

SUMMARY REPORT TO MANAGER
for City Council Meeting of 1/22/2007

SUBJECT: Eastman Avenue Traffic Improvements

INITIATED BY: Brian P. McManus, City Engineer *(BPM)*

RESOLUTION SUMMARY:

This resolution approves Contract Amendment No. 7 to the DLZ Michigan, Inc. Agreement for Professional Services, for professional traffic engineering services related to Eastman Avenue.

ITEMS ATTACHED:

1. Summary Letter to City Manager
2. Resolution
3. Contract Amendment No. 7

CITY COUNCIL ACTION:

3/5 vote required to adopt resolution

SUBMITTED BY: Brian McManus



City Hall • 333 West Ellsworth Street • Midland, Michigan 48640-5132 • 989.837.3300 • 989.835.2717 Fax • www.midland-mi.org

January 16, 2007

Honorable Mayor and City Council
City of Midland
Midland, Michigan 48640

RE: Contract Amendment No. 7 to DLZ Michigan, Inc. Professional Services Contract

Dear Councilmen:

At the December 18, 2006 meeting, City Council directed staff to proceed with the selection of an engineering consultant for the design work on the proposed Eastman Avenue Improvement Project and begin the process of a budget transfer for associated funding.

We have received a proposal from DLZ Michigan, Inc. (DLZ), to perform design services.

The design work will be based on the alternative chosen which includes "Phase In of a Boulevard with Indirect Left Turns," "Access Management," and "Smart Signals."

The scope of their work includes all of the necessary design work for the phased in boulevard alternative chosen for that segment of Eastman Avenue roughly between Airport Road and Wackerly Street. The design work phases include preliminary design, right-of-way design drawings, and final design drawings. In addition, the DLZ proposal provides further study and preliminary design for Smart Signals and Access Management.

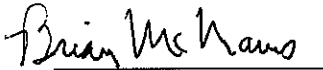
- January 2007 - Enter into a contract with DLZ.
- April 2007 – Field Survey.
- August 2007 – Preliminary Plans.
- October 2007 – Right-of-Way Plans.
- December 2007– Final Plans and report on Access Management and Smart Signals.

DLZ has proposed to undertake the design tasks as outlined in Contract Amendment No. 7 for a cost of \$120,000. Previous contract work completed by DLZ included the study phase of the project that ultimately leads to the proposed improvements. Funding for this contract amendment is included in the Major Street budget amendment scheduled for public hearing on January 22, 2007.

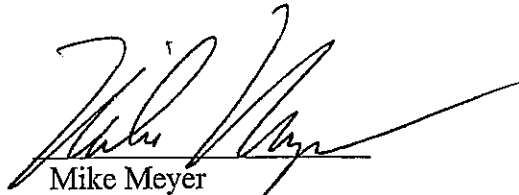
We anticipate that the scope of work outlined in Contract Amendment No. 7 will be sufficient to provide the City the professional services needed to complete necessary design engineering for the phased in boulevard alternative chosen.

We recommend that City Council approve Contract Amendment No. 7 to the contract with DLZ in the amount of \$120,000.

Sincerely,



Brian McManus
Brian McManus
City Engineer



Mike Meyer
Mike Meyer
Purchasing Agent

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BY COUNCILMAN:

WHEREAS, DLZ was retained in March 2005 to perform traffic study and analysis to improve traffic flow on Eastman Avenue in the area of the Midland Mall; and

WHEREAS, DLZ has submitted a final study report and concluded their obligations for their original contract and subsequent amendments to date; and

WHEREAS, the City desires the assistance of DLZ for Professional Services related to the engineering design for proposed Eastman Avenue improvements; now therefore

RESOLVED, that City Council authorizes the City Manager to approve Contract Amendment No. 7 to the DLZ Michigan, Inc. Agreement for Professional Services, in the amount of \$120,000, for said additional work; and

RESOLVED FURTHER, that the City Manager has the authority to approve change orders further modifying or altering said agreement in an amount not to exceed \$20,000.

YEAS:

NAYS:

ABSENT:

I, Selina Tisdale, City Clerk, City of Midland, Counties of Bay and Midland, State of Michigan, do hereby certify that the foregoing is a true and correct copy of a resolution adopted by a yeavote of all the Councilmen present at a regular meeting of the City Council held Monday, January 22, 2007.

Selina Tisdale, City Clerk

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BPM



January 3, 2007

Mr. Brian McManus, P.E.
City Engineer
City of Midland
333 West Ellsworth
Midland, MI 48640

RE: Contract Amendment Request No. 7 – Design Engineering Services for Eastman Avenue Intersection Improvements.
DLZ Project No.: 0541-5965-00

Dear Mr. McManus:

DLZ Michigan, Inc. (DLZ) appreciates the opportunity to provide this proposal to the city of Midland for Design Engineering Services for the intersection improvements at Eastman Avenue/Airport Road, and Eastman Avenue/Wackerly Street. Following is the Scope of Work and the estimated fee for this work.

SCOPE OF WORK

Design Survey Phase:

This phase includes a complete survey of the two intersections extended to the existing building facias. Detailed utility and property information will be obtained along with the topographic survey.

Preliminary Design Phase:

- Meet with City staff and MDOT staff to review project requirements, design criteria, work scope and overall schedule. Collect and review any recently available information and/or plans.
- Obtain existing utility information from the City and utility companies for the location of their underground facilities, and conduct two utility meetings.
- Obtain soil borings for new signals and pavement design. Locations and specific requirements will be provided to Soil and Materials Engineers, Inc. (SME) by DLZ. Acting as DLZ's subconsultant, SME will then obtain the soil borings and perform a pavement design. It is DLZ's opinion that these borings will most likely be needed. However, if further coordination during the design phase indicates that borings are not needed, we will negotiate a reduction in fee at that time.

- Perform preliminary geometric design including box span signal design and drainage design. DLZ assumes the existing drainage system can accommodate the small increase in runoff, and only inlet spacing design will be required.
- Submit geometric base plans (1" = 20' scale), and a construction cost estimate.
- Meet with the City and MDOT to review the base plans.
- Prepare and submit preliminary plans, technical specifications, and cost estimate to the City for review. In addition to the typical plan sheets, these plans will include any City of Midland specific details, a detailed grading plan, SESC plan, sidewalk plan, detail grades, typical road section, intersection geometrics, permanent signing, pavement markings, and signal plans. The format of these plans will be consistent with MDOT LTAP plans using MDOT 2003 specifications.
- Submit MDOT Right-of-Way Entry Permit, which includes the preliminary plans.
- Conduct a Preliminary Plan Review meeting with the City to review and modify preliminary design, and incorporate modifications to the construction drawings.

Final Design Phase:

- Complete and submit to the City final plans and final construction drawings, technical specifications, and right-of-way plans incorporating preliminary review comments and final drawings will be in accordance with the MDOT and the City of Midland requirements and will be prepared in Microstation format.
- Prepare final construction cost estimate.
- Meet with City staff to review draft final plans, specifications and cost estimate.
- Incorporate modifications from draft final review meeting.
- Prepare and submit final construction drawings (on mylar), special provisions and cost estimate. We will also provide a CD with all plans in Microstation format. Final plans will be at a scale of 1"= 40'.
- Review the draft-bidding proposal (prepared by the City), assist with the bid phase and attend the bid letting.

Smart Signals

DLZ will perform pre-design investigation of a smart signal system (SCATS system) in order to: (1) develop a specific implementation plan and (2) define the design scope (the previous study did not evaluate specifics related to implementation and also raised the question as to whether it might be cost effective to expand the project area for this system). Our proposed work will include:

- An inventory of data/information such as existing controller types and other relevant infrastructure.
- Identification of the exact intersections to include in the system. As you know, there has been discussion of possibly including all the signals north/south on Eastman Avenue or intersections along West Saginaw.
- Development of a more refined cost estimate
- Identification of any long-term costs/maintenance needs for the system.

Due to the specialized nature of this work element, we are recommending inclusion of TransCore Consulting on our team to advise us regarding the smart signal system. TransCore specializes in this technology and has been involved extensively with design and installation of this system in Oakland County for nearly 700 intersections. TransCore's proposal is included as an attachment to our letter.

Please note that DLZ's proposed work does not include design of the smart signal system. It is anticipated that DLZ will provide a subsequent proposal for this work once the scope is better defined.

Access Management

The previous study resulted in general agreement that access management should be implemented through the use of driveway consolidation/relocation and zoning code requirements. The next logical step is to develop a concept design, which can be used by the City of Midland to negotiate with property owners. DLZ proposes to use existing aerial photos as a base map, perform field visits, and prepare a scaled drawing showing the proposed concept design for driveway consolidation/relocation. This would be revised once based on comments from City staff, and a cost estimate would be prepared (excluding ROW/easement costs). DLZ would also attend one meeting with property owners to explain the benefits of access management and answer questions about the plan. Preparation of access management ordinances, ongoing coordination with property owners, and the preparation of construction documents are not included in this proposal but could be performed by DLZ as part of a contract amendment.

Proposed Schedule

Survey:	April 2007
Base Plans:	June 2007
Access Management Plan:	June 2007
Smart Signal Plan/Scope:	June 2007
Preliminary Plans:	August 2007
Right-Of-Way Plans:	September 2007
Final Plans:	December 2007

Proposed Fee

DLZ requests a Contract Amendment (Amendment No. 7) to provide the above-noted services for a lump sum fee of One Hundred Twenty Thousand and 00/100 Dollars (\$120,000.00) which includes an allowance of \$8,000.00 for SME's geotechnical investigations and \$7,000 for TransCore.

Please contact Messrs. Wes Butch or John Salman of our office with any questions once you review this proposal. If you find the terms of this proposal acceptable, please sign the approval form on the next page and return the original to our office. We greatly appreciate the opportunity to work with the City of Midland on this project and look forward to its successful completion.

Very truly yours,

DLZ MICHIGAN, INC.



Fred Pezeshk, P.E., S.E.
President

FP/WAB/kmr

Approval of DLZ's Proposed Scope and Fee

The City of Midland accepts DLZ's proposed scope of services for additional work on the Eastman Avenue design as outlined in this letter proposal and hereby instructs DLZ to commence work on these services. The City of Midland approves the additional lump sum fee of \$120,000.00 for these new services. All terms and conditions included in the original "Agreement for Professional Services" between the City of Midland and DLZ (dated March 21, 2005) remain in effect and apply to these additional services.

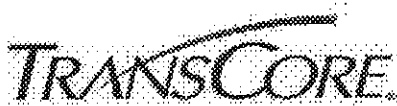
Authorized Signature

Printed Name

Title

Date

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2076 Belding Ct.
Okemos, Michigan 48864
517.381.9091 tel 517.381.9187 fax

DLZ Michigan, Inc
1425 Keystone Avenue
Lansing, MI 48911

For Attention: Wes Butch, Transportation Planning Manager

Dear Wes,

Subject: City of Midland SCATS System – Proposal

I refer to your telephone call of December 28, 2006 and subsequent email regarding interest by the City of Midland in a smart signal system.

I've examined the documents that you sent and understand the project as it currently stands. It looks like the problems include congestion at the two intersections on Eastman with airport traffic interfering with North/South traffic.

A smart signal system such as our SCATS Adaptive Traffic Control System can help at congested locations by selecting on a cycle-by-cycle basis a suitable cycle length and adjusting splits to approach the most efficient use of the cycle. Coordination is maintained during cycle length and split changes. SCATS is particularly effective where peaks in demand occur randomly as the system can quickly accommodate the peak reducing or avoiding backups due to inappropriate signal timing.

SCATS is often applied to small areas to address congestion issues. A typical example is the system installed a few years ago on El Camino Real in Menlo Park, California. This system addressed congestion along El Camino Real where this heavily used arterial narrows as it passes through the City of Menlo Park. Heavy traffic demand on El Camino Real is balanced against side street demand to minimize travel times along the arterial while providing an improved level of service to local residents by minimizing cycle length whenever possible. The system comprises 10 intersections.

An evaluation of the Menlo Park system by an independent consultant revealed reduction in travel time of up to 25% and delay of up to 70%.

My understanding is that you require TransCore to assist DLZ with a brief study to;

- 1) Develop an implementation plan/identify next steps and,
- 2) Define the design scope.

This work includes:

- a) An inventory of data/information such as existing controller types and other relevant infrastructure,
- b) Identification of the exact intersections to include in the system (there has been discussion of including all the signals north/south on Eastman Avenue (beyond what we studied so far) or possibly including West Saginaw (an arterial that runs E-W to the south of the project area).
- c) Development of a more refined cost estimate,
- d) Identification of any long term costs/maintenance.

We believe that we are ideally qualified to assist with this work having carried out a number of similar initial studies. A work plan that would achieve the objectives is as follows:

Task	Expected Hours
Meet with City/DLZ in Midland to collect information on the project environment including; <ul style="list-style-type: none"> • controller types, • cabinet types, • communications facilities available, • possible communications methods, • existing vehicle detection, • SCATS Server site, • Facilities for remote connection to SCATS server, • Traffic conditions at initial intersections, • Intersection operation practices, • Traffic conditions in possible expansion corridors (Eastman and West Saginaw). 	8
Development of requirements for installation of a SCATS system in the project area including; <ul style="list-style-type: none"> • Cabinet modifications SCATS including controller options, • Detection requirements for SCATS and recommended intersection detection changes/modifications, • Options for intersection communications and recommendations, • Server, and server communication, requirements. 	8
Development of options for project size (intersections to be equipped), and the basis for and benefits to be expected from the options.	12
Development of cost element guidelines, including long term/maintenance costs, and a budgetary cost estimate framework.	8
Preparation, submission and review of a short letter report summarizing requirements and recommendations.	8

Total estimated hours = 44

Hourly charge rate = \$150.00 per hour.

From the above we expect our total fee to not exceed \$7,000 based on the information available and our expectations of the work. Billing will be on an hourly rate basis at the rate shown above.

We have assumed that DLZ will perform tasks such as data collection (beyond that achieved during the site visit included in the above), client coordination, preparation of cost estimates from our input and detailed technical research (such as the availability of third-party communications facilities).

We appreciate the opportunity to provide this proposal and hope that it provides the information required. Please do not hesitate to contact the undersigned if any further details or information are needed.

Sincerely,

Neil Gross
Senior Associate