to the west on the south side of the road. Based on conversations with staff at the Birmingham Public Schools, there is no space on this site to accommodate the parent drop-off/pickup space on the school site. We will be studying this section of the road in more detail at the MMTB, including school traffic patterns, getting feedback from the residents on their parking preferences, and working with the Birmingham Public Schools to ensure that the final road design will accommodate their needs.
3. West City Limits to Glenhurst Drive – The existing road is an unimproved capeseal surface with curb and gutter which is not scheduled for reconstruction as a part of this project. However, in planning for bicycle facility improvements, this portion of the road could be re-striped with this project to allow for a continuous bicycle lane from the west City limits to Quarton Lake.

At that meeting, three options for roadway cross sections were presented to the MMTB to consider for each of the three sections of Oak Street before sending them out to the residents on Oak for public comment. During the meeting, the MMTB reached a consensus on the options to present to the residents for the two sections between the West City Limits and Chesterfield Ave., and they are prepared to move forward with the public input phase on the project. The section of Oak Street between Chesterfield Ave. and Lakepark Drive was discussed further, and additional options were discussed that require City Commission approval before proceeding with the public input at the MMTB.

The Multi-Modal Transportation Plan proposal for the section of Oak Street between Chesterfield Ave. and Lakepark Drive included maintaining the existing pavement width, consolidating parking to one side to accommodate bike lanes, and installing curb extensions at three of the cross-street intersections to improve the pedestrian crossings. During the Multi-Modal Transportation Plan development public comment and visioning phase, there was very little input from the public on this section of Oak Street. The plan also shows alternating the side of the street that the parking is on, which would force traffic to deflect around the parking as driving down the street. This option is not recommended by the Engineering Dept. since it would severely limit parking based on the required taper lengths, the short distance between the side streets on this portion of the road, and the drive approaches for the houses that access Oak Street. There would be significant amounts of open pavement that would be striped for no parking to accommodate the tapers to shift traffic which could make the entire roadway feel wider, encouraging higher speeds. If the City is going to limit parking to this level, the Engineering Dept. recommends banning parking on this portion of Oak altogether and narrowing the road, resulting in lower construction costs and a more restricted space for drivers (which can have a traffic calming effect). This would also have the benefit of increasing the green space and distance between pedestrians on the sidewalks and any vehicular traffic.

Based on the Multi-Modal Transportation Plan proposal and the above information, the three options presented by the Engineering Dept. at the MMTB meeting included:

1. 31’ wide road cross section with two 10’ wide traffic lanes, and two 5’ wide bike lanes.
2. 35’ wide road cross section with two 10’ wide traffic lanes, and two 5’ wide bike lanes with a 2’ buffer.
3. 41’ wide road cross section with two 12’ wide traffic lanes with shared lane markings (sharrows), and two 8’ wide parking lanes. This is the existing pavement width. If this option is chosen, then curb extensions could be constructed as suggested in the Multi-Modal Transportation Plan.

During the MMTB discussion, a boulevard cross section was proposed for this section of Oak Street, as a way to calm the traffic. In response to the discussion at the MMTB, the Engineering Department has had revised cross sections drawn for consideration, which are attached to this memorandum with options A and B. The options for a normal roadway are shown in option A, and the options for a boulevard are shown under option B.

Based on the City’s experiences with the maintenance of the boulevards on Lincoln Ave. and Stanley Blvd., the following issues need to be considered:

1. There are ongoing maintenance costs that need to be considered with the boulevard cross section. Paul Matthews of the Department of Public Services has prepared the

attached memorandum outlining some of the operational issues involved in a boulevard cross section that would result in ongoing increased maintenance costs for snow removal, tree care and maintenance, and lawn mowing that would be borne by the City. Based on an average number of snow events that require clearing and plowing each year, the total estimated annual maintenance costs for the boulevard would be between $16,500 and $20,000. These costs were estimated based on the median island being wide enough to mow with a riding mower. If a narrower median island is used, these costs could increase with the need to use a push mower, which would be less efficient.

2. There are increased construction costs based on two set ups of the concrete paver being required, and an additional curb required along the median island. The curbs are hand formed after the paving machine sets the slab elevations, and are very labor intensive to install. This is expected to increase the concrete paving costs by 15 to 20%.

3. Operationally, there can be challenges with the boulevard cross section if vehicles stop or park, and traffic jumps the curb to pass. With the wider cross section (Option B2), this would likely be more of a problem than with the narrower cross section. This would be the same pavement width as Lincoln, but would have a narrower median island. This street would need to be signed for no stopping, standing or parking, and would need to be enforced to prevent people from jumping the curb. Drawings have been attached that show that service vehicles would be able to turn around at the intersection openings, and fire trucks will be able to make the right hand turns with both boulevard options.

Before presenting the boulevard cross section to the public along the route as an option for the reconfiguration of this street, staff felt that the City Commission should approve of the higher costs that would be involved, since they would likely need to come directly out of the street funds.

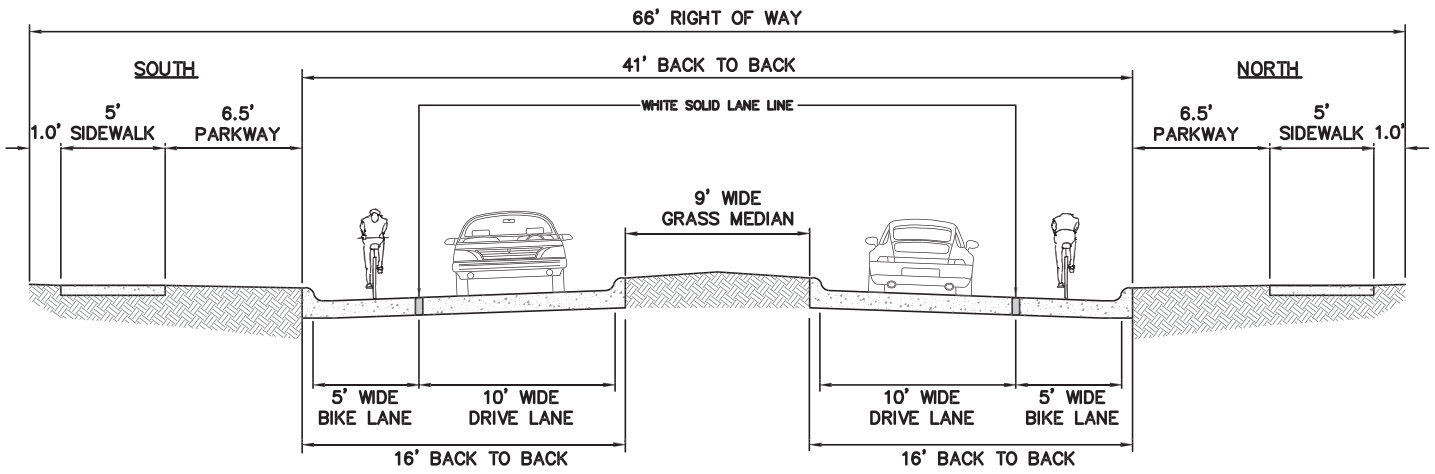
Another option that was discussed at the meeting was the installation of a crossing island to improve the pedestrian crossing at the intersection of Lakepark Drive and Oak Street. This would be similar to the crossing islands that will be installed on Lincoln Ave. later this year. A drawing showing this proposed crossing island is attached for your reference. While this would increase the cost of the project from a single roadway, the relatively short distance that would be affected would not increase the overall project costs, or significantly impact the long-term maintenance costs like a boulevard median island.

Two suggested resolutions are given below, if the City Commission is inclined to endorse either of these options for further consideration by the MMTB, which will be proceeding with the public input phase following the Commission's direction.

SUGGESTED RESOLUTION A:
To endorse the option of a boulevard cross section on Oak Street between Chesterfield Ave. and Lakepark Dr. for further consideration by the MMTB, to be presented to the residents along that route for further public comment before a final decision is made.

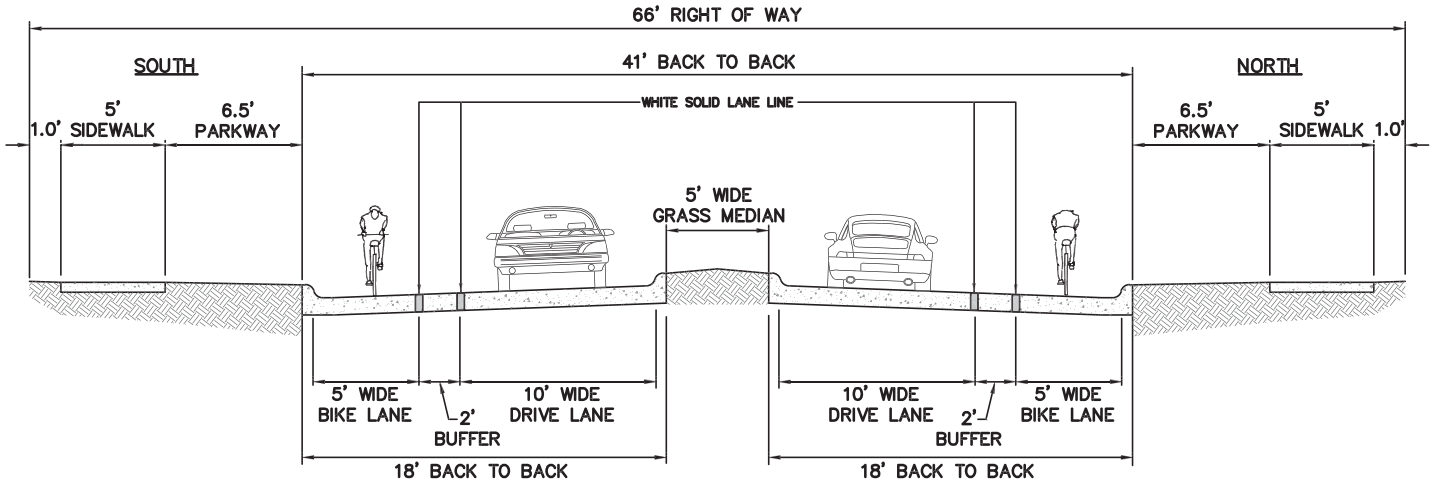
SUGGESTED RESOLUTION B:
To endorse the option of a crossing island on Oak Street at Lakepark Dr. for further consideration by the MMTB, to be presented to the residents along that route for further public comment before a final decision is made.

OAK AVENUE - CHESTERFIELD TO LAKEPARK "B"



OAK AVENUE - CHESTERFIELD TO LAKEPARK

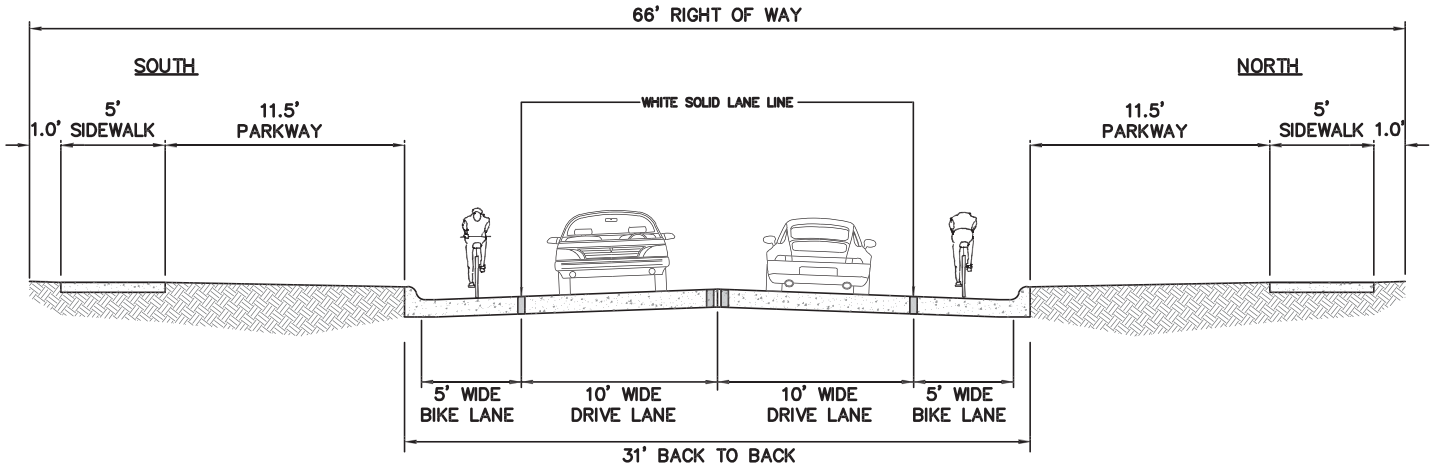
OPTION 1B



OAK AVENUE - CHESTERFIELD TO LAKEPARK

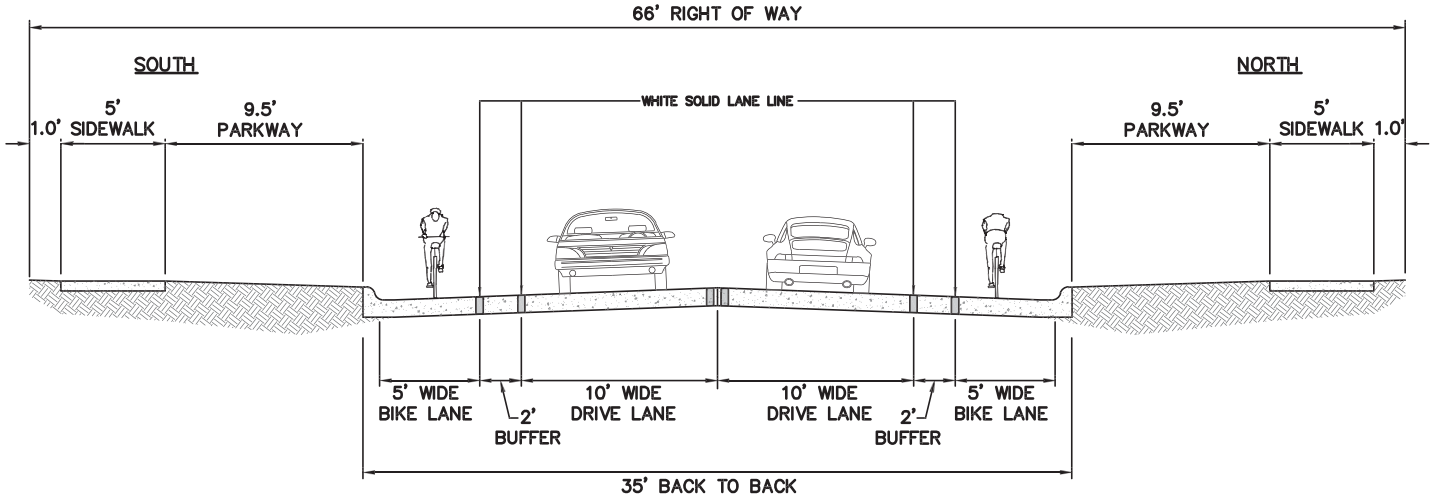
OPTION 2B

OAK AVENUE - CHESTERFIELD TO LAKEPARK "A"



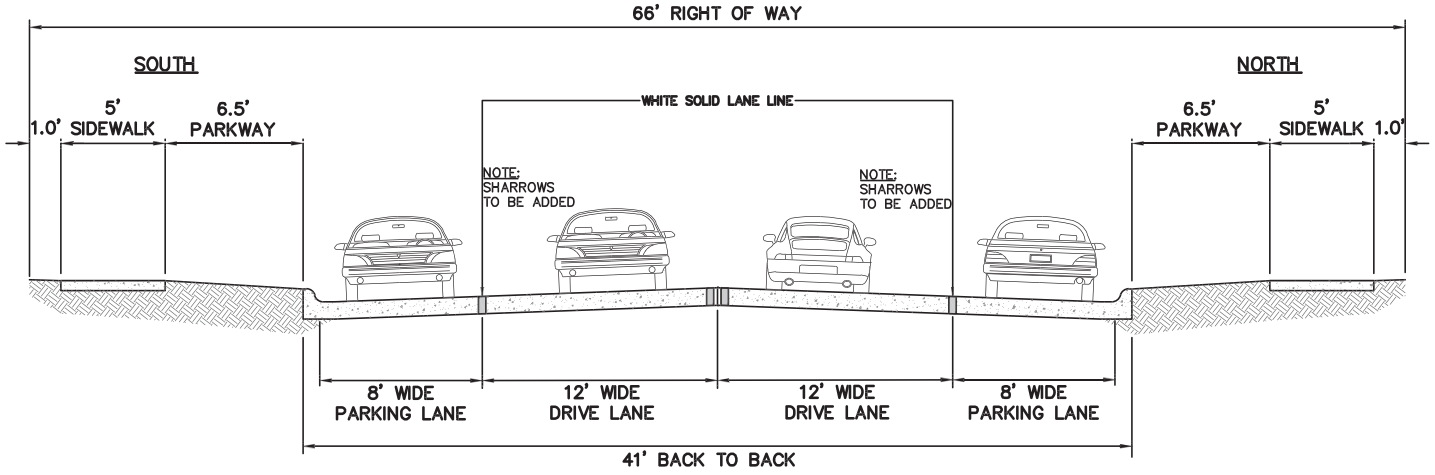
OAK AVENUE - CHESTERFIELD TO LAKEPARK

OPTION 1



OAK AVENUE - CHESTERFIELD TO LAKEPARK

OPTION 2



OAK AVENUE - CHESTERFIELD TO LAKEPARK

EXISTING

City of Birmingham
A Walkable Community

MEMORANDUM

Department of Public Services

DATE: **July 17, 2014**

TO: **Brendan Cousino, Assistant City Engineer**

FROM: **Paul Matthews, Public Works Manager**

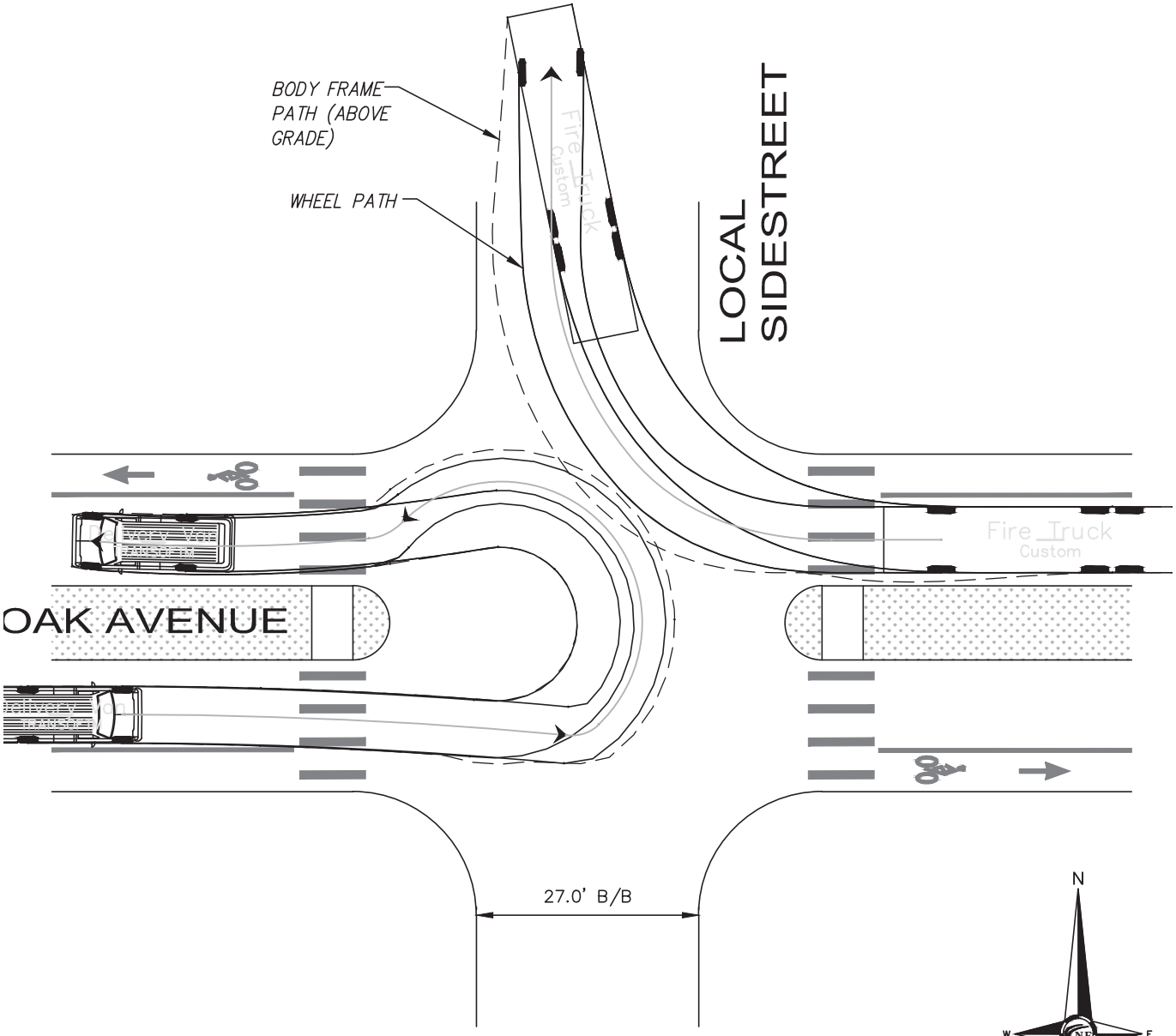
SUBJECT: **Oak Avenue Plan Review**

The Department of Public Services has reviewed the plans titled Oak Avenue – Chesterfield to Lakepark "A" and Oak Avenue – Chesterfield to Lakepark "B". Any of the configurations listed within "A" do not affect our operation. However, the two configurations listed within plan "B" would have a significant impact on our operation as well as add maintenance costs for the City.

The addition of a median down the center of Oak will create an additional area that will need special attention and maintenance throughout the year. The median will need lawn mowing, tree maintenance, and general lawn repairs throughout the season. One of our biggest concerns is the combined width of the traffic and bike lanes. Any time a service vehicle (trash truck, street sweeper, leaf truck, delivery van, landscaper) temporarily utilizes the curb side, vehicles will drive up on the grassy median to pass. This happens on W. Lincoln and creates the need to fix ruts at different times throughout the year. Street sweeping will take roughly 1 hour longer per sweep, further limiting the amount of time dedicated to residential streets. Snow removal will also require added time and costs. The cross walks will have to cleared every time it snows and the ends of the islands will require a small truck and plow to go behind the large trucks to do detailed plowing. At different times throughout the winter season, a front end loader and dump trucks will have to haul away the snow that accumulates at the ends of each island to ensure proper sight lines for traffic.

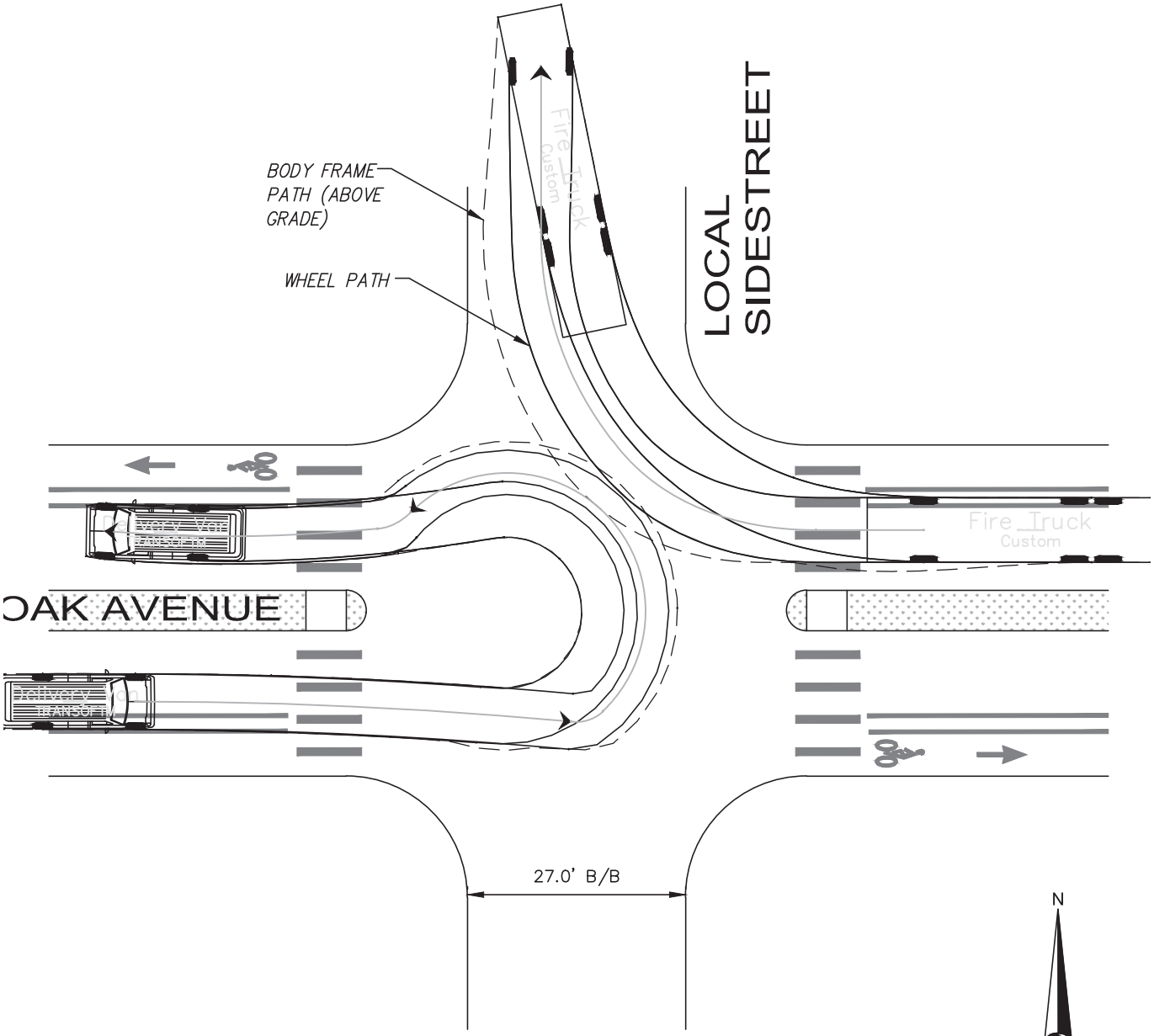
The following is an estimate of the increased maintenance costs associated with the installation of a median down the center of Oak Avenue from Chesterfield to Lakepark:

Lawn Mowing	$3500-$4000 (per season)
Tree Care	$2500
Lawn Maintenance	$1500 (rut repair, over seeding, etc.)
Street Sweeping	$2150 (based on 20 sweeps per year)
Snow Plowing	$360 (per snow event for detail work around islands)
Snow Hauling	$440 (when necessary to clear sight lines at ends of islands)
Snow Shoveling	$200 (every time it snows)



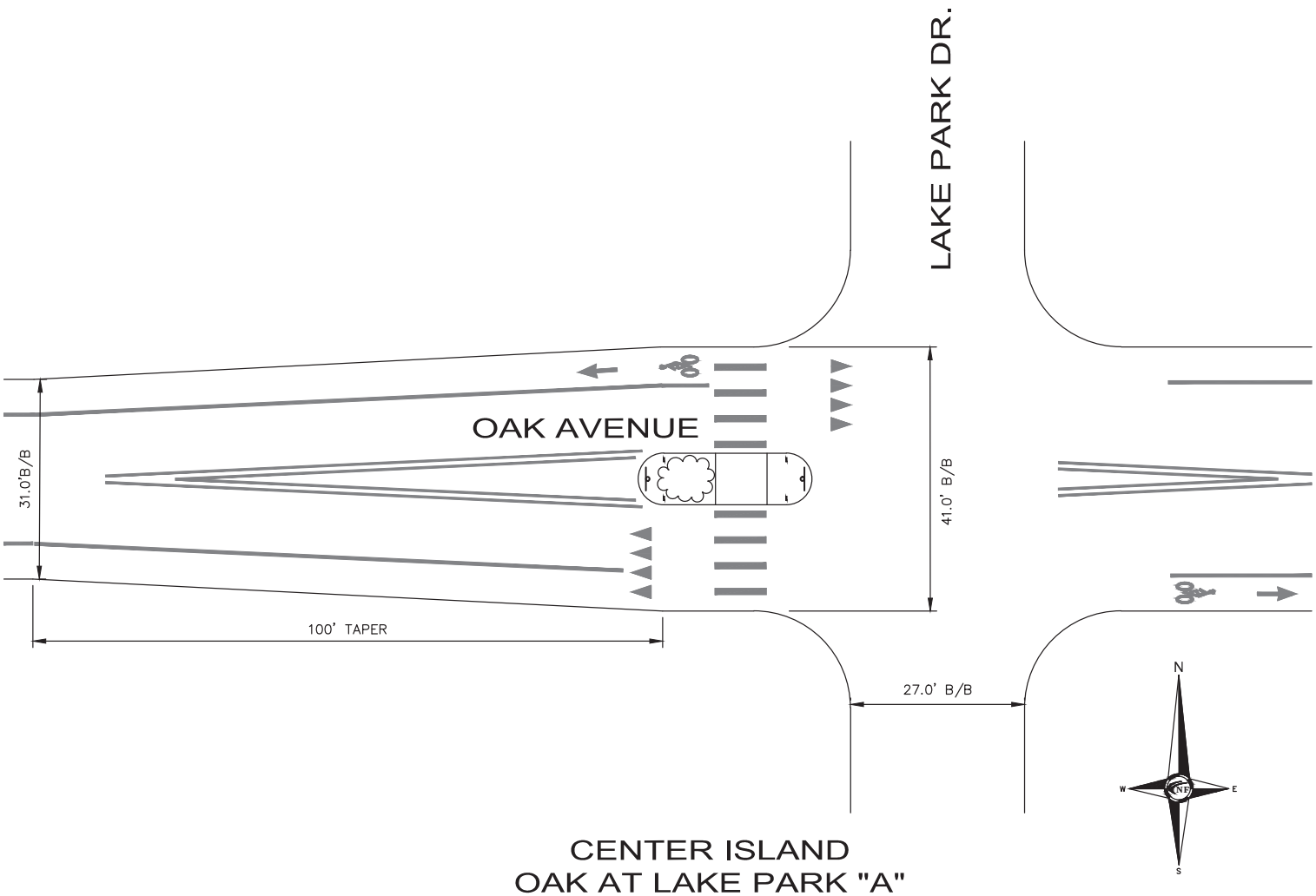
FIRE/DELIVERY TRUCK TURNS
OAK TO LAKEPARK "B"
OPTION 1B

SCALE: 1" = 20



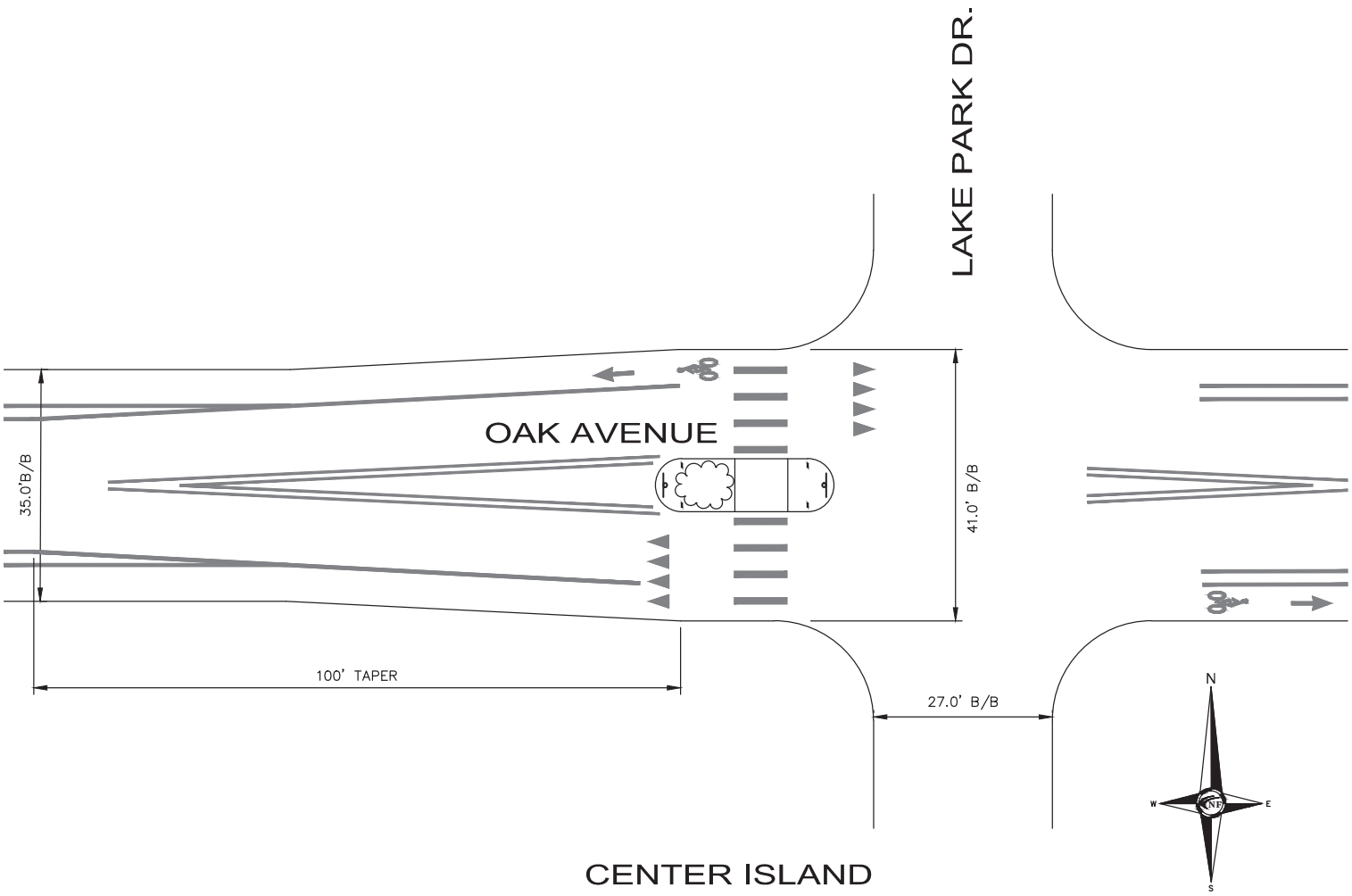
FIRE/DELIVERY TRUCK TURNS
OAK TO LAKEPARK "B"
OPTION 2B

SCALE: 1" = 20



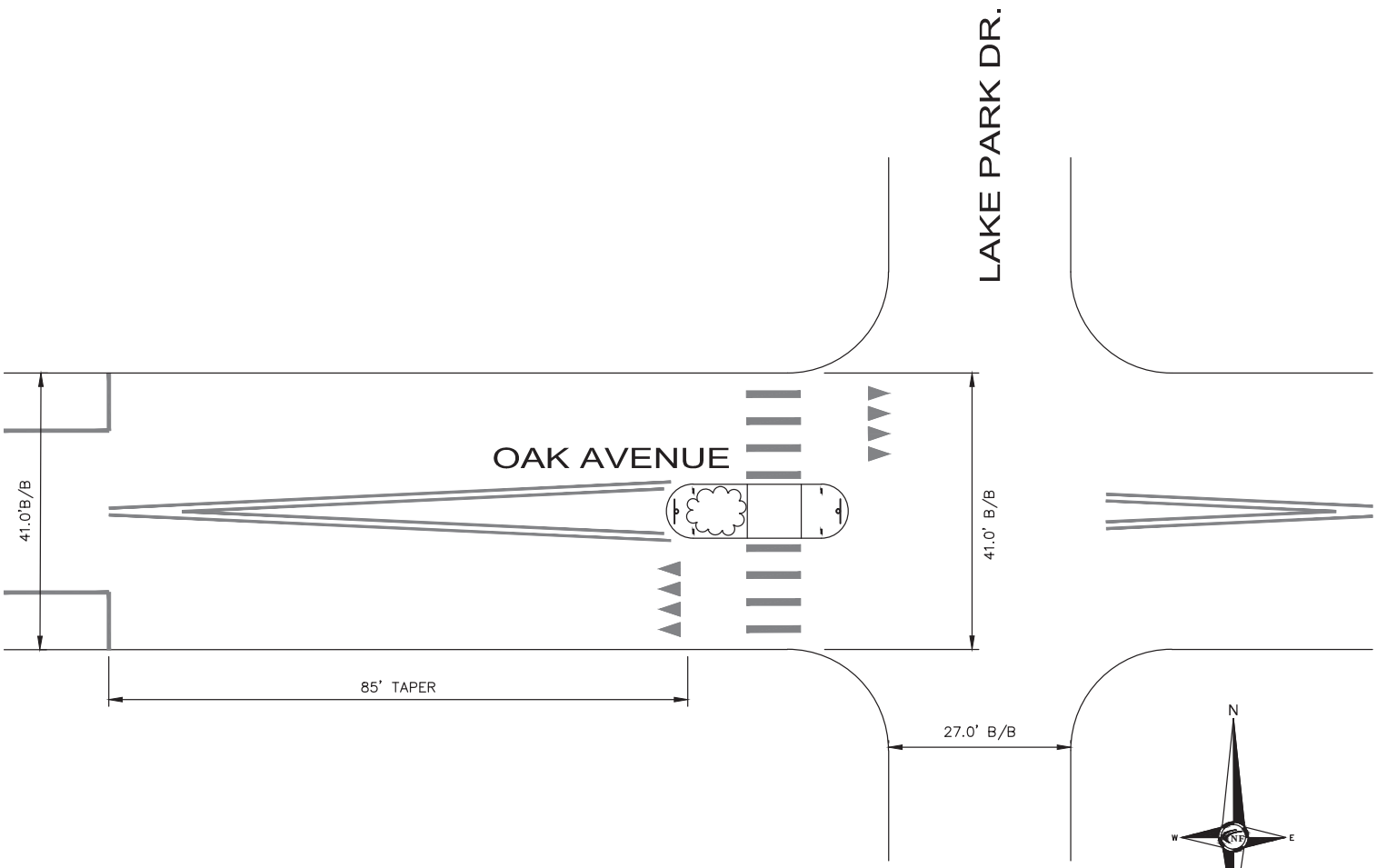
CENTER ISLAND
OAK AT LAKE PARK "A"
OPTION1

SCALE: 1" = 20'



CENTER ISLAND
OAK TO LAKE PARK "A"
OPTION2

SCALE: 1" = 20'



CENTER ISLAND
OAK TO LAKE PARK "A"
EXISTING

SCALE: 1" = 20'

Harry G. Kokkinakis

July 21, 2014

Birmingham City Commission
151 Martin Street
Birmingham, MI 48012

Dear Commissioners,

Approximately one month ago, several petitions circulated in our neighborhood regarding the proposal to convert West Maple Road from four to three lanes. My wife and I did not have an opportunity to sign either petition, however, we are adamant that a change of this magnitude be studied by a traffic engineer prior to expenditure of any funds in the planning of a traffic lane reduction. A decrease in the level of service on West Maple Road will result in an increase of traffic through our neighborhood which is of great concern. Midvale Street has experienced an increase of traffic over the years due to congestion on West Maple Road and we believe that a reduction of traffic lanes will exacerbate the problem in our neighborhood.

Sincerely,

598 Golf View Boulevard Birmingham, Michigan 48009 248.496.2530

Meltropolis
beyond municipal borders

What's Up With Those Green Markings?

Posted on **August 3, 2014**

Something looks really different about the Livernois bikes lanes than most motorists and cyclists have not seen or experienced in Michigan communities. Bike lanes help cars and motorists co-exist safely. Buffered bike lanes, which is the first type of bike lane in Ferndale, is another level of safety up from a conventional bike lane.

The City of Ferndale recently finished installing new pedestrian and bicycling safety features on Livernois Street that extend into the City of Detroit. I've received many questions about what the "green paint patch" on the street means and how do motorists and cyclists navigate these new lane marking features. I've also received questions about why these bike lanes are even necessary because it impedes expedient car travel. I'll address that question in another blog post. But for now, I explain the purpose of the buffered bike lanes and how to use them, along with the new pedestrian safety crossings.

What's the difference between a conventional and buffered bike lane?
Buffered bike lanes have striped lines between the vehicle travel lane and the bike lane – as you can see below, they "buffer" the bike riders from auto traffic.

– Conventional bike lane, Hilton & 9 mile

– Buffered bike lane

What safety features were added to the street?

Making space for buffered bike lanes on Livernois required what urban planners call "a road diet", reducing the number of car travel lanes. Livernois was reduced from five car travel lanes to two without impacting the flow of traffic. For years, on street parking was not allowed, however, business owners could request city council to grant them the ability to park on the street. It no longer made sense to grant parking waivers on an ad-hoc basis because a majority of business owners wanted on-street parking. As part of this project, the City included white striping to indicate that on-street parking is allowed and encouraged. In addition, pedestrians had very few safe places to cross the five lane road. Now we have signaled pedestrian walk ways, or mid-block crossings with highly visible "zebra" markings. And of course, on-street bike parking.

What are the green patches?

The green patch indicates "Watch out! A bike could cross here". Technically, the green patches are called "conflict points" which are designated areas where bicyclists and motorists may meet during travel, and therefore both should excise heightened awareness about the possible presence of one another.

– Pedestrian mid-block crossing

How do I navigate the Livernois right turn lane onto 8 mile?

At the right turn lane, the green patch indicates the bicyclist will go straight, and then wait at the traffic light. Watch as I approach the intersection.

I'll explain the rule, then walkthrough what happens in the video.

Rule: Yield to bicyclist. When turning right, motorists need to yield to bicyclists going straight.

In Action: The first car up allows me to pass through the green zone before crossing to the right turn lane. This is correct way to interact with a bicyclist. If the motorist sped ahead to get in front of me, basically cutting me off, then that would be an improper take over.

Rule: Avoid the early merge.

In Action: The second silver Escape enters the right turn lane too soon, crossing well ahead of the dashed lines indicating a safe place to cross the bike lane. Cars are discouraged from crossing over too soon.

Remember bicyclists need to stop at all traffic lights and stop signs.

Biking Across Eight Mile

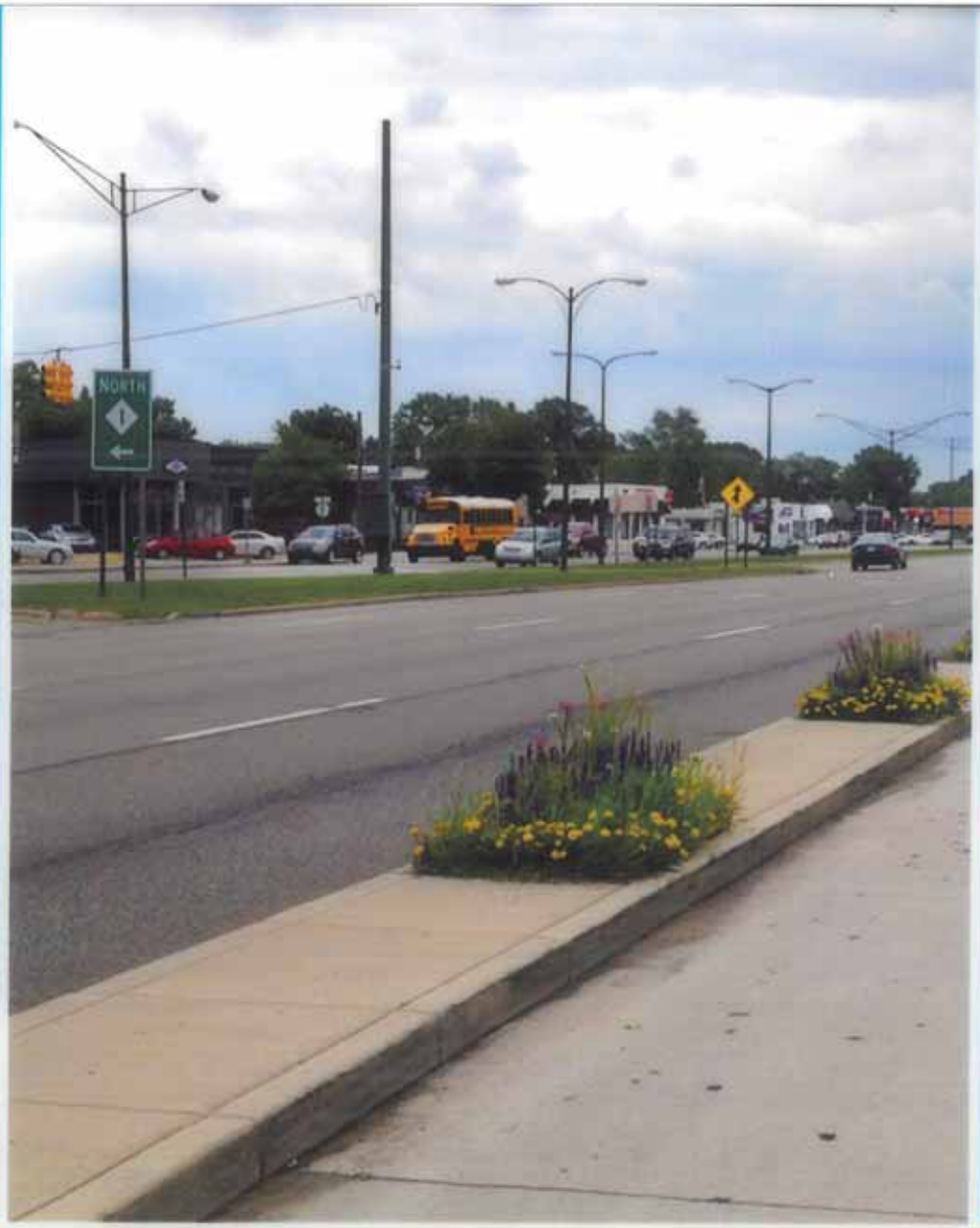
Eight mile is a scary eight lane nightmare to cross for pedestrians and bicyclists. I bike across this intersection regularly, as do many other cyclists. With simple paint markings, it is now much safer to make your way through this intersection. After crossing over into Livernois on the Detroit side, the buffered bike lanes end and the bike sharrows begin. The street width on Detroit's side of Livernois is narrower than in Ferndale, thus the need for bike sharrows. I love this project because Ferndale City Council believes in making stronger connections to our neighboring communities, including Detroit. While I have bigger design visions for our Eight Mile border crossings, simple paint markings go a long way here to strengthen our connectivity.

On the same day viewing the Tour De France this late July, I watched through my car window while approaching Livernois, a large group of hard core cyclists biked through the Fielding and LIvernois intersection. A smile crept to my lips, as I watched in awe that the local "Peloton", approximately 20-30 enthusiastic cyclists, moved through our community. They chose Livernois as a preferred street to bike. I've also seen an increase in the number of parents on bikes pulling their kids in trailers because they feel safer on the buffered lanes. While the benefits are visibly immediate, the impact on the neighborhoods, businesses and community will be longer term–higher real estate value and more desirable place to live and start a business.

citations:

What Every Michigan Driver Should Know About Bike Lanes, Michigan Secretary of State.
National Association of City Transportation Officials Urban Bike Lane Design Guide
Ferndale Moves Livernois Street web page

This entry was posted in **Uncategorized** by **oboemabo**. Bookmark the **permalink [http://www.meltropolis.com/blog/?p=208]** .



Qualifications to provide Professional Services

Transportation Engineering Consultant

City of Birmingham, MI

July 31, 2014

WadeTrim

WADE TRIM

July 31, 2014

City of Birmingham
P.O. Box 3001
Birmingham, MI 48012

Attention: Paul O'Meara, Jana Eckler and Mark Clemence

Re: RFQ Transportation Engineering Consultant, SOQ-TE

Dear Mr. O'Meara, Ms. Eckler and Mr. Clemence:

As a premier community within southeast Michigan, the City of Birmingham has adopted a Complete Streets resolution to improve multi-modal transportation in the City. They are committed to creating improved facilities and safer interactions between vehicular traffic and pedestrians, bikes and transit traffic along the City's roadway network. As one of the first actions in implementing the Multi-Modal Transportation Master Plan, the City created a Multi-Modal Transportation Board to take over the duties of the previous Traffic & Safety Board and oversee development roadway infrastructure projects in the community with an eye towards enhancing multi-modal aspects of those projects.

The City seeks the assistance of a professional engineer with multi-modal design and implementation skills along with traffic engineering expertise to act as a consultant to the Board. To fill that role, Wade Trim provides the City a qualified team of traffic and transportation engineers led by Lori Pawlik, PE, who will act as representative to the Board and be available per the requirements of the Request for Qualifications.

We look forward to the opportunity to assist the City with this important endeavor. If you have questions or need additional information regarding our qualifications, please contact us at 734.947.9700 or 800.482.2864.

Very truly yours,

Wade Trim Associates, Inc.

Lori Pawlik

Lori Pawlik, PE
Lead Traffic Engineer/Project Manager

Matthew J. Stacey, PE
Vice President

Wade Trim Associates, Inc.
25251 Northline Road
P.O. Box 10
Taylor, MI 48180

734.947.9700
800.482.2864
734.947.9726 fax
www.wadetrim.com

Table of Contents

1 Wade Trim Team and Firm Overview

To best serve the City of Birmingham, our Team will be led by Lori Pawlik, PE, who will act as the traffic engineer on-call to the Board. Lori will be backed by Martin Parker, PE, Jill Bosserd, EIT, and Matt Stacey, PE.

Wade Trim

Wade Trim has built a foundation of excellence over the past 88 years, providing a range of urban design, community planning and design, engineering, and landscape architecture services to public and private entities. Founded and incorporated in 1926, Wade Trim's combined resources include more than 300 employees in 16 offices in six states. The City of Birmingham will be served by our Taylor office:

Wade Trim Associates, Inc.
25251 Northline Road
P.O. Box 10
Taylor, MI 48180
734.947.9700
800.482.2864
MStacey@wadetrim.com
www.wadetrim.com

Wade Trim's transportation engineers integrate local issues into overall solutions to deliver context-sensitive designs for both motorized and non-motorized users. Our engineers understand the habits of motorists and pedestrians to recognize how they interact in transportation systems. Various studies are performed including operational analyses and traffic impact studies to generate safe, efficient, and convenient movement of people and commerce. We have been instrumental in master planning and signal improvements for many non-motorized transportation projects. Wade Trim maintains many prequalifications with MDOT, including all in the *Traffic and Safety Services*, Transportation Planning Services, and Design Services Groups.

Wade Trim has worked with the City of Birmingham as well as various Oakland County Departments including the Planning and Economic Development Services, Parks and Recreation, Road Commission, and Water Resources Commissioner's Office. Wade Trim worked closely with the Road Commission and Henry Ford Health Systems (HFHS) to analyze and mitigate traffic impacts of the West Bloomfield Hospital. We worked with the RCOC, HFHS and West Bloomfield Township to secure funding for the Maple Road corridor (Northwestern Connector project), to improve traffic operations, safety and economic development of the area.

Wade Trim has provided engineering, surveying and planning services to the following clients located in Oakland County over

2 Wade Trim Team and Personnel

Wade Trim has a dedicated transportation group consisting of more than 30 professionals performing transportation and traffic engineering tasks on a regular basis. We have identified Lori Pawlik, PE, to act in the role of Lead Traffic Engineer servicing the Multi-Modal Transportation Board, including attendance at all meetings, study sessions and managing tasks and projects as directed by the Board. Lori will draw on the various resources available to her at Wade Trim. Lori's expertise in traffic engineering will be supplemented by key individuals from Wade Trim's transportation group with specific expertise to best service the Board. Martin R. Parker Jr., PE, with 48 years of experience, is a seasoned traffic engineer with expertise in traffic safety, operations and engineering; Matt Stacey, PE, is a 20-year veteran of road design, and; Jill Bosserd, EIT, is an expert in traffic signal design and timing operations. Lori will work with and be supported by these individuals as well as Wade Trim's entire transportation staff and other company resources.

Wade Trim will perform any requested services in-house. In addition to the resources and expertise available in Wade Trim's transportation group, Lori will also be able to utilize staff and resources from all areas of the company, including technicians and engineers from Wade Trim's other market segments as-needed. For example, a major signal optimization study may require multiple teams of technicians to collect traffic data in a finite amount of time. Wade Trim has the resources to accomplish this and tasks like it.

2.1 Wade Trim Personnel

Lori Pawlik, PE, will serve as Lead Traffic Engineer on-call to the Board. She has 14 years of experience as a traffic engineer, with a Master's of Science degree in Traffic Engineering, which included a semester of transit design class taught by an MDOT transit engineer. Lori not only has prepared traffic safety, operational and non-motorized studies, but also has extensive experience as the role of traffic engineer on a large variety of roadway design projects involving multi-modal design. In her multi-modal analyses and design, she has extensive familiarity and understanding of the multi-modal standards, such as those found in the Michigan Manual on Uniform Traffic Control Devices, MDOT Traffic and Safety Notes, Section 400 – School & Pedestrian Traffic Control, FHWA's PEDSAFE: Pedestrian Safety Guide and Countermeasure Selection System, FHW's BIKESAFE: Bicycle Countermeasure Selection System, ITE's Design and Safety of Pedestrian Facilities, and AASHTO's Guide for the Development of Bicycle Facilities.

projects, pre-cast bridges, sign inventory projects, and freeway/freeway interchange design projects. Matt is the Transportation Services Group Manager for our Taylor office, and has been the technical and management lead for numerous transportation projects ranging from large urban freeway to local street resurfacing projects. His experience includes design and management of freeways, interchanges, boulevards, collector roads, as well as minor and major arterials – all of which have included complete streets concepts from addition of bike lanes, to mobility improvements for both vehicles and pedestrians, and efforts to provide for traffic calming and safety improvements. He has managed reconstruction projects, resurfacing project and CPM projects. He engages with a wide variety of clients including the Michigan Department of Transportation, Counties, Cities, Townships and Villages, DDA'a and Economic Development Corporations. Matt's previous roles have given him insight and experience into implementing complete streets concepts into designs in and efficient and cost effective manner.

Jill Bosserd, EIT, is a traffic engineer with 13 years of experience. Her background with a variety of transportation projects has focused on traffic signal design and operations. Jill will be responsible for any reviews, studies or designs that require signal operations, enhancements, installations or improvements. She will work under Lori's direction as assignments are received from the Board. Jill has served as project engineer for hundreds of traffic signal modernizations throughout the state, and her experience includes performing traffic signal design work and calculations, developing pay items and special provisions for construction using e-proposal, preparing quantity and engineers estimates, developing traffic signal timing plans, and preparing timing permits using MDOT's clearance interval calculation spreadsheet and the Michigan Timing Plan Preparation Guidelines. Other project responsibilities include mitigating intersection operational deficiencies using Highway Capacity Software and Synchro, and performing signal optimization studies using Synchro and SimTraffic.

Complete Streets Experts

New legislation changes Michigan's approach to building roads. Complete Streets requires that consideration be given to all road users, not just vehicles, and that MDOT and municipalities consult with one another when planning a non-motorized project that affects a transportation facility. Communities adopting their own Complete Streets policies are best positioned to advance implementation of their own transportation goals.

Wade Trim facilitated the 20-year Battle Creek Non-motorized Plan with the City's Parks and Engineering Departments.

Lori J. Pawlik, PE

Role
Lead Traffic Engineer (On-Call)

Education
BS, Civil Engineering,
Wayne State University, 2000

MS, Civil Engineering,
Wayne State University, 2005

Registration
Professional Engineer, 2005,
Michigan #6201052560

Special Training
- Safety Analysis Using the AASHTO Highway Safety Manual, Center for Technology and Training, 2013
- Road Safety Audits, Southeast Michigan Council of Governments, 2010
- Identifying Barriers and Engineering Solutions for Safe Routes to School, Institute of Transportation Engineers, 2006
- Interchange Justification Studies, ODOT Traffic Academy, 2006
- Signing and Markings, ODOT Traffic Academy, 2006
- Access Management, MDOT, 2003

Traffic Analysis and Software Skills
- Synchro Studio 7
- CORSIM
- Highway Capacity Software
- Microstation
- Microsoft Suite 2007

Professional Affiliations
- Institute of Transportation Engineers, International and Michigan Sections
- Engineering Society of Detroit

Lori Pawlik is a Traffic Engineer with experience conducting traffic engineering, highway design, and transportation planning studies ranging from access management plans to traffic impact studies. Lori is responsible for conducting traffic operations and safety investigations using simulation modeling, conducting feasibility and parking studies, and traffic impact site studies. Previously employed by the Wayne State University Department of Civil and Environmental Engineering, she conducted traffic counts and prepared crash analyses and condition diagrams.

Representative Project Experience

- Reconstruction of M-85 from Sibley Road to Goddard Road, Wayne County, MI, MDOT - Traffic Engineer responsible for conducting capacity analyses and traffic engineering operations on this four-mile urban arterial boulevard. Lori conducted extensive operational analyses, crash analyses on the corridor, highway capacity analyses at 20 signalized intersections, and a signal optimization study for the corridor. She also conducted the access management analyses on the corridor, and the investigation of pedestrian accommodations and ADA-compliant ramps, the on-street and on-site parking studies, and preparation of permanent traffic signing and marking plans. The project also included special Intersection Safety and Operational Investigations at the two intersections of M-85 (Fort Street) and Pennsylvania Road, and M-85 (Fort Street) and Quarry Road and traffic signal warrant studies at three intersections. The studies identified highway engineering deficiencies contributing to safety risks associated with the unusual geometry at the intersections. The safety analysis effort included collecting traffic data, preparing crash analysis and collision diagrams, performing traffic conflict and human factors analyses, conducting capacity analyses using procedures outlined in the 2000 Highway Capacity Manual.

- M-97 Rehabilitation from South of Hayes Road to 14 Mile Road, Cities of Warren, Roseville, Fraser in Macomb County, MI, MDOT - Traffic Engineer for the rehabilitation of 3.55 miles of urban arterial roadway. Responsibilities included conducting safety studies and operational analysis of geometric design and traffic control elements, and evaluation of intersection improvements including non-motorized accommodations with ADA-compliant features, traffic signal design, and an access management report. Lori also prepared the permanent signing plans and conducted a Signal Optimization Study for the 13 intersection network on M-97 including preparation of Synchro models for existing conditions, optimized conditions, and mitigated conditions. The Synchro models were modified to determine the best signal timing options during stage construction, and signal timing permits are being developed. She also prepared signal timing permits for the multiple stages of construction.

- I-275 Bike Path Asset Management, Wayne and Oakland Counties, MI, MDOT/Wilbur Smith Associates - Traffic Engineer responsible for conducting a study of pedestrian crossings along the I-275 Bike Path in Western Wayne County. Lori conducted a field review at each

Martin R. Parker, PE

Role
Traffic Engineering Support

Education
MS Civil Engineering, University of Virginia, 1977

BS Civil Engineering, University of Virginia, 1975

Registration
Professional Engineer, MI, VA

Professional Affiliations
- Institute of Transportation Engineers
- American Society of Civil Engineers
- Transportation Research Board

Presentations
Maximizing Traffic Safety in Michigan, Traffic Safety Summit, East Lansing, March 2007

School Site Planning for Safe Transportation, Designing Healthy Livable Communities Conference, East Lansing, Nov. 2006

Safe Routes to School and Safety Audits, Transportation Forum, East Lansing, 2003

Martin Parker, Senior Transportation Engineer, provides comprehensive traffic engineering and safety management services to governmental agencies and private sector concerns. His expertise includes highway and non-motorized trail planning, design, operations analysis, and evaluation for vehicular and non-motorized modes. Martin has considerable experience working with multiple stakeholders including planning commissions, regional and national agencies, developers, Departments of Transportation, and the public. His projects include intersection and roundabout design with ADA requirements, bike and pedestrian access trails and parking studies. He has 48 years of experience and has written numerous traffic and safety reports and training manuals for the Federal Highway Administration and state and local agencies.

Representative Project Experience

- City of Battle Creek Non-Motorized Transportation Network Master Plan - Traffic Engineer responsible for determining the need and feasibility of developing trails and other pedestrian and bike accommodations to link origins with major destinations such as the downtown area. The effort involved coordination and input from City officials, MDOT, Calhoun County, schools, and interest groups; conducting two public hearings; and developing conceptual plans for bicycle lanes on three major streets. During plan development the City requested signing and marking expertise to implement bicycle lanes along two existing street corridors. These were the first bicycle lanes in Battle Creek in the modern era. The plan was completed and approved in 2006 with implementation scheduled as each new road improvement segment is designed and constructed. Full implementation of the plan was forecast over a 20-year period, however, due to public interest 60 percent of the plan was implemented by 2010.

- Davison Township Non-Motorized Connectivity Study. Traffic Engineer responsible for identifying the need, location, and conceptual design of non-motorized accommodations in Davison Township. The objective of the study was to develop a plan for providing connectivity between residential areas and attractions such as schools, parks, trails, etc. Special attention was given to providing non-motorized accommodations at street intersections. Two public hearing were held to obtain input and to preview the final plan. The plan is currently being implemented by the Township.

- West Bloomfield Trail Extension, West Bloomfield Township Parks and Recreation Commission, Oakland County, MI - Worked on the crossings for this project that involved the design of a 2.75 mile multiple purpose trail along the existing alignment of an abandoned railroad. It included nearly 13,000 feet of aggregate path meeting the requirements of the AASHTO Guide for the Development of Bicycle Facilities, 2004. Additionally, the project contained a 400 foot boardwalk over a protected wetland, multiple scenic outlooks, ADA compliant roadway crossings, and the installation of a rectangular Rapid Flashing Beacon.

Matthew J. Stacey, PE

Role
Road Design Engineering Support

Education
MS, Civil Engineering, University of Michigan, 1994

BS, Civil Engineering, University of Michigan, 1993

Registration
Professional Engineer - MI, FL

Professional Affiliations
American Society of Civil Engineers
ACEC Transportation Committee

Training
- Principals Training (2014)
- Complete Streets (ITE) (2010)
- Pedestrian Crossings (ASCE) (2014)
- Project Management (2006)
- Engineering Leadership (2003)
- Planning and Design of Service Interchanges (2002)
- EPE Analysis and Documentation (2001)
- Bentley Storm & Sanitary SC Training (2001)
- InRoads Design Software (1999)
- Highway Railroad Grade Crossing (1998)
- Pavement Rehabilitation
- ASCE Hydraulics & Hydrology Workshop (1997)
- Highway Sight Distance (1997)
- Pavement Design (1997)
- National Environmental Protection Agency and the Decision Making Process (1997)

Matt has managed the design of many surface transportation projects throughout Michigan including urban and rural arterial reconstruction and resurfacing projects. He is experienced in dealing with a multitude of traffic maintenance issues, geometrics, drainage, and complex road design parameters, as well as varying formats for plan preparation such as log projects and full sized plans. His experience also includes projects with a multitude of local stakeholder issues and environmental concerns, along with the challenges of integrating the design of complete streets and multi-modal facilities into road design projects. He has a proven track record of successful design and completion of road design projects for many entities including MDOT, local municipalities and county road agencies making him an ideal candidate to provide road design support as needed.

Representative Project Experience
- M-24 Improvements from Harmon Road to Goldengate Road, City of Auburn Hills & Charter Township of Orion, MDOT Oakland TSC - Project Manager for about 5 miles of roadway rehabilitation and resurfacing along a boulevard section of roadway comprised of significant operational and intersection improvements along with crossover relocation, concrete repairs, milling and resurfacing, drainage system upgrades to accommodate increased runoff, driveway modifications for access management improvements, ADA sidewalk ramp upgrades, 4 miles of safety path, traffic signal modernizations, pavement marking and upgrading of traffic signs.

- M-85, Fort Street, Sibley Road to Goddard Road, MDOT - Lead Road Engineer for the design and preparation of plans for four miles of boulevard reconstruction running through Southgate, Riverview, Lincoln Park, and Wyandotte. Analyzed and designed drainage, geometric and intersection improvements, and complex traffic maintenance. The project also included coordination of right-of-way issues and public involvement.

- M-85 (Fort Street) Reconstruction from Miller Street to Springwells Street, City of Detroit, Wayne County, MI - Lead Road Design Engineer for the design and preparation of plans for 0.98 miles of total reconstruction of M-85 in southeast Michigan. The project includes analysis and design of geometric and intersection improvements, in-depth traffic analysis of crossovers and turning movements, utility coordination, traffic signal design, signing upgrades and complex traffic maintenance. It included coordination of right-of-way issues and public involvement.

- M-97 Rehabilitation from South of Hayes to 14 Mile Road, Cities of Warren, Roseville, Fraser in Macomb County, MI, MDOT - Project Manager for the rehabilitation of 3.55 miles of urban arterial roadway. Project elements included HMA milling and

Jill N. Bosserd, EIT

Role
Signal Design Engineer

Education
BSCE, Michigan State University, 2001

Continuing Education
Introductory Controller Seminar, Carrier & Gable, 2002

Flashing Yellow Arrow Seminar, Carrier & Gable, 2007

Designing Pedestrian Facilities for Accessibility, 2010

Registration
EIT, Michigan, 2002

Professional Affiliations
- Institute of Transportation Engineers
- International Municipal Signal Association

Jill Bosserd is a Traffic Engineer with 13 years of experience. Her background with a variety of transportation projects has focused on traffic signal design and operations. Jill has served as project engineer for hundreds of traffic signal modernizations throughout the state, and her experience includes performing traffic signal design work and calculations, developing pay items and special provisions for construction using e-proposal, preparing quantity and engineers estimates, developing traffic signal timing plans, and preparing timing permits using MDOT's clearance interval calculation spreadsheet and the Michigan Timing Plan Preparation Guidelines. Other project responsibilities include mitigating intersection operational deficiencies using Highway Capacity Software and Synchro, and performing signal optimization studies using Synchro and SimTraffic.

Representative Project Experience

- M-59 at Crooks Road Interchange Reconstruction (Design-Build) City of Rochester Hills, Oakland County, MI - Project Engineer responsible for developing traffic signal plans associated with the design-build delivery of an interchange reconstruction. The traffic signal design scope included the modernization of the signals at Crooks Road and the eastbound M-59 ramps, Crooks Road and the westbound M-59 ramps, and Crooks Road and Star Batt Drive, as well as the preparation of traffic signal staging plans for multiple stages of construction. All three signals were upgraded to box spans with video detection (using Autoscope Cameras) and countdown pedestrian signals. The Star Batt Drive intersection also included the design of ADA compliant pushbutton placement and sidewalk ramps. Traffic signal staging plans were also prepared for the Crooks Road and Northfield Drive intersection, which included temporarily removing a mast arm and utilizing a temporary diagonal span. Jill's project responsibilities included preparing the traffic signal designs (including performing the necessary design calculations) and coordinating with utilities, the MDOT Signals Unit, and the electrical contractor performing the signal work.

- M-97 Rehabilitation from South of Hayes to 14 Mile Road, Cities of Warren, Roseville, Fraser in Macomb County, MI, MDOT - Project Engineer responsible for signal design as part of a roadway rehabilitation project along M-97 from Martin Road to 14 Mile Road. The signal design scope included upgrading diagonal spans to box spans, installing side street and left-turn actuation, upgrading to the flashing yellow arrow left-turn signal at intersections with permissive/protected left-turn phasing, and upgrading pushbutton placement and sidewalk ramps to ADA compliance at 7 intersections, as well as preparing traffic signal staging plans for multiple stages of construction. Due to the severe skew of the intersections, suspended box spans were utilized at several locations to meet cone of vision requirements. Louvers were also used

M-85 (Fort Street) from Sibley Road to Goddard Road

Client: Michigan Department of Transportation

Completion Date: November 2013

Services:

- Design and preparation of plans
- Staged construction
- Drainage design
- Intersection improvements
- Traffic analysis of crossovers and turning movements
- Traffic signal design
- Signing upgrades

The M-85 project in the Downriver area of southeast Michigan included design and preparation of plans for four miles of total reconstruction of a boulevard (Fort Street) in the cities of Southgate, Riverview, Lincoln Park and Wyandotte. The project included analysis and design of a complex drainage system, geometric and intersection improvements, in-depth traffic analysis of crossovers and turning movements, traffic signal design, signing upgrades and complex traffic maintenance. The project also included coordination of right-of-way issues and public involvement.

Several traffic studies were conducted as part of this project. Three intersections were evaluated for safety and operations including two five-point intersections. The geometry of all three was altered to improve operations and increase the safety of the intersections. These changes varied from elimination of movements, adding turn lanes, and changing signalization. Wade Trim also evaluated the parking and access management. On-street parking was reconfigured to create "bump-outs" along the corridor. These bump-outs were designed to eliminate parking in clear vision triangles at side streets and driveways. We worked with local businesses and the communities along the corridor to balance driveway openings with on-street parking. Several driveways were identified for closure or combination with other driveways.

A pedestrian study was conducted of the corridor. Field observations of pedestrian movements and destinations were completed. From this information, safe and convenient crosswalks and non-motorized paths were identified. We worked with the communities, MDOT and the FHWA to identify sidewalk gaps and locations to add sidewalk to improve pedestrian mobility. Several traffic staging concepts, signal warrant, capacity and crash analyses were conducted as part of the project.

A corridor signal timing analysis was conducted to determine the optimized signal timings on the corridor with the new design improvements, including additional pedestrian phases. The results indicated that optimizing the signals alone, without equipment or geometric improvements, would have significant impact. By adding safety and operational features such as pedestrian

M-97 Reconstruction from South of Hayes to 14 Mile Road

Client:
Michigan Department of Transportation

Completion Date: 2011

Services:
- Traffic operations and safety improvements
- Signal operations study
- MOT plans
- Signing plans

This project for the Michigan Department of Transportation involved the reconstruction of 3.55 miles of urban arterial roadway in the Cities of Warren, Roseville and Fraser in Macomb County, MI.

Project elements included HMA milling and resurfacing, curb and gutter replacement, sidewalk construction, ADA ramp installation, traffic signal replacement and modernization, access management, right-of-way plan and document preparation, pedestrian bridge removal, and drainage improvements. Wade Trim also worked with SMART bus system to develop plans for service both during and after construction.

Wade Trim was responsible for conducting the traffic safety and operational studies, signal operations study, MOT plans, and signing plans for this 3.6 mile urban arterial project. The purpose of the studies are to identify existing operational deficiencies and evaluate the impacts of alternative improvements. The studies consisted of mobility analyses, geometric analyses, and a signal optimization study. Wade Trim is responsible for leading the operational studies including the signal optimization study. To analyze traffic operations on this 11 signal network, Synchro and SimTraffic 7 software are being used. An evaluation was conducted to determine if the number of lane through lanes can be reduced from 7 to 5. Other design features such as the need for right-turn lanes at major streets and commercial enterprises was examined. Also responsible for conducting pedestrian accommodations studies and an access management study and design exceptions. Signal timing along the corridor will be optimized based on improving bandwidths, reducing delay and travel time and increasing average travel speeds. A benefit to cost analysis will also be conducted and timing permits will be prepared for implementation after construction.

Village of Milford
Non-Motorized Trail

Client: Village of Milford

Completion Date: 2009

Services:
- Conceptual Planning
- Grant Writing
- Survey
- Engineering/Design
- Construction Engineering/Inspection

Wade Trim provided planning, grant writing, and engineering design and construction services for an approximately one-mile long, non-motorized trail in the Village of Milford. The trail connects to the Milford-Kensington Trail and traverses from the Milford Dam at the Huron River, through Hubbell Pond Park, and connects to the Milford YMCA, Milford Library, and downtown Milford. Wade Trim assisted the Village obtain $65,000 from the Community Foundation for Southeastern Michigan for the development of construction documents as well as nearly $300,000 from the Michigan Department of Natural Resources toward construction.

The 10-foot wide, asphalt cross-section trail was located to avoid impacts on nearby wetlands, significant woodlands, and slopes. It also takes advantage of the spectacular views of the Huron River, Mill Pond, and downtown Milford. The trail was completed in 2009.

3 Other Clients

We understand that the City requires Wade Trim will have the City of Birmingham as its first priority when assisting the City on issues that involve other road agencies or other private interests.

1. Wade Trim's average percentage of income earned from the Michigan Department of Transportation over the last 3 years is 5.74 percent.
2. Wade Trim has not done any work for the Road Commission of Oakland County in the last 3 years.
3. Our percentage of income from private firms on private projects in Oakland County over the last 3 years averages out to less than 1 percent.

As a part of this disclosure, Wade Trim verifies that should we be selected for this position, Wade Trim will be prepared to phase out all relationships with developers that are currently active in the development of private properties within the City of Birmingham.

4 Consultant Approach

Lori Pawlik will attend the identified Board meetings, including any study sessions, or any other identified city functions that may be necessary as part of our service to the Board (i.e. public information meetings, City Commission meetings, etc.). Lori will review plans, make recommendations to the Board, conduct studies as needed to provide the Board with the services desired and engineering recommendations to implement multi-modal improvements to Birmingham's road and non-motorized facilities network. Prior to engaging in any work requested by the Board, Lori will review the scope of services, assess project needs, determine the proper staffing, and develop a work plan to successfully execute the task or project. The estimated hours will be compiled and used with the provided rate schedule to develop a cost which will be presented to the Board for their approval prior to any work taking place.

As shown in the Personnel Section 2, Wade Trim has available staff with a variety of expertise in designing a multitude of projects. This flexibility will be used in proposing the right staff for each work assignment and preparing the project understanding.

Lori's role, in addition to performing the work desired by the Board, includes assigning the proper staff to projects and assignments that require Wade Trim's additional resources. It is our goal and intention to provide the best available staff to produce quality work and recommendations. A key element to meeting the Board's needs is providing staff that has the proper level of expertise required for tasks and assignments. At times, we may have our senior staff directing our junior staff or technicians in order to accomplish the assignment in the most cost efficient manner.

5 Consulting Fees

Since there is a very broad scope of services to be provided on this project, compensation for Wade Trim work is expected to be based upon the hourly rates, plus reimbursable expenses for travel, copying, etc.

Our Statement of Qualifications includes Wade Trim's proposed hourly rates for all personnel or subconsultants expected to work on various assignments, along with rates for typical reimbursable expenses expected in the execution of these duties.

Wade Trim's 2014 Billing Rate Schedule follows on the next two pages.

Figure 1 Staff Hourly Rates

Team Member	Role		Hourly Rate
Lori Pawlik, PE	Lead Traffic	Professional Engineer II	$115
Matt Stacey, PE	Road Design	Professional Engineer III	$150
Martin Parker, PE	Traffic Support	Senior Professional	$170
Jill Bosserd, EIT	Signal Design	Engineer II	$85

Wade Trim Billing Rate Schedule
Transportation (North)
With Equipment Billed Separately
Effective January 2014

756	Project Specialist III/Manager	$165.00
755	Project Specialist II	$130.00
754	Project Specialist I	$95.00
753	Project Aide III	$110.00
752	Project Aide II	$75.00
751	Project Aide I	$55.00
203	Senior Principal	$245.00
202	Principal	$235.00
201	Senior Professional	$170.00

Outside expenses and subconsultants at cost times 1.15.

Special billing rates will apply in matters requiring expert witnesses or other consulting as it relates to legal matters.

Reviewed and Revised Annually

Other Direct Costs	Rate
Computer Aided Design & Drafting (CADD)	$6.25/hour
Survey Equipment	$6.00/hour
Field Vehicle	$0.63/mile
Robotic Survey Equipment	$15.00/hour
SSES - Includes Van and Standard Equipment	$14.75/hour
SSES - Equipment (Van and Miscellaneous)	$8.50/hour
GPS Equipment	$20.00/hour
First Order Leveling Equipment	$20.00/hour
Construction Vehicle	$16.00/hour
Traxler Nuclear Densimeter	$5.50/hour
Cylinder Breaking	$12.00/cylinder
Concrete Testing Equipment	$5.00/hour
Photocopies	$0.10/copy
Color Copies	$0.25/copy
Color Printer (per print)	$0.15/print
Travel	$0.56/mile
Laptop Computers	$9.50/day
3-D Laser Scanner	$95.00/hour
OCE Printer	$1.40/sheet
OCE Printer/Mylars	$4.00/sheet
Flow Meter (single site)	$625.00
Flow Meter (dual site)	$875.00
Sampler (monthly)	$500.00
Saximeter	$12.00/hour
Rain Gauge (monthly)	$225.00
Recorder (monthly)	$150.00

JULY 31, 2014

City of Birmingham
A Walkable Community

CITY OF BIRMINGHAM, MICHIGAN

REQUEST FOR QUALIFICATIONS

TRANSPORTATION ENGINEERING CONSULTING SERVICES CONTRACT

RS Engineering, LLC

Prepared for:
CITY OF BIRMINGHAM, MICHIGAN
P.O. Box 3001
Birmingham, MI 48012

Prepared by:
RS ENGINEERING, LLC
915 Centennial Way, Suite 380
Lansing, Michigan 48917
Phone: 517.908.0877
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RSEngineering@rs-eng.com

RS Engineering, LLC

City of Birmingham
Transportation Engineering Consulting Services Contract

Part I. Company Profile

RS Engineering, LLC (RSE) is a consulting firm that provides services for civil, structural, traffic, and construction related projects for the federal government, state governments, various local agencies and organizations, as well as the private sector. We have extensive experience working on a broad range of infrastructure improvement projects throughout Michigan.

Company Mission

RSE's Mission is to empower our *professionals* in their *performance* of quality engineering related services and to foster long-term *partnerships* with clients to achieve their infrastructure objectives.

Company History

RSE was founded in 2003 by Robert Rayl, PE and Thomas Sereseroz, PE. Through the years, we have become leaders in the consulting engineering industry, and have experienced steady growth, currently staffing nearly 30 professionals including 15 licensed engineers. We have proudly served a diverse base of clients, and have provided a broad range of professional engineering related services.

Recognition | Awards |Associations

RSE has consistently received high service evaluation scores from our clients. This has resulted in repeat business opportunities and several referrals.

RSE has been an active member of the American Council of Engineering Companies of Michigan (ACEC/MI) since 2004 and was awarded the "ACEC Firm of the Year" in 2007 and 2009. This award was established to recognize firms for their leadership in professional and community service.

RSE was honored by the Michigan Department of Transportation (MDOT) Office of Business Development with the 2009 Disadvantaged Business Enterprise (DBE) Contractor of the Year Award. This award recognizes recipients for their overall support and commitment to the DBE program.

RSE's staff members are active in various professional associations including: ACEC, ASCE, MSPE, ITE, MCA, ACI, WTS, Michigan Chamber of Commerce, and many more.

Civil Engineering

- Road and Freeway Design
- Parking Lots and Site Development
- Drainage Studies and Design
- Utility Design and Coordination
- Roadway Project Scoping
- Construction Staging
- Context Sensitive Design
- Roadway and Parking Lot Lighting

Traffic Engineering

- Traffic Operations Impact Studies
- Capacity Analyses & Geometric Studies
- Traffic Signal Design and Operations
- Access Management
- Traffic Data Collection
- Freeway and Non-Freeway Signing Plans
- Pavement Marking Plans
- Maintaining Traffic Plans and Provisions
- Safety Studies and Crash Analyses

Structural Engineering

- Bridge and Culvert Design
- Structural Project Scoping
- Bridge Safety Inspection
- Specialty Walls, Supports & Foundations
- Structural Inspections and Studies
- Bridge Load Rating Analysis
- Building Design and Analyses
- Finite Element Analyses

Construction Engineering, Inspection and Testing

- Road Construction Engineering
- Bridge Construction Oversight
- Engineering and Technical Assistance
- Traffic and Safety Inspection Services
- Material Inspection and Testing Services
- Density Inspection & Testing
- Constructability Reviews
- Site Inspections

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MDOT Prequalified and DBE Certified
U.S. SBA, 8 (a) Program Participant
City of Lansing Prequalified

Part II. Understanding of Service

RS Engineering, LLC (RSE) is pleased to provide this statement of qualifications for review by the City of Birmingham Multi-Modal Transportation Board (MMTB).

In general, RSE understands that the purpose of this project is to provide transportation engineering consulting services for the City of Birmingham, working directly with the newly created MMTB to review all traffic and transportation related projects. These projects are to be reviewed under the umbrella of incorporating the City of Birmingham Complete Street resolution into all traffic and transportation projects.

Multi-Modal Design

Complete Michigan Streets

The State of Michigan became the 14th state to adopt a Complete Streets legislation (Public Acts 134 and 135), signed into law August 1, 2010. The City of Birmingham adopted a Complete Streets resolution in 2011. As part of the implementation effort, the City recently accepted the Multi-Modal Transportation Plan (November 2013) which specifically addresses, types, locations and estimated timing for multi-modal improvements throughout the City.

RSE understands that as the implementation of the Plan is considered, the engineering impacts of these recommendations need to be evaluated. This may include conducting traffic studies, intersection modeling, and providing advice and recommendations to the MMTB regarding the implementation of these multi-modal projects. The focus for the City of Birmingham Complete Streets resolution should be to consider pedestrians, bicycles, transit users and vehicles as equals within the transportation system.

The Multi-Modal plan focuses 90% of the improvements proposed in Phases 1 and 2 on pedestrian improvements. The City of Birmingham has been named one of the country's "Top 20 Most Walkable Communities".

City of Birmingham
A Walkable Community

The City has focused efforts on maintaining this distinction while also providing a community where residents, business owners and visitors are able to drive, park, walk, and ride through the community safely and easily. This means providing a transportation system that considers all users.

The City of Birmingham is a unique City within metropolitan Detroit; with a true central downtown area focused around the area of Old Woodward Avenue and West Maple Road

The Detroit area is historically a car centric City, however the M-1 rail project will bring a revitalization of the street-car through the City of Birmingham with the new light-rail line that will run from Pontiac to downtown Detroit. The key for the City of Birmingham will be to balance the need for parking and vehicle access with the walkability and transit needs associated with the M-1 rail project.

RSE recently had the opportunity to work with Western Michigan University in Kalamazoo, Michigan to perform a Complete Streets project that included the evaluation of multiple intersection operations alternatives and the impact to pedestrians, bicycles, transit, and vehicles. The recommendations from this study are currently in the process of evaluation by the university and fund allocation. The approach to this study was to provide the safest and most effective access for pedestrians and bicyclists while maintaining the

necessary operations for transit and vehicles. The recommended improvements were provided in a tiered approach to allow the system to grow as the student population increased and additional funding was available.

This Complete Streets project approach would also work for the City of Birmingham. The projects proposed by the MMTB should be evaluated for existing condition, however should also consider the future population growth and demographics of the users.

Traffic Engineering

RSE has the experienced staff ready to provide the City of Birmingham and the MMTB with the traffic and transportation engineering they need to begin implementing the Multi-Modal Transportation Plan and address any other questions, comments, concerns and requests by residents and business owners in the City of Birmingham. RSE has a wide breadth of traffic engineering skills that will be essential as the City moves forward with the Complete Streets resolution.

RSE uses the current standards, principals and guidelines published by many organizations when evaluating the traffic engineering studies and transportation design.

MDOT Michigan Department of Transportation
AASHTO THE VOICE OF TRANSPORTATION
ite Institute of Transportation Engineers
ULI Urban Land Institute

We are active in these and other professional and government groups, providing RSE with the most current information, new technologies and emerging trends in traffic and transportation engineering and design. RSE is committed to providing ongoing training and professional development for all engineers and staff. This includes attending training seminars, webinars and involvement in professional organizations.

RSE is also prequalified with MDOT to perform all traffic engineering services located on MDOT roadways. This allows the MMTB to work directly with MDOT on all projects that involve Woodward Avenue (M-1).

MDOT Prequalification Categories

- Traffic Capacity Analysis & Geometric Studies
- Simple & Complex Traffic Signal Operations
- Traffic Signal Design
- Pavement Marking Plans
- Non-Freeway Traffic Signing Plans
- Roads & Streets
- Safety Studies
- Traffic & Safety Inspection Services

Traffic Engineering and Transportation Planning

The RSE staff have conducted hundreds of traffic engineering and transportation planning studies. These range from large mixed-use developments, to small urban infield developments. The experienced RSE staff will be able to provide the MMTB with the knowledge and skills necessary to conduct any type of traffic and transportation engineering study that may be necessary.

Traffic Study Experience

- Traffic Impact Studies
- Pedestrian Studies
- School Circulation Studies
- Parking Studies
- Intersection Capacity Analysis
- Signal Warrant Analysis
- Signal Timing Studies
- Corridor Analysis
- Roundabout Studies
- Travel Time Analysis
- Safety Studies
- Speed Studies
- Road Safety Audits
- Queue Analysis
- Wayfinding Studies
- Traffic Calming Studies
- Thoroughfare Plan Analysis
- Zoning Studies

RSE understands that the MMTB is interested in having the selected traffic consultant evaluate the operations of the Oak Street reconstruction alternatives and the impacts to the adjacent to Quarton Elementary School. RSE has the experienced staff ready to provide these services immediately and would begin traffic data collection in September 2014, with a final report provided on or before November 2014.

Data Collection

RSE has the available staff and experience to conduct and perform various data collection operations. RSE generally performs these data collection on a "typical" weekday, unless otherwise directed by the study type or location (such as a church). A "typical" weekday for analysis purposes is a non-holiday, mid-week (Tuesday, Wednesday, Thursday) and standard traffic and weather conditions.

Data Collection Experience

- Traffic (Classification) Counts
- 24-hr Counts
- Pedestrian Survey
- License Plate Survey
- Speed Radar
- Travel Time
- Intersection Geometry
- Intersection Site Distance
- Stopping Site Distance

RSE currently uses the **TurnCount** App (by: Trafdata, LLC) to perform data collection at intersections. This app allows data collection to be classified by vehicles, pedestrians, bicycles and heavy vehicles (trucks/buses). RSE may also use other traffic data collection technologies including video data collection or traditional counter boards, when warranted and necessary to perform data collection for a specific study.

Intersection Analysis

The intersections included in the studies requested by the MMTB, will be evaluated using Synchro software (by: Trafficware) and the 2010 Highway Capacity Manual (HCM) methodology for analysis of intersection operations. The Syncrho software provides the intersection modeling necessary to evaluate a single intersection or the entire City including both signalized and unsignalized intersections, pedestrians, bicycles, transit operations, heavy vehicles and passenger cars. The model can also evaluate the impact of on-street parking maneuvers and bus stops along a corridor and within a system.

Signal Plans

RSE has the available staff and expertise to provide signal plans. These may include new installations, signal upgrades or signal modernization. Where warranted, recommended and approved by the City, RSE will design and develop traffic signal plans, estimates of probable construction costs, measurement and payment items, plan-proposal and signal construction details. Signal modifications and any upgrade of existing signal equipment will be designed based on the geometric and traffic operation improvements at the intersections. All signal plans will include wiring diagrams, phasing diagrams, span calculations, pay items with quantities, and all other items based on the RCOC, City of Birmingham, and MDOT design and signal standards.

Roadway Design Coordination

All signal plans will be coordinated extensively with the road/sidewalk design to ensure ADA compliance is achieved. Pedestrian signals and push-buttons locations will be detailed on the sidewalk ramp plans based on the RCOC, City of Birmingham, and MDOT design and signal standards.

RSE has designed hundreds of ADA ramps throughout the State, including many in the Metro Detroit area. RSE will provide detail grades of proposed ADA sidewalk ramps including proposed elevations, slopes and dimensions. Since field conditions often differ from survey data, we will provide additional information in the detailed grading plans including proposed slopes to provide construction staff and contractors more flexibility to meet the strict ADA design criteria.

Part III. Qualifications of the Team

RSE has a broad range of experience in traffic and transportation analysis and design. RSE has assembled an experienced team of professionals with the capacity to meet the scope of services and quality objectives for this project. This section will summarize the role each ***key professional*** will have on the project. Refer to Section VIII for the resumes of key staff as indicated in **Bold**.

Traffic Engineer: **Julie Kroll**, PE, PTOE (12 yrs) will perform the role of **Project Manager and Lead Traffic Engineer** for this project. Ms. Kroll is an Oakland County resident and is very familiar with the City of Birmingham. She will be responsible for overseeing all projects and will work directly with the Multi-Modal Transportation Board to address questions, comments and concerns raised by the Board, City Staff, residents and business owners in the City Birmingham. Ms. Kroll will attend the monthly Board meetings and will be available to attend additional meetings at the request of the Board.

Ms. Kroll has extensive experience in traffic analysis, transportation planning and design that will be instrumental in guidance of the Multi-Modal Transportation Board as they make decisions for the City of Birmingham community at large. Ms. Kroll provides expertise and design in complete streets designs, school traffic circulation and operations, pedestrians and bicycle accommodations, ADA improvements, traffic calming, parking, and transit.

Traffic Signal Design and Operations: **Leigh Burgess**, PE, PTOE (12 yrs) will perform the role of **Lead Traffic Signal Engineer** for this project. She will be responsible for producing any the signal plans as necessary for intersection upgrades, new installations, and performing the utility coordination. Ms. Burgess has extensive experience in traffic and safety related design and signal analyses.

Roadway Design: **Kevin Jones**, PE (20 yrs) will perform the role of **Lead Road Engineer** for this project. He will be responsible for providing expertise in roadway design and leading the day-to-day technical aspects of all road design services. Mr. Jones is native of Oakland County and is very familiar with the City of Birmingham, having worked in the City of Birmingham Engineering Department as a summer intern. Mr. Jones has extensive project experience in road design including various types of projects ranging from complex freeway/interchange reconstruction to the rehabilitation of rural roadways. He also has significant experience related to utility coordination, ADA compliant sidewalk ramps, hydraulic analysis/design, ROW plans, and maintaining traffic.

QA/QC: Joseph Meszaros, PE (45 yrs) will perform QC reviews on all traffic and safety related design and deliverables. Mr. Meszaros has extensive and diverse traffic and safety related experience. He spent the majority of his career working for MDOT in the Traffic and Safety Division where he performed a similar role. While at RSE, he has continued to perform this role on various types and sizes of traffic and safety related projects.

Engineering Manager: **Robert Rayl**, PE (22 yrs) is an Engineering Manager and Co-Owner of RSE and will provide additional support for traffic engineering analysis, design, and review of all services. Mr. Rayl has extensive experience as it relates to the services associated with this professional services contract. He has a proven history of providing responsive and proactive communication and is able to effectively coordinate all aspects of a complex project. He is particularly skilled at providing innovative solutions to unique problems.

Part IV. Existing Client Base

RSE has provided statewide services in traffic, transportation, and structural engineering and roadway design and construction inspection, primarily for the Michigan Department of

Transportation (MDOT), with 98.5% of gross income for the past three (3) fiscal years from MDOT projects. RSE did not perform any services for either the Road Commission of Oakland County nor had any income from private developers or other consulting firms to provide services within Oakland County. RSE does not currently have any relationships or projects with private developers within the City of Birmingham. RSE is prepared to decline any such future opportunity to provide the Board with unbiased technical expertise and guidance regarding the traffic and transportation operations in the City of Birmingham.

Organization/ Company	Percentage of Gross Income FY 2010-2013
Michigan Department of Transportation	98.5%
Road Commission of Oakland County	0.0%
Developers/Private Firms (with projects in Oakland County)	0.0%

Part V. RSE Philosophy and Approach

Mission Statement

- To empower our **professionals** in their **performance** of quality engineering related services and to foster long-term **partnerships** with clients to achieve their infrastructure objectives

Core Values

- The core values of RSE and its employees include integrity, personal excellence, innovation, continual self-improvement, mutual respect, and leadership. We are committed to our clients' objectives as we strive for the highest quality and greatest value.

RSE is a small company that has assembled a team of professionals with the highest caliber of skills. All of the team members have overlapping skill sets, such that there is no single expert in the field and all of the team members work collectively to provide the highest quality services and results for our Clients.

Part VI. Fees

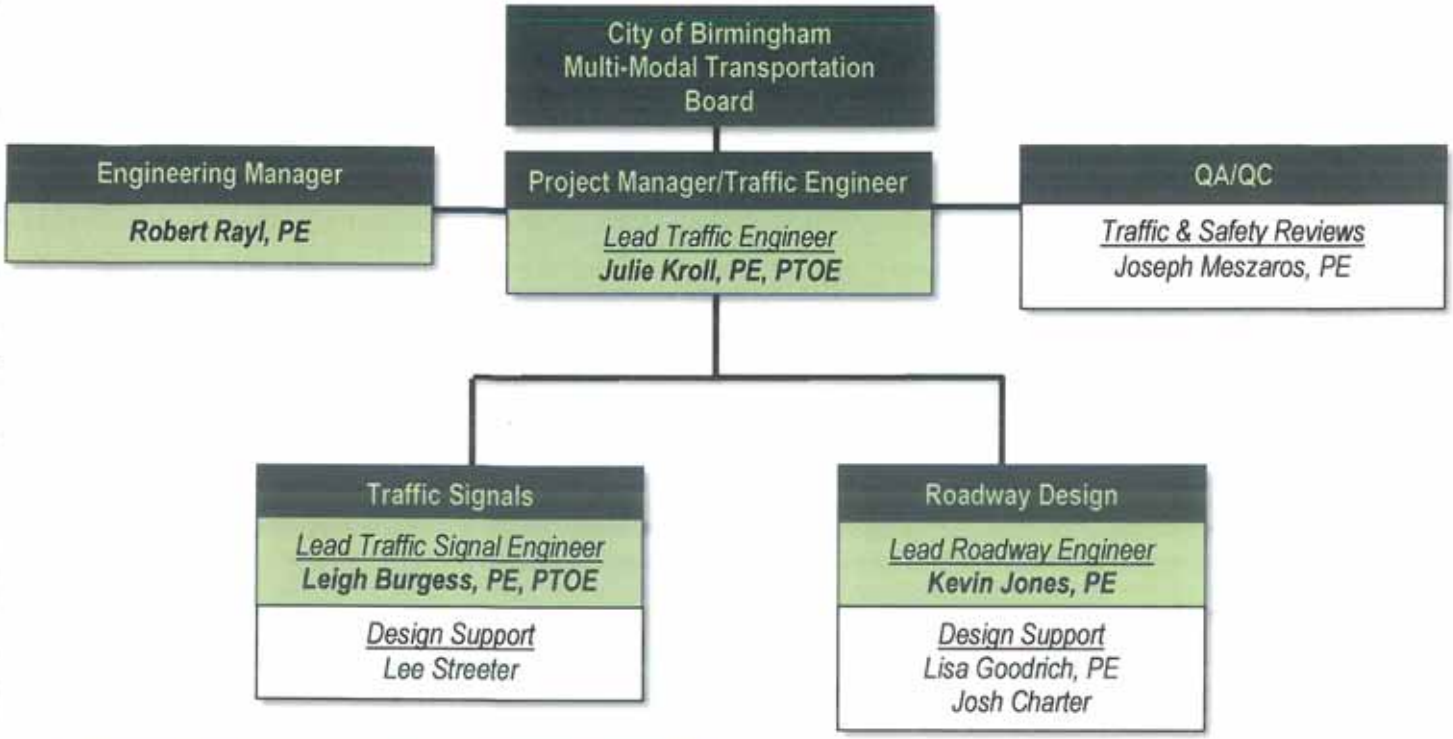
RSE has the staff availability and is prepared to perform services immediately upon the request of Multi-Modal Transportation Board according to the following fee schedule. These fees include all equipment expenses, computer expenses, employee benefits and all other overhead costs (copies, postage, etc.), excluding transportation.

Name	Role	2014 Hourly Rates
Julie Kroll, PE, PTOE	PM/Lead Traffic Engineer	$90
Leigh Burgess, PE, PTOE	Traffic Signals Engineer	$90
Kevin Jones, PE	Roadway Design Engineer	$110
Robert Rayl, PE	Engineering Manager	$180
Joseph Meszaros, PE	QA/QC	$140
RSE Support Staff	Technician, Admin	$45-$75

Transportation costs will be submitted separately and follow MDOT standard mileage rates. The 2014 mileage rates for personal vehicle use and RSE company vehicle use are summarized below:

Personal Vehicle:	$0.56/mile
RSE Company Vehicle:	$0.66/mile

Part VII. Organizational Chart



Part VIII. Resumes of Key Staff

Refer to the following pages for the resumes of key staff as indicated in **Bold** on the organizational chart.

RS Engineering, LLC

Julie M. Kroll, PE, PTOE

Education
- Michigan Technological University, Houghton MI
- 1996-2000
- B.S. Civil/Transportation Engineering

Professional Registration
- Michigan PE #57356
- Texas PE #95754
- Tennessee PE #111803
- NCEES #52741
- PTOE #3675

Computer Skills
- Synchro/SimTraffic
- PTV Vistro
- HCS
- ArcMap/ArcGIS
- AutoCad
- Microstation
- AutoTurn
- Adobe Acrobat
- Microsoft Office Suite

Project Qualifications Summary
- School Studies
- Pedestrian Studies
- Circulation Studies
- Parking Studies
- Traffic Impact Analyses
- Traffic Calming
- Safety Studies
- Signal Warrants
- Intersection Design
- Transportation Planning
- Sign Design/Schematic
- Access Management
- Traffic Control Plans
- Travel Time Studies
- GIS Based Analysis

Organizations
Institute of Transportation Engineers
Member #1008743

PROFESSIONAL EXPERIENCE

I have over 12 years of project experience in all aspects of traffic and transportation engineering, operations, and planning. I will perform the role of **Lead Traffic Engineer** on this project. As the Project Manager, Lead Project Engineer and Traffic Engineer I have provided the traffic and mobility analyses on Federal, State and Local projects. In addition, I organized and supervised field data collection on projects, including: traffic counts, GIS travel time studies, parking counts, pedestrian, and license plate surveys. I have expertise in freeway, urban and rural roadways, intersection, and airport projects responsible for all aspects of the project development, design and delivery including: mobility analyses, temporary traffic control, construction staging, and stakeholder coordination.

PROJECT EXPERIENCE

I have completed hundreds of traffic engineering and transportation planning studies and analyses over the last 12 years. These included a wide range of studies and analyses that always involved the impact to a community. The community may be a neighborhood, church, school, or a large metropolitan area. Each study and analysis involved taking each of these factors into consideration when developing recommendations that would impact not just the roadways, but also the people impacted by the results of the study. A selection of the types of projects I have managed and provided engineering and planning services are summarized below.

Municipal Engineering

Municipal traffic and transportation engineering projects are typically contracted directly with a city or other public entity (MPO, road commission, township, etc.). These services are typically requested and performed with an on-call contract or awarded through an RFP/RFQ process. The services that I have performed for municipalities are as varied as the communities themselves. They included small projects, such as determining the need for a stop sign at an intersection, to large projects to provide city wide signal timing and coordination. The projects all started with the request from the municipality, performing the services requested and proving results and recommendations for their review and possible implementation. The implementation at the municipal level was frequently contingent upon available funding for the project. It is often necessary to present alternatives including benefit/cost analysis to help the municipality to make informed decisions regarding recommended improvements.

- Briarhill Middle School Circulation Study, Highland Village, TX:06/2006
- Signal and Multi-Way Stop Analyses, Highland Village, TX: 04/2006
- US 380 Signal Timing, McKinney TX: 04/2004
- Downtown and Medical Center Parking Study, San Antonio, TX: 10/2003
- Downtown Parking Study, Norman, OK: 06/2003
- Loop 281 Signal Timing, Longview, TX: 06/2003
- Traffic Analysis for Railroad Crossing Closures, Bryan, TX: 12/2001
- School Traffic Circulation and Parking Study, Greenville, TX: 08/2001
- Road Maintenance Survey, Dearborn Heights and Riverview, MI:11/2000

PROJECT EXPERIENCE (CONTINUED)

School and Pedestrian Traffic Engineering Studies

I have performed many school traffic engineering studies that include analyzing the operations of existing or proposed schools. The school studies require the evaluation of the site to provide the safest operations for pedestrians and all vehicles within the Complete Streets profile. The schools studies typically include the site circulation analysis for buses, parking analysis for students, staff, visitors and special events (stadium and auditorium). Mitigation measures may be necessary to reduce the impact of the school traffic on the adjacent street. These may include intersection signalization, turn lanes, advance warning signing and school zone speed limits.

Pedestrian studies frequently are part of the school studies, with a Safe Routes to School evaluation; however the pedestrians studies may also be independent of the school, within downtown areas or locations with high tourist, commuter, or transit traffic. The pedestrian study determines the existing or projected number of pedestrians and evaluates the interaction with vehicles at intersections. The pedestrian operations are reviewed and recommendations identified for improving the overall safety and mobility of the pedestrians at the project site. These may include additional signing, crosswalks, mid-block signals, crossing-guards (schools) and police presence.

Western Michigan University Intersection Analysis and Pedestrian Study, Kalamazoo, MI, April 2014– This project evaluated the several intersection operations alternatives including signalization, two-way stop control, all-way stop control and roundabouts. The intersection alternatives evaluated the impacts to vehicles, buses, pedestrians and bicycles. The pedestrian operations were a large part of the analysis. The existing pedestrian routes were evaluated and recommendations were made for improving the existing routes with the use of low cost-high impact improvements including: high visibility cross-walks, pedestrian signing enhanced with a Rectangular Rapid Flash Beacon (RRFB) or integrated LED lights for enhanced pedestrian visibility and curb ramps on all approaches.

Additional Project Experience

- St. Gerard Church and School Site Circulation Analysis and Pedestrian Study. Lansing, MI: 09/2013
- Daycare Center Parking and Site Circulation Study; Bartonville, TX: 04/2008
- Briarhill Middle School Circulation Study; Highland Village, TX: 05/2006
- The Oaks Fellowship Church & School Parking and Circulation Analysis; Red Oak, TX: 02/2006
- Brownsville Bus Terminal Traffic Circulation Analysis; Brownsville, TX 07/2005

Transportation Planning

I have managed and performed analysis on various types of transportation planning projects. Each project typically included projected traffic volumes and recommendations for future conditions--typically a 20-year projection. The studies used COG traffic projections and/or additional traffic projections provided by the managing agency (i.e., city or state) in conjunction with the existing traffic volumes. A typical transportation planning project requires the development of traffic projections and turning movement count data at intersections to address the future intersection design and ROW acquisition.

- Mercer Crossing Roadway Analysis; Farmers Branch, TX: 11/2006
- Golden Triangle Boulevard Traffic Projections; Fort Worth, TX: 10/2005
- Thoroughfare Plan Revision; Grand Prairie, TX: 08/2002
- US 412 Traffic Analysis; Siloam Springs, AR: 02/2002

Parking Studies

The parking analysis studies evaluated the existing or proposed parking spaces to determine parking needs of the site. For an existing development, this required a parking lot utilization analysis: counting the number of cars parked at the site throughout the day. The projected number of vehicles generated by the site is evaluated and the parking lot is designed to accommodate the projected volume. This varies by the type of parking provided (self -park, assisted parking, valet) and the land use (residential, office, church, etc.), all of which have their own parking needs.

- Rockpointe Church Parking Study; Flower Mound, TX: 06/2012
- Highlands Plaza Retail Development Parking Study, Flower Mound, TX:03/2012
- Oaks Fellowship Church Parking Study; Red Oak, TX: 01/2006

RS Engineering, LLC

Leigh G. Burgess, PE, PTOE

Education
- Michigan State University, East Lansing MI
- 1996-2000
- B.S. Civil Engineering

Professional Registration
- Michigan PE #53589
- PTOE #2488

Computer Skills
- Synchro/SimTraffic
- HCS
- AutoCad
- Microstation
- AutoTurn
- Adobe Acrobat
- Microsoft Office Suite

Project Qualifications Summary
- Road and Freeway Design
- Utility Design and Coordination
- Construction Staging
- Freeway and Non-Freeway Signing Plans
- Pavement Marking Plans
- Maintaining Traffic Plans and Provisions
- Safety Studies and Crash Analyses
- Traffic Operations and Impact Studies
- Geometric Studies
- Traffic Signal Design
- Sidewalk & ADA Ramps Design
- Traffic Signal Design
- Complex Traffic Signal Operations

Organizations
Institute of Transportation Engineers
Michigan Section

PROFESSIONAL EXPERIENCE

I have over 12 years of project experience in all aspects of traffic and transportation operations and design. I will perform the role of **Lead Traffic Signal Engineer** on this project. As the Project Manager and Lead Project Engineer I have provided the traffic signal design and operation on Federal, State and Local projects. I have significant traffic signal design experience, including plan and proposal development. I have worked on several MDOT projects ranging from a simple intersection to dozens of interconnected intersections. I am familiar with the federal and Michigan MMUTCD, and all of MDOT's resources /standards for traffic signal design. In addition I have performed utility coordination and sidewalk ADA ramp design plans. I also have expertise in freeway and arterial projects responsible for all aspects of traffic and safety design and plan development

PROJECT EXPERIENCE

Traffic Signal

Traffic signal design projects include the preparation of plans and special provisions, proposal documents, construction cost estimate, utility coordination. A box-span signal design would be prepared for new traffic signal installations and full modernization projects. Signal design may include, span wires on steel strain poles or mast arms on mast arm poles and foundations, wireless or video detection, new traffic signal displays, countdown and audible pedestrian signals, pedestrian push-buttons, handholes, hardwire cables, and conduits. Signal modifications would maintain the existing span configuration and may upgrade specific signal equipment as needed for improvement. Signal field review is performed whether signal design is for signal modification, modernization, or new installation.

Sidewalk ADA ramp design are prepared and detailed on plans based on the pedestrian signal and push-button locations, and the design standards. Pavement markings are typically included in the plans for stop bars and crosswalks. Geotechnical services are required for soil borings and foundation recommendations for proposed poles. Traffic signal design includes some extensive coordination between the power company, utility companies, local agency, and owners. Utility field review meetings are necessary for coordination during the signal design process and plan preparations.

- Drake Rd and Century Ave New Traffic Signal, Kalamazoo, MI: 2013 – 2014
- St. Clair County Traffic Signal Modernization, St. Clair County, MI: 2011 – 2012
- M-43, from East Canal to Rosemary, Delta & Lansing Twp, Eaton & Ingham Counties, MI: 2009 - 2010
- M-5 Traffic Signal Modernization at 15 Locations, Wayne County, MI: 2009 - 2010
- M-3 Traffic Signal Modernization at 19 Locations, Wayne County, MI: 2007 – 2008
- I-96 at Latson Rd New Interchange, Livingston County, MI: 2008 – 2012
- Michigan State Traffic Study for Farm Lane Entrance Reconstruction, East Lansing, MI: 2007 – 2008

RS Engineering, LLC

Kevin Jones, PE

Education

- Lawrence Technological University, Southfield, MI
  - 1989-1992
- Valparaiso University, Valparaiso, IN
  - 1992-1993
- B.S. Civil Engineering

Professional Registration

- Michigan PE #45656

Computer Skills

- Microstation
- GEOPAK
- AutoTurn
- Adobe Acrobat
- Microsoft Office Suite
- MERL
- HY-8
- HEC-RAS

Project Qualifications Summary

- Geometric Studies
- Road and Freeway Design
- Drainage Studies and Design
- Utility Design and Coordination
- Construction Staging
- ADA Sidewalk Ramp Design
- Non-freeway 3R/4R
- Freeway 3R/4R

PROFESSIONAL EXPERIENCE

I have over 20 years of project experience in all aspects of design and analysis of Roads and Streets. I will perform the role of **Lead Road Engineer** on this project. On several projects, I have been a Lead Road Engineer responsible for all phases of roadway design including alignments, profiles, geometry, grading, guardrail, right-of-way, drainage and hydraulics, utility coordination, pavement markings, preparation of construction specifications, construction cost estimates, and various permit applications. I have worked on various types of roadway projects including milling and HMA resurfacing, concrete patching and joint repairs, concrete reconstruction, HMA reconstruction, and rubblizing and HMA overlay. These projects ranged from simple intersections to complex urban freeways. I have first-hand knowledge of various Michigan Department of Transportation (MDOT) resources including the Standard Specifications for Construction, Road Design Manual, Drainage Manual, Geometric Guides, Standard Plans, Special Details, Frequently Used Specifications, Supplemental Specifications, PPMS Manual, and other resources on the MDOT Website. I am also knowledgeable of various AASHTO publications including the Policy on Geometric Design of Highways and Streets and the Roadside Design Guide.

PROJECT EXPERIENCE

Carpenter Road, Pittsfield Township, Washtenaw County, MI, January 2014– Project Engineer for this project that consisted of complete reconstruction of 0.56 miles of primary urban arterial roadway. The reconstruct included removal of the existing HMA pavement, new concrete pavement section, storm sewer improvements, drive approach improvements and modifications, sidewalk replacement, permanent pavement markings and signing, ADA sidewalk ramp upgrades, and the inclusion of Township and Transit Authority pedestrian, lighting and bus stop facilities.

I-96 Interchange at Latson Road, Genoa Township, Livingston County, MI, July 2011- Drainage/Hydraulics Engineer for the design of this new diamond interchange. Design of detention ponds and storm sewer drainage for interchange, rehabilitation of the Latson Rd/Grand River Ave intersection, and the reconstruction of Nixon Rd.

US-131 SB over Bridge Street, City of Grand Rapids, Kent County, MI, December 2013- Project Engineer for this bridge project that consists of deep concrete overlay, partial deck replacement, joint replacement, railing replacement, substructure repair, partial painting, bridge approach replacement, and maintaining traffic.

I-94, from Rouge River to Wyoming Ave, City of Dearborn, Wayne County, MI, August 2004- Project Engineer for this Michigan ASCE award winning 4R Urban project approximately three miles in length and provided for reconstruction of the freeway and 13 interchange ramps and rehabilitation of 17 bridges. Carpenter Road Reconstruction, Washtenaw County, MI: 2013 – 2014

PROJECT EXPERIENCE (CONTINUED)

M-125 from Jones Rd. to US-24, Monroe County, MI, April 2013–Project Engineer for this project that included 5.23 miles of cold milling and two-course HMA overlay, intermittent curb & gutter replacement, upgrade sidewalk ramps, minor surface drainage upgrades, replacement of box culverts, intersection radius improvements, traffic signal staging, and guardrail replacement. As part of the design of this project, widening for a center left turn lane at four closely spaced intersections was added to satisfy safety concerns. The maintaining traffic and construction staging of this project was coordinated with two adjacent projects designed by MDOT.

MDOT Traffic Signal Design Modernization and ADA Ramp Design on M-3 at 19 locations, City of Detroit, Wayne County, MI, 2007 - Senior Road Engineer responsible for the design and preparation of ADA sidewalk construction plans, documents, cost estimates and calculations. Along with the traffic signal work, ADA ramp designs at 88 affected quadrants were included in the project. Considerations in the design of the ADA ramps included restrictive right-of-way, close proximity to existing buildings, and other physical constraints.

MDOT Traffic Signal Design Modernization, Interconnect and ADA Ramp Design on M-5 at 15 locations, City of Detroit, Wayne County, MI, 2010 - Senior Road Engineer responsible for the design and preparation of ADA sidewalk construction plans, documents, cost estimates and calculations. Along with the traffic signal work, ADA ramp designs in 67 quadrants required handling restrictive right-of-way, close proximity to existing buildings, existing utilities, and other physical constraints on this major urban trunkline.

MDOT Traffic Signal Design Modernization and ADA Ramp Design at 7 locations, Brach, Barry and Calhoun Counties, MI, 2009 - Senior Road Engineer responsible for the design and preparation of ADA sidewalk construction plans, documents, cost estimates and calculations. Considerations in the design of the ADA ramps included restrictive right-of-way, close proximity to existing buildings, and other physical constraints.

MDOT Traffic Signal Design Modernization, Interconnect and ADA Ramp Design on M-153 & M-5 at 15 locations, City of Detroit, Wayne County, MI, 2008 - Senior Road Engineer responsible for the design and preparation of ADA sidewalk construction plans, documents, cost estimates and calculations. Along with the traffic signal work, ADA ramp designs in 6 quadrants required handling restrictive right-of-way, close proximity to existing buildings, existing utilities, and physical constraints on this major urban trunkline.

M-102 from Rouge River to M-39, Cities of Southfield and Detroit, Oakland and Wayne Counties, MI, April 2013-Project Engineer for this 3.13 mile long project that consists of an HMA mill and resurface, median crossover reconstruction, concrete curb and gutter repair, ADA sidewalk ramp upgrades, signal upgrades, non-freeway signing, storm sewer upgrades, additional drainage structures and transverse crossings, and pavement markings. RSE was responsible for the maintaining traffic plans as well as permanent pavement marking and non-freeway signing plans.

M-43 East of Canal Rd to Rosemary St, Delta and Lansing Townships, Eaton and Ingham Counties, MI, November 2010- Project Engineer for this 3.5 miles long project. Design consisted of joint repairs, concrete repairs, milling and resurfacing, intermittent curb and gutter replacement, drainage structure adjustments and repairs, spot storm sewer repairs, driveway modifications for access management improvements, ADA sidewalk ramp upgrades, traffic signal modernizations, traffic signal loop replacement, pavement marking and replacement of traffic signs as impacted by construction.

M-121 from 80th Ave to 40th Ave, Cities of Hudsonville and Zeeland, Ottawa County, MI, 2011- Drainage/Hydraulics Engineer for this project that consisted of 5.541 miles of pavement rehabilitation project located along M-121 (Chicago Drive). The scope of work included drainage upgrades to increase capacity of existing and proposed storm sewer systems, revised ditching and grading to accommodate proposed road work, and review of new box culvert and county drain modifications.

RS Engineering, LLC

Robert D. Rayl, PE

Education

- Michigan State University, East Lansing MI
- 1989-1993
- B.S. Civil Engineering

Professional Registration

- Michigan PE

Computer Skills

- SignCAD
- Geopak
- AutoCad
- Microstation
- Adobe Acrobat
- Microsoft Office Suite

Project Qualifications Summary

- Road and Freeway Design
- Drainage Studies and Design
- Utility Design and Coordination
- Roadway Project Scoping
- Construction Staging
- Context Sensitive Design
- Freeway and Non-Freeway Signing Plans
- Pavement Marking Plans
- Maintaining Traffic Plans and Provisions
- Safety Studies and Crash Analyses
- Traffic Operations and Impact Studies
- Geometric Studies
- Traffic Signals
- Roadway and Parking Lot Lighting

PROFESSIONAL EXPERIENCE

I will perform the role of **Engineering Manager** on this project and will be responsible for making certain that all aspects of RSE's proposed services are performed in a timely manner and at the expected level of quality. I have over 22 years of project experience related to the design and analysis of roads (freeways, highways and local streets), drainage, construction staging, maintaining traffic, signing (freeway and non-freeway), pavement markings, traffic and safety studies, traffic signals, and construction assistance. I also have experience providing context sensitive solutions, preparing construction specifications and cost estimates, leading stakeholder meetings, submitting funding applications, and acquiring permits. I have worked on various types of roadway and traffic related projects ranging from simple intersections to complex urban freeways.

PROJECT EXPERIENCE

Carpenter Road, Pittsfield Township, Washtenaw County, MI, January 2014– Project Manager for this project that consisted of complete reconstruction of 0.56 miles of primary urban arterial roadway. The reconstruct included removal of the existing HMA pavement, new concrete pavement section, storm sewer improvements, drive approach improvements and modifications, side walk replacement, permanent pavement markings and signing, ADA sidewalk ramp upgrades, and the inclusion of Township and Transit Authority pedestrian, lighting and bus stop facilities.

I-96 Interchange at Latson Road, Genoa Township, Livingston County, MI, October 2012- Project Manager for the design of this new diamond interchange that included a new bridge, the relocation and reconstruction of four local roads including geometric improvements, an at grade railroad crossing, demolition of an existing rest area, non-freeway signing, freeway signing, pavement marking, traffic signals, construction zone traffic control, construction staging, traffic analysis, safety studies, extensive Right-Of-Way acquisition, drainage studies and design, and utility coordination. RSE is the prime firm responsible for all aspects of this project. In addition, this project was a pilot for the new Design Deliverable Enhancement Project (DDEP).

M-125 from Jones Rd. to US-24, Monroe County, MI, April 2013–Project Manager for this project that included 5.23 miles of cold milling and two-course HMA overlay, intermittent curb & gutter replacement, upgrade sidewalk ramps, minor surface drainage upgrades, replacement of box culverts, intersection radius improvements, traffic signal staging, and guardrail replacement. As part of the design of this project, widening for a center left turn lane at four closely spaced intersections was added to satisfy safety concerns. The maintaining traffic and construction staging of this project was coordinated with two adjacent projects designed by MDOT.

Drake Rd and Century Ave New Traffic Signal, Kalamazoo, MI, June 2014- Project Manager for this project that included a traffic analysis for a proposed mixed use development that included a new Costco and various other land uses. This project also included the design of a new traffic signal at the entrance of the proposed site.

PROJECT EXPERIENCE (CONTINUED)

M-102 from Rouge River to M-39 Wayne and Oakland Co., MI , April 2013-Project Manager for this 3.13 mile long project that consisted of an HMA mill and resurface, median crossover reconstruction, concrete curb and gutter repair, ADA sidewalk ramp upgrades, signal upgrades, non-freeway signing, storm sewer upgrades, additional drainage structures and transverse crossings, and pavement markings. RSE was responsible for the maintaining traffic plans as well as permanent pavement marking and non-freeway signing plans.

M-18 from US-10 to Midland/Gladwin COL, Midland County, MI, June 2013- Project Manager for this project in Midland County that included roadway cold-milling and a two course HMA resurfacing, concrete joint repairs, drainage upgrades, and miscellaneous safety upgrades. RSE was responsible for the development of maintaining traffic plans and details including plan sheet and typical cross sections. Other duties included developing cost estimates, writing special provisions, coordinating with the prime consultant, and attending review meetings.

M-25, Bay Park Rd to Huron Co. Line Unionville, Tuscola County, MI June 2013- Project Manager responsible for the maintaining traffic design for this project. The project scope consisted of approximately 4 miles of cold milling and resurfacing M-25 and M-24 with two courses of hot mixed asphalt, drainage (including storm sewer and possible culvert extensions), guardrail upgrades, curb and gutter, sidewalks, and access management. The project passes through the Village of Unionville and includes the main intersection of M-25 and M-24.

I-94 and I-69 Interchange, Port Huron Twp, St Clair County, August 2009-Project Manager for this project that consisted of reconstruction of mainline I-94, mainline I-69, and all ramps within the existing I-94 and I-69 interchange. It included pavement removal and replacement, several interchange geometric improvements, drainage improvements, safety upgrades, and replacement of nine bridges. RSE was responsible for the design of two bridges on this project as well as developing the maintaining traffic plans and the Transportation Management Plan (TMP).

M-24 HMA Reconstruct, Lapeer County., MI, November 2013,-Project Manager for the design of this 2.1 mile project that consisted of HMA reconstruction, curb and gutter, watermain replacement, storm sewer improvements, sidewalk upgrades, signal upgrades and access management. RSE was responsible design of the maintaining traffic plans as well as independent QA/QC review of the construction plans.

M-52/M-21, City of Owosso, Shiawassee County, December 2012- Project Manager for the design of this 3.27 mile project that consisted of the design of roadway cold milling and 2 course HMA resurfacing, concrete pavement restoration on outside lanes of M-52, intermittent curb & gutter replacement, minor drainage improvements, box culvert replacement, ADA compliant sidewalk ramp upgrades, pavement marking plans, permanent non-freeway signing plans, traffic signal plans. RSE was responsible for the maintaining traffic design as well as permanent pavement markings plans, non-freeway signing plans, and independent QA/QC review of the construction plans.

US-23 N. Territorial Ramp Mill & Resurface, Brighton, MI November 2013- RSE Project Manager for the design of this project that consisted of the ramp acceleration lane extension to improve traffic flow and reduce congestion on NB US-23 ramps at North Territorial Rd, 6 Mile Rd, 8 Mile Rd, and M-36. Construction plans include cold milling and single-course HMA overlay on the ramps. RSE was responsible for the design of the entrance ramp extension for North Territorial Rd.

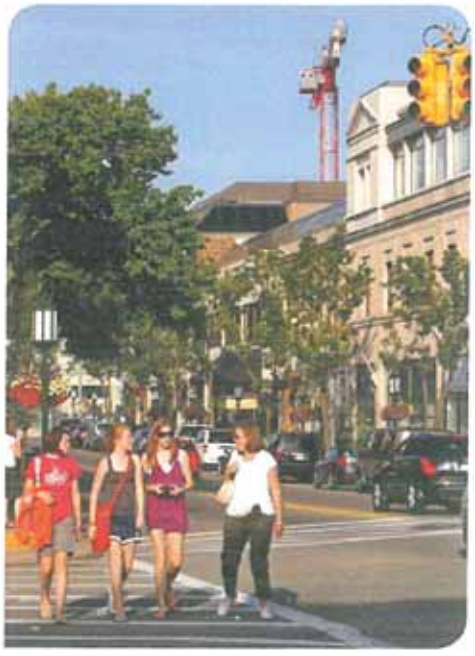
Non-Freeway Signing, Brighton, MI August 2013-Project Manager for this project that included 51.6 Miles of Non-Freeway Signing Upgrade in the Brighton TSC Area. Multiple routes were upgraded, such as portions of M-59, M-106, US-12, Luna Pier Rd, and all of M-125. RSE utilized available base mapping files as well as archived existing survey files to develop plan sheets for all signing replacements.

I-94 Freeway Signing Berrien and VanBuren Counties, MI October 2013-Project Manager for this design project that included the upgrade of over 56 miles of freeway signing. This corridor includes several overhead signs mounted on cantilevers, trusses and bridges. Proposed improvements include 28 cantilever sign replacements. This project tasks include preparing computerized alignment base sheets, field verification of existing signs, utility coordination, guardrail design, development of proposed signing plans and details, construction cost estimates, utility coordination and completing a sign inventory and MTSIS for use by MDOT.

RS
Engineering, LLC

The City of Birmingham

Transportation Engineering Consultant Services Contract



City of Birmingham
A Walkable Community

PO Box 3001
Birmingham, MI 48012
Attn: Paul O'Meara,
Jana Ecker, and Mark Clemence

July 31, 2014

OHM

Architects Engineers Planners Architects Engineers Planners Architects Engineers Planne

ARCHITECTS. ENGINEERS. PLANNERS.

OHM Advancing Communities

July 31, 2014

Mr. Paul O'Meara, PE, City Engineer
Ms. Jana Ecker, Planning Director
Mr. Mark Clemence, Deputy Chief of Police
City of Birmingham
PO Box 3001
Birmingham, MI 48012

RE: Statement of Qualifications
Transportation Engineering Services Consultant

Dear Mr. O'Meara, Ms. Ecker and Mr. Clemence:

Congratulations to the City of Birmingham for being proactive in recognizing the benefits that can be gained by adopting a Multi-Modal Transportation Master Plan and then working towards implementing the plan. As a vibrant community within the heart of the Metropolitan Detroit area, Birmingham has much to offer and a multi-modal approach to transportation will only enhance the quality of life for your residents.

While a master plan is critical to achieving the Community's vision, the execution of the plan is equally or more important. Having the right mix of leaders, engaged staff and committed consultants is critical to achieving the goals outlined in the master plan. We feel that OHM Advisors is the committed consultant for your Transportation Engineering Services. We get that you are looking for standard traffic engineering type services, but that you also want someone you can work with to how to implement changes that benefit all users of your streets, pathways, walks, and parking areas. We look forward to introducing you to our staff and sharing our philosophy and approach with you. Highlights of what our team offers include:

Experienced traffic engineer. We understand that **safety is a key issue** with all communities and Steve Dearing, our lead engineer, has been focused on implementing improvements that emphasize safety his entire career. Steve and his team have dealt with congestion, circulation and pedestrian access in many communities in Michigan and Ohio. An example is downtown Farmington, where OHM Advisors successfully devised a streetscape and downtown section that has calmed the traffic flow, improved parking and provided a more pedestrian scale to the former four to five lane road cross section that divided the downtown area.

Community focused! Each community is unique and OHM Advisors works with their client communities to set up the policies and processes, that allow them to maximize the impact of infrastructure improvements. We don't feel that you should just resurface a street or replace a water main. A community uses that as the opportunity to evaluate what more can be done to enhance the area for all users and OHM Advisors has the team that can help you step back, relook at an area and, working within your budget, create spaces that people want to be in and explore. The ongoing downtown Newark, Ohio project is an example of how OHM Advisors has helped that community re-envision the space, traffic flow and accommodate the multi-modal travel.

OHM Advisors
34000 PLYMOUTH ROAD
LIVONIA, MICHIGAN 48150
T 734.522.6711
F 734.522.6427
OHM-Advisors.com

We listen! Even with over 30 years of experience as a Traffic Engineer, Steve Dearing understands that you must actively listen to all sides of the issue. This must come before presenting any facts and technical data related to the issue. It is by listening to all positions and then restating the positions, you can formulate a logical, safety-focused solution that would get the various parties to move together to support. Such a consensus solution is far preferred over the City "imposing" a solution. Steve's team also understands that listening is key. Our staff have been trained in meeting facilitation techniques and bring the right set of "tools" to elicit input and move towards resolution for each unique circumstance.

A team based approach. While OHM Advisors has many individual experts, these experts understand that it still takes a team to arrive at the best solution. While you will be primarily served by a locally based group led by Steve Dearing, there is the backing of a regionally focused group that brings proven ideas from across the U.S. and Canada that may fit to bring that comprehensive solution to a transportation issue facing Birmingham.

Focused on the City of Birmingham! OHM Advisors has grown by providing service to governmental clients and is especially focused on the municipal market. We do only limited work for private sector developers. While we are proud of the work we do with the Michigan Department of Transportation and the Road Commission for Oakland County, when working for a city or village, we make it clear who we are working for. We take a professional approach and our clients have recognized that we provide advice that is in the best interests of the ultimate client: the users of the facility. This applies whether it is a road, pathway, sidewalk or a building. We will be focused on achieving the best outcome for the City of Birmingham's customers.

We greatly appreciate your consideration and hope that you will see the passion we feel about Traffic Engineering in particular, given our focus on Advancing Communities. We want to be a part of helping you shape a better future for the City of Birmingham. We assure you that we bring the best talent, desire and enthusiasm to help you create unique and focused recommendations that enhance the community and execute the ideas in the Multi-Modal Transportation Master Plan.

Sincerely,
OHM Advisors

Daniel G. Fredendall, PE
Vice President

Encl: SOQ, seven copies
cc: Multi-Modal Transportation Board

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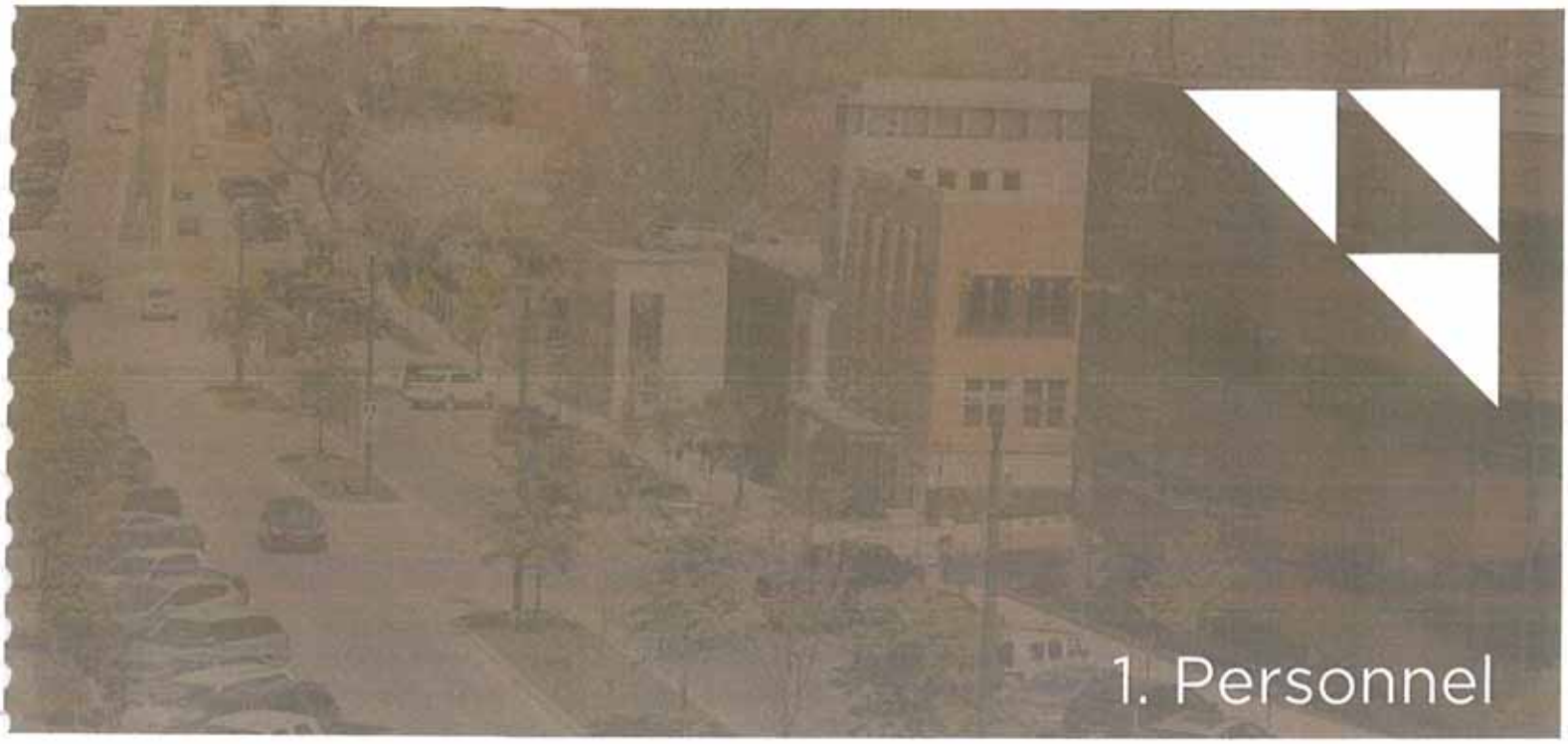
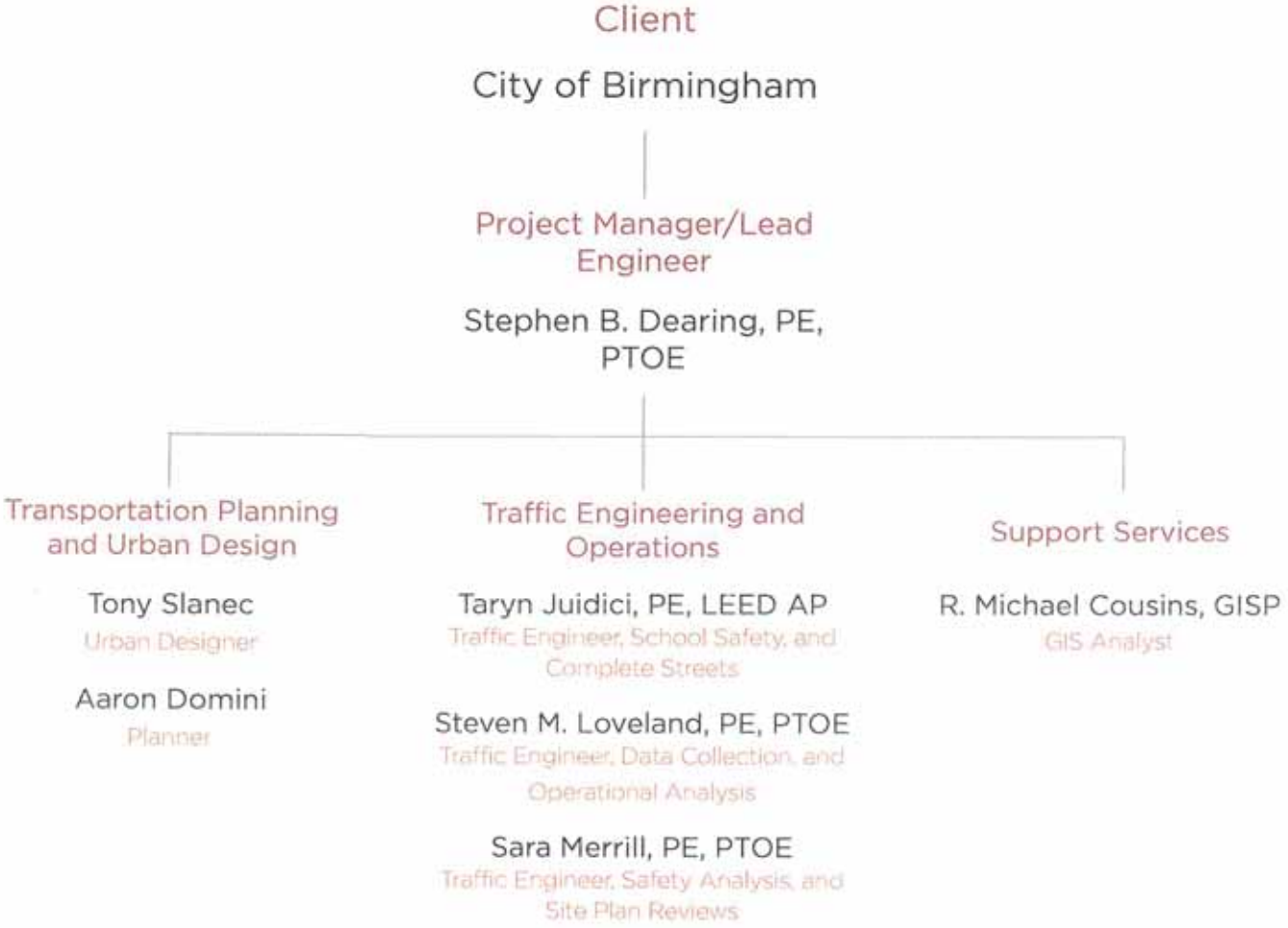


1. Personnel

Team Organizational Chart



2. Qualifications of Team and Personnel

Key Personnel

Stephen B. Dearing, PE, PTOE | Project Manager

Education
Bachelor of Science in Civil Engineering, University of Michigan, 1976

Professional Registration
- Professional Engineer, State of Michigan, 1981, #28487
- Professional Engineer, State of Ohio, 2011, #75334
- Professional Traffic Operations Engineer, 2004

Experience
38 years, 14 with OHM Advisors

Professional Affiliations
- Institute of Transportation Engineers
- ITE Transportation Safety Council
- ITE Traffic Engineering Council
- SEMCOG Transportation Advisory Council

Papers and Presentations
- Workshops/Seminars on:
- Traffic Engineering Fundamentals
- Highway Tort Liability
- Traffic Safety Programs
- Work Zone Traffic Control Measures
- Sight Distance

As OHM Advisors' Traffic Engineering Group manager, Steve Dearing is responsible for all aspects of transportation planning and traffic engineering services for our clients. He works with the clients to identify their needs, prepares proposals, project scheduling, budget tracking and quality control for all the studies and plans produced by the engineers and technicians of the group.

Prior to joining our team, Steve was a City Traffic Engineer for a total of 13 years, first with Naperville, IL and then at the City of Rochester Hills, MI. For both positions, he managed the activities of their Traffic Safety Division, gaining a thorough knowledge of transportation planning, traffic engineering and operations. Planning functions involved working closely with police, the local transit providers, school districts and their bus operators, state Department of Transportation, the County highway department, neighboring cities, and developers. The traffic engineering functions included reviewing traffic impact studies, performing professional surveys and making recommendations on roadway safety, geometry, capacity, operations, and traffic control.

Steve served at the National Safety Council as its professional Highway Traffic Safety Engineer. There were frequent contacts with government officials, the media, industry, public representatives, and private citizens. The position also involved providing administrative and technical support to three volunteer committees of the Highway Traffic Safety Division of the Council. They were: Roadway Environment, Pedestrian Safety, and Two-Wheeled Safety.

Relevant Experience

Grand River Streetscaping, City of Farmington, MI – 2007-2009
Lead Traffic Engineer. The project goals were to rejuvenate the downtown area for a two-block segment of this MDOT arterial roadway. In conjunction with the DDA, on-street parallel parking was to be provided along with other streetscape changes. OHM Advisors evaluated the relative feasibility of parking along one side versus parking along both sides, in conjunction with operational improvements at the intersection of Grand River Ave at Farmington Rd. The proposed parallel parking spaces were set off from the through lanes by creating curbed "bump-outs", which helped provide adequate area for landscaping changes within the road right-of-way.

Stephen B. Dearing, PE, PTOE | Project Manager

Relevant Experience Continued

Complete Streets Design Standards, City of Novi, MI – 2011-2013
Project Manager for revisions to City's design standards to incorporate complete streets concepts, in keeping with the City's adopted Master Plan.

Road Diet Evaluation, City of Royal Oak, MI – 2013
QC Reviewer for a project to review three road corridors: Campbell Road (10 Mile Road to 12 Mile Road), Main Street (Rochester Road to Normandy Road), and Crooks Road (Main Street to Normandy Road). In each case the existing condition was a 4-lane cross section and traffic volumes were declining. The study format included investigation for LOS and safety considerations.

As Requested Traffic Engineering Services – City of Mt. Pleasant, MI (2012-Ongoing), City of Troy, MI (2008-Ongoing), City of Midland, MI (2007-Ongoing), and City of Rochester Hills, MI (2000-2004)
Project Manager and Lead Traffic Engineer, for providing a full spectrum of traffic engineering and transportation planning services. On an as-requested basis, works with multiple departments within the cities, including Planning and Community Development, Engineering, Public Safety, Parks and Recreation, DDA, DPW, and Manager's Office, to provide advice, evaluations and recommendations to address numerous and varied issues confronting impacted stakeholders. Examples include reviewing traffic impact studies and site plans for proposed developments, assisting in the preparation of funding applications, undertaking crash and operational analyses, reporting on whether intersection controls (YIELD, STOP or signalization) or other controls (parking, speed limits, etc.) are merited, parking studies, reviewing internal plans, identifying bus stop locations, exploring bike route and share path uses, permit assistance, and reviewing their sign shop operations to make recommendations on modernizing equipment and procedures for sign fabrication, and Inventory and management systems for signs, signals, pavement markings and guardrails.

School Site Safety Evaluations, Farmington Public Schools, MI – 2001-Ongoing
Project Manager and Lead Traffic Engineer, working closely with the school district, to evaluate the pedestrian and vehicle safety concerns at elementary, middle and high schools. Developed a series of immediate, mid-term and long-term improvements to address the deficiencies identified, both on the school sites and the adjacent streets.

Neighborhood Traffic Safety Program, City of Rochester Hills, MI – 1997-2000
Developed a comprehensive traffic calming program for use in area neighborhoods, after reviewing best practices from comparable programs from communities around the world. The program includes facets of driver and pedestrian education, law enforcement, and traffic engineering. It emphasizes the role of resident participation and cooperation with city staff in addressing neighborhood concerns.

Nixon-Huron Parkway Intersection, City of Ann Arbor – 2006-2008
QA/QC Manager, and responsible for concept design for pedestrian and vehicular interaction for the completed project as well as during 7 phases of construction staging. The project included a comprehensive and inclusive public outreach process for the roundabout component of the project. Focus groups and public meetings were both used, as this was the City's first roundabout. One public meeting was conducted with Chinese and Russian translators to meet stakeholder needs. Steve was the lead presenter for the project team at all public meetings, and he was responsible for all content and detailed responses to over 100 questions,

Stephen B. Dearing, PE, PTOE | Project Manager

Relevant Experience Continued

Old Towne Development and Traffic Plan, City of Rochester Hills, MI – 1989-1991
As City Traffic Engineer and lead transportation planner, worked closely with the City's Planning Department to study and evaluate this depressed commercial district. Develop land use and traffic planning concepts to revitalize the area. Traffic features included: adding on-street parking to Auburn Rd, closing off selected side streets to convert to angle parking lots and to minimize traffic intrusion into the surrounding residential neighborhood, and enhancing pedestrian crossings through the use of traffic calming features in the district.

Project Manager to evaluate Grand River Ave from Halstead to Orchard Lake Rd for a road diet. Portions of this unmarked state highway are either 4-lanes or 5-lanes wide. The community is seeking to expand on-street parking near the downtown and install bike lanes for the balance of the corridor.

Bellows Road Corridor and Roundabout Study, Mt. Pleasant, MI – 2011-2012
Traffic Engineering Expert on this project that included the overall functionality review of the existing mini-roundabout installed at a "T" intersection, and development of recommendations as to modifications at the intersection removal of the mini-roundabout. As part of the review, we looked at the overall traffic flow of the entire ½ mile corridor, including 8 intersections. We looked at the interaction of the land uses since this corridor is a natural separation between CMU's campus and City residential. We developed t conceptual corridor plan that incorporated traffic impacts from a potential new East Campus Connector Road, and the overall desire to calm traffic in this corridor and improve the pedestrian and aesthetic connectivity between the two sides of the roadway. Recommended concepts included a series of single lane modern roundabouts, raised intersections, and streetscape improvements.

Master Thoroughfare Plan Update, City of Auburn Hills, MI – 2008-2009
Project Manager and Lead Traffic Engineer for developing an update to the City's Master Thoroughfare Plan. Plan components included existing and planned functional classification, planned right-off-way, and a new component for truck routes.

Master Thoroughfare and Pathway Plans, Rochester Hills, MI – 2006-2008
Lead Traffic Engineer for developing Master Thoroughfare and Pathway Plans for the City. Analyzed select corridors for existing and future traffic congestion, identifying spot and network improvements to meet LOS goals of community. Developed a prioritization methodology for pathway segments for use with the City's Capital Improvement Plan.

RCOC Signal Optimization, Oakland County, MI – 2011-Ongoing
Project Manager for project to collect data, evaluate the safety and operation, and optimize the signal timing plans for 150 intersections through southern Oakland Co.

Signal Optimization Management, Grand Region, MDOT – 2011-2014
Project Manager for providing project management services to MDOT for signal optimization efforts performed by two other consultants. The focus is on QA/QC evaluations and analysis of the optimization consultants' work product for 48 sites.

Metro Region Signal Optimization, MDOT – 2008-2011
Project Manager to evaluate the operation and optimize the signal timing plans for 30 intersections along M-3 in downtown Detroit and at isolated freeway off ramps in Wayne County. The project included the evaluation of crash data and safety mitigation and countermeasure identification.

Stephen B. Dearing, PE, PTOE | Project Manager

Relevant Experience Continued

Troy/Birmingham Intermodal Transit Center, City of Troy, MI – 2009-2010
Prepared a peer review of the proposed intermodal transit facility, with a focus on pedestrian, bus and passenger vehicle safety and circulation.

DDA Parking Evaluation, City of Romulus, MI – 2006
Project Manager for evaluating various parcels of land as potential off-street parking facilities for the downtown area. Developed preliminary parking lot layouts, and estimated the development costs for clearing the parcel, drainage, paving, lighting, pavement marking, constructing driveway(s), and boundary protection.

Burlington Northern RR / IL Rte. 53 Commuter Rail Inter-modal Transfer Station, City of Naperville, IL – 1988-1989
Working with railroad, transit and community planning officials, assisted in the study process to locate a suitable property for the proposed inter-modal facility. Worked on site layout to provide reasonable access for transit, park & ride, kiss & ride, pedestrian and bicycle users. Planned and coordinated signal and intersection improvements on the adjacent roadways.

Downtown Parking Program, City of Naperville, IL – 1987-1989
Managed parking operations for one three-story parking structure and numerous surface lots around the commuter rail stations and in the central business district. This included maintaining approximately 300 parking meters in the Central Business District. Worked with the Central Business District Association to evaluate and modify on-street parking, to balance the vitality of the downtown area by expanding parking opportunities while improving pedestrian and vehicle safety.

Peer Review of Traffic Impact Studies – 1987-Ongoing
On the behalf of various municipalities, reviewer of numerous traffic impact studies of proposed residential, office, commercial and industrial developments.

Village of Grand Traverse Traffic Study, Grand Traverse County, MI – 2009-2012
Traffic QC Reviewer on behalf of Acme Twp., Grand Traverse County Road Commission, and MDOT for the traffic analysis of the impacts of a proposed 182 acre multi-use development site fronting M-72 and Lautner Road. The development proposal has undergone several revisions in the mix of land uses and development density. The analysis included the evaluation of alternative roadway improvement configurations, including use of roundabouts in place of traffic signals.

"Evaluating Traffic Impact Studies" Advisory Committee – 1993-1994
Assisted in the preparation of this document, a recommended practice guide sponsored by the Tri-County Regional Planning Commission (Lansing, MI) and by Southeast Michigan Council Of Governments (SEMCOG).

Oakland County Michigan Federal Aid Committee, Technical Review Group – 1990-Ongoing
Participated in the technical review of all project applications submitted in Oakland County each year for federal-aid funding. Lead the team that revised and updated the rating and evaluation forms used for project applications and selection.

Access Management Ordinance – Village of Lake Orion, MI – 2002
Developed an Access Management Ordinance specific to the stated interests of the Township Board and Planning Commission. This included provisions for requiring Traffic Impact Studies, limitations on the number and location of driveways and provisions for cross access and joint-use access.

Traffic Operations (Sign) Shop, City of Rochester Hills, MI – 1989-2000, and City of Naperville, IL – 1987-1989
While City Traffic Engineer, was directly responsible for the traffic operations sign shops, including their budget and scheduling. Instituted innovative changes to improve sign fabrication, installation and maintenance. materials and application techniques, and modernized traffic survey data collection. Trained city staff in the fundamentals of work zone safety and control.

Key Personnel

Taryn Juidici, PE, LEED AP | Project Engineer

Education
Bachelor of Science in Civil Engineering, Michigan Technological University, 2004

Professional Registration
Professional Engineer, MI, 2009, #56020

Experience
10 years, 9 with OHM Advisors

Certification
LEED AP, US Green Building Council, 2009

Professional Affiliations
American Council of Engineering Companies (ACEC) Emerging Leaders Forum Steering Committee, 2012-present

Presentations
Workshops/Seminars on:
- Preparing Your Community for Electric Vehicles

Presentations on:
- Signing and Marking for Electric Vehicles
- Complete Streets Implementation
- Sustainable Design

Professional Development
- Project Management Bootcamp, PSMJ Resources, Inc., 2013

Taryn Juidici is experienced in providing traffic engineering services for local municipalities, county agencies and the Michigan Department of Transportation (MDOT). She is versed in the preparation of maintenance of traffic plans and related special provisions. Taryn's experience also includes pavement marking and signing. She is experienced in the creation of traffic simulation models. In addition, she is responsible for the preparation and review of various traffic-engineering studies including signal warrant studies, parking studies, safety studies and traffic impact studies. Taryn is responsible for the preparation of plans and studies in accordance with MDOT standards such as the MMUTCD and the standard highway signs manual as well as standards from other state and local agencies.

Taryn is also experienced in providing engineering design services for local municipalities, county and state agencies, school districts, universities, and other public and private clients. Her responsibilities include design of site infrastructure to support architectural projects. She specializes in configurations that accommodate all users while meeting applicable standards and budgetary constraints. Taryn's experience includes a diverse background in providing designs that enhance pedestrian and vehicular circulation and safety. She is experienced in the design of water, sanitary and storm sewer systems. As a LEED Accredited Professional, Taryn provides cost effective environmentally conscious design solutions.

Relevant Experience

Complete Streets Standards and Specifications, City of Novi, MI – Ongoing
Project Engineer responsible for the incorporation of complete streets into the City of Novi's existing roadway and pathway standards. The project involves evaluation of complete streets principles and practices and working with the City to incorporate specific elements into their standards. These standards and specifications will provide a basis for complete street implementation on projects within the City. Integrating complete streets concepts throughout the existing community standards will allow for the development of a consistent multi-modal approach to transportation planning and design.

Downtown Streetscape and Road Rehab, City of Fenton, MI – Ongoing
Project Engineer for roadway and streetscape improvements in Downtown Fenton. The project involves complete reconstruction of streets within the Downtown core, streetscape enhancements, utility upgrades, traffic calming, pedestrian facility

Relevant Experience Continued

improvements, and roadway rehabilitation. Responsible for traffic components of the project including traffic signs and pavement markings.

Traffic Impact Study Policy, City of Auburn Hills, MI – Ongoing
Project Engineer responsible for the development of a policy addressing the potential traffic impacts of new developments in the city. This policy will provide a basis for requiring studies and will identify critical components of future studies. This policy is intended to provide the City with the information necessary to plan for future transportation network needs.

Parking Requirement Update, City of Auburn Hills, MI – Ongoing
Project Engineer responsible for the review and update of the parking requirements in the City Zoning Ordinance. In recent years developers have been requesting deviations from the parking requirements at an increasing rate. This project will review the current requirements and revise the ordinance in order to more closely meet the needs of the city.

Plug-in Ready Michigan, Clean Energy Coalition – 2012
Project Engineer for the development of an electric vehicle infrastructure readiness plan for Michigan. The plan provides information and tools to planners, local officials, consumers, and private enterprises to prepare for an increase in plug-in electric vehicle. Evaluated siting considerations, accessibility accommodations and signing and marking concerns. Responsibilities also include community outreach.

Peters Road Traffic Calming, Village of Milford, MI – 2014
Traffic Engineer responsible for preparing traffic calming recommendations in conjunction with this roadway design project. The paving of peters Road in the village is expected to raise speeds on a desirable downtown bypass route. In order to maintain lower speeds and address resident concerns, recommendations include narrow roadway cross-sections and the construction of urban mini roundabouts.

Grand River Road Diet, City of Farmington, MI – 2014
Traffic Engineer responsible for preparing a road diet and corridor operations study for the Grand River corridor through the city of Farmington. With the potential to expand the limits of the core downtown streetscape the adjacent sections of Grand River were evaluated to determine if a road diet would be feasible for this corridor. Utilized traffic modeling software to evaluate multiple alternatives. The study included a review of available safety data for the study area.

Complete Streets Policy, City of Auburn Hills, MI – Ongoing
Project Engineer responsible for the incorporation of complete streets into the City of Auburn Hills existing development standards. This policy will provide a basis for complete street implementation on projects within the City. In addition to complete streets principles, the policy will incorporate elements of planning for the aging population.

Multiple School Safety Studies, Rochester Public Schools, MI – 2014
Traffic Engineer responsible for reviewing safety concerns related to the driveway and parking areas at Hamlin Elementary School, Adams High School and Van Hoosen Middle School. Study included onsite observation at the adjoining locations. Recommendations included substantial modifications to the bus loading areas, including the potential consolidation to one location. Parking lot and loading area circulation recommendations were also made along with developing long term options to increase loading zone capacity.

Superior Region Signal Optimization, MDOT – 2009
Traffic Engineer responsible for the collection of field data on existing traffic patterns and geometric configuration. Project includes the optimization of 75 signals located on corridors throughout the superior region.

Key Personnel

Steven M. Loveland, PE, PTOE | Traffic Project Engineer

Education
- Master of Science in Civil Engineering, Michigan Technological University, 2001
- Bachelor of Science in Civil Engineering, Michigan Technological University, 1997

Professional Registration
Professional Engineer:
- MI, 2002, #49187
- OH, 2010, #75127

Professional Traffic Operations Engineer, Institute of Traffic Engineers, 2006

Experience
16 years, 13 with OHM Advisors

Professional Affiliations
- Institute of Transportation Engineers, Michigan Section, Vice President, 2013-present
- Custer Complex Parent Teach Organization, Treasurer, 2013-present

Professional Development
- Traffic Signal Optimization – ASCE 2007
- Roundabout Design, MTJ Engineering, 2007
- Roundabout Design Workshop, NE Roundabouts 2007

As a Project Engineer in OHM Advisors' Traffic Group, Mr. Loveland has experience working on traffic operations studies, traffic impact studies, traffic impact study and site plan reviews for numerous municipalities, crash analyses, traffic data collection and signal warrant analyses. He is skilled in the use of Synchro/SimTraffic, RODEL, Paramics, HCS+, AutoCAD and MicroStation Software. In addition to traffic studies, Mr. Loveland has extensive design experience working on freeway and non-freeway signing and pavement marking plans, as well as maintaining traffic plans for stage construction.

As a design engineer in our Roads Group, Mr. Loveland gained extensive design experience working on road and highway projects for various counties throughout Southeastern Michigan. He has worked on all aspects of design, including horizontal and vertical alignment, grading and drainage plans, permanent signing and striping plans, and maintaining traffic plans for stage construction.

Prior to joining us, Mr. Loveland assisted in the development of contract plans and specifications for traffic signal design projects. These projects included traffic signal modifications, signal interconnects, Autoscope vehicle detection, temporary traffic signal design and new traffic signal designs.

Relevant Experience

Review of Traffic Impact Studies – 2001-Ongoing
On the behalf of various municipalities, typically review 5 to 10 traffic impact studies per year of proposed residential, office, commercial and industrial developments.

Massillon Road Corridor Plan, City of Green, OH – 2012
Lead Traffic Engineer for the analysis of the Massillon Road corridor and local network. Steve developed Synchro models for the existing conditions analysis and multiple alternatives throughout the study. Work also included analyzing multiple roundabouts and interchange configurations; including SPUI and DDI layouts. The goal was to find a combination of intersection and roadway improvements that would alleviate the traffic burden on Massillon Road.

Relevant Experience Continued

Road Diet Study: Campbell Rd, Crooks Rd and Main St, City of Royal Oak, MI – 2012-2014
Lead Traffic Engineer for this Road Diet Study of 3 corridors (Campbell Rd, Crooks Rd and Main St) in Royal Oak, MI. The purpose of the study was to determine if each of the corridors could be reduced in laneage and accommodate on street bike lanes. The project work included data collection, Synchro/SimTraffic analysis, and report writing.

AATA Park and Ride, City of Ann Arbor, MI – 2008
Lead Traffic Engineer responsible for the preparation of a traffic impact study for a proposed Park and Ride Facility (300 spaces) in the City of Ann Arbor at the US-23/ Plymouth Road freeway interchange.

Review of Site Plans – 2001-Ongoing
On the behalf of various municipalities, typically review 20 to 30 site plans per year of proposed residential, office, commercial and industrial developments for traffic related issues.

City of Charlotte Industrial Park Expansion, City of Charlotte, MI – 2007
Traffic engineer responsible for the developing a traffic impact study for the proposed 784,000 square foot expansion of the industrial park located in the Charlotte along Shepherd Street.

Marshall Industrial Research Park, City of Marshall, MI – 2004-2005
Traffic engineer responsible for developing a traffic impact study for the proposed 134 acre industrial research park located in Marshall along Kalamazoo Avenue.

City-Wide Bike Route Signs and Markings, City of Royal Oak, MI - 2014
Lead Traffic Engineer responsible for development of bid documents for the installation of the desired signs and pavement markings related to the City's Non-Motorized Transportation Bicycle Network Map and Bike Route Signage Master Plan. The delivery method treated this project as a form of installation inventory, and relied on log plans that detailed the locations to install specific signs and markings, and the accompanying details for the traffic control devices.

Speed Study (Beck Road from 8 Mile to 11 Mile), City of Novi, Oakland County, MI – 2007
Lead Traffic Engineer responsible for the speed study along Beck Road from 8 Mile to 11 Mile in Novi, MI. The study included data collection, crash analysis and report writing.

Traffic Signal Warrant Study (Beck Road and Cider Mill Boulevard), City of Novi, Oakland County, MI – 2007
Lead Traffic Engineer responsible for the warrant study of the Beck Road at Cider Mill Boulevard intersection in Novi, MI. The study included data collection, a warrant analysis and report writing.

Bicentennial Bikeway Engineering - Task 2, City of Columbus, OH – 2012
Project Engineer for the design of a mast arm installation along Henderson Road to hold lane use signage over Henderson Road. This pole replaced two strain poles with a span wire sign bridge; one of the poles was in the way of the proposed trail and needed to be eliminated. The calculations and specs utilized for the pole design were per City of Columbus standards.

I-94 BL (Stadium Drive) Non-Motorized Path, Kalamazoo County, Michigan Department of Transportation – 2003-2004
Traffic Engineer responsible for the signing, striping and maintenance of traffic pertaining to the construction of a non-motorized path in Kalamazoo along Stadium Drive. Approximately 1 mile of the path is an on-street bike lane with full signing and pavement markings.

Pearl Street Conversion From 1-way to 2-way, City of Ypsilanti – 2003
Traffic Engineer responsible for technical memo preparation detailing the transformation of Pearl Street from a 1-way

Relevant Experience Continued

street to a 2-way street. Work included coordinating traffic counts, safety analysis and a capacity analysis using Synchro Software.

Road Safety Audits for 4 Locations, MDOT, MI – 2014 Ongoing
Facilitator and Team Leader for RSA team evaluating four rehabilitation projects. The duties as the Facilitator and Team Leader include compiling data relevant to the project, conducting the project kickoff meeting, giving a presentation on the RSA process and scope of the specific job, leading the field review team and facilitating a debriefing meeting, preparing and giving the findings presentation, and preparing the final report.

Alignment Study for Hitchingham Road/Textile Road/ Stony Creek Road Intersections, Ypsilanti Township, Washtenaw County Road Commission – 2001
Traffic engineer for roadway alignment study, which evaluated the existing and future travel demands in the Hitchingham Road/Textile Road/Stony Creek Road triangle. The study identified practical alternatives, and recommended that modern roundabouts be constructed at all three intersections. The decision to proceed with the study recommendations is on hold pending the resolution of funding issues. The project work included traffic counts, traffic and accident analyses, a feasibility study comparing roundabout and conventional intersections, and report writing.

Textile Road Traffic Study, Ypsilanti Township, MI - 2012
Lead Traffic Engineer responsible for a study to analyze Textile Road from Stony Creek Road to Hitchingham Road and the Stony Creek Road at Hitchingham Road intersection. Alternatives considered and evaluated included: signalized alternative and roundabout alternative. The signalized alternative was analyzed using Synchro/SimTraffic. The roundabout alternative was analyzed using RODEL to determine geometric characteristics and roundabout capacity.

Master Thoroughfare and Pathway Plans, Rochester Hills, MI – 2008
Traffic Engineer assisted in development of Master Thoroughfare and Pathway Plans for the City. Analyzed select corridors for existing and future traffic congestion, identifying spot and network improvements to meet LOS goals of community.

Okemos DDA Traffic Study, Meridian Township, MI – 2008
Lead Traffic Engineer responsible for the traffic analysis of existing and forecast conditions near the intersection of Okemos and Hamilton Roads in Okemos, MI. The analysis included the evaluation of alternative roadway network configurations.

Ann Arbor Trail Traffic Study, Westland, MI – 2006
Lead Traffic Engineer responsible for the preparation of a report detailing the level-of-service under existing roadway conditions and two roadway design options. This report included a crash analysis, roundabout analysis using RODEL software, and recommendations as to which roadway design to use.

Geddes Road Corridor Study, Superior Township, MI – 2004-2005
Lead Traffic Engineer for project to evaluate existing and forecast conditions along this 6-mile corridor. Using Synchro/SimTraffic, the study included evaluating alternate improvements and general timelines for their need.

M-24 Access Management Plan, Michigan Department of Transportation, Oakland County, MI – 2006-2007
Traffic Engineer for project to develop an access management plan and model ordinance for the 14.5-mile long corridor. Process included a detailed crash analysis, reviewing existing geometry and operations, developing a Synchro /SimTraffic model of the corridor, and identifying low-cost spot improvements in Auburn Hills, Lake Orion, Oxford, Orion Township, and Oxford Township.

US-24 Access Management Plan, Michigan Department of Transportation, Monroe County, MI – 2004-2005
Traffic Engineer for project to develop an access management plan and model ordinance for the 10.6-mile long corridor. Process included a detailed crash analysis, reviewing existing geometry and operations, developing a Synchro /SimTraffic model of the corridor, and identifying low-cost spot improvements in Ash, Frenchtown and Monroe Townships

Relevant Experience Continued

and the City of Monroe

University Region Traffic Signal Optimization Management, Jackson and Hillsdale Counties, MI – 2013
Lead Traffic Engineer responsible to provide MDOT with assistance in providing project management services for signal optimization efforts performed by other consultants. The focus is on QA/QC evaluations and analysis of the optimization consultants' work product for 69 signal locations.

Wayne County Signal Optimization, Wayne County, MDOT – 2012
Lead Traffic Engineer and Deputy Project Manager for project to collect data, evaluate the operation and optimize the signal timing plans for 95 intersections along US-24 (Telegraph Road), US-12 (Michigan Avenue) and Old M-14 (Ann Arbor Road) in Wayne County.

Superior Region Signal Optimization, Multiple Counties, MDOT – 2011
Project Manager and Lead Traffic Engineer to collect data, evaluate the operations, and optimize the signal timing plans for 75 intersections throughout the Upper Peninsula.

Washtenaw County Signal Optimization, MDOT – 2011
Project Manager and Lead Traffic Engineer for project to evaluate the operation and optimize the signal timing plans for 32 intersections in and around the City of Ypsilanti under the jurisdiction of the Brighton TSC in the University Region.

M-3 Corridor and I-94 Isolated Locations Signal Optimization, Wayne County, MDOT – 2011
Lead Traffic Engineer for project to collect data, evaluate the operation, perform signal warrant analyses and optimize the signal timing plans for the M-3 Corridor and I-94 isolated locations in Wayne County, MI.

Grand Region Signal Optimization, Kent County, MDOT – 2008
Project Manager and Lead Traffic Engineer to collect data, evaluate the operation and optimize the signal timing plans for 85 intersections along M-37 & M-44 (East Beltline), M-44 Connector (Plainfield Rd), and M-11 (28th Street).

Goddard Road Reconstruction, City of Romulus, MI – 2014 Ongoing
Lead Traffic Engineer for this project that involved reconstruction of Goddard Road. Responsible for traffic counts, maintenance of traffic, signing and marking plans.

Evergreen Road Reconstruction, City of Southfield, MI
Lead Traffic Engineer for this project that involved reconstruction of one mile of minor arterial road ranging from three to five lanes. Full drainage improvements were required as well as reconstruction of two traffic signals within the project limits. Responsible for maintenance of traffic, signing and marking plans.

14 Mile Road, City of Farmington Hills, MI – 2007
Lead Traffic Engineer responsible for sign and marking plans related to the design and construction of 14 Mile Road from Farmington Road to Orchard Lake Road. Existing signs and pavement markings within the project limits are being upgraded.

Newburgh Road Reconstruction, City of Westland – 2003
Traffic engineer responsible for the development of sign and marking plans related to geometric changes at this location.

Main Street Reconstruction, Washtenaw County Road Commission, Northfield Township, MI – 2003
Traffic Engineer responsible for the development of sign and marking plans related to geometric changes at this location.

Key Personnel

Sara Merrill, PE, PTOE | Traffic Engineer

Sara Merrill is experienced in providing traffic engineering services for roadway construction projects, including traffic signing, striping, maintenance of traffic, crash analysis, trip generation, and traffic simulation. She has completed peer reviews for dozens of site plans, rezoning requests, and traffic impact studies on behalf of multiple municipalities. Sara is well versed with both current MDOT and local agency standards, including AASHTO and ADA guidelines. She also has a wide variety of field experience, which includes traffic counts, signing inspections, and roadway construction.

Education
Bachelor of Science in Civil Engineering, Michigan Technological University, 2005

Professional Registration
- Professional Engineer, State of Michigan, 2011, License No. 6201057839
- Professional Traffic Operations Engineer, 2011

Experience
6 years with OHM Advisors

Professional Affiliations
Institute of Transportation Engineers Member, 2006 present

Professional Development
- Traffic Signal EPIC Controller Workshop, Carrier & Gable, 2009
- Traffic Signal EPAC Controller Workshop, Carrier & Gable, 2008
- Michigan State University, Introduction to Sight Distance, 2007
- Michigan State University, Practical Applications for Sight Distance, 2007
- American Society of Civil Engineers, Roadside Delineation Webinar, 2006
- Sterling Systems, MicroStation Level 1 Training, 2006

Relevant Experience

Peer Review of Site Plans and Traffic Impact Studies – 2006 - Ongoing
On the behalf of various municipalities, reviewer of numerous site plans and traffic impact studies of proposed residential, office, commercial and industrial developments.

Shiawassee Road CA/CE, City of Farmington, MI – 2007
Traffic Engineer responsible for preparing the temporary pavement marking and signing plans, permanent pavement marking and signing plans, and detour route plans for Shiawassee Road within the City of Farmington.

Coolidge Road, 8 Mile to 10 Mile Improvements, City of Oak Park, MI – 2007
Traffic Engineer responsible for preparing permanent pavement marking & signing plans. This project featured a concrete overlay on a five lane roadway between 8 Mile Road and 10 Mile Road (gapping out the 9 Mile intersection within the City of Oak Park). It also included the addition of several landscaped median islands as part of a streetscape enhancement, and the replacement of at least four traffic signals within the project limits.

Superior Region Signal Optimization, Michigan Department of Transportation, MI – 2009-2011
Traffic Engineer for project to collect data, evaluate the safety and operation, and optimize the signal timing plans for 75 intersections in the Superior Region. Tasks included field collection of geometric and operational data, evaluating safety and intersection/corridor operations, preparing optimized signal timing plans, and determining measures of effectiveness (MOEs) for the project.

Sara Merrill, PE, PTOE | Traffic Engineer

Relevant Experience Continued

Traffic Signal Optimization for US 12, US 24 & Old M 14, Michigan Department of Transportation, MI – 2007-2010
Traffic Engineer responsible for coordinating and performing all field work, including conducting turning movement counts and gathering field geometric data for all signalized intersections along the M 14, US 12, & US 24 corridors within the Wayne County limits.

Grand Region Traffic Signal Optimization, Michigan Department of Transportation – 2009
Traffic Engineer for project to evaluate the safety for 85 intersections along four corridors of M-44, M-44 Connector, M-11, and M-37 in MDOT's Grand Region.

2008 SCATS/ADA Upgrades, Oakland County, MI – 2008-2009
Design engineer for the replacement/upgrading of traffic signals at six intersections in various communities along Lahser and Southfield Roads in Oakland County, Michigan. Sidewalk ramps were evaluated for ADA compliance and retrofit design plans to bring the sidewalk and ramps into compliance with current ADA/ MDOT standards were prepared.

2006 SCATS/ADA Upgrades, Various Communities in Oakland County, MI – 2007-2008
Design engineer for the replacement/upgrading of traffic signals at 15 intersections in various communities along Lahser and Orchard Lake Roads in Oakland County, Michigan. Sidewalk ramps were investigated for ADA compliance and design plans for the ramp and sidewalk retrofits were prepared. The intersections encompassed a variety of ROW constraints, existing site constraints and difficult skews.

M-97 and M-29 Signal Optimization, Macomb County, MI – 2005-2007
Traffic Engineer responsible for performing crash analysis of the M-97 & M-29 corridors within the Macomb County limits. High-frequency crash locations were identified and analyzed in order to identify solutions.

Taft Road Reconstruction Design, City of Northville, MI – 2006-2008
Traffic Engineer responsible for preparing the permanent pavement marking and signing plans. Duties also included performing peak hour turning movement counts, and completing a inventory of existing signs. The project consisted of reconstructing approximately 1.5 miles of Taft Road to include a single lane roundabout and bicycle lanes.

I 75 Freeway Signing, Michigan Department of Transportation, MI – 2006-2007
Traffic Engineer responsible for entering the alignment information into the Michigan Traffic Sign Inventory System (MTSIS), and for performing QA/QC. The project encompassed approximately 15 miles of urban freeway signing.

Jackson Road Reconstruction – Phase III, Honey Creek to Dino Drive, Washtenaw County Road Commission, MI – 2007
Traffic Engineer responsible for preparing permanent pavement marking & signing plans. This project included the complete reconstruction of two miles of Jackson Road from a two lane road to a four lane boulevard with bicycle lanes and pedestrian facilities.

11 Mile Road Reconstruction, Greenfield to Woodward, Cities of Oak Park, Berkley and Huntington Woods, MI – 2006-2007
Engineer responsible for preparing the permanent pavement marking & signing plans. This project included the complete reconstruction of over two miles of 11 Mile Road within the Cities of Oak Park, Berkley and Huntington Woods, as well as city-maintained off-street parking lots along this corridor.

Key Personnel

Tony Slanec | Principal, Director of Planning & Urban Design

Education

- Bachelor of Science in Landscape Architecture, The Ohio State University, 1999
- Minor, City & Regional Planning, The Ohio State University, 1999
- Graduate of the Mike Lin Graphic Workshop, Manhattan, Kansas

Experience

14 years, 9 with OHM Advisors

Professional Affiliations

- The Ohio State University - Knowlton School of Architecture, Adjunct Professor, 2009-present
- American Planning Association
- Michigan Planning Association
- Ohio Planning Association
- Urban Land Institute (ULI), Columbus Chapter
- Heritage Ohio
- National Trust for Historic Preservation
- Ohio, Kentucky, Indiana Regional Council of Governments, 2012 Conference Committee
- Main Street Organization
- American Society of Landscape Architects (ASLA)
- Merion Village Association
- Greater Common Good

With more than 14 years of professional experience, Tony's goal is to enhance communities through high-quality urban design and planning. Tony is an expert in creating creative and unique design solutions for all of his public and private clients. Tony's passion to seek out creative solutions is fueled by his unique ability to work with diverse user groups to establish a design direction and deliver community consensus and excitement for what is possible. As an urban designer, he believes that 'design' is a participatory process which brings citizens, business owners, developers, policy makers, and government officials together to create exciting community destinations that help build community "brand" identity, bolster investment / economic development, and promote walkable sustainable environments for ALL user groups. Most importantly, he builds on the character and positive qualities inherent to each unique place that he touches. Tony's creative talents and professional drive push past standard solutions to achieve a higher level of design that addresses project function and construction budget. His commitment to the community visioning process and sustainable development is the cornerstone of his personal and professional goals which translates to an intense interest in building community cohesion through the built environment. Tony's diverse portfolio gives him a 'creative edge' and a body of knowledge and experience to help change ordinary to extraordinary.

Relevant Experience

Newark Downtown Streetscape, City of Newark Ohio
Principal in Charge; Tony lead the planning and design process to create a downtown streetscape and transportation improvement plan for the City of Newark. The purpose of the project was to create a vision and plan for the future of Downtown Newark, with a focus on streetscaping, wayfinding, and enhancing the existing transportation network. Through this effort the goal was to improve the image and brand of the Downtown, and in turn the overall economic competitiveness of the area. The resulting solution included complete roadway network reconfiguration and streetscape enhancement (wider sidewalks, crosswalk articulation, plantings, gateways, Engineering of 4 (yes 4) roundabouts at the corners of the town square.

Tony Slanec | Principal, Director of Planning & Urban Design

Relevant Experience Continued

Massillon Road Streetscape Study, City of Green
Principal in Charge; Tony led the City of Green through the creation of a corridor plan for Massillon Road, a primary corridor within the community and region. The Massillon Road Streetscape Study resulted from this plan and includes pedestrian connections and transportation enhancements including roundabouts. A multi-use path is proposed on the west side of the road with a sidewalk along the east side. Public meetings were held to gather input on lighting design, streetscape design, landscape design, median design, and roundabouts.

COTA BRT Cleveland Ave. Central Ohio Transit Authority
Principal in Charge; OHM's involvement includes station design, streetscape design, design for two park and ride facilities for the 15.6 mile long Bus Rapid Transit operating along Cleveland Avenue from downtown Columbus to Westerville, Ohio. Improving transportation services along this corridor is an integral part of Central Ohio's long-term vision for growth. It is important that the community, and especially the neighborhoods potentially impacted, feel ownership in the story and outcome of the Cleveland Avenue BRT project. The degree of diversity that exists along this corridor requires targeted messaging, neighborhood ownership and sensitivity to businesses, existing and potential riders along the corridor. Our team is providing public outreach, architecture, site engineering, structural engineering, planning, and landscape architecture.

Main Street Streetscape Study, Mansfield, Ohio
Principal in Charge; This project consisted of developing a beautification plan for a major thoroughfare linking a peripheral highway to downtown Mansfield. The project included recommendations for pedestrian safety and comfort, building frontage development, landscaping and screening, street furnishings, highway bridge enhancements, and pocket parks.

3rd Street PE Study, City of Columbus (German Village)
Principal in Charge; Tony is leading a comprehensive study of the Third Street Corridor in historic German Village. The design and engineering study considers everything from enhancements to streetscape and lighting, wayfinding, traffic calming, stormwater management and utility relocation. "The Village" is known for its walkable brick streets, mid-19th century homes, involved citizens and unique businesses.

Spring – Long Multi-Modal Street Conversion, City of Columbus, Ohio
Principal in Charge; This project consists of providing engineering services on Spring and Long Streets with the intent of providing a safe east-west bicycle route for cyclists in Downtown Columbus. The project presented several unique challenges including maintaining the existing capacity and parking in the project area. The proposed solution includes changes to Spring and Long (one-way streets with an existing 3-lane section) to include dedicated a bike lane and on-street parking.

Bicentenial Bikeways Task Order, City of Columbus
Principal in Charge; This task order is being used to advance the implementation of the Bicentennial Bikeway Plan. Tasks have included on street bikeway striping plans for bike lanes, sharrows, and bike boulevards. This project was a quick to construct project and included a large retaining wall, removal of private owner items from the ROW, drainage modifications, guardrail relocation, new curb ramps, relocation of street lighting and survey services. Later tasks included beacon crossings, road diet analysis and public involvement including the neighborhood commissions.

Springfield One-way Conversion, Springfield Ohio
Principal in Charge of converting four downtown arterials from one-way to two-way traffic flow. This project utilized a comprehensive approach to studying the conversion including looking at the economic impacts of the conversion, and a complete streets approach to the alternatives development including enhanced pedestrian and bikeway facilities. Specific design elements considered as part of this project were bike

Tony Slanec | Principal, Director of Planning & Urban Design

Relevant Experience Continued

lanes, shared lanes, bike boulevards and designated bike routes utilizing alleys and other types of non-traditional biking facilities. The planning and public input process for this study followed the ODOT PDP planning process.

Vining Road Interchange, Romulus, MI
Project Manager and Lead Urban Designer, I-94 at Vining Road is the "gateway" to and from Detroit Metropolitan Airport. With the current interchange presenting a bleak entrance into the City of Romulus, the improvements will become a catalyst for positive attention, and a renewed identity and community brand for the City. The enhancements to the interchange will spur future business growth and economic development in the surrounding 1,000 acres of undeveloped, yet prime available land. This interchange will become distinctive along I-94, and create a sense of place for the City. Unique site elements such as, windmills, decorative walls, substantial landscaping, and bridge and gateway features will be some of the improvements incorporated in the interchange.

Auburn Hills Downtown Redevelopment, Auburn Hills, MI
Project Manager and Lead Urban Designer, One of the primary opportunities in Downtown Auburn Hills that was a driver for conducting this study was the City's purchase of a large manufacturing site north of Auburn Road and east of Squirrel Road. Surrounding this site were two other underutilized properties that when looked at collectively, created a large area to support future economic development, and continue to build on the downtown as an attractive destination within the community. The vision that was developed through this planning process for the future Downtown was simple, attract and promote future development by marketing new development opportunities. A vision plan was created around six primary development goals and is the catalyst for a redevelopment effort of a former blighted property.

Arlington Avenue Streetscape Improvements Ph IIa & IIb, Upper Arlington, OH
Urban Designer/Project Manager; provided client and consultant management, site design, landscape architecture, documentation oversight, and construction administration services for this phased project in conjunction with engineers EP Ferris & Associates, Inc. The project included study of three designated areas and provision of streetscape plans for each study area. Pedestrian zones were identified, and aesthetic treatments will be recommended for trees, plantings, pavement applications, and site furnishings

Central City Parkway Corridor Master Plan, Westland, MI
Lead Urban Designer; provided public space and urban design services to fulfill a recently completed community master plan that accommodates a highly diverse program of activities in Westland. The master plan identified a future City Hall site and a strategy to convert a former big-box format Circuit City into a state of the art City Hall and Community Center, carved out a site that includes a Farmers Market Plaza, performance stage and 'great lawn' community meeting/event facility, restrooms/concessions, outdoor seating/café space, arbor/trellis 'swing' benches, children's 'hidden' garden, and a wetland interpretive area. This transformational project results from months of planning and community engagement and will transform the grassy area into the 'cultural hub' of the Westland Community. The Central City Farmer's Market is considered a nodal element on a much grander plan of tying together a large commercial district to the north to the Civic District thereby creating a linear park called 'The Mile'. 'The Mile' is an aggressive plan underway to shrink Central City Parkway and shift the road to open up green space, multi-use paths, and bike lanes for a multi-modal linear park application. The Westland Library, Westland Central City Farmer's Market, City Hall, Tattan Park, community gardens, dog parks, and open space will line this multi-modal transit line.

Key Personnel

Aaron Domini | Senior Planner

Education
- Master of City and Regional Planning, The Ohio State University, 2004
- Bachelor of Science, Fort Lewis College, 2002, Cum Laude

Experience
12 years, 5 with OHM Advisors

Professional Affiliations
- American Planning Association, Central Ohio Chapter, Board of Directors
- The Ohio State University - Knowlton School of Architecture Adjunct Faculty, 2009-Present
- Ohio, Kentucky, Indiana Regional Council of Governments, 2012 Conference Committee,
- 2011-2012
- National Trust for Historic Preservation Member,
- 2009 - Present
- American Planning Association Member,
- 2004 – Present
- Michigan Planning Association Member
- Ohio Planning Association Member, 2010 – Present
- The Urban Land Institute, Design Juror

Aaron's background is in community planning, economic development, and public policy. He has played a key role in creating plans for urban, rural, suburban, and regional areas throughout the country. Aaron's expertise aside from creating community plans includes creating design guidelines, zoning code regulations and amendments, and master plans for new residential, commercial and mixed-use developments. Aaron is passionate about creating plans for communities that will build community, promote new economic opportunities, and have citizens at the center of the planning process. His background in community planning and visioning contributes to his knowledge and ability to lead and facilitate the public participation process. Aaron also has years of experience serving as a public sector planning administrator which contributes to his ability to create plans and codes that are easily understood and implemented by local stakeholders, staff, and elected and appointed officials.

Relevant Experience

Grand River Corridor Plan, Farmington Hills, Michigan
Project Manager for the Grand River Corridor, a mixture of auto-oriented development that was lacking a strong vision for the future. This plan provided a framework for the corridor to develop and redevelop in a cohesive and coordinated manner. Additionally, it made recommendations for streetscape improvement and future land use, and provide development scenarios based on those changes.

Downtown Revitalization Plan, Auburn Hills, Michigan
Senior Planner for the vision plan that was created around six primary development goals and is the catalyst for a redevelopment effort of a former blighted property. One of the primary opportunities in Downtown Auburn Hills that was a driver for conducting this study was the City's purchase of a large manufacturing site north of Auburn Road and east of Squirrel Road. Surrounding this site were two other underutilized properties that when looked at collectively, created a large area to support future economic development, and continue to build on the downtown as an attractive destination within the community. The vision that was developed through this planning process for the future Downtown was simple, attract and promote future development by marketing new development opportunities.

Downtown Conversion Study, Clark County-Springfield Transportation Coordinating Committee, Springfield, OH
Senior Planner; Aaron served as the senior planner for converting four downtown arterials from one-way to two-way traffic flow. This project utilized

Relevant Experience Continued

a comprehensive approach to studying the conversion including looking at the economic impacts of the conversion, and a complete streets approach to the alternatives development including enhanced pedestrian and bikeway facilities. Specific design elements considered as part of this project were bike lanes, shared lanes, bike boulevards and designated bike routes utilizing alleys and other types of non-traditional facilities.

Stark County Long Range Land Use and Transportation Plan
Senior Planner for the study of north central Stark County, Ohio. The study analyzed existing and projected land use to determine the resulting transportation needs of the study area for the next 20-25 years. Interviews with the development community assisted in identifying "Hot Spots" for potential development. Travel demand modeling was utilized to determine future traffic impacts to the existing system and alternatives were identified to mitigate the resulting impacts. A stakeholder committee was utilized for feedback during the process and assisted in prioritizing projects and opportunities to be included in the plan. The identified projects will become part of the MPOs long range transportation plan.

Wilson Bridge Road, Worthington, OH
Project Manager; Aaron was the project manager to develop a land use plan for the Wilson Bridge Road Corridor. The Wilson Bridge Road Corridor was an aging corridor with underperforming office and retail development and residential intermixed. The plan for this corridor included a full market analysis to determine if the market potential would support new mixed-use development strategies throughout the corridor. The planning process included extensive public involvement, and a two-day design charrette to develop multiple development concepts for the corridor. The final plan was a comprehensive area plan with strategic economic development strategies to guide growth and investment in the corridor. Following the completion of the corridor plan Aaron led a planning team to develop design guidelines and an overlay for the corridor. The guidelines and overlay codified the development principles outlined in the corridor plan.

New Albany Land Use and Transportation Study, New Albany, Ohio
Senior Planner working with the New Albany Company to develop transportation alternatives for the Village of New Albany to promote economic growth through the strategic re-thinking of the original village street alignments/network. Work included studies and preliminary engineering layouts for roadways including roundabouts, new road connectors, and the disconnecting of existing roadways. Each location was highly context sensitive with special attention to walkability. Other studies have included site circulation studies for entities such as the school campus and village core areas. A wider thoroughfare plan is also being developed as part of this effort.

Canton Economic Development and Strategic Marketing Handbook, Canton Township, MI
Senior Planner for this plan created to attract and guide future private investment in two primary commercial corridors in the community including Ford Road, home of IKEA. The final product is a sleek economic development tool that is intended to attract and guide private sector investment. The document, informed by a complete market assessment study, identifies market opportunities, outlines the potential development areas within the community, and includes capacity studies for each potential development area that were designed to accommodate the target users identified in the market study. In essence, the document serves as the "front-end" for future development deals for the targeted sites and communicates that Canton is open for business to the private sector.

Farmington Vision Plan, Farmington, Michigan
Project Manager for this plan that asked citizens what they wanted their city to be like in the future. The process involved several public meetings, small group sessions, and an online survey. A city with a historic downtown, but an eye to the future, Farmington sought a plan that will position itself as a place that will attract and retain residents. The plan yielded 47 recommendations covering topics such as economic development, transportation, and community events. Since the completion of the plan, the City and stakeholders have begun implementation of several of the recommendations.

Key Personnel

R. Michael Cousins, GISP | GISP Manager

Education
Bachelor of Science in Geography with a Specialization in Spatial Information Processing, Michigan State University, 2007

Experience
7.5 years, <1 with OHM Advisors

Certifications
- Geographic Information Systems Professional (GISP), GIS Certification Institute, #29470, 2012
- Former GIS/LIS Technologist, ASPRS, 2009

Professional Affiliations
- Improving Michigan's Access to Geographic Information Networks (IMAGIN)
- Michigan Communities Association of Mapping Professionals (MiCAMP) – Member, 2014-Present
- Urban and Regional Information Systems Association (URISA) – Member, 2012-Present
- Tennessee Geographic Information Council (TNGIC) – Member, 2014-Present
- Ohio-Michigan GIS User Group (OHMI) – Member, 2014-Present
- Southwest Ohio GIS Users Group (SWOGIS) – Member, 2014-Present

Michael Cousins is a results-oriented Geographic Information Systems (GIS) Analyst with strong work ethic and the ability to address complex problems and design technical solutions. Michael specializes in the areas of GIS, environmental planning and assessment, hydrology, and floodplain management. With over 7 years of experience in GIS and planning, his development concentrations range from data model design to spatial analysis for water resources. The popularity and near necessity of GIS technology within municipal government and public organizations has driven his desire to understand the spatial and attribute components to public assets, such as utilities and natural features.

Due to the increased demand for data spatial accuracy and integrity, Michael's focus has also been on the integration and usage of GPS and mobile platforms. Incorporating GPS and GIS together creates an enterprise solution for data collection, analysis and presentation.

Along with data platform design and development, Michael has added his expertise to numerous professional organizations and is heavily involved in the GIS community. Michael is experienced in using a variety of software and related tools, including ERDAS IMAGINE, ESRI ArcGIS, 3D Analyst Extension, Spatial Analyst Extension, ArcHydro, ArcPad, Adobe Photoshop and Microsoft Office

Relevant Experience

As Needed GIS Support, Data Management, Updates, and Modeling
- Charter Township of Orion
- City of Auburn Hills
- City of Farmington
- City of Westland
- Livingston Community Water Authority
- Village of Baraga
- Village of Pinckney
- Village of Dexter
- Superior Township
- Scio Township
- Ypsilanti Township

Romulus Pavement Maintenance Program, City of Romulus, MI – Ongoing
GIS Manager for this project. The City of Romulus has 106 miles of streets in their jurisdiction. The project includes collecting PASER condition ratings yearly and continuous tracking of contracted pavement maintenance procedures. Michael takes the data from Roadsoft and creates various figures showing the yearly ratings to be used for further analysis.

R. Michael Cousins, GISP | GISP Manager

Relevant Experience Continued

MDOT – Detroit Non-Freeway Sign Inventory – 2014-Ongoing
OHM Advisors was tasked with collecting a full sign inventory of 4 major roads in Detroit totaling approximately 22 miles and over 2,200 signs. Michael was the GIS Manager. Michael developed a new data collection technique using tablets and a portable GPS that would allow our technicians in the field to take a full inventory, including pictures, in a fast and efficient manner that exceeded expectations from the client.

Ypsilanti Township Residential Rental Analysis - 2014
OHM Advisors was tasked with performing residential rental analysis on properties throughout the township. Using tax assessors data, crime data, and existing GIS parcel data, Michael created various hotspot report figures to be used for future development. Michael was the GIS Manager and served as the primary person responsible for creating these figures.

City of Milan Sign/Sidewalk Repair Inventory – 2014
OHM Advisors was tasked with collecting a full sign and sidewalk repair inventory in Milan. Milan is approximately 3.4 square miles. We collected almost 900 signs and nearly 2,400 sidewalk repair points. Michael was the GIS Manager. Michael used his new data collection technique, which uses tablets and a portable GPS that would allow our technicians in the field to take a full inventory, including pictures, Field inventory only took 9 days to complete.

Village of Chesaning Sign/Sidewalk Repair Inventory – 2014
OHM Advisors was tasked with collecting a full sign and sidewalk repair inventory in Chesaning. Chesaning is approximately 3.1 square miles. We collected almost 600 signs and just over 1,600 sidewalk repair points. Michael was the GIS Manager. Michael used his new data collection technique, which uses tablets and a portable GPS that would allow our technicians in the field to take a full inventory, including pictures, Field inventory only took 5 days to complete.

U.S. Army – SE Core Subcontractor, Orlando, FL – 1.5 years*
Michael was Project Lead and QC Lead for 20+ GIS staff on various projects. Primary duties included manipulating feature classes to match provided imagery through attribution and alignment to create a real world simulated environment in Terra Vista or various 3D simulators; overall QA/QC of post production data including but not limited to: attribution, alignment, conflict resolution and fixing of data if failure when tested in the 3D simulator; troubleshoot methods, resolve SDE conflicts and overall decision making on usage of data and attribution; create new databases, source standardize data, and overall QA/QC before database is released on the production floor; innovate new methods and strategies that will speed up production but still adhere and meet the SE Core program guidelines, this includes new models, python scripts, write ups for production use, and changes to existing documents.

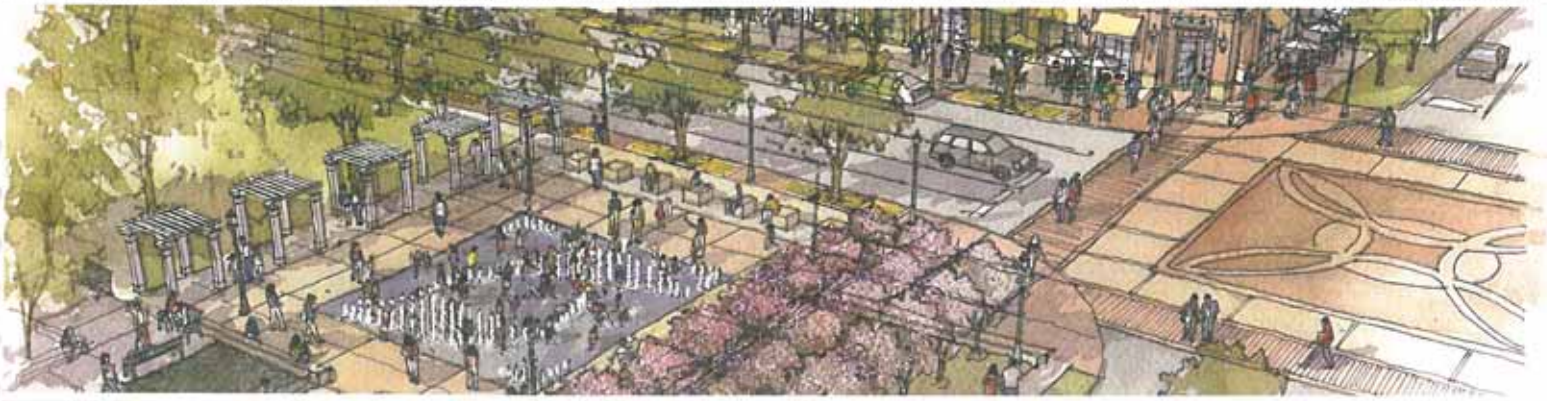
Bartow Watershed Management Program, Bartow, FL*
Michael was the Primary GIS Specialist for this project. The Bartow watershed spans approximately 8.5 miles and centers around the City of Bartow. Ardaman and Associates' scope of work for this project focuses on hydraulic evaluation of the watershed and includes development of an inventory of the City's stormwater system. Michael's duties included the following tasks: collection and evaluation of existing data, desktop reconnaissance, identification and delineation of hydraulic features, extensive field reconnaissance using a Trimble GPS handheld, quality control, and preparation of deliverables (reports and GIS databases).

North Port/Big Slough Watershed Management Program*
Michael was the GIS Specialist responsible for this joint City of North Port and Southwest Florida Watershed Management District project studying a 195-square mile watershed. His tasks included the generation of floodplains, data management, Best Management Practices analysis, and the production of a variety of map products.

*Work completed outside of OHM Advisors

MULTIMODAL TRANSPORTATION PLANNING & TRAFFIC ENGINEERING

OHM Advancing Communities



SUSTAINABLE COMMUNITIES, CONTEXT-SENSITIVE MULTIMODAL DESIGN, MULTIMODAL PLANNING, INNOVATIVE TRAFFIC ENGINEERING SOLUTIONS.

Municipalities across the country are working to create safe and practical access to streets for a variety of user groups including vehicles, pedestrians, bicycles, freight, and transit. This movement has been addressed in a variety of ways in both the planning and engineering sectors over the past decade. OHM Advisors has been a leader in this movement to develop livable communities by applying context sensitive design concepts to develop balanced multimodal networks for many years. Our approach carefully considers existing and planned connections, the project's context, the user's point of view, and the relationship to the existing and future system, to develop solutions that work for your community.

PLANS & STUDIES

- Thoroughfare Plans
- Transit Orientated Design Master Plans
- Trail and Bikeway Plans
- Area-wide and Corridor Studies
- Access Management Studies
- Road Safety Audits
- Road Diets

COMMUNITY-BASED STREET DESIGN

- Complete Streets
- Streetscapes and Gateways
- Way-finding, Branding and Signage Plans

TRAFFIC ENGINEERING

- Capacity Analysis
- Roundabout Analysis & Design
- School & Pedestrian Travel Studies
- Safety Studies
- Parking Studies
- Data Collection Services

SPECIAL ADVISORY SERVICES

- Funding Procurement Assistance
- Geospatial Decision-Making / GIS Services

OHM
Advancing Communities

WHAT WE DO BEST

Over 200 professionals dedicate their time and talents to OHM Advisors. Our team includes architects, civil, electrical, environmental and mechanical engineers, planners, urban designers, surveyors, grant writers, LEED accredited professionals and information technology professionals.

We use collaboration, attention and long-term involvement to serve as the trusted advisor to clients.

~ John Hiltz - President

- Architecture
- Municipal Engineering
- Planning & Urban Design
- Environmental & Water Resources
- Water & Wastewater Treatment
- Transportation
- Parks & Recreation
- Construction Engineering
- Geographic Information Systems
- Surveying
- Information Technology

ABOUT OHM ADVISORS

Orchard, Hiltz & McCliment, Inc. (OHM Advisors) is a firm of architects, engineers and planners committed to Advancing Communities. Leaders rely on our proven public and private sector expertise, insightful counsel and forward thinking to create lasting, viable places and communities.

We opened our doors in Detroit, Michigan in 1962 and have been growing ever since. Headquartered in Livonia, we have offices across Michigan, and in Tennessee and Ohio.

- Cities, Villages, Towns
- Counties & Townships
- K-12, Colleges & Universities
- State and Federal Agencies
- US Army Corps of Engineers
- Fortune 500 Companies
- Utility Authorities
- Parks Authorities
- Road Agencies
- Corporations

As-Requested Traffic Engineering Services | Midland, MI

Client Reference Information
City of Midland, MI
Brian McManus
City Engineer
989-837-3353
333 W. Ellsworth St
Midland, MI 48640

Completion Date
Ongoing since 2007

Services Provided
- Transportation Planning,
- Traffic Engineering,
- Traffic Operations
- Geometric Studies

We are providing a full spectrum of traffic engineering and transportation planning services to this community. While available at any time to deal with specific, pressing issues, we generally travel to the community on a regularly scheduled bi-monthly basis to provide advice, evaluations and recommendations to address numerous and varied issues confronting impacted stakeholders. The regular trips are coordinated to facilitate any required meetings with the City Council, Planning Commission or other agencies, as appropriate. The singular point of contact for this work is Mr. Dearing, supported by the OHM Traffic Group staff for more involved evaluations and studies.

Some examples of our transportation planning services to Midland include:

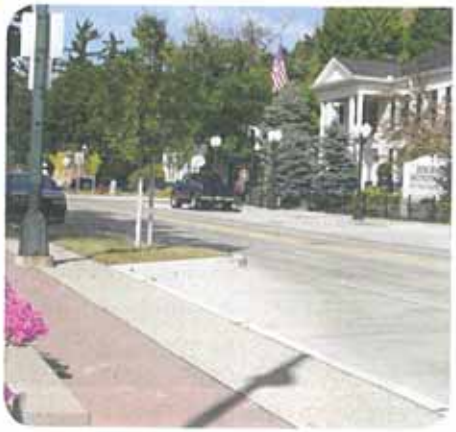
- Advising on access management policies
- Performing site plan reviews
- Evaluating the traffic impact studies provided by developers
- Assisting with preparation of funding applications.

For traffic engineering services, we have provided:

- Crash analysis and identifying mitigation countermeasures for individual intersections and road segments,
- Operational evaluations of individual intersections and road segments, including warrant studies for the installation of YIELD, STOP, all-way STOP or signal controls, parking restrictions and speed limits,
- Signal optimization and operational studies,
- School and general pedestrian safety evaluations,
- Bicycle route signing and pavement marking guidance, whether for dedicated bike lanes or shared use paths.

We have also undertaken to assist in the training of City DPW personnel in work zone traffic control planning and field set up.

Grand River Streetscape | Farmington, MI



Client Reference Information
City of Farmington, MI
Vince Pastue, City Manager
248.474.5500
23600 Liberty Street
Farmington, MI 48335

Completion Cost and Date
$1,400,000 - 06/2010

Services Provided
- Traffic Capacity and Operational Analyis Study
- Topographic and Construction Surveying
- Geotechnical Engineering Services
- Roadway, Storm Sewer and Culvert Design
- Construction Engineering including Testing
- Traffic Signal Modernization Design
- Pedestrian Signal Design
- Engineering Studies, Preliminary Drawings and Data required for funding and grant applications
- Non-Motorized Pathways

This project was a complex streetscape project in a downtown area that experiences heavy traffic, as it is an MDOT trunk line road. The project involved detailed coordination with the MDOT, RCOC, as well as the City's DDA.

The project involved a comprehensive traffic study to justify to MDOT the removal of a lane of traffic on both the north and south side of the road. This facilitated the construction of parallel parking stalls (bump outs) and the widening of the sidewalk area along Grand River Avenue in certain locations. Due to these changes in the grading additional storm sewer was designed and constructed to help facilitate drainage.

New sidewalk was placed from the proposed back of curb to the building fronts, partially comprised of brick pavers. Signal modernization with mast arms were designed and installed at two main intersections.
The existing building facades posed difficult design and construction constraints due to their proximity to the roadway, as well as the variation of the brick ledge elevations from building to building.

Old infrastructure from the turn of the century such as basements and stairwells that extended beneath the proposed sidewalks and brick pavers posed difficult design and construction constraints.

Two-way traffic was maintained in this downtown area throughout construction as well as access to all businesses, which was a key concern for the DDA.

Cleveland Avenue Bus Rapid Transit | Columbus, OH

Client Reference Information
Central Ohio Transit Authority
Michael J. McCann
Director of Planning
William J. Lhota Building
33 North High Street
Columbus, OH 43215
614-275-5812

Completion Date and Cost
Ongoing
Estimated $46 Million

Services Provided
- Public Outreach
- Architecture
- Site Engineering
- Structural Engineering
- Planning
- Landscape Design

OHM Advisors, in partnership with HDR, Inc., is providing preliminary design, engineering, and environmental clearance for a proposed Cleveland Avenue Bus Rapid Transit (BRT)/Enhanced Bus Service Project.

The new service will transport riders between Downtown Columbus and Polaris Parkway/ Africa Road, stopping at 62 designated stations in both directions along the way.

OHM is assisting COTA with public outreach efforts to inform and engage participation on key elements including developing a unique BRT identity that will be carried forward into the future service of the BRT corridor as well as potential future corridors. The project will create the following benefits for the community:

- Improved transit service
- Improved mobility and reliability in a congested corridor
- Travel times savings of approximately 21 percent
- More travel options for growing transit-dependent populations
- Improved pedestrian access and safety
- Creates opportunities for economic development within the corridor
- A projected 15-20 percent increase in ridership in the rst ve years

BRT Station Ammenities will include:
- ADA ramps
- Distinctive pavement & crosswalks
- Indoor waiting area
- Shelter with bench and lighting
- Bicycle parking
- Public art
- Landscaping
- COTA system map/paper
- Ticket vending machines

Massillion Road Corridor Plan | Green, OH

Client Reference Information
The City of Green
Wayne Wiethe, Director of Planning & Development
1755 Town Park Boulevard
Green, Ohio 44232
330.896.6614

Completion Date and Cost
2011
$300,000

Services Provided
- Planning
- Urban Design
- Landscape Architecture
- Transportation Planning

Our team assisted the City of Green, Ohio to create a corridor plan for Massillon Road, a primary corridor within the community and region. The plan created a variety of economic development and placemaking strategies aimed at attracting investment to the corridor, grounded in transformational ideas of what the corridor could be in the future.

The plan was initiated by the city in response to tremendous growth within the Massillon Road Corridor. Three new health care businesses and a large Fortune 500 company were considering moving to the corridor. The corridor plan served as a tool to attract these economic opportunities by illustrating a clear picture of how the city would guide future development in the corridor, and invest in public projects that will define the character of the community, and contribute to improving the overall quality of life.

Our team was selected to create the corridor plan based on a proven track record of both public and private sector planning, including a long history of planning and designing corporate headquarters, and understanding what it takes to attract and retain high-quality investment in a community through both the public and private sector lens.

The plan resulted in all three health care facilities and the Fortune 500 company selecting Green as their community to expand in and call home.

Streetscape and Transportation Plan | Newark, OH

Client Reference Information
The City of Green
Wayne Wiethe, Director of Planning & Development
1755 Town Park Boulevard
Green, Ohio 44232
330.896.6614

Completion Date and Cost
2014 - Design
$50,000 - Design

Services Provided
- Planning
- Urban Design
- Landscape Architecture
- Traffic Engineering

OHM Advisors led a planning and design process to create a downtown streetscape and transportation improvement plan for the City of Newark. This effort was conducted in concert with a multi-million dollar sewer separation project to improve the aging city infrastructure in the downtown.

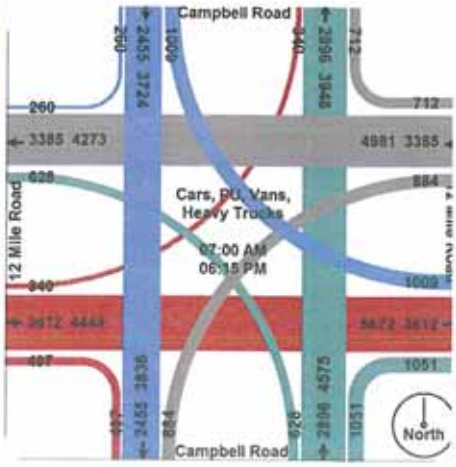
The purpose of the project was to create a vision and plan for the future of Downtown Newark, with a focus on streetscaping, wayfinding, and enhancing the existing transportation network. Through this effort the goal was to improve the image and brand of the Downtown, and in turn the overall economic competitiveness of the area.

The planning process included extensive public outreach in order to build consensus related to the vision and plan, and more specifically the future of the historic square anchored by the Licking County Courthouse. The planning process extended over a six month period and included eight stakeholder meetings and three public meetings, with more than 500 local residents contributing their ideas to the future of Downtown Newark. Multiple meetings were also held with local leaders, developers, and philanthropists to gain perspective on, and support of, the project.

Through the public outreach process a vision was created for the streetscape which included among other elements enhanced lighting, pedestrian amenities, landscaping and extended sidewalks to accommodate on-street dining and entertainment. It was also determined one of the major barriers to growth and development in the downtown was the existing auto centric traffic pattern around the square. Specific issues identified by the community included access, safety, and an inadequate pedestrian network.

In response to this key finding, OHM Advisors performed a traffic study which considered multiple alternatives (including traffic signals and roundabouts) that would address the issues identified by the client and public. The outcome of this study was a preferred alternative which included four roundabouts at the four corners of the square.

Road Diet Study | Royal Oak, MI



Client Reference Information
City of Royal Oak
Matt Callahan
City Engineer
248.246.3260
P.O. Box 64
Royal Oak, MI 48068-0064

Completion Cost and Date
$53,900 - 2013

Services Provided
- Traffic Capacity Analysis
- Geometric Studies

As part of a city-wide effort to improve non-motorized mobility through the city, Royal Oak was considering the reduction some of their roads from 4-lane roads to 3-lane roads, to accommodate the placement of on-road bicycle lanes. This type of reduction is commonly referred to as a "road diet."

The study limits included the following corridors:

- Campbell Road from 10 Mile Road to 12 Mile Road
- Main Street from Rochester Road to Normandy Road
- Crooks Road from Main Street to Normandy Road

The study analyzed in detail the potential impacts of implementing road diets along these corridors, identifying where road diets can be implemented and where they would not be ideal. Existing crash pattern were evaluated, as well as modeling the roadway corridors with Synchro / SimTraffic for both existing and forecast traffic volumes, under the current configuration and with lane reductions. It also included a pro / con statement for each corridor.

The study concluded that portions of the corridors would be good candidates for lane reductions. But there were specific locations in each of the three corridors, typically major signalized intersections, where a lack of capacity would lead to unacceptable levels of congestions.

Village of Grand Travese Transportation Planning Review | Acme Township, MI

Client Reference Information
Acme Township
Sharon Vreeland
Twp. Manager
231-938-1350
6042 Acme Rd
Williamsburg, MI 49690

Completion Cost and Date
$46,400 - 2012

Services Provided
- Site Plan Reviews
- Traffic Capacity Analysis
- Geometric Studies

The Township of Acme was faced with the largest, most complex land use proposal in its modern history – a 182 acre multi-use development fronting M-72 at its junction with Lautner Road. At its heart was the concept of creating a new 'village'-scale downtown, with retail, hotel, and housing. On the outskirts of this new downtown was to be a single big-box retail store for Meijers, intended as the catalyst for the rest of the development.

The site had already undergone several revisions in the mix of land uses and development density, been the subject of lawsuits and precipitated recall elections. After years of controversy, in 2009 OHM was brought in to assist the Township in reviewing the development site plan and traffic impacts.

We worked collaboratively with the Township staff, the Grand Traverse County Road Commission and MDOT to identify the appropriate scope of the traffic analysis, coordinating the interests of each agency into a single, coherent set of standards for the developer's consultant team to incorporate into their plans and studies. With this fresh start from the reviewing agencies, the developer brought in a new MDOT-prequalified traffic consultant to compile a fresh traffic impact study and assist with yet further revisions to the site plans.

We evaluated the plans for roadway geometry. We suggested revisions to the street network within the development to promote complete streets, forming a coherent mix of sidewalks, pedestrian crossings, and bike lanes. We performed quality control checks on the developer's modeling with Synchro / SimTraffic for the adjacent roadway corridors, for both existing and forecast traffic volumes. With a clearer understanding of the significant impacts, we helped lead extensive discussions with the various stakeholders. They honed in on a range of alternative roadway and intersection improvements, both on site and for the adjacent highways, to mitigate the impacts. At our suggestion, several locations were evaluated by the development team for roundabouts in place of traffic signals.

After three years of effort, as the development proposal approached completion, we attended various public information meetings and hearings before the Planning Commission and Township Board. We reported at these meetings on the due diligence undertaken by the public agencies to safeguard the public interests. The development proposal was ultimately approved and began construction in 2014 for its first phase.

3. Other Clients

Other Clients

OHM Advisors is a broad-service Architecture, Engineering, and Planning firm with seven offices in three states. However, our southeast Michigan roots are based on providing engineering services to governmental clients with a particular focus on the municipal market. Even as we have added services, expanded into other markets, and grown our public and private sector expertise, we remain committed to providing insightful counsel and forward thinking to create viable communities. We feel that our ultimate client is the users of the facilities we design, whether it is of a road, pathway, sidewalk or a building. We believe our professional duty is to advance the best interests of the public. We will be focused on achieving the best outcome for the City of Birmingham's customers.

The RFQ has requested information on the average percentage of income earned by OHM Advisors for the past three fiscal years. The particular focus was income earned from MDOT, RCOC, and from private firms involved in development projects within Oakland County. Net revenue figures (total less pass through amounts to sub-consultants) are provided for years 2011 through 2013:

Client	Net Revenue	% Total
MDOT	$4,950,536	8.8%
RCOC	$1,587,623	2.8%
Private	$26,590	0%
3 Year Total	$56,334,257	100%

We are not aware of any relationships with developers active in Birmingham. However, we are prepared to stipulate that we will relinquish any such relationships, and not engage in any new associations while serving the City of Birmingham.

4. Consultant Approach

OHM Advisors has the in house, diverse team to provide assistance to Birmingham for both the Traffic Engineering and the Multi-Modal Design/Review outlined in the Request for Proposals. Steve Dearing will be the key contact, but we expect he will use the talents of Taryn Juidici when reviewing proposed street improvements and the multi-modal aspects of traffic flow for all users. Steve will also know when to recommend to the community the use of OHM's urban design team and their varied skills to assist with the evaluation of how changes in policies can impact the City or what the impacts of a large scale development might look like to the City.

Strong Leadership – Mr. Stephen Dearing, PE, PTOE will be the lead professional to serve the City of Birmingham. He will personally assist with resolving inquiries, problems and complaints, and will be the primary point of contact with City staff. He will attend all pertinent Board and Commission meetings. He understands the transportation issues confronting cities, having been the on-staff City Traffic Engineer for Naperville, IL and Rochester Hills, MI. Steve is continuing his service to the traveling public, serving the needs of Midland, Troy and other Michigan communities on an as-requested basis as their consultant.

Support in Depth – While Mr. Dearing is a very capable individual, there are work assignments and tasks that require the talented efforts of a team. OHM Advisors has one of the largest traffic engineering teams amongst consultants in Michigan. We have the resources of several experienced traffic engineers to perform tasks in an expeditious, cost effective manner. Resumes are provided for our full traffic engineering team. Please note that this group of professionals represents about 70 years of cumulative experience in traffic engineering and operations. Each has a fundamental grounding in traffic issues experienced by municipalities, as well as diversity in projects that run the gamut from signal optimization, safety studies, traffic calming, to complete streets.

Multi-Modal Approach – The City of Birmingham is a vibrant community. Some traffic issues will not be trivial, and will involve finding creative ways of fitting transportation solutions into the urban fabric your community. While Mr. Dearing has a strong background in non-motor vehicle transportation he will have strong support from professionals that are recognized leaders in helping advance communities with urban design and multi-modal transportation planning. Messrs. Tony Slanec and Aaron Domini, respectively, will be available to Birmingham to strengthen the OHM project team when needed by the demands of a challenging project or study.

Community Outreach and Communication – With a diverse community like Birmingham, problem solving starts with active listening to the residents and business owners. When required by the scale and scope of the problem(s) being addressed, OHM Advisors can mobilize a team to assist the City with this process of outreach. When time to report back to the community, it is sometimes critical that clear, compelling map products or other exhibits are available for public presentation. So we have Mr. Michael Cousins available to support the City as it gathers community reaction on proposed solutions and present them back in graphical form.

5. Consultant Fees

2014 Rate Schedule

Classification	Rate
PRINCIPAL	$180
SR. ASSOCIATE	$170
ASSOCIATE	$155
SR. TRAFFIC ENGINEER	$175
TRAFFIC ENGINEER	$150
PROFESSIONAL ENGINEER	$125
GRADUATE ENGINEER	$105
TECHNICIAN IV	$110
TECHNICIAN III	$100
TECHNICIAN II	$85
TECHNICIAN I	$65
ENGINEERING AIDE	$60
PROFESSIONAL SURVEYOR II	$125
GRADUATE SURVEYOR	$100
SURVEYOR III	$95
SURVEYOR II	$85
SURVEYOR I	$65
SURVEYOR AIDE	$48
LANDSCAPE ARCHITECT	$110
PLANNER II	$110
PLANNER I	$70
PLANNER AIDE	$50
GRAPHIC DESIGNER	$100
ADMINISTRATIVE SUPPORT	$55
CLERICAL AIDE	40

Notes:
1. Rates are inclusive of mileage and other miscellaneous charges.
2. Reimbursables are charged for presentation materials (boards, models, rental equipment, etc.) at cost plus 10%.
3. Rates are reviewed on a calendar year basis and subject to reasonable adjustment after notification to the City.

City of Birmingham

Statement of Qualifications
Transportation Engineering
Consulting Services

7|31|14

GIFFELS WEBSTER

STATEMENT OF QUALIFICATIONS

Giffels Webster is pleased to submit our qualifications to the City of Birmingham in direct response to the Request for Qualifications issued for Transportation Engineering Consultant Services. We believe we possess the right balance of multi-modal design skills and traffic engineering skills in order to help the City and the Multi-modal Committee achieve their goals.

Our primary business revolves around civil engineering, surveying, landscape architecture, and planning services. For more than 60 years we have been fortunate to provide professional support to thousands of clients in Southeast Michigan. This strong client base, coupled with our community involvement, has been instrumental in the development of improved procedures and reasonable fees while assuring the stability and continued growth of our firm.

Giffels Webster has several key attributes that influence our decisions and makes us unique in the engineering/surveying field. We bring a unique perspective to our clients because of our diverse experience in both the public and private sectors. We understand best practices from the private world and can effectively couple them with regulatory standards and concerns. Furthermore, on every single project we strive to balance the needs of our clients, our communities, and the environment in order to leverage our designs for the benefit of people. We design our projects with a vision towards the future while keeping the safety and enjoyment of the end user squarely on our minds.

Finally, we value our lasting relationships with our clients, which are built on the basic characteristics of integrity, trust, professionalism, and a genuine concern for the quality and success of the project(s) that we work on together. We have had relationships with most of our clients for over 10 years, with some municipal clients more than 25 years. We believe that there is no better statement of qualification than the endorsement of a good client that provides repeat business, and there is no greater mission than to continuously satisfy their objectives.

Headquartered in Detroit and with offices in Washington Township and the City of Birmingham, our staff of more than 70 professionals has the in-house capabilities to provide the services requested. There may be occasion, should the City request that we collect field traffic counts, that we may enlist the assistance of another firm to perform those field operations. In the event that this occurs we would obtain approval from the City prior to engaging them.

PERSONNEL

We believe that a project team is only as strong as its members. But corporate resumes only tell a part of the story and truly mean little if the people assigned to your project were not involved. The staff of Giffels Webster is made up of people with years of experience analyzing and designing infrastructure improvements within urban communities of Southeast Michigan.

The team at Giffels Webster, under the direction of Mike Darga, PE, will be the primary resource for the city on a day-to-day basis. Giffels Webster has extensive experience providing consulting engineering services to a number of communities throughout Southeast Michigan. Full resumes are included in the appendix.

Michael Darga, PE – Senior Project Manager

Mike has 28 years of experience in public administration, including public works and engineering, administration, planning and implementation. His previous position with the Wayne County Department of Public Service – Engineering Division, coupled with his years at engineering consulting firms, has given him a unique understanding of project management, road capital improvements plans, construction management and infrastructure improvement projects. He has experience in the preparation of grant applications and has been successful in coordinating and negotiating with state, regional and local governments, along with regulatory agencies, businesses, utilities and residents. In this capacity he has implemented complete streets and other non-motorized transportation projects, greenways, streetscapes and environmental projects.

James Renshaw, PE, PTOE – Project Engineer

Mr. Renshaw has over 25 years of comprehensive traffic engineering experience as a professional engineer. As a former municipal traffic engineer, he was responsible for implementing and maintaining a wide range of traffic control and management programs. He has considerable experience in intersection design and operations, capacity analyses, signal design, signal system design, ITS, and transportation planning on both a project and regional level. He has also served as an expert witness relating to pedestrian design elements and pedestrian safety. Jim also chaired the Institute of Traffic Engineers (ITE) national committee 4A – Pedestrian Treatment at Signalized Intersections.

Scott Ringler, PE, LEED AP – *Partner*

Scott Ringler has 24 years of comprehensive experience in the design and management of infrastructure rehabilitation and reconstruction projects for Giffels-Webster. Many of his projects have included the resurfacing of major roads and streetscape improvements, and have involved MDOT project coordination and assistance with local agency programs. His infrastructure experience includes pavement rehabilitation, water main replacement, sewer rehabilitation and construction engineering. Scott has been the engineer of record for the City of Ferndale for over 20 years and the City of Lathrup Village for over 10 years where he has overseen the design and implementation of numerous complete streets projects. Scott is in charge of the Quality Control and Assurance Program for the entire firm. He had developed many of the systems the firm utilizes to ensure quality including cost estimating guides, plan preparation procedures, plan review, contact documents and review check lists.

QUALIFICATIONS OF TEAM AND PERSONNEL

We are privileged to work in various markets and for various types of clients, particularly when it involves the rehabilitation of our urban centers. Giffels Webster has successfully combined multi-modal planning and design and traffic engineering analysis like few can match. We have included several project sheets in the appendix, but these represent only a fraction of our experience and more information can be provided if requested.

Our vast experience planning, designing and implementing multi-modal solutions into existing transportation systems will give the City of Birmingham a resource unmatched by other firms. We have prepared non-motorized master plans for large-scale communities (City of Detroit), small neighborhood districts (Midtown, New Center), as well for challenging roadway corridors (Woodward in Royal Oak/Birmingham, Michigan Avenue in Corktown, Gratiot in Eastpointe, and Eight Mile across Wayne/Oakland/Macomb).

We've also prepared construction documents and helped guide multi-modal improvement projects through implementation. This includes on-road bike lanes (Detroit) and off-road multi-use paths and trails (Oxford Township, etc) as well as mid-block pedestrian crossings and full ADA compliance. We therefore understand state and federal standards and practical construction constraints, which translates into documents that are buildable.

OTHER CLIENTS

Our portfolio includes projects for both public agencies and private developers throughout the country. That being said, we currently do not have any private development projects underway (in any phase) within the City of Birmingham. We agree that, if selected, we will not engage in any future private development projects within the City of Birmingham while we are under contract for these services.

CONSULTANT APPROACH

Beyond simple technical skill is the reality that our people are advocates for complete streets. Indeed, we don't view multi-modal considerations as "add-on" features but rather as factory standards. We believe every design project must attempt to include the tenants that the City's Multi-Modal Transportation Master Plan calls for. In short, we will not be looking to simply justify the implementation of your plan but will also work with the committee and City staff to help make them possible.

This is a different philosophical approach to that taken by many traffic engineering firms, then then we are not a typical firm. Our core purpose, indeed the reason we work together every day, is to improve quality of life in the communities in which we live, work and play. We focus on people and the practical realities of their use of public infrastructure. We apply our technical knowledge and understanding of best practices and industry standards with this goal always in mind.

Related specifically to the City of Birmingham and this RFQ, this means that our approach is that the City's MMTP has already been completed and approved. Our role is therefore to assist City Staff and the committee in understanding the implications of implementing the plan on real-world streets. If, in the course of reviewing proposed plans for compliance with the MMTP, we observe additional opportunities to enhance the community in

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Michael G. Darga, PE

Mike Darga has 27 years of experience in public administration, including public works and engineering, administration, planning and implementation. His previous position with the Wayne County Department of Public Service – Engineering Division, coupled with his years at engineering firms, has given him a unique understanding of project management, road capital improvements plans, construction management and infrastructure improvement projects. He has experience in the preparation of grant applications and has been successful in coordinating and negotiating with state, regional and local governments, along with regulatory agencies, businesses, utilities and residents. He also has implemented non-motorized transportation projects, greenways, streetscapes and environmental projects.

Position/Certifications
Senior Project Manager

Years of experience
27

Education
Master of Science
Construction Engineering and Management
University of Michigan

Bachelor of Science
Construction Engineering and Management
Lawrence Technological University

Licenses/Registration
Professional Engineer
Michigan
Kansas
Missouri
Maryland
Ohio
Delaware

Professional Expertise
Public Works
Road Design
Infrastructure Rehabilitation
Non-Motorized Transportation
Sustainable Design
Urban Redevelopment

Transportation
Seymour Lake Road Safety Path, Oxford Township
Drahner Road Safety Path, Oxford Township
Rouge Gateway Bicycle Paths
Southwest Detroit Greenway Bike Lanes and Routes, Detroit
Second/Third Avenue Two-way Conversion/Bike Lanes, Detroit
West Vernor Streetsacpe, Detroit
Livernois Streetscape, Detroit
Park Avenue Streetscape, Detroit
Madison Avenue Streetscape, Detroit

Planning
Detroit Non-Motorized Transportation Master Plan, Detroit
New Center Non-Motorized Transportation Master Plan, Detroit
Midtown Non-Motorized Transportation Master Plan, Detroit
Woodward Non-Motorized Transportation Plan, Oakland County
Gratiot Avenue Development and Corridor Plans, Eastpointe
Grand River Avenue at I-96 Traffic Study, Brighton
M-102 (Eight Mile) Concept Framework Plan, MDOT
Interchange Geometric Study, Holly
Telegraph Tomorrow, Wayne County

Urban Redevelopment
71 Garfield Multi-family, Detroit
Newberry Lofts Multi-family, Detroit
Denby High School, Detroit Public Schools, Detroit.

Public Works
GardenView Estates for DHC; Maintenance of traffic plans
Rogell Drive Resurfacing, Romulus
Goddard Road Ramp Reconstruction, Romulus
North Old Woodward Avenue Reconstruction, Birmingham
Visteon Village Public Roads, Van Buren Township
Shorepointe Village of Grayhaven Single-family, Detroit
US-223 Widening, Blissfield Township
Silberhorn Highway Road Reconstruction, Blissfield Township
2005 Local Street Repair Program, Inkster
Hibbard Road Reconstruction, Manchester Village
Main Street Reconstruction and Streetscape, Capac Village
Miller Road Reconstruction; Stormwater Management System, Detroit
West Periphery Road System, DMWCAA, Romulus
South Access Road Element 4/J.Dingell Jr. Drive, DMWCAA, Romulus

Federal
Military Base Police Battalion Barracks Complex Dining Facility for USACE, Fort Leavenworth, KS
Dining Hall, Fort Sill, OK
Basic Compact Training Complex Double Dining Facility for USACE, Fort Leonard Wood, MS

Office/Industrial
Ten bay Body Shop Addition, Three Bay CMM Room Addition and Six Bay Stamping Plant Addition for General Motors, Fairfax, KS

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Scott Ringler, PE

Position/Certifications
Partner
LEED AP

Years of experience
24

Education
Bachelor of Science
Civil Engineering
Michigan State University

Licenses/Registration
Professional Engineer
Michigan
Arkansas
Hawaii
Idaho
Iowa
Nebraska
New Mexico
New Jersey
North Dakota
Oregon
South Dakota
Utah
Washington
West Virginia

Professional Expertise
Municipal Engineering
ADA Compliance
Infrastructure Rehabilitation
MDOT Local Agency Programs

Scott Ringler has 24 years of comprehensive experience in the design and management of infrastructure rehabilitation and reconstruction projects for Giffels Webster. Many of his projects have included the rehabilitation of major roads and streetscape improvements, and have involved MDOT project coordination and assistance with local agency programs. His infrastructure experience includes pavement rehabilitation, water main replacement, sewer rehabilitation and construction engineering. Scott has been the engineer of record for the City of Ferndale for over 20 years and the City of Lathrup Village for over 10 years.

Scott has also developed many of the systems the firm utilizes to ensure quality including cost estimating guides, plan preparation procedures, plan review, contact documents and review check lists. Scott developed this process to not only minimize errors in the design process, but also to help the firm respond to the client's needs more quickly and to meet their expectations with quality work.

Transportation
$21M Road Repair Bond Issue, Ferndale
West Nine Mile Streetscape, Ferndale
Downtown Ferndale Streetscape
West Troy and Hilton Streetscapes, Ferndale
Major Roads Rehabilitation, Ferndale
Bermuda Reconstruction, Ferndale
Hilton Road Resurfacing, Ferndale
Fern and Chesterfield Reconstruction, Ferndale
Pontiac Trail Widening, Commerce Township
Welch Road Widening, Commerce Township
Channing Pavement Reconstruction, Ferndale
Wordsworth Pavement Patching, Ferndale
Annual Pavement Repairs, Lathrup Village
Pavement Evaluations (PASER)
Eldorado Realignment, Lathrup Village
LaCrosse Reconstruction SAD, Lathrup Village
Lake Sherwood Paving SAD, Commerce Township
Sherwood Acres Paving SAD, Commerce Township
High Pointe Paving SAD, Commerce Township

Public Works
$8M Water Main Replacement Program, Ferndale
$12M CIPP Sewer Rehabilitation Program, Ferndale
$3M Sewer Repair Bond Issue, Ferndale
$500K Sanitary CIPP Program (ARRA), Lathrup Village
$500k Sanitary MH Repair Program (ARRA), Lathrup Village
$1.5M Sanitary CIPP Program (OCWRC), Lathrup Village
Sewer Video Review and Assessment
Manhole Inspection and Assessment
Wordsworth Water Main Replacement, Ferndale
Lathrup Boulevard Water Main Replacement
Sunny Brook Water Main Replacement, Lathrup Village
RoadSoft Pavement Management System
Pavement Preservation Program
Nine Mile/Woodward Intersection Enhancement, Ferndale
$1.5M Parks and Recreation Capital Improvements, Ferndale
Transportation Asset Management Reporting, Ferndale
Transportation Asset Management Reporting, Lathrup Village
Pump Station Wet/Dry Well Repairs, Commerce Township
Bradford Academy Drainage Analysis, Southfield
Waterford Oak County Park, Waterford, OCPR
Addison Oaks Trailway, OCPR
Rackham Water Main Replacement, Lathrup Village
Withington Parking Lot Reconstruction, Ferndale
West Troy Parking Lot Reconstruction, Ferndale
City-Wide Parks Parking Facilities, Ferndale
Ferndale City Hall Parking Lot Rehabilitation
On-Street Parking Bays: Miscellaneous locations

Planning
Water, Sewer and Pavement Infrastructure Analysis, Ferndale
5-Year Capital Improvement Plan for Water, Sewer, Roads and Parking Lots, Ferndale
Sanitary Sewer Evaluation Study and Inflow/Infiltration Study, Ferndale
State Revolving Fund Project Plan

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Firm Overview

Services Provided
Civil Engineering

Surveying

Municipal Consulting

Planning

Land Development Consulting

Landscape Architecture

Environmental Consulting







Office Locations
Detroit/Wayne County
28 W. Adams, Suite 1200
Detroit, MI 48226
313.962.4442

Washington/Macomb County
6303 26 Mile, Suite 100
Washington, MI 48094
586.781.8950

Birmingham/Oakland County
1025 E. Maple, Suite 100
Birmingham, MI 48009
248.852.3100

Giffels Webster is a collection of people—civil engineers, surveyors, planners, landscape architects and environmental specialists—who choose every day to make communities better. We are a Detroit Headquartered firm serving clients throughout the country with their infrastructure needs.

Our team is passionate about enriching and improving communities for the long term, and that passion has driven our success and the satisfaction of our clients. Through diverse experiences serving public, private and institutional sectors we bring a unique perspective that creates better living and working spaces. From retail, housing, and commercial developments to transportation to water treatment, we deliver design solutions that meet today's demands while anticipating tomorrow's needs.

Even as communities and lifestyles change, this vision of quality living through better design creates lasting results and relevancy. In short, we're there with the right balance of expertise, resources and capabilities all focused on delivering solutions that work for people. Since our inception in 1952, Giffels Webster has evolved to offer a broad scope of services centered on helping clients achieve their project or programming goals.

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Civil Engineering

Significant Projects

Brush Park

Campus Martius

Children's Hospital of Michigan

Chrysler Kokomo Plant

Denby High School

Detroit Medical Center

Finney-Crocket High School

Ford Dearborn Stamping Plant

Fort Leavenworth Dining Hall

Fort Lee DPW Administration Bldg

Fort Leonard Wood Dining Hall

Garden View Estates

GM Hamtramck Plant

Henry Ford Health Systems

Jefferson Village

Kmart ADA Compliance Program

The Mall at Partridge Creek

Martin Parkway

Novi ADA Transition Plan

The Pantry ADA Compliance Program

Presbyterian Village North

Selfridge ANG Infrastructure Rehabilitation

Target in Bloomfield

University Prep High School

The Village of Rochester Hills

West Vernor Streetscape

Woodbridge Estates

Civil engineering is at the foundation of much of our work. In each project, we apply civil engineering services that balance the needs of customers, communities and the environment.

Complete the design, approval and construction process smoothly and in a timely fashion with the Giffels Webster team. We identify, map, analyze and plan complete infrastructure systems, providing you with perspective and guidance throughout.

With expanded services for local projects and this increased geographical reach, Giffels Webster now uses its decades-long experience to deliver a unique approach to infrastructure issues, opportunities and requirements. The firm remains a trusted partner and advisor to architects, developers, city managers, township supervisors, DPW directors, construction teams and more, providing counsel on how to make projects — whether public, private or institutional — buildable, profitable, sustainable and enduring.

As we have since our inception, Giffels Webster continues to deliver value through insightful civil engineering solutions for the clients we serve. And, since day one, each project we touch gives our clients lasting return and enhanced quality of living.

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Surveying

Significant Projects
Children's Hospital of Michigan

Chrysler Headquarters

Chrysler Kokomo Plant

Cobo Hall

Comerica Park

Detroit Medical Center

Detroit Medical Center Condominium

Detroit Riverwalk

The Ellington Condominiums

Ford Dearborn Stamping Plant

Ford Field

Ford Heritage Rouge Complex

Fox Theater Condominium

GM Hamtramck Plant

Jefferson Village Condominiums

Macomb County Remonumentation Program

The Mall at Partridge Creek

Motor City Casino

MGM Grand Casino

Oakland County Remonumentation Program

Oakland Technology Park

Oakland University

The Village of Rochester Hills

Wayne County Remonumentation Program

All is rooted in the land and its unique features, challenges and requirements. From the start, the Giffels Webster survey teams will guide you in the best way to effectively understand this valuable resource.

Our licensed land surveyors, technicians and field personnel use the latest equipment and software to provide you:

- Topographical base mapping
- Engineering base maps, profiles and cross sections
- Plats, site condos, unit condos, easement and site plans
- ALTA-certified studies
- Act 132 parcel split/combination surveys
- Transportation and utility route surveys
- Right of way and acquisition mapping
- Wetland, floodplain and woodland identification
- GPS services and mapping
- Construction staking
- Legal descriptions and expert witness

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Municipal Consulting

Municipal Clients
Bruce Township

Clinton Township

Commerce Township

Commerce Township DDA

Lyon Township

Lyon Township DDA

Washington Township

Detroit DDA

Eastpointe DDA

Ferndale

Ferndale DDA

Inkster

Lathrup Village

Royal Oak

Village of Armada

Village of Leonard

What does your community aspire to be? Giffels Webster will help you identify and leverage your unique resources to improve the assets and attractiveness of your community. Whether it is increased walkability and connectivity, better streetscape design and parking, more natural settings and gathering places, or other changes to enrich your community, we will show you how to attract and retain businesses and residents.

Furthermore, if funding is critical to fulfilling your vision, Giffels Webster has experience in identifying and securing grants to help. As your municipal partner, we also review submitted site plans, conduct inspections, maintain records, prepare master plans, and lead the planning, bidding, and construction administration process for capital improvement projects.

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Planning

Significant Projects
Cocomar Plaza

Far East Side

Garden View Estates

Great Lakes Crossing

The Mall at Partridge Creek

Steeplechase of Northville

The Village of Rochester Hills

The Giffels Webster experience provides project clarity. This helps our team anticipate pitfalls before they become issues, from land use, zoning and utilities to environmental restrictions and much more. In addition, we highlight potential costs from the beginning so you can plan and allocate your resources effectively.

We evaluate the land and show you its greatest potential. We are there to recommend the best solution that is buildable, economically sound and environmentally sensitive. And always with an eye towards a long-term solution. We deliver a comprehensive site of planning services:

- Site analysis
- Feasibility and due-diligence studies
- Site selection studies
- Site investigation and inventory
- Natural features interpretive studies
- Pre-acquisition studies
- Wetland analysis and mitigation reports
- Technical audit reports
- Value engineering analysis

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Land Development Consulting

Significant Projects
Annapolis Pointe

Clairpointe of Victoria Park

Cocomar Plaza

Creekside Village of Rochester

The Ellington

Emerald Springs Estates

Garden View Estates

Grand Reserve Del Webb

Great Lakes Crossing

Hills of Oxford

Jefferson Village

The Mall at Partridge Creek

Meadowbrook Corporate Park

Northville Hills

Oakland Technology Park

Presbyterian Village North

The Shops of Jefferson Village

Showcase at Indio

Shorepointe Village at Grayhaven

St. Anne's Gate

Target Bloomfield

The Village of Rochester

Whole Foods Detroit

Woodbridge Estates

Our philosophy is to design working, shopping and living environments in harmony with each other and their surroundings. Our expertise in program planning, real estate, and facilities and property management enables us to expedite the consensus-building process across all constituents.

Research facilities, corporate headquarters, retail centers and residential developments require well-chosen sites and thoughtful, flexible planning. Turn to Giffels Webster for:

- Feasibility studies
- Conceptual planning
- Budgeting
- Site planning
- Platting
- Final design
- Approvals

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Landscape Architecture

Significant Projects
Children's Hospital of Michigan

Cocomar Plaza

County Creek Commons

Ferndale Nine Mile Plaza

Ferndale Parks and Recreation Capital Improvement Program

Garden View Estates

IKEA of Canton

Martin Parkway

Nowicki Park

Oxford Safety Paths

Robert H Long Nature Park

Target of Bloomfield

You achieve increased appeal and value of your development when Giffels Webster applies its combination of artistic, cultural and technical knowledge to landscape elements. We plan gardens, parks, friendly streetscapes, bike paths and public areas that harmonize with the community infrastructure and environment. Our landscape architects analyze natural site features, such as climate, soil, slope, drainage and vegetation, and recommend natural structures combined with indigenous plantings.

We collaborate with all project managers and external partners to ensure the best solution that balances the needs of the community with the desired aesthetics, and achieves minimal impact on the local ecosystem. Our landscape architects can provide you with:

- Site design and development assistance
- Emphasis on native and diverse plantings
- Park and recreational design
- Streetscape and imaging
- Landscape construction management
- Brownfield design and planning
- Non-motorized transportation design and planning

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Environmental Consulting

Significant Projects
Chesterfield Township
Sewage Lagoon Closure

Commerce Township
SWPPI Program

Commerce Townsihp
Wetland Consulting

Environmental Site
Assessments for more than
800 parcels in Detroit

Grand Reserve Del Webb

GM Training Centers

Lyon Township
SWPPI Program

Lyon Township
Wetland Consulting

The Mall at Partridge Creek

Martin Parkway

MGM Grand Casino

Rouge Park Underground
Storage Tanks

Through our expertise with the United States Green Building Council and the Leadership in Energy Efficiency in Design (LEED), we help organizations and communities promote sustainable site development, and water and energy efficiency, sustainable materials and resources. Sustainable building and low-impact design does more than benefit the environment; it reduces your operational costs in the long-term. Furthermore, our developments leverage natural resources and work in harmony with the environment. We implement projects such as:

- Boardwalks
- Native Re-vegetation
- Bio-swales and rain gardens
- Environmental Site Assessments (Phase I and II)
- Detention/retention systems
- Sedimentation basins
- Forebays
- Mapping regulated wetlands systems
- Natural features inventories
- Floodplain studies
- Water-quality assessments
- Watershed studies
- Stormwater master plans

We also offer clearance certifications, assessments, limited cost effective closures tailored for specified land use and liability considerations, options for renovation of environmentally challenged real estate to government, industrial and commercial clients. Our innovative approaches have used:

- Phytoremediation, with natural properties of plants to reduce contaminants in soils
- Hydraulics and geological disciplines
- On site treatment of waste in abandoned buildings
- Design of laboratory and pilot plant scale studies
- Process engineering for chemical, physical and biological methods for remediation

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Campus Martius

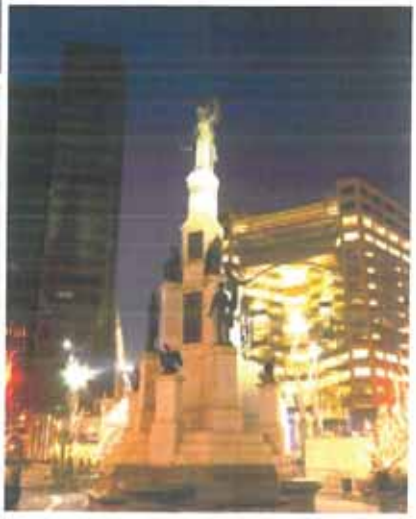
Client
Downtown Development Authority of the City of Detroit

Client Contact
Ms. Donna Rice
Project Manager
313.237.4608

Giffels Webster Contact
Scott Clein, PE
LEED AP
President/Partner

Completion Date
2003

Services Provided
Civil Engineering
Surveying



Giffels Webster completed this $10 million infrastructure reconstruction project in the heart of Downtown Detroit in late 2003. The Giffels Webster Team completed the construction documents for multiple roadways on time and under budget, including: Gratiot Avenue, Woodward Avenue, Monroe Street, State Street, and portions of Michigan Avenue and Fort Street, along with new pavement markings within adjacent roadways. Each of these segments presented different challenges, including the coordination of designs with those for the new Compuware World Headquarters, the new Kennedy Square office building, three new parking structures, and the proposed Campus Martius Park.

The City of Detroit required that traffic be maintained through the project area while the construction of the remaining roadways was completed. This required the preparation of extensive detour plan and partial road closure plans that needed to be coordinated across all four roadways. This project was also the first required to prepare pedestrian detour plans, requiring research and development of general pedestrian detour routing plan standards for the City of Detroit.

Due to funding requirements, construction on State Street needed to be bid within weeks of the award of the design contract. Not only were the plans completed and bid, but construction was completed within 90 days. Total construction costs were within 10 percent of the original Giffels Webster estimate with few change orders.

Overall, the project resulted in the creation of an award winning park space and helped revitalize the downtown core. It also set the tone for large scale infrastructure reconstruction projects in the City of Detroit, particularly related to researching underground building vaults and other encroachments into the public right-of-way.

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Second/Third Avenue Conversions

Client
University Cultural Center Association

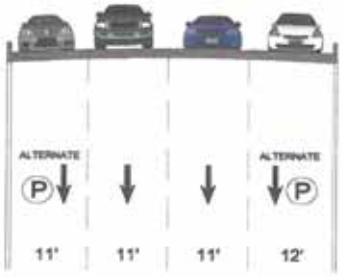
Client Contact
Ms. Susan Mosey
313.872.0188

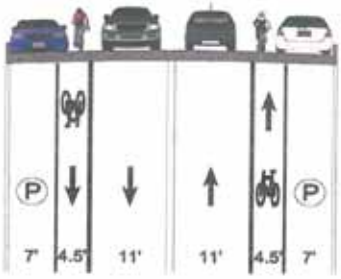
Giffels Webster Contact
Scott Clein, PE
LEED AP
President/Partner

Michael Darga, PE
Senior Project Manager

Completion Date
2012

Services Provided
Civil Engineering
Surveying
Planning





One of the recommendations of the Midtown Non-motorized Transportation Plan was to convert several one-way streets back to their historic two-way operation. Second and Third Avenues in the Midtown and New Center districts of Detroit were converted to one-way traffic operation back in the 1930's and 1940's as part of a trend to move traffic faster in, and out, out of downtown commercial centers. With the population decrease of the city of Detroit, and a corresponding decrease in vehicle traffic on these corridors, there were opportunities to repurpose the pavement. Working with the local residents and businesses, the roadways were converted from four lanes in one direction, including on-street parking on both sides of the traveled way to one lane of traffic and a bike lane in each direction with on-street parking maintained. Center turn lanes were created and on-street parking removed at signalized intersections. Existing bus stops were preserved throughout the corridor.

The majority of the conversion was accomplished with pavement markings and signage. A small amount of road construction was required on each project to transition to adjacent sections of roadway. Traffic signals were modified to accommodate the two-way traffic operation.

On the Second Avenue project, the existing street lighting system was in significant disrepair. The College for Creative Studies recently moved into New Center, bringing a residential dormitory component with it. Pedestrian safety was a significant concern for the College, neighboring businesses and the New Center Council. Using the two-way conversion project as a basis for making improvement, the street lighting system was replaced with energy conserving LED lighting units.

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West Vernor Streetscape

Client
Southwest Detroit Business Association

Client Contact
Ms. Theresa Zajac
Program Director
313.842.0986

Giffels Webster Contact
Scott Clein, PE
LEED AP
President/Partner

Michael Darga, PE
Senior Project Manager

Completion Dates
Design 2012
Construction Planned 2013

Services Provided
Civil Engineering
Surveying

Giffels Webster is providing professional survey, engineering and landscape architecture services for the redevelopment of the West Vernor Highway corridor from Woodmere to Clark Street, a total length of 2.3 miles. The West Vernor Highway corridor contains three National Historic Districts and is home to Detroit's expanding Hispanic community.

Our team is providing detailed engineering and landscape architecture plans for the corridor improvements, including landscaping, street furniture, curb and sidewalk replacement (both plain and decorative), ADA compliance, utility and lighting coordination and vault/coal chute removal.

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Southwest Detroit Greenlink

Client
Greater Corktown
Development Corporation

Client Contact
Mr. Tim McKay
313.965.5853

Giffels Webster Contact
Scott Clein, PE
LEED AP
President/Partner

Michael Darga, PE
Senior Project Manager

Completion Date
2009

Services Provided
Civil Engineering
Surveying

Giffels Webster assisted the Greater Corktown Development Corporation with the implementation of their community master plan for non-motorized transportation. The plan included the installation of approximately 16 miles of bicycle facilities connecting the historic Corktown and Mexicantown neighborhoods.

Our services included the preparation of detailed topographic surveys of the impacted rights of way, along with the preparation of an environmental corridor assessment for selected areas where it was anticipated that earth would be disturbed. Giffels Webster acted as the prime consultant for this project, utilizing the services of Soil and Materials Engineers, Inc. (SME) in the preparation of all environmental reports.

Once the surveys were completed, our designers prepared conceptual, design development, and construction documents for the proposed bicycle facilities. This included a thorough review of the master plan from a practical point-of-view to ensure that the City of Detroit's standards and AASHTO guidelines would be met. It also included coordination with the City of Detroit Traffic Engineering Department and the city's newly created Non- Motorized Transportation Master Plan (also prepared by Giffels Webster).

Our review resulted in minor changes to the community's master plan which included cost savings that allowed the community to program a more aggressive implementation schedule. We worked with the client to secure funding and increase the overall scope of the project.

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Southfield Subdistrict Transportation Master Plans

Client
City of Southfield

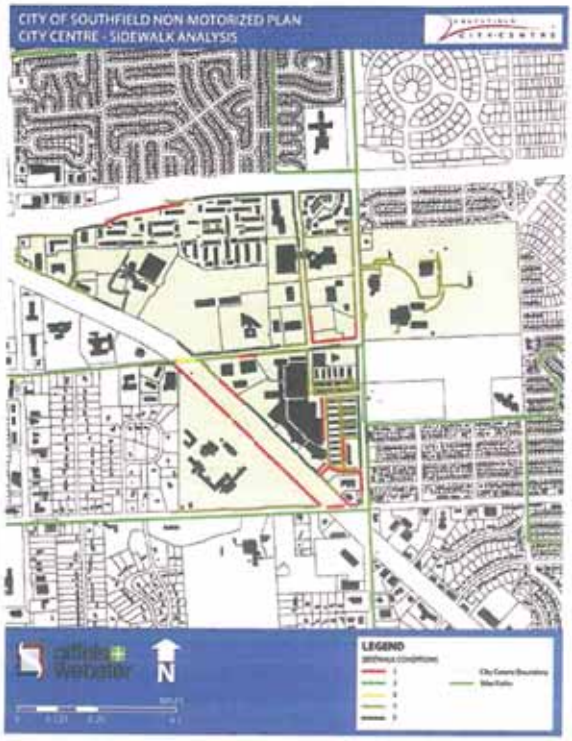
Client Contact
Mr. Terry Croad
248.796.4154

Giffels Webster Contact
Scott Clein, PE
LEED AP
President/Partner

Michael Darga, PE
Senior Project Manager

Completion Date
2013

Services Provided
Civil Engineering
Planning



Giffels Webster was commissioned by the City of Southfield to continue their efforts furthering non-motorized transportation within two large districts of the City. The DDA and City Centre districts are two of the largest and most densely populated districts within the City, particularly with a massive influx of workers during the daytime hours.

The City asked Giffels Webster to expand upon the City-wide master plan that had just been completed but providing specific recommendations for each district related to enhanced pedestrian, bicycle and transit access. Furthermore we were asked to help connect these two districts to each other as well as to other large population centers such as Lawrence Tech.

After a detailed examination of the existing conditions, the resulting plan outlined specific recommendations for improvements to infrastructure for each mode. This included the conversion of the Lodge service drive into a regional connector for all modes through the use of on-street bike lanes and off-road shared use paths.

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Detroit Non-Motorized Transportation

Client
City of Detroit DPW
Traffic Engineering Division

Client Contact
Mr. Ashok Patel
Project Manager
313.224.1610

Giffels Webster Contact
Scott Clein, PE
LEED AP
President/Partner

Completion Date
2006

Services Provided
Civil Engineering
Planning

Giffels Webster was the lead consultant selected to assist the City of Detroit in embarking on an enormously significant opportunity to expand the current concepts of "non-motorized transportation" in the City of Detroit. These green threads are a vision beyond parks, plants, and the visual aspects of the past. The new urban trails encompass transportation, urban wildlife, flood control, utilities, education, neighborhood planning, and other threads of the urban fabric.

The environmental scan of the city along with the extensive community involvement helped clarify the dynamics of various corridors and uncover community treasures, landmarks, destinations, and neighborhood resources. The urban trails connect diverse and incompatible land uses and bridge the isolation of car-based planning and architectural monuments. Accordingly, the Urban Non-Motorized Transportation Master Plan has become a vital component of a world-class city and affirms the continuing commitment in neighborhood revitalization.

Upon completion of the plan, on time and under budget, Giffels Webster worked with City Council and advocacy groups to ensure adoption of the plan by the City. Many of the plan's recommendations have been implemented at this time, including creation of a task force and the appointment of a non-motorized transportation project manager within the Traffic Engineering Department office. At this time more than 25 miles of bike lanes have been added in the City.

giffels webster

Midtown Non-Motorized Transportation

Client
University Cultural Center Association

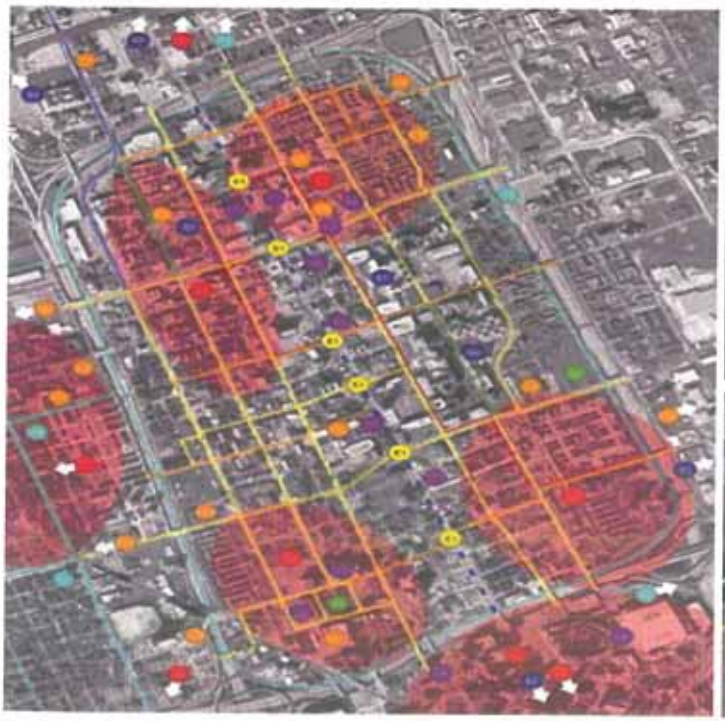
Client Contact
Ms. Susan Mosey
313.872.0188

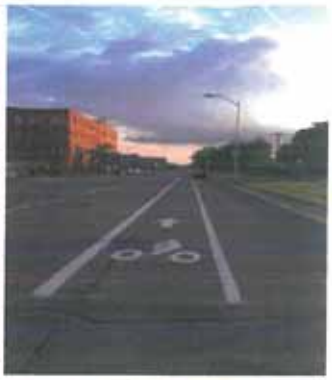
Giffels Webster Contact
Scott Clein, PE
LEED AP
President/Partner

Michael Darga, PE
Senior Project Manager

Completion Date
2010

Services Provided
Civil Engineering
Planning





Giffels Webster was commissioned by the University Cultural Center Association (UCCA) to help enhance the connection between Midtown and the surrounding districts in the City of Detroit through the development of a non-motorized transportation master plan. The conversion of some streets from one-way traffic to two-way traffic was also desired to further enhance these connectors. Based on our experience in developing Non-Motorized Transportation Master Plans for the City of Detroit and in developing construction documents for the adjacent Southwest Detroit Greenlink, Giffels Webster understood the importance of this project.

In addition to enhancing vehicular connectivity, a key element was to introduce a non-motorized connector. After a thorough review of the project area and adjacent community driven efforts, we developed a detailed master plan to accomplish these goals. It included recommendations for the conversion of Second Avenue and Third Avenue from one-way traffic to two-way traffic while introducing on-street bike lanes. Additional connections on Cass, Warren, Mack/Martin Luther King, John R, Brush, St. Antoine, Selden, and Forest (among others) resulted in complete connectivity with Mexicantown, Corktown, Woodbridge, New Center, Wayne State University, Henry Ford Health Systems, Eastern Market, and the central business district.

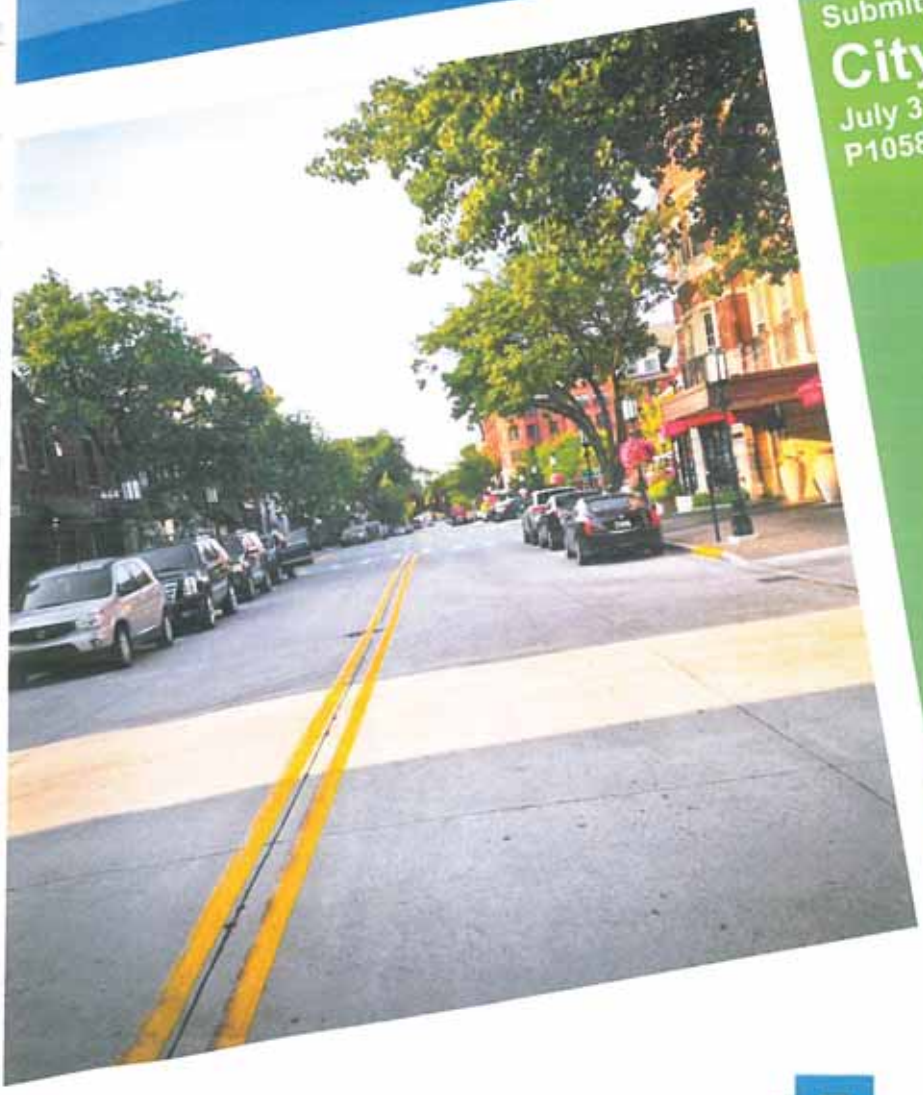
Qualifications for Transportation Engineering Consultant

Submitted to

City of Birmingham

July 31, 2014

P10585



FLEIS&VANDENBRINK

DESIGN. BUILD. OPERATE.

FLEIS&VANDENBRINK

DESIGN. BUILD. OPERATE.

July 31, 2014

City of Birmingham
PO Box 3001
Birmingham, MI 48012

RE: Response to Request for Qualifications
Transportation Engineering Consultant Services Contract

To the City of Birmingham:

Thank you for the opportunity to present this response to your recent Request for Qualifications (RFQ) for the City of Birmingham's Transportation Engineering Consultant Services Contract. Fleis & VandenBrink (F&V) staff has been assisting the City for many years and would be pleased to continue this valued relationship.

The following highlights why the F&V team is the right team, at the right time, to successfully deliver services for your transportation needs:

- **Experience**: F&V's core business includes transportation capital improvements planning, design and construction or preventative maintenance and rehabilitation, as well as street reconstruction projects and traffic studies for municipal clients.
- **Familiarity and Past Success:** The Project Manager for this assignment has contributed to previous Birmingham projects. His name and face should be familiar to many staff at the City.
- **Qualifications**: The key personnel and project team assembled by F&V for this project are well qualified to deliver street improvement and maintenance projects on behalf of the City.
- **Grant Experience**: Identifying grant opportunities helps to make conceptual projects become a reality. F&V will assist the City with securing grants.
- **City Knowledge:** Because our staff has been assisting the City for many years, we believe that we have comprehensive knowledge that will benefit any potential transportation project and aid in completing the work efficiently.
- **Working with Local Agencies:** Having provided similar projects for other municipalities, we know the primary contacts and expectations of State funding agencies, regulators and public agencies for permitting and project coordination.
- **Responsiveness**: We value client communications and responsiveness as part of our success. Nearly 90% of our work from year-to-year comes from repeat clients. We know how important quality, value and responsive service is to our clients and to our firm in order to earn this repeat work

27725 Stansbury Boulevard, Suite 150
Farmington Hills, MI 48334
P: 248.536.0080
F: 248.536.0079
www.fveng.com

F&V staff has had a great working relationship with the City of Birmingham and their staff on previous projects. We look forward to continuing this relationship with the City and getting started on upcoming transportation projects.

If you have any questions or need any additional information, please contact us.

Sincerely,

FLEIS & VANDENBRINK

Michael J. Labadie, PE
Group Manager

TABLE OF CONTENTS

CORPORATE PROFILE

Municipalities throughout Michigan have an established history with Fleis & VandenBrink (F&V). Since 1993, more than 250 cities, villages, counties and townships have contracted with F&V for roads, bridges, treatment plants and beautification projects. Besides design and construction services, we have assisted communities in securing more than $350 million in grants and loans from governmental agencies over the last 15 years.

With municipal services being the cornerstone of our firm, close working relationships and constant communication are essential at all levels with our client communities. In order to provide the type of service expected by mayors, council members, city managers and department heads, our 150+ professionals maintain seven Michigan offices and two in Indiana.

Our staff members look forward to providing transportation services to the City of Birmingham.

AWARDS

In 2014, the American Council of Engineering Companies – MI recognized two of our projects with Eminent Conceptor (First Place) Engineering & Surveying Excellence awards.

In 2012, the Zweig White Letter published F&V as a national Hot Firm, recognizing us for our annual growth among our architectural and engineering company peers.

In 2010, the firm was recognized as the American Council of Engineering Companies—MI "Firm of the Year."

For four years in a row, F&V was recognized as one of the "101 Best & Brightest Companies to Work For."

OFFICE LOCATIONS

CORPORATE OFFICES:

Grand Rapids
2960 Lucerne Drive, SE
Grand Rapids, MI 49546
P: 616.977.1000
F: 616.977.1005

www.fveng.com

MICHIGAN OFFICES:

Farmington Hills Office
27725 Stansbury Boulevard, Suite 150
Farmington Hills, MI 48334
P: 248.536.0080
F: 248.536.0079

Grand Blanc Office
9475 Holly Road, Suite 201
Grand Blanc, MI 48439
P: 810.743.9120
F: 810.743.1797

Kalamazoo Office
4798 Campus Drive
Kalamazoo, MI 49008
P: 269.385.0011
F: 269.382.6972

Midland Office
304 West Wackerly
Suite 600
Midland, MI 48640
P: 989.837.3280
F: 989.837.3290

Muskegon Office
316 Morris Avenue
Suite 230
Muskegon, MI 49440
P: 231.726.1000
F: 231.726.2200

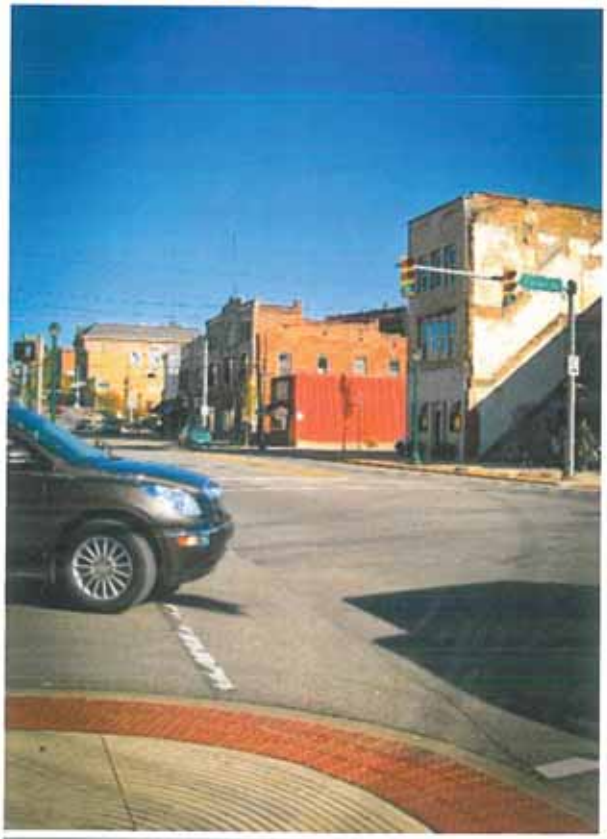
Traverse City Office
603 Bay Street
First Floor
Traverse City, MI 49684
P: 231.932.8600
F: 231.932.8700

INDIANA OFFICES:

Fort Wayne Office
5331 South Bend Drive
Fort Wayne, IN 46804
P: 260.435.1414
F: 260.435.1384

Indianapolis Office
140 Washington Pointe Drive, Suite C
Indianapolis, IN 46229
P: 317.843.0022
F: 317.843.0405

REFERENCES



"A thorough review of our traffic circulation and parking analysis as part of our site plan review and approval process helps coordinate all of our services, including Police, Fire and Planning Departments. This helps us make sound and practical solutions to traffic and parking concerns."

Patricia Voelker
Director of Planning, Building & Ordinance
Bloomfield Township

BIG RAPIDS
Mark Gifford, DPW Director
P: 231.592.4018

BLOOMFIELD HILLS PUBLIC SCHOOLS
Rob Glass, Superintendent
P: 248.341.5400

BLOOMFIELD TOWNSHIP
Leo Savoy, Supervisor
P: 248.433.7700

CANTON TOWNSHIP
Bill Serchak, Township Engineer
P: 734.394.5100

CLINTON TOWNSHIP
Carlo Santia, Planner
P: 586.286.9325

COMMERCE TOWNSHIP
Kathleen Jackson, Planner
P: 248.960.7050

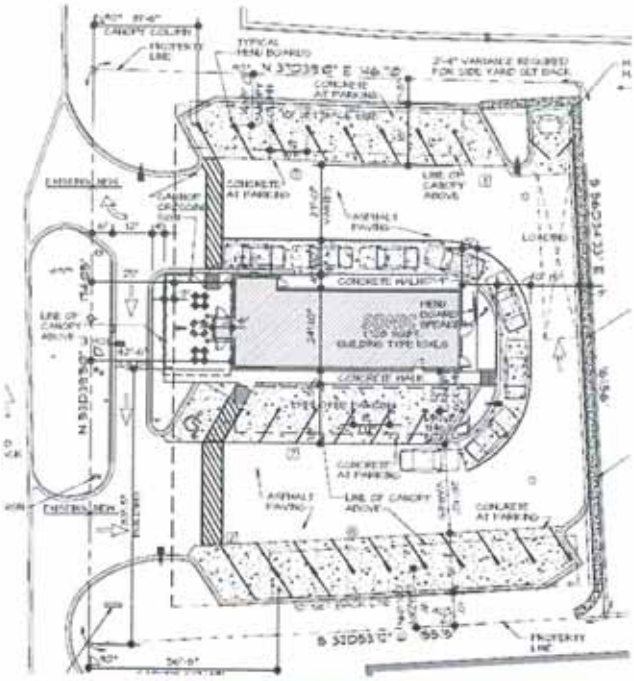
HOWARD CITY
Mike Scott, President
P: 231.937.4311

MANTON
Bryan Vincent, Superintendent
P: 231.884.3572

NORTHPORT
Greg King, Village Administrator
P: 231.386.5182

THREE RIVERS
Christie Trammell, Director Three Rivers DDA
P: 269.278.8193

WEST BLOOMFIELD TOWNSHIP
Michele Economou Ureste, Supervisor
P: 248.451.4800



TRAFFIC ENGINEERING

THE F&V TEAM

Traffic Engineering is the phase of Transportation Engineering which addresses the planning, design, and operation of highways, road networks, control systems, abutting lands, and their relationship with other modes of transportation. Our communities rely on such engineering to provide for the safe, economical, and reliable movement of people and goods – which is the backbone of our nation's commerce.

F&V's professional staff is experienced in providing traffic engineering services to both public and private sector clients. Our technical analyses are intended to minimize capital investment and maximize system operations. We pay strong attention to detail in the quality of our engineering, and act as advocates to serve our clients' needs. With the diversity of services offered by F&V, we are able to seamlessly integrate the recommendations of our traffic engineers into our civil design process.

Solving complex traffic problems requires specialized education, years of experience, and an understanding of the best tools available. F&V's traffic engineers have advanced degrees, as well as over 35 years of transportation engineering experience. We utilize the latest traffic modeling and simulation technology to assist our clients in meeting their objectives.

AREAS OF EXPERTISE

- Traffic Impact Studies
- Parking Occupancy & Shared Parking
- Loading & Queing Analysis
- Highway & Intersection Capacity
- Complex Intersection Geometrics & Design
- Traffic Signal Optimization
- Network Modeling & Simulation
- Traffic Signal Warrants & Design
- Corridor & Downtown Street Planning
- Access Management
- School Traffic Operations
- Special Event Traffic Management
- Traffic Calming

Project Highlights

Traffic Signal Modernization & Synchronization
Mast Arm Mounted
Camera Activated
LED Signals
Pedestrian Countdown Signals

Expertise Provided

Traffic Signal Improvements & Upgrades

Project Information

Project Cost: $240,000

Contact

Tom Anthony,
Public Works
P: 269.668.2300

Traffic Signal Upgrade

Mattawan, MI

F&V provided traffic signal improvements and upgrades at the intersection of Main Street and McGillen Avenue. The existing span-wire mounted traffic signals and controller were replaced with mast arm mounted, camera activated, LED signals with pedestrian countdown signals.

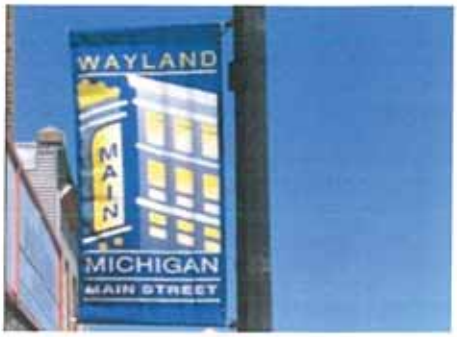
Construction of this project utilized Federal CMAQ and local funding and required programming through the Michigan Department of Transportation's Local Agency Division. The CMAQ program strives to reduce transportation-related emissions by providing state and local governments options to fund different emission reduction strategies like traffic flow improvements. This strategy reduces emissions by promoting efficient traffic movement, thereby reducing unproductive travel delays and emissions resulting from engine idling. Traffic signal modernization and synchronization is one way to reduce travel delays.

Project Highlights
Latest LED Features
Dark-Sky Compliant
Low-Wattage Lights

Expertise Provided
Design Services
Construction Oversight
Grant Administration

Project Information
Date Completed: 2012
Construction Cost: $320,000

Contact
Mike Salisbury,
DDA
P: 269.792.2232



Downtown LED Lighting Improvements
Wayland, MI

In July of 2011, the MEDC announced that 14 Michigan cities, villages and counties would receive a total of $1,066,429 in advanced lighting technology projects. The Advanced Lighting Technology Demonstration Grants were awarded from the Michigan Energy Office through the American Recovery and Reinvestment Act for projects that created and retained jobs, saved energy and reduced greenhouse gas emissions.

Wayland was one of the 14 communities to receive the grant and was awarded the maximum grant amount of $100,000. The grant was used to complete a 2008 project and extend the new LED lights through the traditional downtown core of Wayland.

F&V provided design, bidding and construction oversight services while working closely with the DDA, City Council and staff to develop lighting that would accentuate the historic buildings downtown.

The $326,000 project included the removal of the existing 33 HP fixtures and 17 shoebox fixtures in a four block area. These were replaced with 44 new low-wattage (eight 100-watt and 36 80-watt) LED fixtures that are dark sky compliant with full cut-off design. The lights were placed approximately 80 feet on center to provide the most efficient and uniform lighting for the downtown commercial core.

Project Highlights

Roundabout
Infrastructure Improvements
Beautification

Expertise Provided

Design Engineering
Construction Engineering
Utility Improvements

Contact

Gregg Zack, PE
P: 616.777.3451

Edison Landing Roundabout

Muskegon, MI

F&V provided engineering services for design and construction of a roundabout and roadway redevelopment of a 34-acre site on the Muskegon Lake shoreline. Durability and long-term maintenance of the road were critical concerns of the City during design.

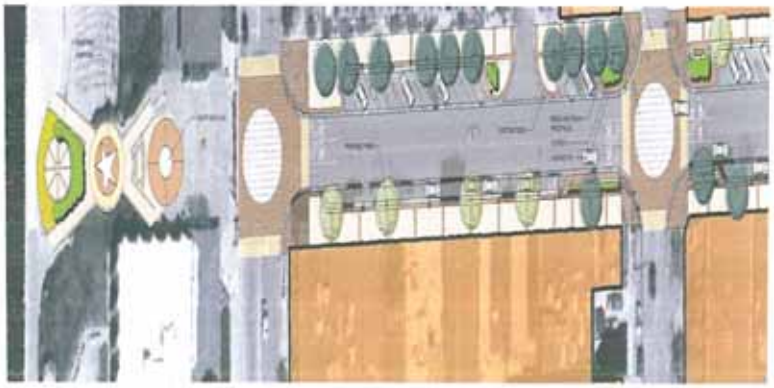
The former industrial site features new roadways, sewer and water utilities linking the development with Shoreline Drive. The decorative roundabout and infrastructure improvements significantly enhance the area and allows for planned commercial, residential and marine developments.

PROJECT HIGHLIGHTS
Downtown Master Plan
Safer Streets
Connectivity
Streetscape Amenities

EXPERTISE PROVIDED
Design Services

PROJECT INFORMATION
Date Completed: 2008

CONTACT
Julie Beaton,
Public Works
P: 616.847.3493



WASHINGTON AVENUE STREETSCAPE

GRAND HAVEN, MI

F&V prepared the Washington Avenue Streetscape Master Plan which explored the possibilities for the City of Grand Haven's downtown core and addressed the infrastructure and streetscape improvements needed for a five-block area along Washington Avenue.

The Master Plan served to blend public and private utility needs with the enhancement efforts for the downtown core, incorporating recently completed public and private projects.

The Master Plan explored safer streets (including curb bump-outs and narrower crossings for pedestrians), uniform streetscape amenities (including lighting, signalization, benches, way-finding signage), pedestrian spaces and connectivity to local businesses and parks. Improved utilities were also included and featured sanitary, storm, water main and a snow melt system.

The plan identified projected costs, mapped out potential construction schedules and identified potential funding sources.

Project Highlights

Aesthetic Improvements
Drainage Improvements
Decorative Concrete
Decorative Street Lighting
ADA Accessibility

Expertise Provided

Landscape Architecture

Project Information

MEDC Grant: $750,000
Local Match: $175,000

Contact

Joe Bippus, City Manager
City of Three Rivers
P: 269.273.1075 x103

Mural Mall & LED Street Lighting

City of Three Rivers

Access through the existing Mural Mall was a challenge with nearly 18 feet of elevation change. F&V redesigned the entryway from the ground up, incorporating an ADA-compliant walkway from Main Street leading toward Memory Isle Park, another City park located on both sides of the Rocky River. The changes provided connectivity between public recreation areas and the City's Downtown.

F&V assisted the City with the design and construction administration of an active gathering space that was created next to the downtown core. The accessible park included:

- Seating areas
- A rain garden
- Chess tables
- Pergola gateways
- Perennial gardens
- Brick seating walls
- Decorative concrete paving
- LED street lighting
- Rubberized play surfacing

A strong and vibrant downtown area offers improved retail, entertainment, housing, recreation and social opportunities to people of all ages and physical abilities.

With this in mind, the City moved forward to improve accessibility to this precious natural resource in the heart of downtown Three Rivers. Grant funding was obtained through the Michigan Strategic Fund – Community Development Block Grant Program.

F&V

Project Highlights

Two-Mile Pathway
Two County Agencies
Connects Three Municipalities

Expertise Provided

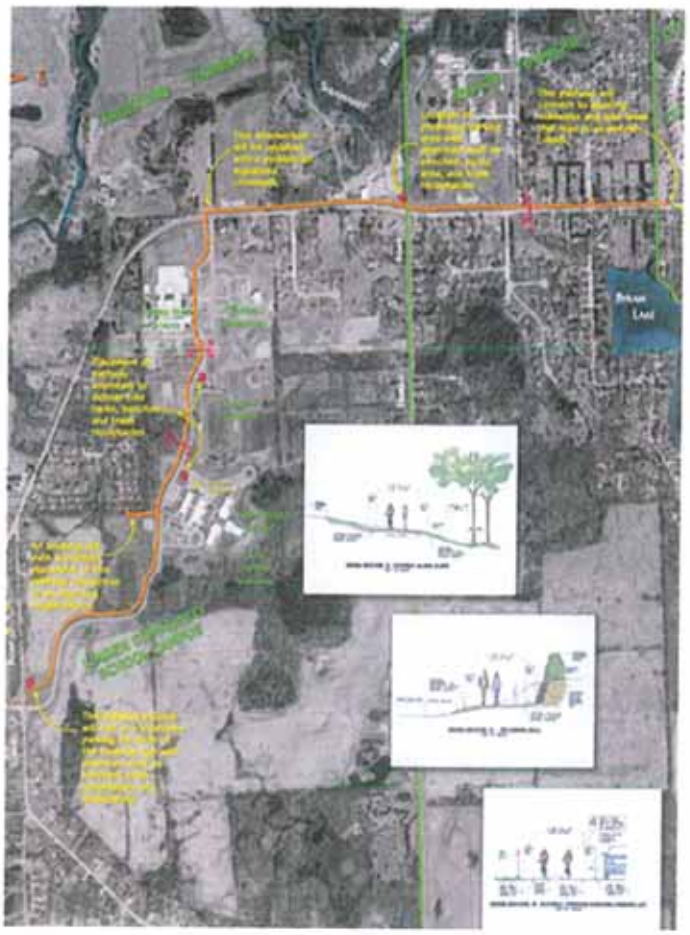
Design Services
Stakeholder Facilitation
MDNRE Permit
Easement Acquisition
Wetlands & Drain Crossings

Project Information

Design Completed: 2009

Contact

Robert Cole,
Supervisor
P: 810.735.5050



Silver Lake Road
Universal Multi-Use Pathway
City of Linden, Fenton & Argentine Townships

This two-mile pathway project is located within two townships and involves the cooperation of three municipalities, two county agencies and one public school system. The project starts at the west limits of the City of Linden where it follows Silver Lake Road within the Genesee County road right of way in Fenton and Argentine Townships. This route is also located along the frontage of the Genesee County Drain Commissioner's wastewater treatment facility, along the frontage of the Genesee County Road Commission's southern field services yard and alongside the major access way through Linden Community School's campus.

Our team developed the preliminary engineering plans, an MDNRE grant application, and easement documents for this pathway and played a major role in the facilitation effort for project buy-in and easement acquisition.

Along with the challenges of multi-jurisdictional coordination, this project also involves a wetland and drain crossing requiring a permit from the MDNRE, special design consideration through the school's parking facilities and athletic fields, and unique grade challenges. The pathway connects the communities of Linden, Fenton Township and Argentine Township to the school campus, and is the first phase of an eight-mile system through the township connecting to the adjoining Shiawassee County trail.

Project Highlights

Flood Water Storage
Wildlife Habitat Enhancement
Utilization of 576 Acres

Expertise Provided

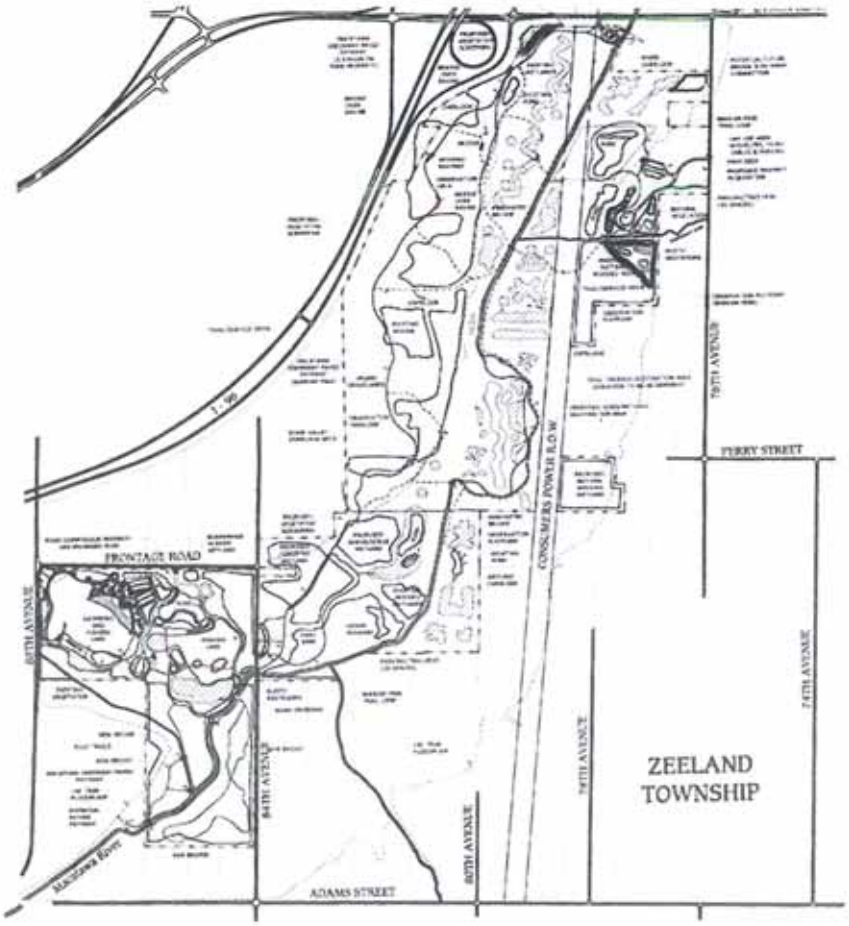
Design Services
Water Quality Improvements
Grant Writing & Administration

Project Information

Date Completed: 2013
Construction Cost: $1.35 Million
Grants & Loans

Contact

Curt Terhaar,
Coordinator of Park
Planning & Development
P: 616.738.4656



Upper Macatawa Greenway Non-motorized Path

Ottawa County, MI

The Upper Macatawa Natural Area (UMNA), located in Zeeland Township, includes 576 acres with the potential for up to 700 acres in the future. In addition to recreation, the UMNA is being developed around the principles that recognize the value of the site for water quality improvement, flood water storage and wildlife habitat enhancement.

The Upper Macatawa Greenway Trail will connect the Fred Meijer Kenowa Trail with the Lakeshore Trail along the Lake Michigan Shoreline as well as serve as a primary staging point with such amenities as parking and restroom facilities. Completion of this section of 2 miles from Byron Road to Adams Street will eventually create a continual connection from the Grand Rapids region to Holland and the lakeshore area.

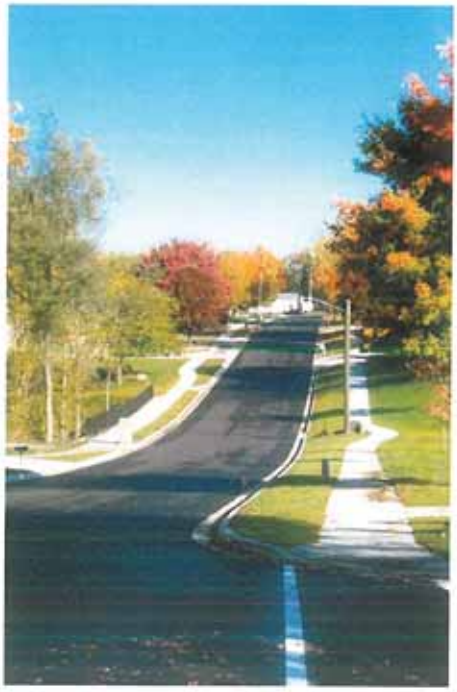
F&V provided grant writing assistance under the Michigan Department of Transportation Enhancement Program in which the County Parks Department received over $675,000 in funding. F&V prepared final design plans with construction completed in the summer/fall of 2013.

Project Highlights
Grading Challenges
Geotextile Fabric
Completion Under Budget

Expertise Provided
Road Reconstruction
Utility Replacement
Design Engineering
Construction Engineering
Permitting Assistance

Project Information
Date Completed: 2010

Contact
Patrick Reagan,
Interim Manager
P: 517.647.2931



Grape & Detroit Street Reconstruction

City of Portland

The project included full road reconstruction including watermain, sanitary sewer, storm sewer and new concrete curb and gutter. F&V dealt with extremely poor soils and sawdust fill on old road. The project had to be designed with special backfill and geotextile fabric to bridge poor soil conditions.

F&V also provided full survey, design and construction engineering services including private utility conflict resolution, watermain construction permitting, sanitary sewer construction permitting, MDEQ joint permit, soil erosion and sediment control permitting and NPDES permitting.

The project construction finished well enough under budget that the City was able to add a $200,000 mill and fill project on Divine Highway to the contract.

Project Highlights
Road Reconstruction
Storm Sewer
Watermain
Sanitary Sewer

Expertise Provided
Design Engineering
Construction Engineering
Environmental Consultation
Grant Administration

Project Information
Date Completed: 2010
Construction Cost: $1.6 million
Grants & Loans

Contact
Gary Tuhacek,
Director of Public Works
P: 269.561.2444

Maple Street Reconstruction
Fennville, MI

F&V provided the City with survey, inspection, design and construction engineering services for Maple Street between Landsburg Road and the alley south of M-89. The project included complete road reconstruction including storm sewer between Third Street and Landsburg Road; watermain between Third Street and Landsburg Road; and sanitary sewer the entire length of the project. A portion of the funding was provided by the Michigan Economic Development Corporation (MEDC).

The project included crossing M-89 with a new 12-inch sanitary sewer which was bored beneath the roadway. The project encountered contaminated soils as two diesel tanks were found in the first week of construction. F&V's environmental team was able to provide soil sampling, testing, and coordinating of the tanks' removal, thus keeping the project delay to under one week.

Project Highlights

Concrete rubblizing
Road construction
Drainage improvements
Guardrail
Intersection improvements
Traffic signal modifications

Expertise Provided

Design Services
Conceptual Service

Contact

William LeFevere,
City Manager
P: 269.857.1438

Blue Star Highway

Douglas, MI

F&V provided design services as well as conceptual through construction of 1.1 miles of Blue Star Highway. Construction included concrete rubblizing, road construction, drainage improvements, guardrail, intersection improvements and traffic signal modifications. The design included part-width construction staging to accommodate an industry and several businesses along the heavily traveled stretch of highway that runs through the center of town. The $1.1 million ISTEA project was partially funded by MDOT Category D transportation funds.

Project Highlights

Milling and Resurfacing
ADA Compliant Sidewalks
Concrete Curb and Gutter
Storm Catch Basin

Expertise Provided

Survey
Design Engineering
Construction Engineering
Permitting

Project Information

Date Completed: 2012
Construction Cost: $738,000

Contact

Patrick Waterman,
City Manager
P: 616.669.0200

32ND Avenue Improvements

Hudsonville, MI

The project included road reconstruction, milling and resurfacing as well as improvements that included water main, a new concrete sidewalk with ADA compliant ramps, and new concrete curb and gutter. F&V field engineered stormwater drainage improvements including roadway crown adjustment and the addition of a storm catch basin.

F&V also provided full survey, design and construction engineering services including water main construction permitting, MDOT right-of-way permitting and soil erosion and sedimentation control permitting.

The project was constructed on schedule and within budget such that the City was able to add nearly $11,000 of desired commercial and residential drive approach, sidewalk, and curb and gutter removal and replacement to the contract.

Project Highlights

Pavement reconstruction
Bridge reconstruction
Retaining wall construction
Storm sewer placement
Watermain placement
Site lighting
ITS installation

Expertise Provided

Inspection Services
Testing services
Survey Support

Project Information

Date Completed: 2010
Construction Cost: $32,014,000

Contact

Thomas Tellier, PE
P: 616.464.7716

"The Fix" I-196 Reconstruction

Kent County, MI

Project included concrete pavement reconstruction, bridge reconstruction, retaining wall construction, storm sewer placement, watermain placement, site lighting and ITS installation.

F&V provided inspection and testing services for MDOT including concrete paving, aggregate density, storm sewer placement, watermain placement and restoration. F&V also provided verification survey support to validate critical layout components.

PROJECT HIGHLIGHTS
Road Reconstruction

EXPERTISE PROVIDED
Concrete Resurfacing
Signal Upgrades
Utility Coordination
Traffic Control

PROJECT INFORMATION
Date Completed: 2008
Construction Cost: $300,000

SHERMAN BOULEVARD RECONSTRUCTION

MUSKEGON, MI

F&V completed the reconstruction of 0.54 miles of this 5-lane cross section of Sherman Boulevard, which consisted of concrete pavement resurfacing, HMA cold milling, cross-walk signal upgrades, utility coordination, pavement markings, traffic control, sidewalk construction and restoration. This project was construction under part width construction to maintain the high traffic volume. This project was funded with an 80% federal grant.

Project Highlights

Asphalt Road Construction
Concrete Curb and Gutter
Watermain
Sanitary Sewer
Storm Sewer

Expertise Provided

Design Engineering
Construction Engineering
MDEQ & SESC Permits

Project Information

Date Completed: 2008
Construction Cost: $1.2 Million

Contact

Jason Eppler,
City Manager
P: 616.527.4170

Pearl & Union Streets Reconstruction

Ionia, MI

F&V provided design and construction engineering for this road and utility reconstruction project. The design involved 2,700 feet of asphalt road construction with concrete burg and gutter, 2,500 feet of 8-inch watermain replacement, 2,400 feet of sanitary sewer replacement, storm sewer and all associated work.

F&V coordinated private utility relocation on the project and also acquired MDEQ watermain construction and SESC permits.

PROJECT HIGHLIGHTS

Road Construction
Storm Sewer
Sanitary Sewer
Watermain
Street Lighting

EXPERTISE PROVIDED

Design Engineering
Construction En gineering

HENRY STREET IMPROVEMENTS

ALLENDALE CHARTER TOWNSHIP, MI

F&V performed design and construction management of 700 feet of new street construction including storm sewer, sanitary sewer, watermain, street lighting and landscaping improvements.

The project included decorative concrete, sidewalks, curb and gutter, bituminous paving and an irrigation system. Design was in accordance with Township, Ottawa County Road Commission and Ottawa County Drain Commission standards.

Project Highlights

Crush and Shape
Widening Shoulder
Drainage Improvements
Guardrail Installation

Expertise Provided

Design Engineering
Construction Engineering

Project Information

Date Completed: 2010
MDOT Local Agency

Contact

Patrick Waterman,
City Manager
P: 616.269.0200

36TH Avenue Improvements

Hudsonville, MI

F&V provided design and construction engineering services on this 0.8 mile crushing and shaping project.

The project included crushing and shaping the existing asphalt surface, widening along each side for proposed shoulder and drainage improvements, and guardrail installation.

The project was funded as an MDOT Local Agency Project and was designed and constructed according to MDOT standards.

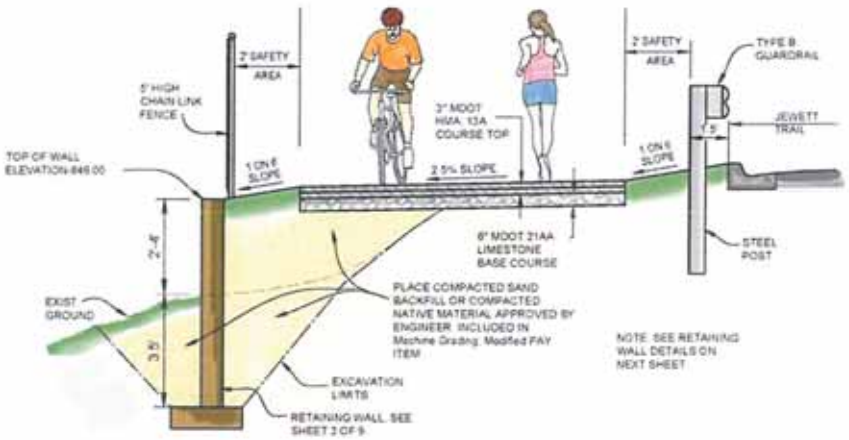
PROJECT HIGHLIGHTS
Community Connectivity
Multi-Use Pathway

EXPERTISE PROVIDED
Project Design
Grant Assistance
Retaining Wall

PROJECT INFORMATION
Date Completed: 2009

CONTACT
Susan Soderstrom,
Mayor
P: 810.694.1118

Matt Wurtz
DPW Director
P: 810.694.1113



JEWETT TRAIL PATHWAY

CITY OF GRAND BLANC, MI

Jewett Trail is a road that connects Holly Road to Davis Street and Bush Street. It traverses around two Grand Blanc Community School buildings. This is the only road that is adjacent to the school buildings that does not have a sidewalk.

Our team prepared a grant application for Congestion Mitigation and Air Quality (CMAQ) funds on behalf of the City of Grand Blanc and was awarded the project by a rating process through the Genesee County Metropolitan Planning Commission.

The project consists of an asphalt multi-use pathway that connects into existing sidewalk at Holly Road and Davis Street. The pathway alignment was reviewed and coordinated with the Grand Blanc Community Schools and includes a retaining wall, new guardrail, fence relocations, and tree replacements.

This project will provide a safe and direct mode of travel for non-motorized movement around the school buildings by eliminating the present conflicts with vehicular traffic. Students and athletes will be able to safely walk, jog and run alongside Jewett Trail.

Project Highlights

Road & Utility Planning
Evaluating Current Conditions
Planned Improvements
Surveying Current Infrastructure

Capital Improvement Plans & Street Condition Surveys

Michigan

F&V has assisted numerous communities in evaluating, planning and surveying their roads and infrastructure. Some of these communities include:

Adrian Township
Allendale Charter Township
Calhoun County Road Commission
City of Belding
City of Hudsonville
City of Portland
City of Potterville
City of Plainwell
City of Saugatuck
City of the Village of Douglas
Village of Berrien Springs
Village of Caledonia
Village of Dimondale
Village of Roscommon

MDOT PREQUALIFICATIONS

Fleis & VandenBrink is pre-qualified with the State of Michigan Department of Transportation (MDOT) in the following classifications.

- Aggregate Testing
- Bituminous Pavement Inspection
- Bridge Construction Engineering
- Bridge Safety Inspection
- Complex Signal Operations
- Construction Staking
- Density Inspection and Testing Services
- Engineering Assistance
- Hydraulics
- Hydraulic Surveys
- Landscape Architecture
- Maintaining Traffic Plans and Provisions
- Municipal Utilities
- Pavement Marking Plans
- Portland Cement Concrete Inspection & Testing
- Right-of-Way Survey
- Road Construction Engineering
- Road Design Surveys
- Roads & Streets
- Roadway Rehabilitation and Rural Freeways
- Short and Medium Span Bridge Design
- Simple Traffic Signal Operations
- Site Investigation
- Structure Surveys
- Technical Assistance
- Traffic and Safety Inspection Services
- Traffic Capacity Analysis & Geometric Studies

MDOT PREQUALIFICATIONS

F&V has performed numerous design and construction projects for MDOT, in addition to providing staff assistance directly to MDOT. The following is a representative list of typical projects we have completed:

MDOT CONSTRUCTION EXPERIENCE

- M-11 (28th Street) – Division to US131 – Grand Rapids
- US-131 – Grand Rapids – Multiple Projects
- I-196 – Saugatuck
- M-44 – Cannon Township
- US -31 – Grand Haven
- I-96 ROW – Bridge over the Grand River, Ionia County
- Shoreline Drive – Muskegon
- M-6 – Kent and Ottawa Counties
- I-196 BR – Zeeland
- US-131 BR – Big Rapids
- M-6 – Kalamazoo Avenue Interchange, Kent County
- Marquette Avenue – Over US-31, Muskegon County
- M-120 – Over the Muskegon River, Muskegon County
- M-6 – Bridge over Eastern Avenue, Kent County
- I-96 BR and US-31 – Muskegon County
- M-82 and M-120 – Newaygo and Montcalm Counties
- US-31 and M-104 – Ottawa and Allegan Counties
- I-196 BR – Kent and Ottawa Counties
- I-196 Grand River to Lane – Joint Repair
- M-45 at I-196 – Joint Repair
- M-37/M-44: Lake Eastbrook to I-96 – Joint Repair
- M-11: Church to US-131 – Paving and Sidewalks
- I-196 – Bus route paving
- US-131 and
- M-45 (old) Fulton Street – Paving
- I-96, M-11, M-21 – Joint Repair
- M-37 – Paving
- M-45 – Paving
- M-104 – Paving

SERVICES PROVIDED DIRECTLY TO MDOT OFFICES

- Office Technician – Construction Administration
- "Call for projects" – Scoping and Estimating
- Drafting

MDOT DESIGN EXPERIENCE

- Grand Rapids – I-96: 28th Street to Alpine – Paving
- Grand Rapids – M-6: I-96 to East Paris – Paving
- Kent County – M-37: 76th Street to Patterson Avenue – Paving
- Allendale – M-45: 68th to Ferndale – Paving
- Ottawa County – M-45: 68th to US-131 – Paving
- Grand Rapids – I-96: Off-ramp to M-21
- I-96 Bridge over Mid Michigan Rail
- I-96: 36th Street Interchange
- Manton – M-42 Streetscape – Randolph St. to BR-131

MDOT LOCAL AGENCY DESIGN EXPERIENCE

- Clio Road – Genesee County Road Commission
- Silver Lake Road – Genesee County Road Commission
- Linden Road – Genesee County Road Commission
- Irish Road – Genesee County Road Commission
- Richfield Road – Genesee County Road Commission
- Mesick Avenue Streetscape – Mesick
- Indian River Pathway – Tuscarora Township
- East State Street – Grant
- Ferry Street – Berrien Springs
- Main Street – Caledonia
- 120th Avenue – Ottawa County, Michigan
- Orchard and Kenwood Streets – Belding City Limits, Belding
- Congress Street – Belding
- High Street – Belding
- Main Street – Saranac
- Bridge Street – Portland
- Bridge Road Reconstruction– Allegan
- 8th Street – Martin Township, Allegan County
- East State Street – Grant
- Woodside Avenue – Essexville
- Michigan Avenue – Bay City
- Lafayette Avenue – Bay City
- Pine Street – Essexville
- Borton Avenue – Essexville
- Grand Blanc Road – Grand Blanc
- Clio Road – Genesee County Road Commission
- Silver Lake Road – Genesee County Road Commission
- 32nd Avenue Reconstruction- Hudsonville
- 32nd Avenue widening – Hudsonville
- State Street Reconstruction – Shelby
- Main Street Reconstruction – Berrien Springs
- Blue Star Bridge Improvements – Saugatuck
- Charlotte Highway – Portland
- Edgerton Street Improvements – Howard City
- Main Street Improvements (Two Phases) – Potterville
- 5 Mile Road over the Little Muskegon River – Mecosta County Road Commission
- 20 Mile Road over the N. Branch of the Chippewa River – Mecosta County Road Commission
- 190th Avenue over the Little Muskegon River – Mecosta County Road Commisison
- Green Avenue over the White River – Newaygo County Road Commission
- Old M-20 over the White River – Newaygo County Road Commission
- 6 Mile Road over the White River – Newaygo County Road Commission
- Main Street over Amtrak Railroad – Mattawan
- Washington Street over Fish Creek – Hubbardston
- Cayuga Street over the Intermediate River – Bellaire
- Findlay Trail Pedestrian Bridge – Hudson
- Sixth Street Improvements – Constantine
- Hamilton Street – Berrien Springs
- Bryant Road – Ludington
- Grand Haven Road – Norton Shores
- 36th Avenue – Hudsonville

PROJECT TEAM

F&V staff members provide transportation engineering services to municipalities throughout Michigan and Indiana. Our professional team can assist the City of Birmingham with Complete Street evaluations and Capital Improvement Plans. We have extensive experience in multi-modal situations that allow for vehicular traffic, bike lanes and buses. We have assusted our clients with traffic calming features to make their streets safer and helped incorporate walking and biking trails in their communities.

Our firm is MDOT-prequalified in 22 different categories and has the expertise to assist the City with numerous types of transportation projects.

Our specialized team for the City is as follows:

Michael Labadie, PE will serve as **Project Manager.** With over 35 years of experience in transportation engineering, Mike has been responsible for countless traffic projects, including Traffic Impact Studies, intersection operations, corridor studies, development impact, environmental impact and traffic safety.

Some of Mike's larger projects include providing transportation engineering services for the Comerica Park and Ford Field master plans, conceptual plans for the City Casinos, and over 20 years of ongoing traffic management for the Michigan International Speedway.

Paul Galdes, PE is the Vice President of Operations at F&V and has designed an extensive amount of transportation projects for his clients. With nearly 30 years of experience and an exceptional set of road design skills, Paul is highly-qualified to provide **QA/QC** review tasks for the City of Birmingham.

Geric Rose, PE will assist as a **Project Engineer** for the City. Geric works out of F&V's nearby Grand Blanc office and has extensive experience in both design and construction engineering. Geric's unique skillsets include being

certified as both a Professional Surveyor and a Professional Engineer.

Steven Russo, EIT will be a **Transportation Engineer** for this project. He has five years of experience in the field and assists with the completion of traffic impact studies, traffic signal optimization, signal warrant analysis, traffic data collection and analyzing site conditions.

Rick Stout, LEED AP BD&C will assist with projects that require a **Landscape Architect**. He has been an integral team member on projects that encompassed the design of streetscapes, parks, trails and site improvements. His creativity brings added value to any project and he is an expert at planning connectivity and multi-modal uses for communities.

Lisa Easterwood, CST is an extremely skilled **Planner** for F&V. She has completed numerous master planning studies and is highly-experienced with sustainable and low-impact construction methods. Lisa completes feasibility studies of various potential trail and pathway routes and has helped design streetscape features for clients.

F&V team members listed here have the availability to complete assignments from the City of Birmingham and look forward to working with your staff.

Resumes are provided in this section.

Experience Summary

Michael has over 35 years of experience in the field of Transportation Engineering. He has directed many traffic and transportation engineering projects, including intersection operations studies, corridor studies, citywide traffic studies, signal system studies, roadway design projects, development impact studies, environmental impact statements, and traffic safety projects.

Michael has served as Transportation Engineering Manager responsible for all traffic engineering and transportation planning work, including planning, design, and implementation of traffic operation improvements for communities and private developments. He has provided professional transportation engineering services for projects such as the Comerica Park and Ford Field master plans, redesign of the Detroit Renaissance Center, conceptual plans for the City Casinos, and traffic management for the Michigan International Speedway.

Additionally, he served as Rural District Transportation Engineer for the Road Commission for Oakland County and Adjunct Faculty in the Construction Engineering Department at Lawrence Technological University. Michael has completed a variety of transportation and parking engineering projects in and for numerous Michigan communities, including the City of Detroit, City of Birmingham, and Bloomfield Township.

Major Areas of Expertise

- Transportation Engineering & Planning
- Traffic Impact Studies
- Shared Parking Studies
- Corridor & Downtown Street Planning
- Transportation & Community Connections
- Public Approval Processes
- Complex Intersection Capacity and Operations
- Large Event Traffic Management

Project Experience

1993-Present, Birmingham

Responsible for providing the City with as-needed traffic and transportation engineering consulting services. Responsibilities include collaboration with City Engineering, Planning, and Police staff, direction and review of traffic analyses, communication and presentation of study results and recommendations, and coordination with the Road Commission for Oakland County and MDOT. Project examples include city-wide traffic operations evaluation, corridor traffic signal optimizations, traffic control studies, lane reduction studies, parking evaluations, evaluating pedestrian accommodations, traffic signal warrant analysis, and development impact studies. Several traffic analyses were completed for an area of the City including Old Woodward Avenue, Woodward Avenue, and Maple Road which included traffic signal optimization, roadway reconstruction, and evaluation of proposed development impacts. Mr. Labadie participates in public meetings and provided recommendations to the City based on the results of these analyses, in order to maintain acceptable traffic operations for City residents, businesses, and visitors.

2000-Present, Bloomfield Township

Provides traffic operations analyses, site plan and impact study reviews, presentations to the Planning Commission and the Township Board of Trustees, Township Ordinance reviews, neighborhood meetings, and representation at meetings with other agencies including the Road Commission for Oakland County and MDOT. Recently participated in traffic and parking analyses for several mixed use office/retail/restaurant development including the corner of Woodward Avenue (M-1) & Big Beaver Road, Telegraph Road (US-24) & Square Lake Road, and

MICHAEL LABADIE, PE
PROJECT MANAGER

Education

MS Civil Engineering
Wayne State University, 1978

BS Civil Engineering
Wayne State University, 1975

Registrations

Registered Engineer
- Michigan (No. 26598)

Professional Affiliations

- Institute of Transportation Engineers

Certifications / Trainings

- National Highway Institute FHWA Road Safety Audits

Telegraph Road (US-24) & Maple Road.

Present, Michigan International Speedway, Brooklyn
Has provided traffic control and management consulting for MIS for several years, and his recommendations have resulted in significant improvements to traffic operations related to race weekends at the Speedway. With nearly 200,000 patrons and miles of impacted roadways, traffic volumes previously would queue for 10's of miles, spilling back into local communities and onto I-94 prior to his involvement. Mr. Labadie developed plans in coordination with MDOT and local agencies to improve the road infrastructure and efficiently manage traffic flows in and out of these large events, which are still carried out to date.

2010-Present, Bloomfield Hills HS Consolidation, Bloomfield Hills
Bloomfield Hills Schools is currently proposing the combination of Andover and Lahser High Schools in Bloomfield Township and Bloomfield Hills, MI. Two sites were considered for the future school combination and a traffic impact study was completed to evaluate the traffic related impacts of both options. The study road network includes seven (7) signalized intersections along US-24, Long Lake Road, and Lahser Road. Mr. Labadie was responsible for the management and QA/QC for the project including review of the Synchro/SimTrafflc models, development of project mitigation measures, and final report documentation. Mr. Labadie is also responsible for coordination with the project stakeholders including the School District, Bloomfield Township, the Road Commission for Oakland County, and MDOT.

2011-2012, Redford HS Redevelopment, Detroit
Completed the Traffic Impact Study for the redevelopment of the former Redford High School with retail land use, which is proposed to include Meijer. The study evaluated the potential impacts of the project on the adjacent road network and determined appropriate site access and traffic control. Mr. Labadie led the development team meetings with MDOT and developed the mitigation measures which ultimately lead to project approval.

2007-2012, Parking Engineering Studies, Troy
Directed a number of parking studies in the City of Troy based on the Urban Land Institute (ULI) methodology for the sharing of parking spaces based on seasonal, daily, and hourly variations in land use parking demands. These projects have involved parking demand forecasts and evaluation of parking supply for various commercial developments. All of these studies were approved by the City and resulted in more efficient land use and reduction in pavement for sites where previous standards had resulted in the over-design of parking supply. Project examples include the PNC Center, Troy Sports Center, Troy Marketplace, and Troy Place.

2011, Firekeepers Casino Hotel and Events Center, Battle Creek
Provided traffic engineering and project management for the site plan design and Traffic Impact Study for a new hotel and event center at the existing Firekeepers Casino. The project site is located adjacent to the I-94 interchange with M-311 and has access via the I-94 Business Loop, also known as M-96. Traffic impacts on the adjacent road network and intersections were evaluated and recommendations were developed to mitigate project impacts. Mr. Labadie led the development of study recommendations for presentation to Firekeepers and MDOT.

2008-2010, Bloomfield Park Mixed Use Development, Bloomfield Township
Acted on behalf of the Township in review of the Traffic Impact Study for the proposed mixed use development on Telegraph Road (US-24) north of Square Lake Road (I-75BL). Mr. Labadie met frequently with staff from the Township, City of Pontiac, and the MDOT to provide recommendations for development impact mitigation strategies. Directed the project traffic analysis and coordinated efforts with other consulting firms to provide the involved jurisdictions with an acceptable traffic impact analysis and resulting mitigation. Reviewed the development Parking Study and provided recommendations related to site parking supply versus demand as well as site layout and internal circulation.

2007-2009, Northpointe Town Center, Blackman Township
The objective of this project is to evaluate the impacts of the proposed commercial development on the adjacent road network including the I-94 interchange with Airport Road and the US-127 interchange with Springport Road. Mr. Labadie was responsible for the management of project tasks and QA/QC of the proposed development impact study, which included roundabout evaluation. Developed and recommended traffic control and geometric modifications in order to minimize the impact of the proposed development on the roadway network as compared to the existing traffic conditions. The study was conducted in coordination with MDOT and Blackman Township, MI.

2008, Corridor Modernization Study for Caniff Street, Hamtramck
The objective of this project was to modernize the Caniff Street corridor between I-75 and Buffalo Street. The traffic engineering aspect of the study was led by Mr. Labadie, which focused on the improvement of traffic signal operations and corridor progression in order to reduce vehicle delays and emissions. Pedestrian crossings were also of particular consideration due to the proximity of several schools along the corridor. Mr. Labadie directed the network modeling and analysis and the development of optimized corridor progression plans.

2006-2008, Pavilions of Troy Mixed Use Development, Troy
This project involved the redevelopment of the former K-Mart headquarters site at Big Beaver Road and Coolidge Highway with a proposed large-scale mixed use town center. Mr. Labadie's responsibility was to oversee a project team in data collection and analysis efforts for over 25 intersections and develop roadway improvement strategies to minimize the impact of development traffic on the surrounding road network. Reviewed study documentation and acted as a liaison between the developer and the Road Commission for Oakland County and the City of Troy. Delivered the findings and recommendations to the Road Commission, the City of Troy Planning Commission and the City Commission for approval.

2004, Van Dyke Avenue (M-53) Corridor Study, Warren & Centerline
This study was completed to provide the foundation for managing improvements to the M-53 corridor between 8 Mile Road and I-696. The project stakeholders included the City of Warren, City of Centerline, and MDOT. Elements addressed in the study included evaluation of traffic operations, establishment of site design guidelines, recommendations for vehicular and pedestrian facility improvements, conceptual policy design for streetscape improvements, strategy development for improvement project budgets, and ordinance recommendations. Responsible for the oversight of data collection, evaluation of corridor signal timing improvements, crash data analysis, evaluation of pedestrian accommodations, and planning for future land uses along the corridor.

F&V

Experience Summary

Paul has been involved in the planning, funding, design and construction of public and private roads, landfills, sanitary sewer, storm sewer, bridges, dams, recreation facilities and water distribution systems for nearly 30 years. He has extensive experience working with MDOT-funded road projects and has been extremely successful in obtaining grants and low-interest loans for F&V clients.

As Vice President of Operations, Paul is responsible for overseeing the production of our work firm-wide. His vast knowledge and project experience make him highly-qualified to provide QA/QC tasks for our engineering staff, particularly on transportation projects.

Paul is the primary contact with our firm for Engineer-of-Record assignments in Portland, Saugatuck, Big Rapids, Howard City and Caledonia.

Major Areas of Expertise

- Project Manager for MDOT-funded road projects
- Project Manager for design and construction engineering of municipal projects including road, bridge, watermain, sanitary sewer and storm sewer systems.
- Federal and State Grant application assistance, preparation and administration for municipal infrastructure projects.
- Water and wastewater feasibility studies and user charge systems.
- Traffic counts and analysis.
- Nuclear density and concrete testing.
- MDOT / ACEC certified Standing Neutral for construction conflict resolution.
- Manages municipal group work schedules and activities.
- Coordinator of all construction inspection and testing services for the company.
- Analysis of existing water, sanitary and storm water systems.

Certifications/Training

- 1994 / MDOT Office Technician Course
- 1990 / Troxler Certified

Project Experience

Roads & Streets

South Maple Street, Saugatuck
Project Manager for the reconstruction of South Maple Street. A major portion of the road was washed out in the spring of 2013 with rains jeopardizing access to several homes, a gas main, sanitary sewer and water main. F&V worked with the City to acquire FEMA emergency funds and get the road and utilities reconstructed before winter.

Kent Street Improvements, Portland
Project Manager for improving the road and utilities on this main corridor in downtown Portland. Project was completed under an accelerated schedule and phased to minimize disruption of the downtown businesses.

Edgerton & Ensley Street Streetscape, Howard City
Project Manager for design engineering services for the reconstruction of 0.4 miles of Edgerton Street and Ensley Street. The project included aesthetic, as well as, infrastructure and drainage improvements covering a two block stretch along Edgerton Street between Ensley Street and Lincoln Street and Ensley Street between Shaw Road and Edgerton Street. Aesthetic improvements funded through MDOT included: trees, benches, flower planters, trash receptacles, decorative paving, traffic calming bump-outs, ADA accessibility and decorative streetlights.

PAUL GALDES, PE
VICE PRESIDENT

Education

BS Civil Engineering
Michigan State University, 1985

Registrations

Professional Engineer
- Michigan (No. 36057)
- Wisconsin (No. 28773)

Professional Affiliations

- American Society of Professional Engineers
- National Society of Professional Engineers
- Committee Chair American Council of

Maple Street Improvements, Fennville
Project Manager for the design and construction engineering for a $1.3-million road reconstruction and utility improvements project. The project included 2,900 feet of road reconstruction, bore and jack of M-89, 1,900 feet of 8-inch and 12-inch watermain, 2,900 feet of 10-inch sanitary sewer and 1,700 feet of 12-inch and 24-inch storm sewer. F&V was successful in acquiring and administering a $156,800 Michigan Economic Development Corporation (MEDC) grant for this project.

Grape & Detroit Street Reconstruction, Portland
Project Manager for 3,500 feet of full road reconstruction including watermain, sanitary sewer, storm sewer and new concrete curb and gutter. Dealt with extremely poor soils and sawdust fill on old road. Project had to be designed with special backfill and geotextile fabric to bridge poor soil conditions. Project was completed ahead of schedule and $30,000 under the bid price.

Blue Star Highway Road Reconstruction & Traffic Signal Modifications, Douglas
Project Manager for the design and construction, of 1.1 miles of Blue Star Highway. Construction included concrete rubblizing, road reconstruction, drainage improvements, guardrail, intersection improvements and traffic signal modifications. The design included part-width construction staging to accommodate an industry and several businesses along the heavily traveled stretch of highway that runs through the center of town. The $1.1-million ISTEA project was partially funded by MDOT Category D transportation funds.

Street & Utility Improvements, Saugatuck
Project Manager for the planning, design and construction of a $3.5-million project to upgrade several City streets and utilities. The project included over 2.0 miles of street reconstruction with curb and gutter, watermain, storm sewer, sanitary sewer and electrical conduits for lighting. The project was staged, and the work was accelerated, to minimize impact of construction on this City that relies heavily on tourism. F&V assisted the City in the public information and financing process of the project.

Maple Street Improvements, Portland
Design Assistance for the design and construction of Maple Street from Brush Street to Grand River Avenue. The project included 1,400 feet of road reconstruction with utility improvements, streetscape improvements and related work.

Grand River Avenue Improvements, Portland
Design Assistance for the design and construction of Grand River Avenue from Kent Street to Charlotte Highway. The project included 4,000 feet of road reconstruction with utility and sidewalk improvements, retaining walls and related work.

Lake Street Improvements & Traffic Study, Saugatuck
Project Manager for the design and construction of Lake Street improvements for the City. The project included planning, traffic study and the design and construction of approximately 3,500 feet of road. The project also included improvements to parking, geometrics, safety, traffic flow, drainage and road quality. The project was funded with MEDC funds.

Traffic Study, Portland
Project Manager for a traffic study looking at the short and long term effects of community business' driveway entrances, traffic signal timing, development of alternate routes for commuter traffic and other traffic related issues in the community.

Elizabeth Street, Saugatuck
Project Manager for the design and construction of 800 feet of Elizabeth Street including watermain replacement and storm sewer repairs. In order to complete this project economically, F&V was able to salvage the existing curbs and avoid costly undercutting of organic material through the design of an underdrain and geotextile drainage and separator system.

Main Street (Kinsey to Ash), Caledonia
Project Manager for the design of Main Street from Kinsey Street to Ash Street. The project included the reconstruction of 2,000 feet of 3-lane concrete curb and gutter. The project also included 2,000 feet of 12-inch sanitary sewer, 2,000 feet of 12-inch watermain, 1,500 feet of 12-inch to 24-inch storm sewer, sidewalks, pavement marking and signage as well as the reconstruction of a Village parking lot. F&V assisted the Village in acquiring MDOT STP and Enhancement funds for the project.

First Street, Mary Street & Rose Street Reconstruction, Fennville
Project Manager for the design and construction of 2,100 feet of First Street, Mary Street and Rose Street for the City in order to improve safety to the new school. The project included 1,400 tons HMA paving, 1,300 feet of sanitary sewer, 1,200 feet of storm sewer and 4,600 feet of storm sewer. The project was funded with $500,000 from the MEDC and MDOT SIB funds and included drainage and safety improvements at the M-89 intersections.

Street Reconstruction, Fennville
Project Manager for the design and construction of the road reconstruction project for the City. The project included drainage improvements, sidewalk replacement, 1,450 feet of 12-inch to 24-inch storm sewer, road reconstruction and HMA overlay.

Charlotte Highway, Portland
Project Manager for the reconstruction of 4,000 feet of Cutler Road on Charlotte Highway in the City. The project included storm sewer, sanitary sewer, watermain, concrete curb and gutter, HMA paving, sidewalk and pedestrian trail construction, I-96 bridge modifications, pavement markings and signage.

Ensley Road Resurfacing and Local Street HMA Underlays, Howard City
Project Manager for the mill and overlay of 2 miles of Ensley Road (Federal Highway) and overlay of approximately 3 miles of local streets. The project included watermain and sanitary sewer extensions, drainage improvements, curb and gutter and sidewalk replacement. The project was funded with Village, MDOT and County solid waste funds.

Donna and Bethel Drive, Portland
Project Manager for the reconstruction of 2,300 feet of roadway including watermain, storm sewer and sanitary sewer. The project also included concrete curb and gutter, sidewalks, trees and pavement markings

Main Street Reconstruction, Caledonia
Project Engineer for a full road reconstruction to an all season, 3 lane roadway. The project included 2,000 feet of curb and gutter, 1,700 feet of 12-inch watermain, 1,400 feet of storm sewer, 1,350 feet of sanitary sewer replacement, HMA reconstruction, HMA milling and overlay, pavement markings and restoration. The project also included removal of peat, geotextile separator and sub-grade undercutting. This was a TEA 21 Project.

Lake Street, Saugatuck
Project Manager for the design and construction of Lake Street improvements for the City. The project included planning, traffic study and the design and construction of approximately 3,500 feet of road. The project also included improvements to parking, geometrics, safety, traffic flow, drainage and road quality. The project was funded with MEDC funds.

Canal Street, Portland
Project Manager for the design and construction of 2,100 feet of road and storm sewer as well as 2,500 feet of 12-inch and 8-inch watermain. The project also included two new parking lots. The entire project was located in the floodway and required permitting and considerable negotiations with the MDEQ on an acceptable design.

Central Michigan University East Campus Drive / Bloomfield Road, Mount Pleasant
Project Manager for the study and conceptual design of intersection improvements. The intersection receives 19,600 vehicles from "3511 Projects Statue".

Pleasant Street, North Street and Washington Street Reconstruction, Portland
Project Manager responsible for the improvements to North Street and Washington Street which included subbase undercutting, storm drainage, 2,150 feet of watermain and 2,070 feet of sanitary sewer, sidewalks, 2,550 feet of curb and gutter and 1,500-tons of bituminous. The project also included the preparation of cost estimates, contract documents and permit applications.

Hoffman Street, Saranac
Project Manager for the design and construction of 1,200 feet of road reconstruction and 600 feet of bituminous overlay on Hoffman Street. The project included 500 feet of concrete curb and gutter, 3,900 square feet of sidewalk, 1,100 tons of bituminous, 500 feet of storm sewer and 600 feet of watermain.

Creyts/East Road Roundabout, Dimondale
Project Engineer for the design and construction of a mini-roundabout at the intersection of Creyts Road and East Road in Dimondale. The design included traffic review, geometric layout, pavement markings and signing. F&V consulted with two British designers to complete what is thought to be the first true mini-roundabout installed in North America.

Maple Street, Saugatuck
Project Manager for the design of 500 feet of street reconstruction, drainage improvements and watermain installation.

Bridge Street (Grant Street to Kent Street), Portland
Project Manager for the street improvements from Grant Street to Charlotte Highway which included watermain, storm drainage and structures, sanitary sewer repairs, road reconstruction, new concrete curb and gutter and new sidewalk. The project also included 2,270 tons of bituminous asphalt overlay and related work.

Experience Summary

Geric is involved with the study, planning, design, and construction of municipal, county, and private engineering and surveying projects. As a licensed Professional Engineer and Professional Surveyor in the State of Michigan, he provides leadership in both our engineering and surveying departments. Having experience in both design and construction, he is typically involved in a project from the initial planning/programming phase through construction completion and project closeout. He has completed numerous transportation projects and has also been involved in the design and construction of several trails and pathways.

He is very experienced with the Michigan Department of Transportation and the Michigan Department of Environmental Quality permitting processes.

Geric regularly assists communities with their day-to-day engineering needs including planning, design, and implementation of municipal projects. He is instrumental in completing engineering assignments including utility master planning, roadway and utility design, cost estimation, project bidding, construction engineering, grant writing and funding assistance, capital budgeting assistance, plan reviews, and meeting attendance. Geric has a professional reputation of providing high quality services and has demonstrated his ability to work cooperatively with councils, boards, city and township managers, public works directors, and citizens.

He also is involved with various survey operations such as records research, rights-of-way preparation, road vacation and abandonment, remonumentation, project management, land planning and platting, and quality assurance/quality control. He often assists municipalities and county agencies with easement preparation and processing for infrastructure improvement projects. Having completed and processed many condominium plans and subdivision plats, he is very experienced with the Michigan Land Division and Condominium Act.

Geric's experience and licensing as both an engineer and a surveyor provides the knowledge and support that is key for a successful project.

Project Experience

Road Experience

2013, Union Street Reconstruction, Grand Blanc
Project Design Engineer for roadway reconstruction and expansion project to eliminate redundant railroad crossings.

2012, Irish Road Rehabilitation, Genesee County Road Commission
Project Design Engineer for a one mile long, two lane MDOT Local Agency road rehabilitation project consisting of HMA base crushing and shaping. Project included geometric improvements of lane drop transition taper and sign replacement to meet current MMUTCD requirements

2012, Linden Road Reconstruction, Genesee County Road Commission
Project Design Engineer for a one mile long, five lane MDOT Local Agency concrete road rehabilitation and reconstruction project consisting of roadway geometrics and intersection turn lane improvements. Project included sign replacements to meet current MMUTCD requirements.

2012, Saginaw Street Rehabilitation, Grand Blanc
Project Design and Construction Engineer for a one mile long, five lane MDOT Local Agency road rehabilitation project of the major thoroughfare in the City of

GERIC ROSE, PE, PS

STAFF ENGINEER

Education

BS Survey-Engineering
Ferris State University, 1997

Registrations

Professional Surveyor
- Michigan (No. 47972)

Professional Engineer
- Michigan (No. 55609)

Professional Affiliations

- Advisory committee member for Lake Fenton High School Engineering Academy's initiative with "Project Lead the Way"

Certifications/Training

- Concrete Paving Inspection
- Designing Pedestrian Facilities for Accessibility
- Implementing Low Impact Development in Michigan
- Michigan Bridge Construction & Rehabilitation Field Inspection Workshop 2008
- Bridge Geotechnical Considerations & Designing for Scour

Grand Blanc. With daily traffic in excess of 30,000 vehicles, this project was constructed at night in an effort to lessen the impact on the business owners and residents.

2011, Davis Street Resurfacing, Grand Blanc
Project Design and Construction Engineer for a road rehabilitation project along a primary bus route for the Grand Blanc Community Schools.

2010, Parkin Lane, Tyrone Township, Livingston County
Project Engineer for roadway improvement project to reconstruct street. Project was funded through special assessment.

2009, Clio Road Improvements, Genesee County Road Commission
Project Engineer for a four lane MDOT Local Agency rehabilitation project in Mt. Morris Township and Flint.

2009, Perry Road Improvements, Grand Blanc
Project Engineer for a four lane MDOT Local Agency road rehabilitation project. Project included concrete base course repairs, HMA resurfacing, and sidewalk improvements.

2008, Local Street Improvements, Grand Blanc
Project Engineer for the yearly road improvement projects. Responsibilities include pavement evaluation, plan preparation, specifications, and cost opinions.

2008, Island View, Genesee County Road Commission
Project Construction Engineer for roadway improvement project. Project was funded through special assessment.

2008, Clio Road Improvements, Genesee County Road Commission
Project Construction Engineer for a four lane MDOT Local Agency road rehabilitation project in Mt. Morris Township.

2007, Clio Road Improvements, Genesee County Road Commission
Project Engineer for a four lane MDOT Local Agency road rehabilitation project in Mt. Morris Township.

Non-Motorized Transportation Experience

2011, Genesee Valley Trail, Genesee County Road Commission
Project Engineer responsible for construction engineering services for 2.7 miles of multi-use HMA pathway.

2011, Safe Routes to School, Grand Blanc
Project Manager responsible for design and construction administration services for a sidewalk improvement project along Perry Road.

2009, Flint River Trail - Kettering Extension, Genesee County Metropolitan Planning Commission
Project Surveyor responsible for preparation of temporary construction permits and permanent easements for HMA pathway project.

2008, Jewett Trail Multi-Use Pathway, Grand Blanc
Project Surveyor responsible for preparation of temporary construction permits and permanent easements for HMA pathway project.

2005, Rust Park Expansion, Grand Blanc
Project Engineer for HMA pathway design and MDEQ permitting for park expansion within a floodplain area.

Water System Experience

2013, DWRF Water System Improvement Project, Beecher Metropolitan District, Genesee County
Project Engineer for 12,000 feet of watermain replacement.

2010, Baldwin Road Water Main, Genesee County Drain Commissioner
Project Engineer for the design of water main extension project in two adjacent townships. Design included implementing horizontal directional drilling construction techniques to minimize impacts to natural resources and the design of a bidirectional metering station.

Culvert Replacement Experience

2011, Culvert Replacement Program, Genesee County Road Commission
Design Engineer for the replacement of five short span mini bridges with concrete box culverts that ranged in size from 7 foot span x 7 foot rise to 19 foot span x 9 foot rise. Work included hydraulic analysis and design of culverts, MDEQ

permitting, preparation of contractor plans and specifications.

2007, Lippincott Boulevard over Big Swamp Drain, Genesee County Road Commission
Project Engineer for culvert improvement project to remove four existing metal pipes and replace with a single concrete box culvert with wing walls, reconstruct roadway, and add guardrails.

2006, Clovis Road over Root Drain, Genesee County Road Commission
Project Engineer for culvert improvement project to remove three existing metal pipes were replaced with a single concrete box culvert with wing walls, reconstruct roadway, and add guardrails.

Storm Drainage Experience

2007, White Branch of Perry Drain, Grand Blanc
Project Engineer for completion of storm sewer design and MDEQ permit application for drainage improvements.

2006, Drainage Study, Beecher Metropolitan District, Genesee County
Project Engineer for preliminary drainage study of entire community drainage area. Project included evaluation and analysis of existing drainage system, improvement alternatives and recommendations, and preliminary cost estimate.

2005, Bush-Perry Drainage Study, Genesee County Drain Commissioner
Project Engineer for preliminary drainage study completed on the Bush and Perry Drains for consideration of drainage improvements to contributing drainage systems. Project included management and QA/QC of surveying procedures to obtain drain cross-sections and culvert data on over three miles of open drain.

2003, Layman Drain Improvements, Grand Blanc
Project Engineer for completion of water surface profiling and analysis to determine effects of adding additional storm water runoff into the Layman Drain for FEMA-LOMR application.

Recreational Experience

2009, Flint River Trail - Kettering Extension, Genesee County Metropolitan Planning Commission
Assistant Project Engineer for design of a portion of the HMA multi-use pathway system within floodplain area and completion of MDNR permit application. Responsibilities also included preparation of temporary construction permits and permanent easements for HMA pathway project.

2007, Lake Charles Water Sports, Private Client, Gratiot County
Project Engineer for the design of a private water sports lake. Responsibilities included site surveying, lake and boat ramp design, and MDNR permitting.

2005, Placid Waters Water Sports Community, Private Client, Ottawa County
Project Engineer for the design of a man-made six lake water sport community. Project included implementation of spillways and rain gardens for storm water pretreatment and filtration in lieu of traditional catch basin inlets and storm sewer.

Sanitary Experience

2004, Oak Road Sanitary Sewer, Davison Township, Genesee County
Project Engineer for the design of a sanitary sewer and pump station extension project. Responsibilities included study of surrounding land uses and connection feasibility to determine current and future service areas.

Funding Assistance

2013, DWRF Project Plan, Grand Blanc
Project Manager for preparation of project plan to secure low interest loan for the water system improvements in Fiscal Year 2015.

2013, FY 2014-2017 TIP Applications, Grand Blanc
Project Manager for preparation of FY 2014-2017 Transportation Improvement Program applications for two preservations and one reconstruct roadway improvement requests.

2012, Federal Local Safety Program, Grand Blanc
Project Manager for preparation of MDOT FY 2014 Local Safety Program Application for roadway and intersection improvements along S. Saginaw Street. The City was approved for this Federal Funding in March, 2013.

Experience Summary

Steven has five years of experience working in the civil engineering field, all of it dealing with transportation issues and solutions. He assists in the completion of traffic impact studies, performs tasks associated with traffic signal optimization, prepares signal timing permits, and conducts signal warrant analyses.

He is responsible for coordinating and collecting all in-house traffic data collection for F&V's Farmington Hills office. He prepares technical reports and memos and is extremely familiar with MDOT requirements.

A previous position in the construction industry allowed him to gain insight and experience with regard to performing site work, following blueprints, and coordinating with other contractors to meet project deadlines.

Major Areas of Expertise

- Traffic Impact Studies (TIS)
- Traffic Signal Optimization
- Signal Warrant Analysis
- Traffic Data Collection
- Analyzing Site Conditions

Project Experience

Steven is a valuable asset as a transportation engineer and has performed numerous Traffic Impact Studies. A few of his recent projects are shown below.

Road & Transportation Projects:

2-42 Community Church – Traffic Update
A-Team – Riding Oaks Traffic Study
Alidade Capital – Royal Oak N. Traffic Study
ARI-EL Enterprises – Sagamore Plaza Parking Study
Beck South LLC – Traffic Impact Analysis
Birmingham – S. Old Woodward Traffic Impact Study
Bloomfield Hills Schools – Conant Elementary TIS
Bloomfield Hills Schools – Way Elementary TIS

STEVEN RUSSO, EIT
TRANSPORTATION ENGINEER

Education

BS Civil Engineering
Michigan State University, 2009

Certifications/Training

- 2002 / Concrete

Experience Summary

Rick has been involved in the design, preparation of plans and specifications, and construction of site development projects for close to 30 years. He has served as Landscape Designer, Lead Landscape Architect and Project Manager for the study, design and construction of streetscapes, parks, trails, site improvements and residential developments.

He has prepared successful grant applications for more than 20 projects involving federal aid. Funding sources include MDOT TEA-21, MEDC CDBG and MDNR MNRTF and LWCF funding programs.

Rick brings the unique insight from serving five terms as a city council member in his community as well as two terms on the zoning board of appeals, two past terms on the zoning board and three terms on the park and recreation advisory board.

Major Areas of Expertise

- MDOT and local agency design and construction of road storm drainage and streetscapes, including the use of decorative concretes
- LED lighting design
- MEDC Grant coordination and administration

Project Experience

Downtown Enhancement

Streetscape Master Plan, Sand Lake

Prepared a Streetscape Master Plan and explored the possibilities for the Village's downtown core and addresses the infrastructure and streetscape improvement needs for a two block area along W. Lake Street. The Master Plan serves to blend public and private utility needs with the enhancement efforts for the downtown core. The Master Plan explores safer streets (including curb bump-outs and narrower crossings for pedestrians), uniform streetscape amenities (including lighting, tree planting, benches, way-finding signage), connectivity to businesses and community parks, and improved roadway with storm sewer. The projected cost for improvements identified under the Master Plan is $1.0 - 1.1 million.

Downtown Street Lighting Improvements LED, Wayland

Project Manager and designer for LED project included the removal of the existing 33 HP fixtures and 17 shoebox fixtures in four blocks limited to the area along Superior Street, from Church to Forrest Street, and along Main Street, from Hanlon Court to Maple Street. These were replaced with 44 new low wattage (eight 100 watt and thirty-six 80 watt) LED fixtures that are dark sky compliant with full cut-off design. The lights were placed approximately 80 feet on center to provide the most efficient and uniform lighting for the downtown commercial core.

Downtown Improvements, Three Rivers

Landscape Architect for design engineering services for the LED street lighting improvements along of 0.3 miles of Main Street in the City of Three Rivers and redevelopment of public gathering space known as the Mural Mall. Aesthetic improvements funded through MEDC will include: LED lights, decorative stamped concrete paving, rain garden, ADA accessible walk through Mural Mall, planter walls, decorative handrail, trash receptacles, metal pergolas, textured skin concrete walks, micro-top decorative concrete, tables, drip irrigation system and perennial plantings.

Main Street Streetscape, Potterville

Landscape Architect for design engineering services for the reconstruction of 0.4 miles of Main Street. The project included aesthetic, as well as, infrastructure and drainage improvements covering a four block stretch along Main Street between Hartman Road and Nelson Street. Aesthetic improvements funded through MDOT will include: trees, benches, flower planters, trash receptacles, decorative stamped

RICK W. STOUT,
LEED AP BD+C
LANDSCAPE ARCHITECT

Education

BS Landscape Architecture
Michigan State University, 1985

Licenses

Landscape Architect

- Michigan (No. 1054)
- Indiana (No 20800171)
- North Carolina (No. 1561)

CLARB Certified Landscape Architect (Council of Landscape Architectural Registration Boards) 2008

Professional Affiliations

- Member, West Michigan Environmental Action Council
- American Society of Landscape Architects (ASLA)

Certifications/Training

- LEED Certified – New Construction

concrete paving, brick pavers, granite pavers, traffic calming bump-outs, ADA accessibility and decorative streetlights.

Alcoa Celebration Square & Splash Park, Muskegon
Landscape Architect for design engineering services for the Alcoa Celebration Square was designed and built within a challenging 3 month period at the clients request to coincide with Alcoa National Corporate Leaders visit to Muskegon in late June of 2011. Square offers a children's fountain, geometric integrally colored concrete blocks for people to sit on and decorative integral colored concrete paving as well as prominently displayed public art that was incorporated into the overall plaza design. The outer perimeter of the square is landscaped with native perennials to reduce water usage as well as the addition of deciduous trees to provide shade for the plaza and reduce the heat island effect.

Edgerton & Ensley Street Streetscape, Howard City
Landscape Architect for design engineering services for the reconstruction of 0.4 miles of Edgerton Street and Ensley Street. The project included aesthetic, as well as, infrastructure and drainage improvements covering a two block stretch along Edgerton Street between Ensley Street and Lincoln Street and Ensley Street between Shaw Road and Edgerton Street. Aesthetic improvements funded through MDOT will include: trees, benches, flower planters, trash receptacles, decorative paving, traffic calming bump-outs, ADA accessibility and decorative streetlights.

Downtown Streetscape & Parking Improvements, Bloomingdale
Landscape Architect and Project Manager grant writing and design engineering services for two municipally owned off-street parking areas in the core downtown area. The Village hired F&V to prepare an MEDC CDBG Noticed of Intent, and upon award, provide final and construction design services for this fast track project that from grant submittal to construction was complete in five months. Final design elements included decorative brick columns, decorative fencing to screen and soften perimeter of parking areas, landscaping, decorative lighting, new sidewalk, traffic calming bumpouts, landscaping and relocation of existing park concrete arch.

Main & Bridge Street Streetscape, Belding
Landscape architect and project manager for design and construction engineering services for the MEDC funded streetscape improvements along 0.2 miles of Main Street and Bridge Street. The project included curb bump-outs on Main Street, installing two bump-outs on the east side of Bridge Street, new storm sewer structures, new handicap ramp with brick decorative wall, outer eating area, new fire hydrant, irrigation, landscaping and installing 12 decorative street lights. Angle parking was added on the south side of main street and while parallel parking remained on the north side of Main Street.

Main Street Streetscape and Street Reconstruction, Middleville
Landscape architect for design and construction engineering services for the reconstruction of 0.4 miles of Main Street. The project includes both aesthetic, as well as, infrastructure and drainage improvements covering a two block stretch along this major street from the Thornapple River to Church Street. With non-participating local funds, the Main Street storm sewer, curb and gutter and storm sewer will be entirely reconstructed as well as portions of the antiquated water system. Aesthetic improvements funded through MDOT include: trees, tree grates with guards, benches, decorative columns, decorative signage, decorative fencing, trash receptacles, decorative paving, traffic calming bump-outs, ADA accessibility and decorative streetlights. Non-participating aesthetic items include irrigation and decorative signage.

Grand River Avenue & Maple Street Improvements, Portland
Landscape Architect for the design and construction engineering services on the streetscape portion of the Grand River Avenue and Maple Street Reconstruction. F&V prepared the Downtown Master Plan and MDOT Enhancement Grant Application as well as worked with the City and MDOT on the Grand River Avenue Turnback Agreement. F&V prepared the conceptual design drawings, cost estimates, programming and permit applications. F&V completed the topographic survey and design engineering. During the 2008 construction, the project will provide full construction engineering and grant administration. The Enhancement Project includes lighting, street trees, decorative pavers, crosswalks, colored concrete, planters, irrigation, decorative signing, street furniture and a City pavilion.

Washington Avenue Streetscape Master Plan, Grand Haven
Prepared the Washington Avenue Streetscape Master Plan and explored the possibilities for the City's downtown core and addresses the infrastructure and streetscape improvement needs for a five block area along Washington Avenue. The Master Plan serves to blend public and private utility needs with the enhancement efforts for the downtown core, incorporating recently completed public and private projects. The Master Plan explores safer streets (including curb bump-outs and narrower crossings for pedestrians), uniform streetscape amenities (including lighting, signalization, benches, way-finding signage), calm pedestrian spaces, connectivity to businesses and community parks, and improved utilities (including sanitary, storm, water main, snowmelt system). The Master Plan identifies projected project costs, maps out potential Construction Schedules, and identifies potential funding sources. The projected cost for improvements identified under the Master Plan is $4.5 – 6.0 million.

M-20/M-66 Corridor Enhancement - Remus
Landscape Architect for the design and construction engineering services for the aesthetic enhancements along 0.6 miles of M-20 and M-66. Aesthetic improvements funded through MDOT will include: crosswalks and site furniture such as decorative lights, block retaining walls, benches, trash receptacles and planter pots.

Farmers Market, Fremont
LA Design Assistance for design and construction engineering for Central Business District - 80 car parking lot including site for Fremont Marketplace and establishing streetscape elements for all future City projects. Tasks include parking lot reconstruction, utility improvements, decorative site lighting, landscaping, irrigation, decorative site amenities and enclosed trash area.

Grand Haven Main Street DDA – Streetscape & Parking Lot Improvements, Grand Haven
Design of three parking lots and establishing streetscape elements for all future City projects. Project completed through TIF funding. Tasks include parking lot reconstruction, decorative concrete (stamping and color) in vehicular alley way, decorative site lighting, landscaping, irrigation, decorative site amenities and enclosed trash complex with green roof. Project included public utility relocation and burial, as well as MDEQ CMI grant funding assistance.

US-31/33 Streetscape, Berrien Springs
Landscape Architect for design and construction engineering services for the reconstruction of 0.25 miles of US-31/33. The project will include both aesthetic, as well as, infrastructure and drainage improvements covering a two block stretch along this major artery of highway--U.S. Highway 31(Ferry St.) between Cass and Mechanic and will extend along Main St. between Mars and Pitt Streets. Under the MEDC grant, the antiquated water system will be replaced along with some aesthetic improvements. Aesthetic improvements funded through MDOT will include: trees, benches, flower planters, trash receptacles, decorative paving, traffic calming bump-outs, ADA accessibility and decorative streetlights.

Center Street Reconstruction, Douglas
Landscape Architect for the reconstruction of 0.4 miles of Center Street, from Blue Star Highway to Water Street. The project reconstructed the existing 2 lanes with parallel and angle parking, decorative lighting, decorative stamped concrete, tree planting, perennial planting, irrigation system, ADA ramps with tactile warning devices, watermain, underground electrical services, curb and gutter and storm sewer.

M-115 Streetscape, Mesick
Landscape Architect for the reconstruction of 0.98 miles of M-115 Streetscape, from Clark Street to M-37. The project constructed traffic calming techniques such as bump-outs, irrigation system, decorative stamped concrete paving, decorative lighting, tree planting, ADA ramps with tactile warning devices, watermain, curb and gutter and storm sewer.

Western Avenue Reconstruction, Muskegon
Landscape Architect for the reconstruction of 0.35 miles of Western Street, from Third Street to Terrace Street. The project constructed the new roadway consisting of 2 lanes with parallel and angle parking, round-about, irrigation system, decorative stamped concrete paving, decorative lighting, tree planting, ADA ramps with tactile warning devices, watermain, sanitary sewer, curb and gutter and storm sewer.

Streetscape, Berrien Springs
Landscape Architect responsible for preparing Preliminary Master Plan and TEA-21 Grant application for the construction of upgraded and new streetscape amenities along 0.3 miles of Ferry Street (US-31/33) and Main Streets in the downtown.

Streetscape, Douglas
Landscape Architect responsible for preparing MEDC and TEA-21 Grant application for the construction of upgraded and new streetscape amenities along 0.5 miles of Center Street in the downtown.

Tone Road (M-80) Streetscape, Kinross Charter Township
Landscape Architect responsible for preparing design and TEA-21 Grant application for the addition of streetscape components on 1.7 miles of Tone Road (M-80). The project includes re-construction of east and west sidewalks, installation of barrier-free ramps, curb and gutter, decorative lighting system, site furniture, and native trees, shrubs, wildflower and boulder groupings.

Mable Street (M-13) and Kaiser Street Streetscapes, Pinconning
Landscape Architect responsible for preparing a Streetscape Master Plan to develop streetscape improvements in the downtown area and assist in grant application services. Project involves working closely with a steering committee consisting of City staff, DDA members and designated citizens.

Experience Summary

Lisa has nearly 25 years of experience in site planning and design. Her early career duties included various types of land surveys, mapping, and residential land development projects. Now, Lisa is responsible for managing and coordinating new site development projects of all types including the conceptual layout, design, and processing of site plans for approvals. She is accustomed to working with zoning ordinances and regulatory guidelines, as well as projects that incorporate environmentally sustainable and low impact development methods. She is involved in the coordination and permitting process of each of her projects through various local and state agencies including the Michigan Department of Environmental Quality (MDEQ).

Lisa is involved in the design of our streetscape and landscape enhancement projects as well as recreational planning and grant writing and the public facilitation needed to accomplish such projects. She is skilled in various computer design and presentation programs that allow her to creatively prepare large scale master plans down to site-specific designs for our municipal, recreational, and private development clients.

Her knowledge and experience, along with her creative ideas and ability to meet client goals and timelines, have earned her many positive accolades from numerous clients.

Major Areas of Expertise

- Parks & Recreation projects
- Streetscapes
- Site planning and design
- Sustainable and low-impact construction methods
- Obtaining permits through local and state agencies
- Grant writing and administration

Project Experience

Master Planning, Studies, and Streetscapes

Grand Boulevard Redevelopment Schemes, Grand Blanc
Completed conceptual planning and renderings of various redevelopment schemes for this retail corridor located in the downtown. This information was used for marketing several City-owned and private properties to developers to re-invent the City core as a traditional mixed-use center.

Fred Meijer CIS Trailway Study, Owosso and Owosso Township, Shiawassee County
Completed a trailway feasibility study of various routes to connect the existing Clinton Ionia Shiawassee (CIS) trail, ending in Owosso Township to the James Minor Riverwalk in downtown Owosso. The study included analysis of various route options, appropriate facility types at various locations, cost opinions and steps toward implementation.

Grand Blanc Road Streetscape, Grand Blanc
Completed conceptual planning and landscape design of this streetscape and towns center area in the downtown.

Historic Oak School Feasibility Study, Genesee County Metropolitan Planning Commission
Completed records research and evaluation of existing site features and prepared conceptual plans for the feasibly study to rehabilitate this 1850's two story brick structure into residential units for the Genesee County Land Bank authority.

Lisa Easterwood, CST

Planner

Education

Computer-aided Design & Drafting, Phoenix College, 1989

Professional Affiliations

- American Society of Landscape Architects
- Michigan Association of Planning
- National Society of Professional Surveyors - CST
- Flint River Watershed Coalition
- Miss Dig System, Inc.
- Grand Blanc Chamber of Commerce
- Advisor to Grand Blanc Township's Historic District Commission

Certifications/Training

- SEMCOG – Low Impact Development Facilities Management
- AASHTO Bike Facility Design
- Designing Pedestrian Facilities for Accessibility
- Certified Survey Technician
- Michigan Zoning Enabling Act training – MSU Land Policy Institute
- Effective Grant Writing – Learning Designs, Inc.

Eaton County Park Feasibility Study, Eaton County
Completed research and cost analysis of proposed park amenities and development of cost opinions for the feasibility of developing a 200+ acre recreational facility to include camping, ball fields, pathways, beach, and boat launch.

YMCA – Camp Copneconic – Phase II, Oakland County
Master planning for 240± acre multi phased private camp expansion project. Project included conceptual design, site planning and processing for first phase of this project which implements low impact design techniques such as vegetative buffers, bio swales and rain gardens.

Parks & Recreation Projects

Park and Recreation Planning, Marathon Township
Project manager responsible for preparing the township's first Park and Recreation Master Plan including facilitation of public meetings, surveys, and preparing a conceptual plan for a new park along the southern links trailway. This also included preparing a MNR Trust Fund land acquisition grant application.

Fred Meijer CIS Trailway Study, Owosso and Owosso Township
Completed a trailway feasibility study of various routes to connect the existing Clinton Ionia Shiawassee (CIS) trail, ending in Owosso Township to the James Minor Riverwalk in the downtown. The study included analysis of various route options, appropriate facility types at various locations, cost opinions and steps toward implementation.

YMCA's Camp Copneconic Health and Wellness Center, Grand Blanc
Project Manager responsible for site layout, design, and site plan processing for a 12,000 square foot state of the art health and wellness center that allows children with special medical needs, such as diabetes, cancer, or crohn's disease, to experience camp in a fun and safe environment.

Park and Recreation Planning, Burton
Project manager responsible for preparing the city's Park and Recreation Master Plan including facilitation of public meetings, research, surveys, and preparing two conceptual park plans for a new regional park and for improvements to existing Kelly Lake Park. Responsibilities also included preparing a MNR Trust Fund grant application in which the city was awarded in 2013.

Perry Road Pathway, Grand Blanc Township
Project manager and designer for this non motorized multi-use pathway in which a portion runs in front of the Historic Perry McGrath home. The design had to consider extreme grades and minimizing impacts to the home and preserving several historic maple trees located within the pathway route.

Silver Lake Road Multi Use Pathway, Argentine Township
Completed planning and preliminary engineering plans for this 2.0± mile, 10' wide multi-use pathway that falls within three communities, two county owned facilities, and the Linden Community School Campus.

Eaton County Park Feasibility Study, Eaton County
Completed research and cost analysis of proposed park amenities and development of cost opinions for the feasibility of developing a 200+ acre recreational facility to include camping, ball fields, pathways, beach, and boat launch.

Argentine Township and Linden Community Schools Parks and Recreation Master Plan, Genesee County
Project planner responsible for research and preparing this master plan including implementation of public survey, facilitating public workshops and planning meetings and developing the community's recreational capital improvement plan.

YMCA – Camp Copneconic – Phase II, Oakland County
Master planning for 240± acre multi phased private camp expansion project. Project included conceptual design, site planning and processing for first phase of this project which implements low impact design techniques such as vegetative buffers, bio swales and rain gardens.

Flint River Trail, Genesee County Metropolitan Planning Commission
Completed planning and preliminary engineering plans for 5.0± miles of 10' wide multi-use pathway from downtown Flint, through Flint Township, along the Flint River. This project included an elevated boardwalks, bridges, and designing around several historic properties.

Placid Waters, Allendale Charter Township
Completed conceptual planning, prepared site plan and presentation materials to gain municipal approval of this privately owned and operated water ski lake community which includes six water ski lakes, residential units, club house, pathway system, and other recreational amenities.

Rust Park Expansion Project, Grand Blanc
Project planner and designer of an expansion to the existing Rust park facility. Amenities of this passive park include a paved pathway with Thread Creek overlook and community gardens.

Residential Land Development

Stone Creek Crossing Condominium, Genesee County
Completed conceptual design, site planning and processing for 150± acre open space residential development that preserves over half the total acreage in open space and where all units abut open space areas.

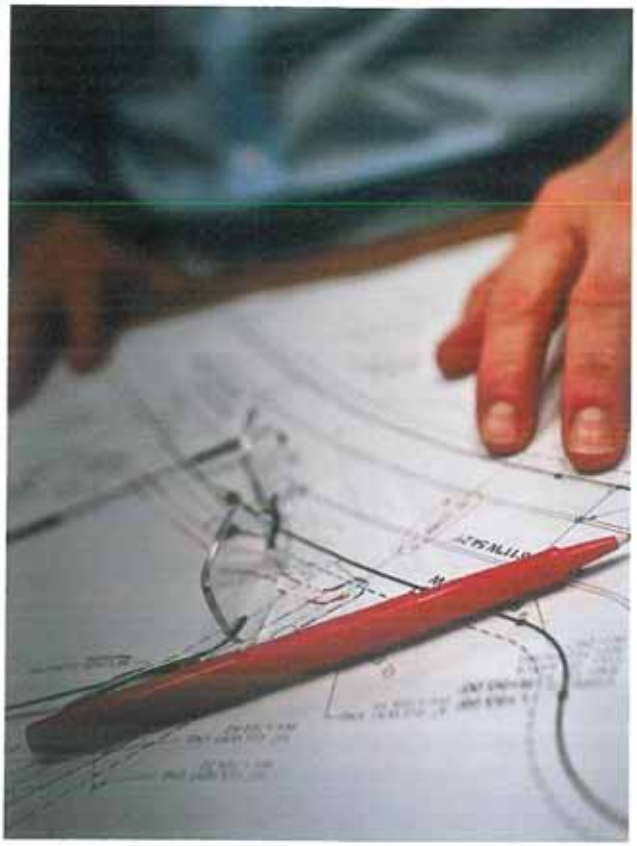
Midtown of Burton, Burton
Completed conceptual design site planning and processing for this mixed use residential development that includes multiple and single family residences with supporting commercial element.

Morgan Manor Townhomes, Grand Blanc
Completed master planning and site planning for this neo-traditional townhouse development with round-about and park amenities.

Placid Waters, Allendale Charter Township
Completed conceptual planning, prepared site plan and presentation materials to gain municipal approval of this privately owned and operated water ski lake community which includes six water ski lakes, residential units, club house, pathway system, and other recreational amenities.

Jamison Crossing, Fenton Township
Completed conceptual planning and prepared and processed the site plan through municipal and governmental agency approvals for this mixed use condominium development under the planned unit development option.

Cobblestone Park Subdivision, Davidson Township
Completed conceptual planning and prepared and processed the preliminary plat through municipal and governmental agency approvals for this single family platted subdivision development.



Other Clients

We understand the City's desire to have the City of Birmingham as a consultant's first priority. With a staff of over 150 individuals and nine offices, we are fully prepared to meet the needs of the City. Our Transportation Group Manager Mike Labadie has already been providing services to the City and is extremely familiar with the infrastructure and staff members.

Below is our income from work with MDOT for the past three years. This work is roughly 7.6% of our annual income company-wide (nine office locations).

We have *no income* from the Road Commission for Oakland County and Oakland County itself for that time period.

Calendar Year	MDOT
2013	$780,242
2012	$617,750
2011	$1,237,950

PROJECT APPROACH

Our approach to provide Transportation Engineering services to the Multi-Modal Transportation Board (MMTB) includes acting as a technical advisor and professional engineer *with the best interest of the City of Birmingham in mind*. In this role, we will provide multi-modal design and traffic engineering services to the MMTB on an as-needed basis and will attend the regularly-scheduled MMTB meetings the first Thursday of each month at 6 p.m.

The principal contact for Fleis & VandenBrink (F&V) to the MMTB will be Mike Labadie, PE. He will be assisted by Geric Rose, PE; Steve Russo, EIT; Rick Stout, LEED AP BD&C; and Lisa Easterwood, CST. F&V Vice President Paul Galdes, PE will provide QA/QC services.

The MMTB will be supported by the entire company if needed for any specialty issue the Board may face. F&V has diverse and extensive experience on the type of projects that the MMTB will be involved in. Further, Mike Labadie has worked for the City as a traffic engineering consultant since 1986 (28 years!) and thus has a full understanding of the City's existing transportation infrastructure and the vision the City has for it in the future. This institutional knowledge will be invaluable to the success of the MMTB going forward. Mike will represent F&V at all of the monthly meetings and be the Project Manager for all assignments given to F&V by the Board.

PROFESSIONAL FEES & CONSTRUCTION ESTIMATE

As projects are identified and selected for funding, we propose to provide appropriate project scopes and budgets using the following rates:

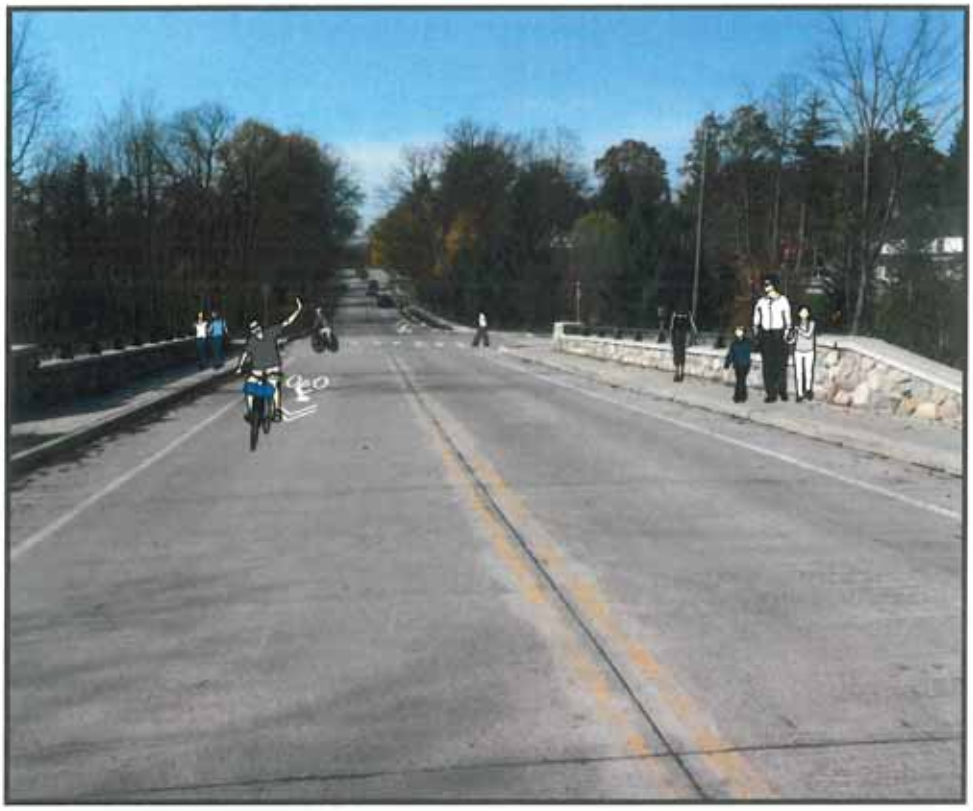
Classification	Rate
Sr. Project Manager, Sr. Planner, Principal-In-Charge	$148 - $183
Project Manager, Sr. Engineer, Sr. Architect, Sr. Geologist	$104 - $148
Project Engineer, Professional Surveyor, Sr. Landscape Architect, Architect	$104 - $130
Engineer, Engineer EIT, Geologist, Landscape Architect, Sr. Technician	$77 - $104
Survey Crew Chief, Sr. CAD Technician	$91 - $104
Technician, CAD Technician, Survey Technician	$77 - $92
Project Assistant, Field Assistant	$51 - $77

Rates are typically adjusted annually in April.

Classification	Rate
Survey & Construction Observation Equipment	
Survey Total Station	$30 per day
Leica Global Positioning System (GPS)	$300 per day
Robotic Survey System	$175 per day
Troxler (Nuclear Density)	$60 per day
Concrete Testing	$35 per day
Vehicles	
Trucks (light duty)	$15 per day + $0.555 per mile
Construction Observation / Survey	$20 per day + $0.555 per mile
Trucks (4x4) Construction Observation / Survey	$25 per day + $0.63 per mile
Autos & Vans	$10 per day + $0.555 per mile

We will be happy to provide you with budgets on individual tasks as they arise to assist you with your planning processes. We will utilize a mix of younger and more experienced staff to provide you with the lowest effective billing rate to efficiently and professionally accomplish your projects.

QUALIFICATIONS AND PROPOSAL TO PROVIDE TRANSPORTATION ENGINEERING CONSULTANT SERVICES



Prepared for:
CITY OF BIRMINGHAM
151 Martin Street, Second Floor
Birmingham, Michigan 48012

July 31, 2014

Civil Engineers
Surveyors
Architects

Anderson, Eckstein and Westrick, Inc.

Qualifications and Proposal for City of Birmingham

Transportation Engineering Consultant Services

Prepared by Anderson, Eckstein and Westrick, Inc.

July 31, 2014

ANDERSON, ECKSTEIN AND WESTRICK, INC.
51301 Schoenherr Road, Shelby Township, Michigan 48315
Civil Engineers • Surveyors • Architects 586-726-1234

July 31, 2014

City of Birmingham
151 Martin Street, Second Floor
Birmingham, Michigan 48012

Reference: Qualifications and Proposal for
Transportation Engineering Consultant Services

Honorable Review Committee:

Thank you for your consideration of Anderson, Eckstein and Westrick, Inc. (AEW), for the City of Birmingham's requested Transportation Engineering Consultant Services. Our enduring commitment to "engineering strong communities" is evidenced through our service to over 25 municipalities throughout Southeast Michigan, since 1968. We are honored that the City of Birmingham has utilized our services since 1985, and we look forward to the prospect of assisting the community with this important endeavor. As such, it is with great interest and a sincere commitment to your community, that we submit our qualifications and this proposal.

Our team has thoroughly reviewed the request document, and supplementary report. In response, we have assembled a team of qualified professionals, capable of providing the services necessary to reach the City's transportation goals. Our team assets include local knowledge, integrity and dedication, commitment to community, value, and innovation.

Local Knowledge: Our nearly 30 years of providing engineering services in the City of Birmingham has afforded our team with a large database of historical and institutional knowledge that details infrastructure requirements, growth patterns, and community concerns. This unique knowledge serves and affords our team with an efficient and invaluable tool, equaled by few other firms.

Integrity and Dedication: Above all, we pride ourselves on the long term relationships we have with our clients, which have developed through trust and quality service. AEW strives to provide the best option for each community, according to their specific needs. Our experience as a firm, along with our staff's professional abilities, allows us to be creative and comprehensive in our approach to engineering services.

Commitment to Community: AEW is vested in the advancement and success of each client community. We respect the people and the vision of the communities in which we work, and are committed to bringing Birmingham the highest level of design and engineering excellence with a focus on building, maintaining, and enhancing the community.

Value: We are dedicated to providing value-based results and responsible solutions. AEW understands the importance of using every dollar wisely and we continuously evaluate funding sources, as well as design options consistent with project expectations, to achieve cost effective solutions.

Innovation: It is our belief that each project is unique. When appropriate, we look to market innovations for improvement and funding options, and then determine which method is best suited to the project. Our recommendations are based on research, experience, and sound engineering judgement.

We believe our team of qualified professionals is the best choice for Birmingham's transportation engineering services. And, we commit to you that we will continue to serve with honesty, integrity, and dedication. The following information has been assembled in accordance with the request document, and contains an overview of our firm's qualifications and experience. Please contact Michael Vigneron or Roy Rose with any additional questions. We look forward to the opportunity of further discussing our ability to meet your needs.

Sincerely,

Michael A. Vigneron, PE, PTOE
Senior Project Engineer
mvigneron@aewinc.com
Cell: (586) 914-5442

Roy C. Rose, PE, EXW
President/CEO
rrose@aewinc.com
Cell: (586) 855-9550

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Personnel

Anderson, Eckstein and Westrick, Inc. (AEW) has thoroughly reviewed the request document, and understand the City of Birmingham's need for a designated licensed professional engineer, capable of representing and assisting its Multi-Modal Transportation Board (MMTB) and City staff with transportation engineering services. In addition, we understand that the selected consulting firm should have a team skilled in the required services, which may include traffic counts, turning movements, site visits, traffic signal modeling, and other data gathering services. It is also important that the team be able to evaluate recorded data, and make recommendations.

In response to these needs and requirements, AEW has assembled a team poised to assist Birmingham in the achievement of its transportation goals. Our team, includes qualified and experienced professional engineers from AEW, as well as staff from Traffic Data Collection (TDC), which has been selected to provide subconsultant services.

As the lead firm, AEW has assigned primary and secondary contacts for client and project management. These contacts are key employees and principal engineers authorized to represent AEW, with experience commensurate with the needs of the community. Together, they ensure effective communication, quality control and uninterrupted service.

AEW Contacts	
Primary Contact **Michael A. Vigneron, PE, PTOE** *Senior Project Engineer* mvigneron@aewinc.com Cell: (586) 914-5442	*Secondary Contact* **Roy C. Rose, PE, EXW** *President/CEO* rrose@aewinc.com Cell: (586) 855-9550
51301 Schoenherr Road Shelby Township, Michigan 48315 (586) 726-1234 Telephone (586) 726-8780 Fax www.aewinc.com	

Both of these professionals have extensive experience with Complete Streets Concepts. This experience has proved beneficial for numerous projects and clients because considerations for accommodating all road users are made at the onset of the project. These early considerations afford AEW's clients with the options to incorporate complete streets recommendations and designs consistent with the community's transportation master plans.

Personnel

Michael A. Vigneron, PE, PTOE, is a senior project engineer with 11 years of experience, specializing in traffic control engineering. As a certified Professional Traffic Operations Engineer (PTOE), he provides analysis for roadway capacity, traffic impact, safety, and traffic operations studies, along with corridor traffic signal optimization projects. His experience has been applied to local communities throughout the region. As project manager and traffic discipline leader, Mike will oversee and personally assist in all activities that involve the MMTB.

Michael's unique professional certification as a PTOE indicates that he is educated and knowledgeable in the technical and specialized details associated with traffic operations. Furthermore, as a complete streets and multi-modal transportation advocate, as well as a member of ITE's pedestrian and bicycle council, he ensures that the needs of all road users are considered in the regular course of projects in which he is involved.

Roy C. Rose, PE, EXW, is the principal engineer authorized to represent AEW. With over 35 years of extensive engineering experience, including all aspects of roadway improvements and traffic coordination for projects, as well as project management experience for bridge design and construction within the City of Birmingham, Roy will work with Mike to ensure successful project coordination and completion. In addition, he will provide quality assurance services, which include providing a secondary point of contact for the City, and tracking schedules/budgets.

ADDITIONAL KEY STAFF

Taking into consideration the City's need for accurate, timely and efficient project results, AEW has selected key staff from a versatile workforce of professional, technical, and support staff. These individuals have been selected based upon their transportation engineering capabilities, local knowledge of Oakland County and its municipalities, multi-modal experience, and specialized roadway designs that balance the needs of all road users.

Jennifer L. Chehab, PE, is a senior project engineer with 22 years of experience, and a strong background in municipal engineering that includes representation for several Oakland County communities. Her diverse local knowledge of Oakland County regulations, multi-modal experience, federal-aid project management, traffic signalization improvements, and more will assist the team in preparing comprehensive information for the City's consideration.

Personnel

Lyle E. Winn, PE, is a senior project engineer with 32 years of vast experience. As a municipal engineer for several public agencies, his expertise has been applied to a variety of projects, including, but not limited to, roundabout design/ construction, road reconstruction/ rehabilitation, pedestrian traffic/mobility, and bike/trail groups. Additionally, he has served as the project manager for several trailway projects for agencies such as the Huron-Clinton Metropolitan Authority, as well as the Bridge to Bay Trail, and the Macomb Orchard Trail.

Justin P. Rose, is a graduate engineer with nine years of industry related experience, including five years with Macomb County's Traffic Department. Justin will assist the team in performance of traffic studies.

SUBCONSULTANTS

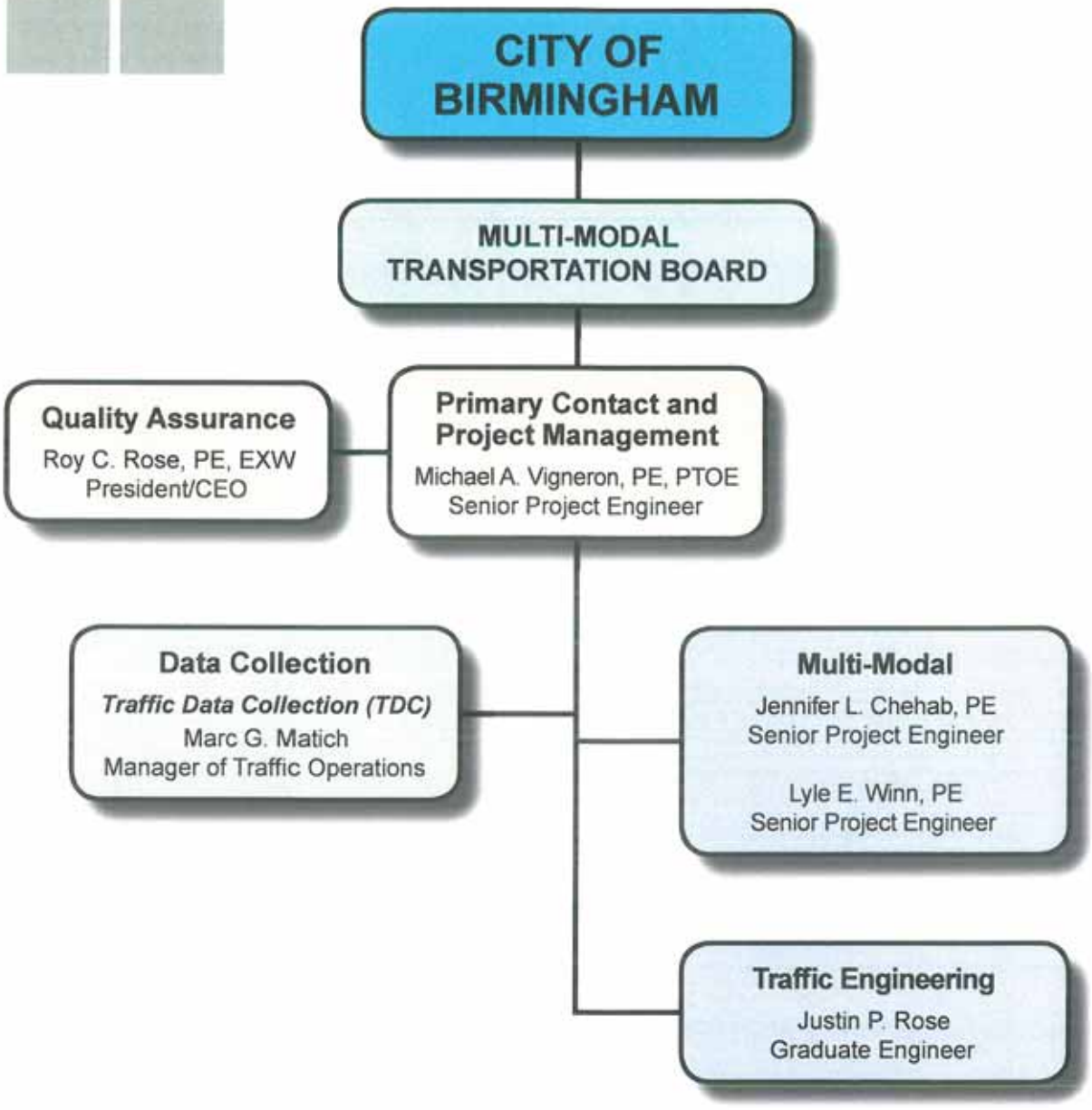
Traffic Data Collection

Our team also includes staff from a firm with over 26 years of related experience. Traffic Data Collection (TDC) is one of the longest serving traffic data collection firms in Michigan. In fact, since 1996, TDC has conducted over 2,200 traffic studies in which traffic data has been used as the basis for traffic and safety decisions. The firm has a strong discipline in traffic engineering, with experience of conducting traffic studies for numerous traffic signal optimizations, corridor studies, access management and engineering projects. As such, TDC will provide 24 hour traffic counts, turning movement counts, and other data collection that may be required for the project team.

TEAM ORGANIZATION

The organizational chart presented on the next page illustrates our task assignments, communication plan, as well as our quality control and assurance measures. The individuals presented have been chosen for this project because of their ability complete the work requested in an effective and efficient manner. Each team member offers the experience necessary to assist the City of Birmingham and its MMTB: specialized knowledge, effective communication and value consciousness.

Team Organization and Communication



Qualifications of the Team and Personnel

Anderson, Eckstein and Westrick, Inc. (AEW) has provided services for municipal agencies since our founding in 1968. Such municipal work remains important today, comprising approximately 90% of current projects. Through providing services to approximately 25 municipal clients, we believe our experience and understanding of the diverse needs of municipalities in Michigan is unparalleled. The variety of services provided to our clients have made AEW familiar with all aspects of municipal engineering services, including the nuances of multi-modal design and traffic engineering.

The following is a list of our current municipal clients for your consideration:

Client Since	*Municipality*	*County*	*Population**
1970	City of Roseville	Macomb	47,299
1981	Charter Township of Chesterfield	Macomb	43,381
1982	City of Eastpointe	Macomb	32,442
1985	City of Birmingham **	Oakland	20,103
1988	Township of Ray	Macomb	3,739
1994	City of Center Line	Macomb	8,257
1994	City of Fraser	Macomb	14,480
1994	City of Grosse Pointe Woods	Wayne	16,135
1994	City of Harper Woods	Wayne	14,236
1994	City of Pleasant Ridge	Oakland	2,526
1994	Township of Richmond	Macomb	3,665
1994	City of St. Clair Shores	Macomb	59,715
1997	Elba Township	Lapeer	6,083
1998	City of Warren **	Macomb	134,056
1999	Village of Bingham Farms	Oakland	1,111
2001	City of Clawson	Oakland	11,825
2001	Riley Township	St. Clair	3,353
2002	City of Grosse Pointe	Wayne	5,421
2004	City of St. Clair	St. Clair	5,485
2005	City of Grosse Pointe Farms**	Wayne	9,479
2007	City of Livonia **	Wayne	96,942
2008	City of Marysville **	St. Clair	9,959
2011	City of Rochester	Oakland	12,711
2012	Village of Grosse Pointe Shores **	Wayne	3,008
2014	City of Royal Oak **	Oakland	57,236

* *Based on 2010 Census*

** *AEW does not maintain an exclusive contract with this city.*

Our prominence as a trusted engineering firm within southeast Michigan has allowed us to serve the client communities referenced above, in addition to

numerous other communities, with varying projects and services. As-needed services have also been provided to the Cities of Farmington, Keego Harbor, Novi, and Troy, along with the Townships of Commerce, Rose, and Springfield, as well as the Huron-Clinton Metropolitan Authority, Southeastern Oakland County Water and Resources (Water Authority), and Bloomfield Hills Schools. AEW is honored to have had these opportunities to serve Oakland County communities.

Our extensive municipal relationships have afforded AEW with Complete Streets concept experience, and we understand the City of Birmingham's desire to team with a professional experienced with such concepts. While many municipalities have not fully embraced complete streets concepts, AEW has assisted with projects that focus on improving pedestrian and/or bicycle travel, or transit access within these municipalities. Our experiences encompass pedestrian improvement projects, on-street bicycle route evaluations, bus stop improvements, and traffic operations assessments. Additionally, AEW is familiar with the methodologies and shortcomings of the multi-modal analysis in the 2010 Highway Capacity Manual, which can be used when evaluating level of service from a multi-modal perspective.

AEW's transportation/traffic engineering services include analysis and review for many of our municipal and private clients. For our city clients, we often act as the "traffic engineer", providing recommendations and design solutions for roadway improvements, traffic signal improvements, signage and striping. We review traffic studies submitted by private developers on the behalf of our clients to ensure that new development will not adversely impact the adjacent roadway.

For our private clients, we often perform traffic studies, including trip generation, assignment and analysis, to demonstrate to the municipality that the planned development will not adversely impact traffic. Conversely, we may make recommendations to mitigate impact. Combined with Traffic Data Collection's (TDC) specialized traffic counting services, our proposed team is capable of delivering all of the requested services in a timely and cost effective manner.

For the purpose of brevity, we have included team resumes and overviews of recent related project work. Additional information and examples are available upon request. However, with local knowledge, decades of experience, skilled team members, and a dedication to efficient traffic operations, the City of Birmingham can rest assured that AEW will work in its best interest.

Michael A. Vigneron, PE, PTOE - Senior Project Engineer

Currently serving in the capacity of project engineer, with 11 years of experience, Mr. Vigneron is involved in all facets of project development, including design, plan review and construction administration.

Since joining AEW in 2000 as a summer intern, responsibilities have included planning, estimates, writing of technical specifications, preparation of engineering reports, and design services, along with construction observation. Software capabilities include AutoCAD, MicroStation, GEOPAK, StormCAD, MERL, and FieldManager for road design and construction administration. Michael also utilizes HCS and Synchro software to complete traffic engineering studies and analysis. As a proponent of multi-modal transportation initiatives, Michael has been involved in several "alternative" transportation studies and projects ranging from bus stop improvements to on-street bike lane evaluations.

In addition, his understanding of pavement distresses and rehabilitation techniques, as well as familiarity with the requirements for local agency projects administered by Michigan Department of Transportation (MDOT) is a benefit for communities.

With a knowledge of the review, approval and permitting process for developments, he performs engineering plan reviews for municipal clients.

SPECIALTY AREAS:

Traffic Engineering: Performs analysis for roadway capacity studies, traffic impact studies, safety studies and traffic operations studies, along with corridor traffic signal optimization projects.

Roadway Design: Prepares engineering plans and specifications for Local Agency road projects, in accordance with MDOT and Federal Highway Administration standards.

Municipal Engineering: Designs and provides construction engineering support for water main, sewer, road reconstruction, resurfacing, and rehabilitation projects.

Education:

M.S. Civil Engineering
2012
Wayne State University

B.S. Civil Engineering,
2003
Michigan Technological University

Professional Registration:

Professional Engineer
Michigan, 2007

Professional Certification:

Professional Traffic Operations Engineer (PTOE)

Professional Membership:

Institute of Transportation Engineers

Professional Development:

Temporary Traffic Control Plan Workshop
Wayne State University-TRG

Safety Analysis Using the AASHTO Highway Safety Manual
Michigan LTAP

Introductory Controller
Carrier & Gable, Inc

Context Sensitive Solutions
Parsons Brinckerhoff University

GEOPAK Road1
Michigan Standards

MDOT Right-of-Way Workshop

Leadership Macomb

Designing Pedestrian Facilities for Accessibility
Association for Pedestrian and Bicycle Professionals

Concrete Pavement Design
Michigan Concrete Paving Association

Roy C. Rose, PE, EXW - Principal Engineer

As chief executive officer and president of AEW, with over 35 years of experience, Mr. Rose offers knowledge of engineering innovation. Joining our firm in 1985, his career has included all phases of project management, which incorporates design planning, specification writing, cost estimates, in addition to construction administration utilized for municipal and private developments. Further experience includes design of structural framing on single/medium rise buildings, and site/structural engineering for commercial sites.

Operating closely with several of AEW's 25 municipal clients, including their officials, and staff, as well as numerous governmental agencies, Roy maintains community goals/objectives, as well as identifies projects which provide workable solutions. Experience includes the management of projects ranging in cost, from $100,000 to $35 million. Further responsibilities consist of the design and implementation of sewers, water mains, stormwater management, pump stations, in addition to road paving/patching endeavors associated with municipal engineering.

For example, Roy was actively involved with the Lake St. Clair Clean Water Initiative Program for the Macomb County Office of Public Works. This endeavor consisted of more than 20 individual projects, performed by different contractors, for a total construction cost of over $35 million. Completing $1 million under budget, the program met the schedule requirements.

Recognized for his decades of experience and continued dedication to strengthening Southeast Michigan's economy, infrastructure and image, Roy earned the 2013 Lil Adams Citizen Award. Additionally, working with numerous communities in the region, and having an understanding of the need for mobility, has led to the privilege to represent Macomb County as a board member of the Regional Transit Authority (RTA), as well as Chairman of the RTA's Finance Committee.

SPECIALTY AREAS:

Arbitrator: Alternative dispute resolutions certified commercial construction arbitrator, with experience as a single arbitrator or panel member. Has performed negotiations for construction related cases valued from $100,000 to $1 million.

Educational Facility Renovation: Career achievements include parking lot reconstruction/expansion, playscape upgrades, athletic field design, building renovations, and transit planning.

Education:

B.S. Civil Engineering, 1978
Michigan Technological University

A.S. Degree of Science, 1975
St. Clair County Community College

Professional Registration:

Professional Engineer
Michigan, 1982
Indiana, 1993
Ohio, 1994

Engineer Expert Witness
Michigan, 2010

Professional Certification:

National Ready Mixed Concrete Association

Professional Membership:

American Society of Civil Engineers

American Institute of Steel Construction

American Concrete Institute
Michigan Chapter

American Arbitration Association

Board of Regents
Baker College

Macomb Regional Chamber
Public Policy Committee

Regional Transit Authority
Board Member

Regional Transit Authority
Planning and Service
Committee Chairman

Utica Community Schools
Foundation for Excellence

Professional Development:

Construction Change Order in Michigan

Legal Issues for Michigan Professional Engineers

Transit Network Design

Jennifer L. Chehab, PE - Senior Project Engineer

With 22 years of experience, and skilled in all aspects of municipal engineering, including project estimation, master planning, infrastructure rehabilitation and feasibility studies, Ms. Chehab provides sound project management for a variety of public/private projects. Responsibilities include planning, project oversight, budget tracking, quality assurance, invoicing, trouble-shooting, evaluation of contractor claims and change orders, coordination of field services, scheduling and recommendation for contractor payment, as well as subconsultant management. As the primary point of contact to her clients, Ms. Chehab provides supervision of her team for design of projects that include roads, parking lots, sanitary sewers, storm/open drains, water mains, residential developments, commercial/industrial sites, and other municipal work.

As a municipal engineering consultant and primary contact to the Cities of Clawson and Warren, as well as the Village of Bingham Farms, Jennifer has been a valuable member of our team since 1994. During this time, she has been directly accountable for the design and construction oversight for a wide variety of public works projects. In addition, she has previously provided similar services for the Cities of Novi and Keego Harbor.

With previous experience as an environmental engineer, additional knowledge includes design, permitting, construction administration and project management for municipal solid waste landfills and transfer stations.

SPECIALTY AREAS:

Project Management: Offers experience with projects ranging across all aspects of civil engineering. Knowledge and professionalism, together with communication, contribute to the effectiveness and tracking of project scope, schedule and budget.

Funding: Jennifer has successfully assisted her clients in pursuing, receiving and administering grant funds from several sources, including Transportation Improvement, Local Agency Federal Aid, State of Michigan Local Jobs Today, Congestion Mitigation Air Quality, Local Agency Safety Funds, S2 Grants and Federal Transportation Enhancement Funding, and polling location improvements.

Construction Administration: Responsible for document accuracy, organization of meetings, as well as correspondence to ensure a smooth transition between the phases of project planning, design and construction.

Education:

B.S. Civil Engineering, 1992
University of Detroit

Professional Registration:

Professional Engineer
Michigan, 1997

Professional Membership:

American Society of Civil Engineers (ASCE)

Professional Development:

Project Manager Bootcamp I
PSMJ Resources, Inc.

Design & Construction of Tunnels
ASCE

Centrifugal Pumps Theory
NTT

Lyle E. Winn, PE - Senior Project Engineer

As a municipal engineer with 32 years of experience, Mr. Winn provides all engineering services for the communities of Ray, Richmond, and Riley Townships, as well as the City of St Clair Shores. Responsibilities consist of project management, planning, design, bidding and construction for paving, bicycle paths, drainage, sewer and water supply projects. In addition, acts as a consultant for local governmental groups and planning commissions by attending public hearings and meetings.

As a valuable member of the AEW team since 1988, with experience in all phases of site development projects and municipal infrastructure, Lyle is accomplished in dealing with all public agencies to obtain necessary approvals and construction permits.

Education:

B.S. Civil Engineering, 1982
Michigan Technological University

Professional Registration:

Professional Engineer
Michigan, 1986

Professional Membership:

National Society of Professional Engineers

Michigan Society of Professional Engineers

Leadership Macomb

Professional Development:

Project Manager Bootcamp I
PSMJ Resources, Inc.

Roundabouts, Designing and Implementing
University of Wisconsin

Interpretation and Enforcement of Construction Contracts
University of Wisconsin

Bicycle Facility Design Workshop
Northwestern University

Geometric Designs for Very Low Volume Roads and Bicycle Facilities
Michigan Technological University

Engineering Management
Michigan State University

Construction Specifications
University of Wisconsin

SPECIALTY AREAS:

Municipal Engineering: Project management, engineering design and construction administration for various infrastructure improvements. Develop and maintain construction specifications for municipal construction.

Sanitary sewer projects include new sewers ranging in size from 8-inch to 42-inch, pump stations, forcemains, rehabilitation of existing and deteriorated sewer lines and development of master plans. Stormwater facilities include detention basins, pump stations, collection systems, stormwater quality and floodplain control.

The design of water supply systems have involved water storage facilities, new connections to the DWSD system, booster pumps, pressure reducing valves, as well as new pipeline construction, rehabilitation of existing pipes and the use of trenchless technologies.

Roadway and pedestrian projects for local municipalities, county road commissions and MDOT have included intersection redesigns, roundabouts, reconstruction, bike trail systems, sidewalks, as well as vehicular and pedestrian bridges.

Expert Witness: Lyle has assisted many local governments by serving as an expert witness for cases involving engineering and land regulation ordinances.

Justin P. Rose - Graduate Engineer

Joining AEW in 2005 as a seasonal surveying technician, and returning in 2012 to provide construction observation, along with engineering plan reviews, Justin offers diverse abilities.

Traffic Signal Engineering expertise began with the Macomb County Department of Roads (MCDR), and resulted in five years of specialized experience, including both field and office operations. Having built and tested numerous cabinet types (EPIC, EPAC TS1 & TS2, ITS) in a signal lab for all intersection upgrades and new installations, experience includes ensuring cohesiveness between the related equipment and proposed intersection configurations, along with signal timings. The work performed included all backboard wiring, simulated field wiring on test boards, pedestrian push buttons and detection racks.

In addition, Justin's responsibility for all MCDR Congestion Mitigation and Air Quality (CMAQ) Funding applications included such tasks as conceptualizing projects, gathering data, and preparing the preliminary design, as well as completing the application process. Upon funding acquisition, duties included reviewing final designs for quantities, accuracy and adherence to application requirements. Similar services were provided for the County's Highway Safety Improvement Program (HSIP) funding as well.

Current observation duties consist of project documentation, punch lists, observation reports, specification adherence, addressing client/resident concerns, as well as working with contractors in the interpretation of plans for accurate construction of projects. With certification through the National Association of Sewer Service Companies NASSCO, Inc. for pipeline, manhole and lateral assessment, Justin is prepared to assist clients with a wide range of project needs.

SPECIALTY AREAS:

Traffic Signal Engineering: Qualified in cabinet development and testing, as well as coordination of proposed intersection equipment with appropriate signal timing. Familiar with controllers and software from numerous manufacturers, including Siemens, Econolite, McCain and Intelight.

Construction Observation: Experienced in construction observation, including project documentation, quantity takeoffs of as-built quantities, punch lists, observation reports, preparation of as-built drawings and investigation of client/resident reports.

Surveying: Experience includes pre-construction topography, construction staking and as-builts.

Education:

B.S. Civil and Environmental Engineering, 2013
Wayne State University

Professional Certifications:

Pipeline Assessment Certification Program (PACP)

Manhole Assessment Certification Program (MACP)

Lateral Assessment Certification Program (LACP)

Professional Membership:

American Society of Civil Engineers

Chi Epsilon (χε) - National Civil Engineering Honor Society

STAFF EDUCATION AND EXPERIENCE REPORT

EMPLOYEE NAME	TITLE/CLASSIFICATION	ROLE ON THIS SERVICE
Marc G. Matich	Principle	**Manager of Traffic Operations**

COMPANY NAME	YEARS OF EXPERIENCE
Traffic Data Collection, TDC	18 With company 26 With other firms

EXPERIENCE AND QUALIFICATIONS

Traffic Data Collection, Inc. Principal

1996 to Present: Manage and organize daily traffic operations of company. Traffic services involve gathering, recording and processing traffic data information for manual and mechanical studies for traffic engineers, governments & businesses. Various types of traffic studies include vehicle classifications, speed surveys, parking & license plate studies, turning movements, conflict studies, travel time & delay studies, gap studies, driver observance studies (stop signs, traffic signals, pedestrian signals), saturation flow, pedestrian counts and traffic inventories (sign, intersection geometrics, digital photos & video logs) of various highway features. Credentials include a strong discipline in traffic engineering, with experience of conducting traffic studies for numerous state highway corridor studies, county traffic signal optimization projects and municipal traffic impact studies. Have been involved in conducting thousands of studies.

City of Rochester Hills, Department of Public Service Transportation Technician

1989 to 2006: Schedule and organize traffic studies, traffic operation activities and sign inventory software, responsible for contracting pavement marking and legends. Review preliminary concept plans for residential, commercial and industrial projects. Assemble traffic data for preparation of traffic analysis, diagrams and traffic reports and GIS database. Conduct reviews of construction phases for compliance with permit conditions. Prepare and monitor work orders for new sign installations, pavement markings and guard rail installation. Prepare and maintain sign, street, permit and traffic crash records including inventories, develops construction signing diagrams, detour routes, staging plans. Issue, monitor and maintain records of road use permits and permit activities by private developers, utilities companies related to road, pathway construction within public rights-of-way. Review roads and streets for public safety, identifies traffic hazards and prepares recommendations for resolutions of under immediate supervision.

PC / Software Experience

AutoCAD Mapping, Arc Map 8.0, Microsoft Word, Excel, Access, Synchro & Sim Traffic, Highway Capacity Software, Jamar Traffic Software Trax Pro, Petra Pro, PC Travel, SignView, & Miovision Traffic On Demand.

EDUCATION:

1990-93 Central Michigan University - Course Work Business Administration
1978-80 Macomb Community College - Course Work Civil Technology Degree A.A.S.

Seminars, Workshops and Short Courses

Synchro & SimTraffic Training Course for Signal Timing, Trafficware
Traffic Modeling For Managers, MSU
Jamar Traffic Counting Course, Jamar Technologies, Inc
MDOT Traffic Signal Specifications Course, IMSA
Safety Management System, OHS

Good understanding and strong knowledge of traffic engineering and civil engineering principals and practices. Knowledge of construction and traffic control devices principles.

SPECIFIC EXPERIENCE		
YEARS	**PROJECT I.D.**	**ROLE & SERVICE DESCRIPTION**
2013	MCDR Signal Optimization for Dequindre Road MDOT Job# 109649C	1. Sub Consultant; Manage and provide data collection services for 11 intersections. 2. Completion date 5/15/2013 3. Consultant, KHA, Tim Brandstetter P.E., 248-526-0577
2012	MCDR Signal Optimization for Van Dyke (Shelby Grid) MDOT Job# 109649C	1 Sub Consultant; Manage and provide data collection services for 34 intersections. 2 Completion date 10/30/2012 3 Consultant, KHA, Tim Brandstetter P.E., 248-526-0577
2012	MCDR Signal Optimization for Jefferson Ave MDOT Job# 112432C	1. Sub Consultant; Manage and provide data collection services for 12 intersections. 2. Completion date 8/20/2012 3. Consultant, KHA, Sean H. Coleman P.E., 615-564-2700
2012	RCOC Environmental Assessment Study M-39 (Southfield Road)	1. Sub Consultant; Manage and provide data collection services for 17 intersections. 2. Completion date 5/30/2012 3. Consultant, Spalding Decker, Cheryl Gregory P.E., 248-844-5400
2012	MCDR Signal Optimization for 10 Mile Road MDOT Job# 109654C	1. Sub Consultant; Manage and provide data collection services for 25 intersections. 2. Completion date 4/15/2012 3. Consultant, KHA, Sean H. Coleman P.E., 615-564-2700
2012	MCDR Signal Optimization for 21Mile Road MDOT Job# 109636C	1. Sub Consultant; Mange and provide data collection services for 14 intersections. 2. Completion date 4/30/2012. 3. Consultant, AEW, Michael Vigneron P.E., 586-726-1234
2012	MCDR Signal Optimization for 15 Mile Road MDOT Job# 103441C	1. Sub Consultant; Manage and provide data collection services for 19 intersections. 2. Completion date 4/30/2012. 3. Consultant, AEW, Michael Vigneron P.E., 586-726-1234
2011	RCOC Signal Optimization Job # CMG63400-109639 Contract # CMG1063(074) JJ 4272	1. Sub Consultant; Manage and provide data collection services for 112 intersections 2. Completion date 1/12/2012 3. Consultant, OHM, Steve Dearing PE, 734-522-6711.
2011	City of Dearborn Signal Optimization and Timing Project	1. Sub Consultant; Manage and provide data collection services for 60 intersections. 2. Completion date 11/1/2011 3. Consultant, Parson, Roger P. Walther P.E., 248-936-1150
2011	MCDR Signal Optimization for 12 Mile Road Job # 103473	1. Sub Consultant; Manage and provide data collection services for 12 intersections. 2. Completion date 10/15/2011 3. Consultant, KHA, Sean H. Coleman P.E., 615-564-2700
2011	MCDR Signal Optimization for Mound Road Job # 112442C	1. Sub Consultant; Manage and provide data collection services for 34 intersections. 2. Completion date 10/15/2011 3. Consultant, KHA, Sean H. Coleman P.E., 615-564-2700
2011	MDOT Signal Optimization for Allegan and Cass Counties SW Region Job # 104458C	1. Sub Consultant; Manage and provide data collection services for 13 intersections. 2. Completion date 9/30/2011 3. Consultant, HRC, Colleen Hill P.E., 248-454-6300

SPECIFIC EXPERIENCE - CONTINUED		
2011	RCOC Signal Optimization & Retiming	4. Sub Consultant; Mange and provide data collection services for 61 intersections. 5. Completion date 12/10/2011 6. Consultant, OHM, Steven Loveland PE, 734-522-6711
2011	MCDR Signal Optimization for 12 Mile Road & Mound Road	4 Sub Consultant; Manage and provide data collection services for 37 intersections. 5 Completion date 12/08/2011 6 Consultant, KHA, Jonathan Moore PE, 615-564-2701.
2010	City of Detroit & City of Dearborn -Traffic Signal Optimization and Retiming Projects	4. Sub Consultant; Manage and provide data collection services for 154 intersections. 5. Completion date 10/19/2011 6. Consultant, Parsons, Joseph Marson, PE 248-936-1139.
2009	RCMC Signal Optimization for Metropolitan Parkway	4. Sub Consultant; Manage and provide data collection services for 40 intersections. 5. Completion date 12/30/2009 6. Consultant, KHA Jonathan Moore PE, 615-564-2701
2009	MDOT Signal Optimization for US 12 & US 24 Wayne	4. Sub Consultant; Manage and provide data collection services for 43 intersections combined. 5. Completion date 12/30/2009 6. Consultant, OHM, Steven Loveland PE, 734-522-6711.
2009	MDOT Signal Optimization for I-94 Ramps Detroit	4. Sub Consultant; Mange and provide data collection services for 25 intersections. 5. Completion date 2/8/2009. 6. Consultant, OHM, Steve Dearing PE, 734-522-6711
2008	MDOT Signal Optimization for M-3 Gratiot Detroit	4. Sub Consultant; Manage and provide data collection services for 11 intersections. 5. Completion date 12/30/2008. 6. Consultant, OHM, Steve Dearing PE, 734-522-6711.
2007	MDOT Signal Optimization for M-53 Imlay City	4. Sub Consultant; Manage and provide data collection services for 4 intersections 5. Completion date 12/30/2007 6. Consultant, OHM, Steve Dearing PE, 734-522-6711.
2007	MDOT Signal Optimization for M-15 Lapeer	4. Sub Consultant; Manage and provide data collection services for 10 intersections. 5. Completion date 12/30/2007 6. Consultant, OHM, Steve Dearing PE, 734-522-6711.
2006	MDOT Signal Optimization for M-29 Chesterfield	4. Sub Consultant; Manage and provide data collection services for 12 intersections. 5. Completion date 3/26/2006 6. Consultant, OHM, Steve Dearing PE, 734-522-6711.
2006	MDOT Signal Optimization for M-97 Gratiot M-59 to 8 mile	4. Sub Consultant; Manage and provide data collection services for 34 intersections. 5. Completion date 3/26/2006. 6. Consultant, OHM, Steve Dearing PE, 734-522-6711.
2005	RCMC Mound Rd Signal Optimization & Re-Timing	4. Sub Consultant; Manage and provide data collection services for 32 intersections. 5. Completion date 12/11/2005. 6. Consultant, Parsons Brinkerhoff, Matt Hill PE, 313-963-6910

Non-Motorized Trail Evaluation

Warren, Michigan

Key Staff:

Project Manager
Jennifer L. Chehab, PE

Quality Assurance
Gordon B. Wilson, PE, CFM

Engineering
Lyle E. Winn, PE
Michael D. Smith, PE
Michael A. Vigneron, PE, PTOE

Surveying
Robert H. Birkett, PS

Phase 1 - Evaluation of non-motorized trails and connectivity in the City of Warren

This study was utilized to evaluate the primary bike routes through the City in an effort to connect park systems and connectivity to adjacent communities. Data utilized in the study included bike/ vehicle crash and traffic data, traffic signal timing, as well as physical/ geometric limitations.

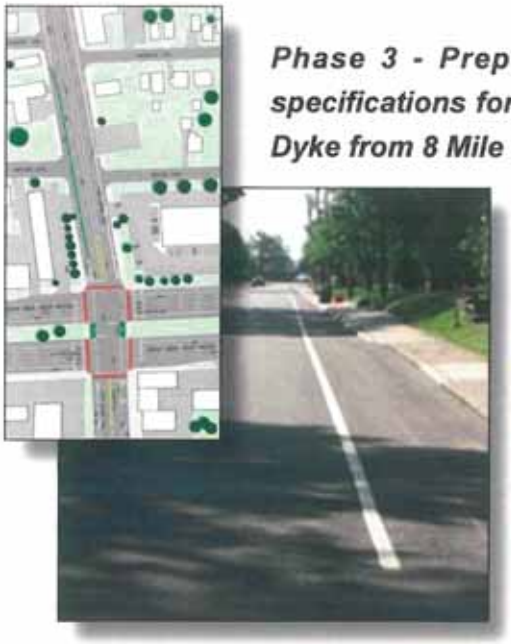
Phase 2 - Develop connection of trails at 8 Mile Road and Van Dyke

Phase 2 was specifically geared toward developing conceptual plans to provide a safe bike lane crossing of 8 Mile Road for the proposed bike lanes on Van Dyke. The bike lanes provide opportunities for connection to the trail systems in the City of Detroit.

Contact:

City of Warren
One City Square, Suite 300
Warren, MI 48093-2390

Donna Dordeski, PE
Environmental Compliance Engineer
(586) 759-9300
ddordeski@cityofwarren.org



Phase 3 - Prepare cost estimates, plans and specifications for the creation of bike lanes on Van Dyke from 8 Mile to 9-1/2 Mile Road

This phase involves the preparation of construction plans to restripe Van Dyke and create the proposed bike lanes from 8 Mile to Stephens

The funding source for this project is through a Greenways Initiative Grant. Construction is scheduled for 2014, with a construction cost of $260,000 for restriping Van Dyke.

Project Highlights:

Original Budget
Study: $75,000

Final Budget
To be determined

Started
Study: Spring 2012

Completed
2014

AEW Project No.
0140-0070-1

On-Street Bike Route Evaluation

Grosse Pointe, Grosse Pointe Farms, Grosse Pointe Park, Grosse Pointe Shores and Grosse Pointe Woods, Michigan

Key Staff:

Project Manager
Scott P. Lockwood, PE

Quality Assurance
Roy C. Rose, PE, EXW

Engineering
Michael A. Vigneron, PE, PTOE
Lyle E. Winn, PE

AEW evaluated 24 streets (totaling 22.4 miles) with 18 traffic signals, traversing the entire Grosse Pointe region, to determine suitability as a signed bicycle route.

Evaluation for the potential on-street bike routes included documenting existing conditions such as lane widths, parking, traffic signals and pavement condition, as well as reviewing existing data such as crash history and traffic volume data for each street.

Contact:

City of Grosse Pointe Farms
90 Kerby Road
Grosse Pointe Farms, MI 48236

Shane Reeside
City Manager
(313) 885-6600, ext. 1235
sreeside@grossepointefarms.org

Evaluation of the road segments was based on:

- American Association of State Highway and Transportation Officials (AASHTO) "Guide for the Development of Bicycle Facilities".
- Desired and/or recommended minimum bike lane, traffic lane and parking lane widths.
- Existing cross-sections for various roadways utilizing the AASHTO guides and design standards.
- Suitability of the pavement conditions for bike usage.
- Traffic signal timing modifications.
- Intersection modifications needed to accommodate bicycle usage.
- Pavement striping and signage needed.

A final report was written to:

- Summarize data collected.
- Propose cross-sections to be applied to each street.
- Provide recommendations for implementation (not including cost estimates).
- Provide typical signage details.

Project Highlights:

Original Budget
$8,200

Final Budget
$8,200

Started
October 2011

Completed
June 2012

AEW Project No.
0156-0010

AEW met with community officials to review and present the final report, including the recommendations for implementation on various routes, identification of bicycle destinations, proposed bicycle guide signing, and recommendations for bicycle parking infrastructure.

Downtown Pedestrian Improvements

Clawson, Michigan

Key Staff:

Project Manager
Jennifer L. Chehab, PE

Quality Assurance
Roy C. Rose, PE, EXW

Engineering
Michael A. Vigneron, PE, PTOE

Grant Assistance
Jennifer L. Chehab, PE

Surveying
Robert H. Birkett, PS

Once complete, three pedestrian median refuge islands will have been constructed at currently uncontrolled crossing locations along 14 Mile Road in downtown Clawson.

One of the proposed crossings will be controlled with a pedestrian hybrid beacon (HAWK). The other two crossings will have Rectangular Rapid Flashing Beacons (RRFBs) installed in order to draw attention to the crossings.

Additionally, one of the two RRFB locations is designed to accommodate a future HAWK signal. As pedestrian and bicycle volumes along the City's bicycle route are expected to increase at this crossing, it is projected that a HAWK signal will be warranted.

Contact:

City of Clawson
635 West Elmwood
Clawson, MI 48017

Harry Drinkwine
Director of Engineering Services
(248) 288-3222
clawsondpw@m80.net

The RRFB at this location is being installed over the roadway on a mast arm, as allowed under an interim approval in the 2009 Federal Manual on Uniform Traffic Control Devices (MUTCD).

Project Highlights:

Original Budget
$425,000

Final Budget
To Be Determined

Started
September 2012

Anticipated Completion
May 2015

AEW Project No.
0810-0206

CRT Crossing at Dequindre Road

Rochester, Michigan

Key Staff:

Project Manager
Gordon B. Wilson, PE, CFM

Quality Assurance
Roy C. Rose, PE, EXW

Engineering
Michael D. Smith, PE
Jeffrey L. Allegoet

Surveying
Robert H. Birkett, PS

Construction Observation
Charles L. Myslinski

This project consisted of the construction of a median refuge island on Dequindre Road, at the crossing with the Clinton River Trail.

While under the jurisdiction of the Road Commission for Oakland County (RCOC), this project required coordination and permitting with four agencies sharing the road's border: Macomb County, Oakland County, Shelby Township and Rochester.

A rectangular rapid flashing beacon (RRFB) was originally proposed to alert drivers to the crossing. However, during design development and permitting, the RCOC requested that the crossing be evaluated with a pedestrian hybrid beacon (HAWK) signal. Eventually, it was determined that static signing would be provided for this location.

The ADA compliant median refuge island features an offset crossing and reflective delineators. These components were designed to improve the line of sight for crossing bicyclists and pedestrians, as well as delineate the island for motor vehicle traffic.

Contact:

City of Rochester
1141 N. Wilcox
Rochester, MI 48307

Bill Bohlen
Director of Public Works
(248) 651-9061
BBohlen@rochestermi.org

Project Highlights:

Original Budget
$150,000

Final Budget
To Be Determined

Started
August 2013

Anticipated Completion
August 2014

AEW Project No.
0270-0044

Kercheval and McMillan Safety Grant

Grosse Pointe Farms, Michigan

Key Staff:

Project Manager
Scott P. Lockwood, PE

Quality Assurance
Roy C. Rose, PE, EXW

Engineering
Michael A. Vigneron, PE, PTOE

Surveying
Robert H. Birkett, PS

Construction Services
Charles L. Myslinski

AEW prepared a safety grant application, led the design team, and performed construction engineering for the replacement of the traffic signal at Kercheval Avenue and McMillan Road in the City of Grosse Pointe Farms.

The existing traffic signal indications were undersized, and with recent injury crashes at the intersection, the City selected AEW to prepare a safety grant application for the traffic signal replacement. The replacement signal was designed with LED signal indications, as well as pedestrian countdown timers to improve pedestrian and motorist safety at the intersection.

Being located in the central business district of the City, aesthetic features were incorporated into the design to match the character of the area. The fluted mast arm poles and curved mast arms were painted matte black, and provided the desired aesthetic enhancements, in addition to the improved functionality. ADA ramp upgrades were also completed utilizing the existing sidewalk brick pavers.

In addition to the project location being adjacent to the City's central business district, the intersection is also adjacent to Grosse Pointe South High School and a local elementary school. AEW worked closely with the contractor and City personnel to ensure pedestrian access was maintained during construction.

Contact:

City of Grosse Pointe Farms
90 Kerby Road
Grosse Pointe Farms, MI 48236

Terry Brennan
Public Services Director
(313) 885-6600, ext. 1231
tbrennan@grossepointefarms.org

Project Highlights:

Original Budget
$175,000

Final Budget
$160,000

Started
January 2009

Completed
June 1, 2013

AEW Project No.
0156-0006

Bridge to Bay Path Extension

St. Clair Township, Michigan

Key Staff:

Project Manager
Lyle E. Winn, PE

Quality Assurance
Stephen V. Pangori, PE

Engineering Design
Kevin E. Zauel, PE
Jeffrey L. Allegoet

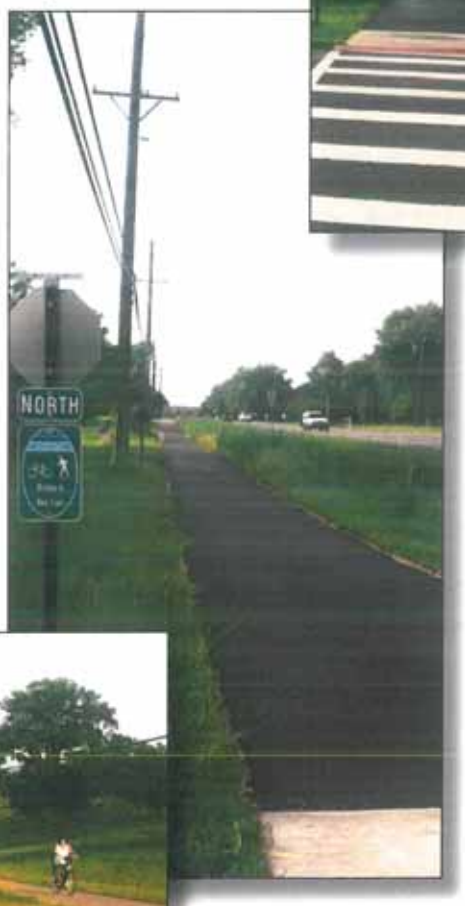
Surveying
Robert H. Birkett, PS

Construction Services
Charles L. Myslinski

Material Testing
Testing Engineers & Consultants, Inc.

The bike path is a 1.8 mi. segment of the Bridge to Bay Trail network. This design contemplated the use of converting existing paved shoulders to designated bike lanes. St. Clair Township elected to use a separate path system as a result of safety concerns for inexperienced riders on a paved shoulder.

Michigan Department of Transportation (MDOT) permits were needed to work in the right-of-way and to enclose portions of the road ditch. St. Clair Township funded the entire project from their general fund and bid the project in August 2012. Seasonal limitations forced a majority of the work to be completed in 2013.



Wayfinding and trail signage followed the design manual developed for the Bridge to Bay Trail system. The St. Clair County Parks reimbursed the Township for the trail signage as a result of following the design manual.

Contact:

St. Clair Township
1539 South Bartlett Road
St. Clair, MI 48079

Brian Mahaffy
Supervisor
(810) 329-9042
brian@twp.stclair.mi.us

Project Highlights:

Original Budget
$620,000

Final Budget
$585,000

Started
October 2011

Completed
March 2012

AEW Project No.
1228-0001

Bus Stop Improvements

Eastpointe, Michigan

Key Staff:

Project Manager
Stephen V. Pangori, PE

Quality Assurance
Roy C. Rose, PE, EXW

Engineering
Michael A. Vigneron, PE, PTOE

Surveying
Robert H. Birkett, PS

Construction Services
Charles L. Myslinski

AEW provided feasibility and design assistance for the improvement of eight bus stops along Gratiot Avenue, 9 Mile Road, and Kelly Road in the City of Eastpointe.

Each stop was upgraded with an ADA compliant concrete pad, bench, trash receptacle, and bike rack. A shelter was also installed at all but one stop.

AEW worked closely with the City of Eastpointe and the Suburban Mobility Authority for Regional Transportation (SMART) for project implementation. Permits were also required from Michigan Department of Transportation (MDOT) and Macomb County for work in their respective right-of-ways.

The project also incorporated decorative and unique bicycle racks at each bus stop location. The decorative racks have become a point of pride for the City, as they have been regularly installed around town for the last few years.

Contact:

City of Eastpointe
Department of Development,
Public Works and Services
23200 Gratiot Avenue
Eastpointe, MI 48021

Mary Van Haaren
Director
(586) 445-5016
mvanhaaren@eastpointecity.org

Project Highlights:

Original Budget
$125,000

Final Budget
$150,000

Started
December 2010

Completed
April 2012

AEW Project No.
0145-0380

Main Street On-Street Parking

Clawson, Michigan

The Downtown Development Authority (DDA) performed a parking study that indicated a lack of parking within the downtown area. Based on this study, it was recommended that on-street parallel parking be implemented in the business district, at the crossroads of Main Street and 14 Mile Road. Completed in two phases, Phase 1 implemented temporary on-street parking and gained feedback from business owners/patrons. AEW assisted with the preliminary plan, modifying the roadway from two lanes each direction with a center turn lane, to one lane each direction with a center turn lane and parallel parking.

After one year, the City and DDA executed Phase 2 for permanent parking. AEW developed plans for constructing additional drainage structures, curb/gutter, fire hydrant relocation and striping. AEW assisted the City in negotiating driveway closures for more street parking areas. Due to the positive feedback from Phase 1, modifications were made during the construction of Phase 2 in order to close additional driveways and create more parking.

Key Staff:

Project Manager
Jennifer L. Chehab, PE

Quality Assurance
Roy C. Rose, PE, EXW

Engineering
Jennifer L. Chehab, PE
Jeffrey L. Allegoet

Surveying
Robert H. Birkett, PS

Construction Services
Performed by AEW

Contact:

City of Clawson
635 West Elmwood
Clawson, MI 48017

Harry Drinkwine
Director of Engineering Services
(248) 288-3222
clawsondpw@m80.net

Project Highlights:

Original Budget
$390,000

Change Order
$120,000

Final Budget
$510,000

Started
November 2006

Completed
September 2009

AEW Project No.
0810-0074

Bike Path System

Macomb County, Michigan

Key Staff:

Project Manager
Lyle E. Winn, PE

Quality Assurance
Gordon B. Wilson, PE, CFM

Engineering Design
Gary M. Leideker
Jeffrey H. Bednar, PE, CFM
Kevin E. Zauel, PE

Surveying
Robert H. Birkett, PS

Construction Services
Michael D. Smith, PE

AEW planned, designed and provided construction services for more than 18 miles of bike path along the Metropolitan Beach to Stony Creek Bike Path. Challenges encountered along the bike path included seven pedestrian bridges, three highway crossings, one freeway crossing, a railroad crossing and several environmental features, such as tree preservation, wetland and floodplain crossings. In addressing these challenges, AEW worked with all necessary governmental agencies to provide solutions that obtained the approvals and permits required for construction. All 18 miles of bike path were funded with federal and local funds, except for the original bike path built in 1989 on Metropolitan Parkway. Below is a construction timeline for the Metropolitan Beach to Stony Creek Bike Path segments.

Contact:

Macomb County
Department of Roads
117 South Groesbeck Highway
Mount Clemens, MI 48043

Robert Hoepfner, PE
Director of Roads
(586) 463-6671
bhoepfner@rcmcweb.org

Project Highlights:

Original Budget
Varied by Project

Final Budget
Varied by Project

Started
Varied by Project

Completed
Varied by Project

AEW Project No.
0213-0091

1989 Metropolitan Parkway Bicycle Path - Jefferson Avenue to Crocker Boulevard - ***3.0 miles*** (Original 8 ft. wide Path)

1991 Metropolitan Beach: Stony Creek Hike/Bike Path, Phase A Gratiot Avenue to Union Lake Road - ***1.6 miles***

1993 Metropolitan Beach: Stony Creek Hike/Bike Path, Phase B & C Utica Road to Gratiot Avenue, Union Lake Road to Crocker Boulevard, Clinton River Spillway and Shadyside Park Path - ***6.2 miles***

1995 Shelby Township: Woodall Park in River Bends Park - ***1.2 miles***

1996 Metropolitan Beach: Stony Creek Hike/Bike Path, Phase "D" Freedom Hill to Utica Road - ***0.3 miles***

1997 Metropolitan Beach: Stony Creek Hike/Bike Path Stony Creek Park to Dequindre Road, via Consumers Energy Corridor - ***1.3 miles***

2000 Metropolitan Beach: Stony Creek Hike/Bike Path Widening - Jefferson Avenue to Crocker Boulevard Widening "8 feet to 10 feet wide" - ***3.0 miles***

2003 River Bends Park: Phase 1 (River Bends Drive to 22 Mile Road) - ***0.9 miles***

2009 River Bends Park: Phase 2 (Existing path to Utica City Limits) - ***1.8 miles***

Traffic Signal Upgrades

Clawson, Michigan

Before

Since 2006, AEW has assisted the City with replacing and upgrading traffic signals at nine intersections. In addition to signal upgrades, the projects were designed to improve pedestrian safety and accommodated the standards of the Americans with Disabilities Act (ADA).

- 14 Mile Road and Crooks Road
- 14 Mile Road and Bywood Road
- 14 Mile Road and Main Street
- 14 Mile Road and Rochester Road
- Main Street and Walper/Charlevoix
- Main Street and LePla
- Main Street and Elmwood Avenue
- Main Street and Park Drive
- Main Street and Maple Road

These projects received various funds, including Michigan Department of Transportation (MDOT) Safety Grant funding, Construction Mitigation Air Quality (CMAQ) funding, Tri-Party funding and Federal Aid Local Agency funding.

After

Additionally, following recommendations from the Downtown Development Authority, five of the new signals were designed with decorative mast arms to provide a gateway to the downtown business district.

Key Staff:

Project Manager
Jennifer L. Chehab, PE

Quality Assurance
Roy C. Rose, PE, EXW

Engineering
Jeffrey L. Allegoet

Surveying
Robert H. Birkett, PS
Douglas M. Czerniakowski

Construction Services
Bradley M. Smith

Traffic Signal Design
Mansell Associates, Inc.

Contact:

City of Clawson
635 West Elmwood
Clawson, MI 48017

Harry Drinkwine
Director of Engineering Services
(248) 288-3222
clawsondpw@m80.net

Project Highlights:

Original Budget
Varied by Project

Final Budget
Varied by Project

Started
August 2006

Completed
May 2012

AEW Project No.
0810-0172

Gap Analysis Study

STONY CREEK TO METRO BEACH REGIONAL TRAIL

Macomb County Planning

Key Staff:

Project Manager
Lyle E. Winn, PE

Quality Assurance
Gordon B. Wilson, PE, CFM

Engineering
Michael D. Smith, PE
Gary M. Leideker

Marketing Services
Bridget M. Safadi

Planning Services
Hamilton Anderson Associates

A master planning and feasibility study for the completion of the Stony Creek to Metro Beach regional trail system, the Clinton River Pathway (local connector) and linkages from Stony Creek to the Macomb Orchard Trail. The final report identified preferred routes, alternate routes and presented preliminary cost estimates.

Various stakeholder meetings, visioning sessions and public hearings were conducted to define the goals and objectives, along with gathering input regarding the trail systems.

A Powerpoint presentation, implementation plan and a marketing strategy have been developed for use by the Macomb County Planning Department.

The analysis was completed in spring 2008 for $39,525 with funding through a Greenways Grant.

Contact:

Macomb County
Department of Roads
117 South Groesbeck Highway
Mount Clemens, MI 48043

John Crumm, AICP
Director of Planning
(586) 463-1982
jcrumm@rcmcweb.org

Project Highlights:

Original Budget
$39,525

Final Budget
$39,525

Started
November 2007

Completed
Spring 2008

AEW Project No.
0223-0029

Traffic Signal Optimization - 15 Mile Road

Macomb County, Michigan

Key Staff:

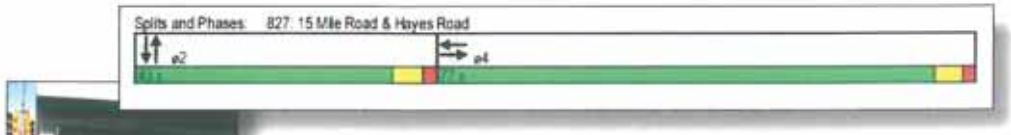
Project Manager/
Quality Assurance
Scott P. Lockwood, PE

Engineering
Michael A. Vigneron, PE, PTOE
Justin P. Rose

Additional Consultants
Borton-Lawson
Traffic Data Collection
Advanced Traffic Solutions

Project consisted of signal optimization for 23 signalized intersections, along 10.5 mi. of 15 Mile Road between Viceroy and Harper in Macomb County.

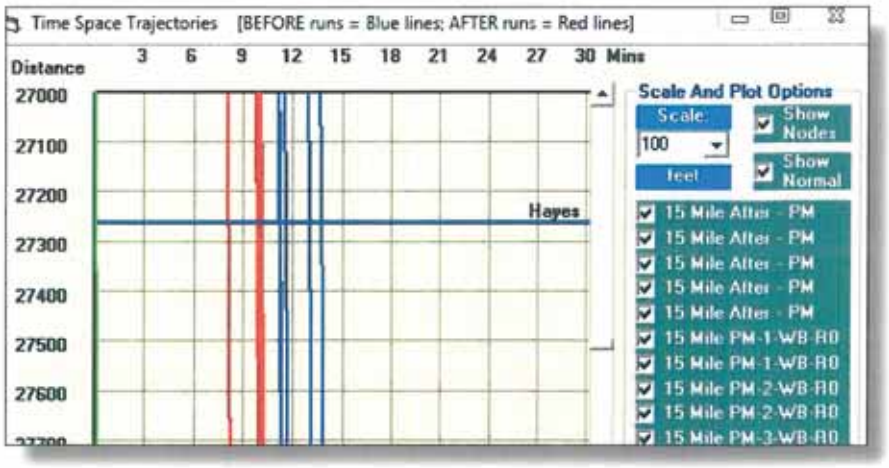
Project was divided into five tasks: Data Collection; Evaluate Existing Conditions; Timing Plan Development; Database Development and Testing, as well as Field Implementation.



Work consisted of:

- Collecting current vehicular and pedestrian counts
- Field inventory and observation
- Performing before and after travel time runs
- Operational analysis
- Existing and proposed timing plans in Synchro
- SimTraffic microsimulation analysis
- Updating controller database files
- Field implementation and fine tuning

Project results indicated that travel times were reduced by an average of 6.11% and average speeds increased by 6.12% for the corridor as a whole, saving time and reducing emissions.



Contact:

Macomb County
Department of Roads
117 South Groesbeck Highway
Mount Clemens, MI 48043

Robert Hoepfner, PE
Director of Roads
(586) 463-8671
bhoepfner@rcmcweb.org

Project Highlights:

Original Budget
$95,000

Final Budget
$95,000

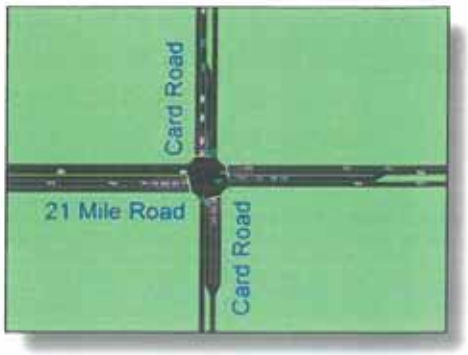
Started
September 1, 2011

Completed
September 28, 2012

AEW Project No.
0213-0112

Traffic Signal Optimization - 21 Mile Road

Macomb County, Michigan



Signal optimization project involving 14 signalized intersections along approximately eight miles of 21 Mile Road between Hayes and Jefferson.

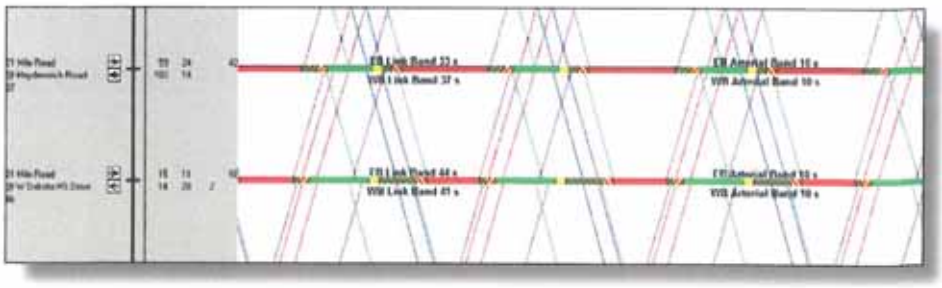
Project was divided into three tasks: Data Collection, Evaluate Existing Conditions, and Timing Plan Development. Project implementation was to be completed by the Owner at a later date.

Work included:

- Collecting current vehicular and pedestrian counts
- Field inventory and observation
- Performing before travel time runs
- Operational analysis
- Existing and proposed timing plans in Synchro
- SimTraffic microsimulation analysis

Timing plans were developed for three Time of Day (TOD) plans, AM, MD and PM. Additionally, three coordinated progression options were developed for each of the TOD plans, one to favor eastbound progression, one to favor westbound progression, and a balanced plan.

Projected results from the microsimulation analysis indicated that directional travel times could be reduced by up to 200 seconds and average directional speeds could be increased by up to 6.5 mph for the corridor as a whole, saving time and reducing emissions.



Key Staff:

Project Manager/
Quality Assurance
Scott P. Lockwood, PE

Engineering
Michael A. Vigneron, PE, PTOE
Justin P. Rose

Additional Consultants
Borton-Lawson
Traffic Data Collection

Contact:

Macomb County
Department of Roads
117 South Groesbeck Highway
Mount Clemens, MI 48043

Robert Hoepfner, PE
Director of Roads
(586) 463-8671
bhoepfner@rcmcweb.org

Project Highlights:

Original Budget
$65,000

Final Budget
$65,000

Started
January 9, 2012

Completed
August 9, 2013

AEW Project No.
0213-0113

Macomb Orchard Trail Evaluation

Macomb County

This evaluation was completed for the purpose of providing an independent review for over 17 miles of the Macomb Orchard Trail during construction in 2007. The trail extended from Washington Township to the City of Richmond.

The review was performed to evaluate thickness and ridability of the asphalt, material stability in the gravel trail segments, bridge rehabilitation and overall acceptability of the nearly completed trail.

Reports were issued to the County, along with recommendations to obtain core samples of the asphalt, gravel samples for analysis and bridge rehabilitation suggestions. All services were provided at no cost to the County.

Key Staff:

Project Manager
Lyle E. Winn, PE

Quality Assurance
Roy C. Rose, PE, EXW

Engineering
Lyle E. Winn, PE

Structural Evaluation
Kevin E. Zauel, PE

Contact:

Macomb County
Department of Roads
117 South Groesbeck Highway
Mount Clemens, MI 48043

John Crumm, AICP
Director of Planning
(586) 463-1982
jcrumm@rcmcweb.org

Project Highlights:

Original Budget
Services provided at no cost to the County

Final Budget
Services provided at no cost to the County

Started
2007

Completed
2007

AEW Project No.
0223-0031

Main Street and 14 Mile Road Improvements

Clawson, Michigan

Key Staff:

Project Manager
Jennifer L. Chehab, PE

Quality Assurance
Roy C. Rose, PE, EXW

Engineering
Jeffrey L. Allegoet

Grant Assistance
Aseel A. Putros, PE, CFM

Construction Services
Charles L. Myslinski

AEW assisted the City and its Downtown Development Authority (DDA) in obtaining $760,398 in Transportation Enhancement Grant funding for improving pedestrian access and aesthetics throughout the downtown area. The scope of work includes new brick paver sidewalks, concrete drive approaches, on-street parking, landscaping, irrigation, trees and other streetscape amenities. AEW also coordinated city-driven project scope changes with the contractor after construction began.

In addition, AEW coordinated with DTE Energy for the design and location of 116 new streetlights throughout the downtown, as well as removal of the existing streetlights, to remove sidewalk obstructions.

AEW assisted the City with construction observation and meeting all reporting requirements for this federally funded MDOT administered project.

Contact:

City of Clawson
635 West Elmwood
Clawson, MI 48017

Harry Drinkwine
Director of Engineering Services
(248) 288-3222
clawsondpw@m80.net

Project Highlights:

Original Budget
$1,600,000

Final Budget
$1,610,000

Started
May 2010

Completed
November 2010

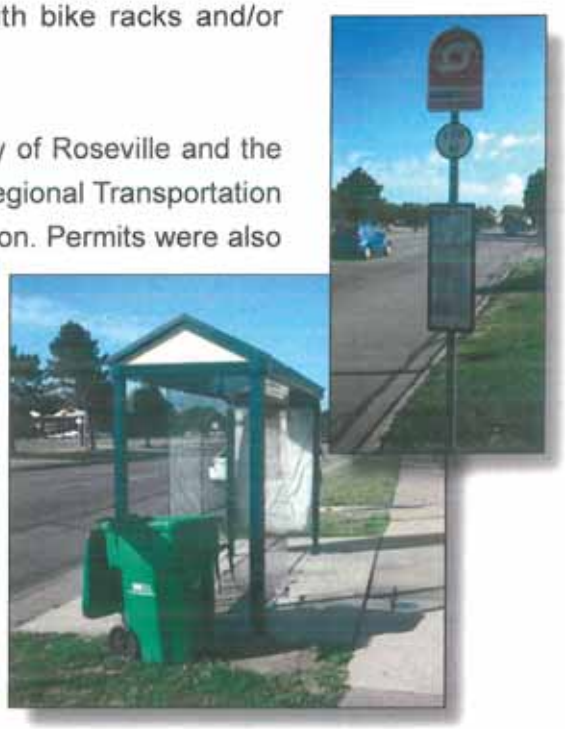
AEW Project No.
0810-0108

Bus Stop Improvements

Roseville, Michigan

AEW provided feasibility and design assistance for the improvement of 24 bus stops along Gratiot Avenue in the City of Roseville.

Each stop was upgraded with an ADA compliant concrete pad, bench and trash receptacle. Selected stops with historically greater numbers of waiting passengers, or those at transfer locations, were also outfitted with bike racks and/or shelters, as appropriate.



AEW worked closely with the City of Roseville and the Suburban Mobility Authority for Regional Transportation (SMART) for project implementation. Permits were also required from the Michigan Department of Transportation (MDOT) and Macomb County for work in their respective right-of-ways.

Key Staff:

Project Manager
Scott P. Lockwood, PE

Quality Assurance
Roy C. Rose, PE, EXW

Engineering
Michael A. Vigneron, PE, PTOE

Contact:

City of Roseville
29777 Gratiot Avenue
PO Box 290
Roseville, MI 48066

Steve Wietecha
Engineering Aide
(586) 445-5410
engineering@roseville-mi.gov

Project Highlights:

Original Budget
$160,000

Final Budget
$160,000

Started
April 2012

Completed
October 2012

AEW Project No.
0100-0416

Other Clients

Anderson, Eckstein and Westrick, Inc. (AEW) understands that the City of Birmingham requires a consultant capable of prioritizing its projects on issues involving other road agencies or private interests. We also understand that, if awarded this contract, AEW will be required to phase out relationships with developers or private firms with development interests within the City of Birmingham.

The following information is presented in accordance with the Request for Qualifications (RFQ) document:

The average percentage of income earned by the consulting firm for the firm's past three fiscal years from the Michigan Department of Transportation.

2013 0%
2012 0%
2011 0%

While AEW had no direct billings with MDOT, we have provided subconsultant services for other prime firms.

The average percentage of income earned by the consulting firm for the firm's past three fiscal years from the Road Commission for Oakland County.

2013 1/2%
2012 0%
2011 0%

AEW is a prequalified vendor with Oakland County, which affords us with direct knowledge of regulatory requirements. However, our level of involvement with the Road Commission would not interfere with our ability to serve the City.

The average percentage of income earned by the consulting firm for the firm's past three fiscal years from developers or private firms that are involved in the development of private projects within Oakland County.

2013 2%
2012 3%
2011 3%

Consultant Approach

Respecting the people and communities in which it works, Anderson, Eckstein and Westrick, Inc. (AEW) is committed to bringing the highest levels of design and engineering excellence to the important work of building, maintaining and enhancing the communities where people work, live, travel and play. We are committed to the enduring strength of communities. And, when honored to assist a community, we work closely with key staff to achieve project goals and vision. This is accomplished with effective communication, as well as through the effective use of innovation, value and engineering excellence.

Our approach to providing services for the City of Birmingham can be summarized by AEW's core values:

- **Keep People First**
  - » Provide real value to citizens and residents.
- **Make Outstanding Decisions**
  - » Draw upon experience, skills, training and appropriate technology.
- **Communicate Effectively**
  - » Make the effort to be a good listener.
- **Maintain Unquestioned Integrity**
  - » Conduct ethical business practices, including honesty, trustworthiness and respect for others.

We approach each assignment with the same genuine interest in providing the greatest service to our client and the community. Additionally, we recognize the uniqueness of each project opportunity, and reasonably accommodate client needs.

For example, AEW begins each endeavor with a Kick-off Meeting to ensure that all key team members have an accurate understanding of scope, schedule, and budget, as well as individual responsibilities and roles. We also establish the client's communication preferences, including primary contacts, preferred methods, and level of frequency. Based upon this information, AEW will customize its services and level of involvement to best meet the City of Birmingham's needs.

Consultant Approach

Based upon the scope presented within the Request for Qualifications document, as well as our knowledge of multi-modal needs, we anticipate that direction from the Multi-Modal Transportation Board to include the following approach to services.

Multi-Modal Review Assignments:

- Meet with Board and/or City officials to gain a thorough understanding of the assignment.
- Review the location in reference to the Multi-Modal Transportation Plan.
- Conduct preliminary field review of location of interest.
- Determine data needs (if any) to effectively evaluate the location of interest.
- Conduct the review – collect data, evaluate the data and location, review preliminary plans.
- Report findings and/or recommendations to the Board.

Traffic Engineering Assignments:

- Meet with Board and/or City officials to gain a thorough understanding of the assignment.
- Conduct preliminary field review of location of interest.
- Determine study type and data needs to effectively evaluate the location of interest.
- Conduct the study – collect data, evaluate the data, performing modeling as necessary.
- Report findings and/or recommendations to the Board.
- Follow up on location after recommendations have been implemented to determine effectiveness of countermeasures (as may be necessary).

Above all, AEW knows that the success of each endeavor is predicated upon a thorough understanding of the client's expectations for all facets of the project. With comprehensive understanding and effective communication, we are confident that our approach to project management will effectively complement the needs of the City of Birmingham and the Multi-Modal Transportation Board. AEW provides the utmost professionalism, in the best interest of the community and its residents, with quality and cost-effective results.

Hourly Charge Rates

Based upon the nature of project scope, Anderson, Eckstein and Westrick, Inc. (AEW) understands that work is expected to be completed based upon an hourly basis. The following rates are in accordance with AEW's current contracted rates with the City of Birmingham. As with all projects, AEW does not charge for reimbursable fees such as mileage, faxes, telephone calls, or duplicating costs of plans and specifications. Our hourly rates are the same for straight time and overtime. Additionally, we have include rates for our subconsultant, Traffic Data Collection. Note that AEW does not mark-up subconsultant rates.

EMPLOYEE CLASSIFICATION	HOURLY CHARGE RATE
PRINCIPAL ENGINEER / SURVEYOR / ARCHITECT	$ 143.00
SENIOR PROJECT ENGINEER / SURVEYOR / ARCHITECT	131.50
LICENSED ENGINEER / SURVEYOR / ARCHITECT	118.50
GRADUATE ENGINEER / SURVEYOR / ARCHITECT	96.50
TEAM LEADER	96.50
ENGINEERING AIDE III	80.50
ENGINEERING AIDE II	73.00
ENGINEERING AIDE I	65.50
ENGINEERING AIDE TRAINEE	47.50
SECRETARIAL (Special Projects)	40.00
SURVEY FIELD (3 PERSON CREW)	196.00
SURVEY FIELD (2 PERSON CREW)	164.00
SURVEY FIELD (1 PERSON CREW)	127.00
CONFINED SPACE ENTRY CREW (2 PERSON)	216.00
DATA COLLECTOR (SURVEY CREW)	24.00
COMPUTER SYSTEM	0.00
GPS SURVEY EQUIPMENT	60.00

EFFECTIVE JUNE 1, 2014 AND UPDATED ANNUALLY TO REFLECT CPI

TDC

Traffic Data Collection (TDC)
7504 Sawgrass Drive
Washington, MI. 48094
Ph: 586 786-5407
Cell: 248.342-3933
www.tdccounts.com

Date: July 24, 2014

Note: The following quoted rates are good for one (1) year period from the date shown above and consider being the maximum cost for an individual study. Actual billing maybe less based upon proposed scope of traffic services.

To;

Anderson, Eckstein, and Westrick, Inc.
51301 Schoenherr Road, Shelby Twp., MI 48315
Phone: 586-726-1234 Fax No: 586-726-8780
E-mail: mvigneron@aewinc.com

The following rates are for individual manual and automatic traffic recorder counts, additional traffic data collection service rates provided upon request

Traffic Data Collection Rate Sheet

Item No	Video / Manual Count			
1.1	4 Hour AM & PM Peak Turning Movement Counts, Manual Classification Counts, Gap Studies, Intersection Delay Studies, Stop Sign Delay Studies, Saturation Flow Rate Studies, Speed Studies		$350.00	
Item No.	Video / Manual Count			
2.1	6 Hour AM & PM Peak Turning Movement Counts, Manual Classification Counts, Gap Studies, Intersection Delay Studies, Stop Sign Delay Studies, Saturation Flow Rate Studies, Speed Studies		$475.00	
Item No.	1 Tube - Automatic Traffic Recorder Count			
3.1	24 - 48 Hour Automatic Traffic Recorder (ATR) Intersection Approach Volume Count		90.00	
Item No.	2 Tube - Automatic Traffic Recorder Count			
4.2	24 - 48 Hour Automatic Traffic Recorder (ATR) Bi-directional Volume / Speed, Gap, Vehicle Classification Studies (Excludes Multiple Lane Roadways)		200.00	

NAME: Marc G.Matich Date: 7/24/14

Corporate Office:
51301 Schoenherr
Shelby Twp, MI 48315
(586) 726-1234
(586) 726-8780 (fax)

Anderson, Eckstein and Westrick, Inc.