



October 16, 2012

Mr. Shane Nelson  
Ramsey Interim City Engineer  
City of Ramsey  
7550 Sunwood Drive NW  
Ramsey, MN 55303

RE: Evaluation of Potential Access and Capacity Improvements in the vicinity of the TH 47 and CSAH 116

Dear Mr. Nelson:

This letter presents WSB & Associates' proposal to provide engineering services for the evaluation of access and capacity improvements in the vicinity of the TH 47 and CSAH 116 intersection. The proposed study area would include TH 47 from just north of Coolidge Street NW to County Road 5 and TH 47 and CSAH 116 from east of Tower Pond Drive to the Rum River with the primary focus on the CSAH 116 and TH 47 intersection and the access points to the businesses in each of the quadrants of the intersection.

### **Project Background**

The cities of Anoka and Ramsey have identified two major concerns with the current design of the intersection of TH 47 and CSAH 116. First, the access to businesses located in the different quadrants of the intersection, especially the southwest quadrant of CSAH 116 and TH 47, is a problem for the businesses in this area. When the intersection was reconstructed several years ago medians were constructed that restricted access to existing development in the area. Local businesses feel that it has hurt their business.

Second, the intersection of TH 47 and CSAH 116 experiences congestion and back-ups in both the am and pm peak hours. The congestion in the area is a combination of through traffic and traffic destined to the school and local businesses. This intersection was studied in MnDOT's Congestion Management Safety Plan and potential improvements were identified that would improve traffic flow and safety. Although no specific funding has been identified the project may be a candidate for Cooperative Agreement Funding or Highway Safety Improvement Funds.

CSAH 116 is under Anoka County's jurisdiction and TH 47 is under MnDOT's jurisdiction. Previous work has been completed in the area including some preliminary drawings developed by RLK, which were reviewed by MnDOT. MnDOT previously indicated that a northbound left turn from TH 47 into the southwest quadrant of the intersection may be acceptable as long as the left-out was prohibited. The RLK work also showed concepts for a left-in off of CSAH 116 west of TH 47. In addition, the MnDOT Congestion Management Safety Plan developed a concept for an additional northbound through lane on TH 47 from just south of the CSAH 116 to County Road 5.

### **Purpose of Study**

The purpose of this study is to identify improvements to TH 47 and CSAH 116 in the area of the intersection that will improve access to local businesses and reduce congestion in the area of the intersection. The improvements may include median breaks on CSAH 116 and TH 47, as well as the potential addition of turn lanes. The study will analyze previously identified alternatives, as well as other possible alternatives in order to identify a plan that all affected agencies can support. The agencies involved include MnDOT (TH 47), Anoka County (CSAH 116), and the cities of Anoka and Ramsey. Alternatives that will be considered include:

1. Provision for a northbound left-turn from TH 47 into the southwest quadrant of the TH 47 and CSAH 116 intersection with no left-turn out (3/4 intersection)
2. Provision for a median break and left-turns from westbound and eastbound CSAH 116 west of TH 47 with no left-turn out
3. Provision for a second southbound left-turn lane on TH 47 at CSAH 116
4. Provision of a 3/4 access intersection to local businesses on TH 47 north of CSAH 116
5. Provision of an additional through lane on TH 47 within the limits of the study area
6. Review of median widths and the ability to accommodate U-turns on TH 47 and CSAH 116

The intersection of County Road 5 and TH 47 was also identified as a potential contributor to the concerns at CSAH 116 and TH 47 and will be reviewed to determine if modifications to this intersection can address the traffic congestion in this area.

### **Scope of Work**

The following tasks will be completed as part of this study.

1. *Data Collection* – WSB will collect existing base mapping, previous alternatives, and existing and forecast traffic data. MnDOT and Anoka County will provide traffic counts they have for the CSAH 116 and TH 47 intersection and the County Road 5 and TH 47 Intersection. AM and PM peak hour turning movements will be compiled for the two intersections, as well as for the other access points into the adjacent businesses. We have identified seven locations (four full-access intersections and three partial-access intersections) where data is desired. We have assumed in our cost estimate that Anoka County is available to collect any additional traffic counts that are required.
2. *Traffic Forecasts* – Peak hour turning movement forecasts will be developed for the seven intersections identified above. The peak hour turning movement forecasts will be developed by factoring existing turning movement counts based on the projected growth in ADT between the existing ADT and the forecast 2035 ADT. The projected ADT growth will be based on the forecasting completed for the TH 47 study.
3. *Traffic Operations Analysis* – Synchro/Simtraffic will be used to analyze the traffic operations of the CSAH 116 and TH 47 Intersection, the 142nd and TH 47 Intersection, the CR 5 and TH 47 intersection, and the local business access points for the AM and PM peak hour for the existing and

forecast conditions. The analysis will document the level of service at each intersection, including the amount of vehicle delay by intersection, approach and turning movement and the length of queues. This information will be used to document any operational concerns with the existing conditions.

4. *Identify Potential Improvements* – This task will include developing a concept drawing for each of the alternatives to be considered. The alternatives that will be considered include:
  - Provision for a northbound left-turn from TH 47 into the southwest quadrant of the TH 47 and CSAH 116 intersection with no left-turn out (3/4 intersection).
  - Provision for a median break and left-turns from westbound and eastbound CSAH 116 west of TH 47 with no left-turn out
  - Provision for a second southbound left-turn lane on TH 47 at CSAH 116
  - Provision of a 3/4 access intersection to local businesses on TH 47 north of CSAH 116
  - Provision of additional through lanes on TH 47 within the study area
  - Review of median widths and the ability to accommodate U-turns on TH 47 and CSAH 116
  - Other alternatives identified by the affected agencies
5. *Analyze Traffic Operations for Potential Alternatives* – A traffic operations analysis will be conducted for each of the alternatives identified in Task 4 for all of the intersections within the study area. The analysis will include AM and PM peak hour existing and forecast conditions. The analysis will determine the impacts on level of service (delay by intersection, approach and turning movement) and queue lengths. Special attention will be paid to how queues may impact turning movements and adjacent intersections.
6. *Document Pros and Cons of Each Alternative* – Each alternative will be compared with the existing conditions and the benefits and drawbacks of each alternative will be documented.
7. *Prepare Draft and Final Report* – A report will be prepared documenting the alternatives and the results of the above analysis. A final report and recommendation will be prepared based on the analysis and the input from the affected agencies.
8. *Meeting/Agency Involvement* – The cities of Anoka and Ramsey, along with MnDOT and Anoka County, will meet up to three times during this study to review the analysis and concepts as they are developed and evaluated to provide input on the alternatives and potential improvement options.

### **Schedule**

WSB will complete the work within three months of the notice to proceed. The final report and recommendations will depend on the scheduling of meetings with the affected agencies. It is anticipated that the agency meetings will occur on a monthly basis.

### **Cost**

The attached table provides a detailed estimate of hours and costs to complete the scope of work identified in this proposal. Our estimated cost for the work identified in this proposal is \$24,082. If WSB needs to collect additional traffic data this would be an additional cost.

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**Staffing**

Tony Heppelmann will serve as WSB's Project Manager. WSB can provide additional information on staff if desired.

We appreciate the opportunity to submit this proposal. Please give me a call if you have any questions or comments on the scope of work or costs for this work.

Sincerely,

*WSB & Associates, Inc.*

A handwritten signature in black ink that reads "Anthony Heppelmann". The signature is fluid and cursive, with a long horizontal flourish extending to the right.

Anthony Heppelmann, PE  
Vice President

Attachment

