

**FIRST AMENDMENT
ENGINEERING AGREEMENT FOR
THE SAFETY ANALYSIS OF S. 68TH AND 148TH ROADS
IN LANCASTER COUNTY, NEBRASKA**

THIS AMENDMENT ("Amendment") entered into by and between Felsburg, Holt, & Ullevig, hereinafter referred to as the "ENGINEER", and Lancaster County, hereinafter referred to as the "COUNTY". Collectively the County and the Engineer may be referred to as "the Parties."

WHEREAS, on April 10, 2018, the Parties previously entered into a contract for the safety analysis of South 68th Road corridor from Saltillo Road to Firth Road near Norris School and 148th Road from Old Cheney to I-80 near Waverly Schools, under County Contract No. C-18-0156 ("the Agreement"); and

WHEREAS, the Parties hereby amend the Agreement to add additional services which include turning movement counts, benefit/cost analysis, preparing documents for and attending the Nebraska Department of Roads Safety Committee meeting, and assisting with the completion of the DR 530 form if funding is not approved (See Appendix A);

WHEREAS, the expenditure for these additional services shall not exceed \$14,370.00 (See Appendix B);

WHEREAS, the revised contract total with the additional services is estimated to be \$67,020.00;

NOW, THEREFORE, in consideration of the mutual covenants contained herein and in the Agreement, the Parties hereto agree as follows:

- 1) The Parties hereby amend the Agreement to add additional services which include turning movement counts, benefit/cost analysis, preparing documents for and attending the Nebraska Department of Roads Safety Committee meeting, and assisting with the completion of the DR 530 form if funding is not approved (See Appendix A).
- 2) Section VI(A) of the Agreement shall be amended to include the following fees and amend the contract total for the project:

I. First Amendment: Additional Services..... [\$ 14,370.00]

AMENDED CONTRACT TOTAL..... \$ 67,020.00

- 3) All other terms and conditions of the Agreement not in conflict with this Amendment, shall remain in full force and effect.

This Amendment shall be binding upon the Parties, their heirs, administrators, executors, legal and personal representatives, successors, and assigns.

IN WITNESS WHEREOF, the Parties hereto have caused this Amendment to be executed by their duty authorized representative.

EXECUTED by the ENGINEER this 25 day of January, 2019.

Matthew B. McFadden
Signature

Matthew B. McFadden, Principal
Name & Title

Felsburg Holt + Ullevig
Firm Name

11422 Miracle Hills Dr, Ste. 115
Address

Omaha Ne 68154
City State Zip

EXECUTED by the COUNTY this _____ day of _____, 20__.

LANCASTER COUNTY BOARD OF COMMISSIONERS

Approved as to form

This _____ day of _____, 20__.

Deputy County Attorney



APPENDIX A

Scope of Supplemental Services

January 17, 2019

Supplemental #1 - Safety Analysis of S. 68th and 148th Streets in Lancaster County

SCOPE OF SUPPLEMENTAL SERVICES

At the request of the Lancaster County Engineer, Felsburg Holt & Ullevig (FHU) is submitting this Supplemental #1 contract proposal for additional work regarding the application for safety funds for the following projects:

- S. 148th Street improvements, widening and overlay to 28' top with centerline and edgeline rumble strips and safety edge from O Street to 750 feet south of Yankee Hill Road (end of asphalt pavement)
- 148th Street at Holdrege Street and Adams Street Intersection improvements (including Single-lane Roundabouts)
- S. 68th Street improvements, shoulder widening from Princeton Road to Olive Creek Road, including turn lanes on both approaches at Olive Creek Road
- S. 68th Street and Roca Road or other intersection determined by updated crash analysis improvements (Turn Lanes, Roundabout etc.)

The additional work includes a turning movement counts, benefit/cost analysis, preparing documents for and attending the Nebraska Department of Roads (NDOT) Safety Committee meeting, and assisting Lancaster County with completing the DR 530 form should NDOT approve funding.

TASK 1.1. Project Management

FHU's Project Manager will serve as point of contact, maintain project schedule and budget, and be responsible for coordinating work with staff. Provide regular progress reports with invoices.

TASK 2.1. Data Collection and Analysis – Olive Creek Drive

- Data Collection* – An eight-hour turning movement count will be completed at the intersections of S. 68th Street at Olive Creek Drive and 148th Street at Holdrege Street by MNRG, LLC as a sub-consultant to FHU. This information will be used as the base condition for our operations analysis at these intersections. These locations were identified as high crash locations in the *Lancaster County Safety Analyses S. 68th Street and 148th Street*, however specific traffic data was not available.

Traffic and Safety data from the *Lancaster County Safety Analysis 148th Street* and *Lancaster County Safety Analysis S. 68th Street* will also be utilized. Lancaster County will provide updated crash data for the study area from 2-28-2018 to current. This information will be used to help determine what intersections on S. 68th Street and 148th Street would be the best candidates for safety improvements.

Supplemental #1 - Safety Analysis of S. 68th and 148th Roads in Lancaster County

January 17, 2019

Assumptions

- AM and PM Peak Hour Turning Movement Counts on a typical weekday.
 - Lancaster County to provide updated crash data.
- b. *Existing and Future Traffic Analysis* - FHU will assess the current level of congestion, measured by level of service (LOS), experienced at the intersection of S. 68th Street and Olive Creek Drive. An auxiliary turn lane analysis and, if needed, MUTCD traffic signal warrant analysis will be completed. Roundabouts will also be analyzed at the unsignalized intersections of Olive Creek Drive and Princeton Road. Other potential safety improvements identified for this intersection include northbound and south bound left-turn lanes and a northbound right-turn lane.

TASK 3.1. Conceptual Design and Cost Estimates

Conceptual design and cost estimates from the *Lancaster County Safety Analysis 148th Street* and *Lancaster County Safety Analysis S. 68th Street* will be utilized. No additional design and cost estimates will be completed as part of this supplemental services proposal.

The improvements that will be evaluated include the follow:

- 148th Street improvements, widening and overlay to 28' top with centerline and Edgeline rumble strips and safety edge from O Street to 750 feet south of Yankee Hill Road. [Lancaster County to Provide]
- 148th Street at Adams Street and 148th Street at Holdrege Street Intersection improvements (Roundabout) [from *Lancaster County Safety Analysis 148th Street*] Cost estimates for the 148th at Adams Street and Holdrege Street roundabouts will be determined either for a single lane roundabout or turn lanes. Roundabout design will match those which are being design for the South Beltway Project.
- 68th Street improvements, shoulder widening from Princeton Road – Olive Creek Road, and turn lanes on both approaches at Olive Creek Road [Lancaster County to Provide]
- S. 68th Street and Roca Road or other intersection determined by updated crash analysis (Turn Lanes, Roundabout etc.) [cost from *Lancaster County Safety Analysis S. 68th Street*]

Assumptions

- The Lancaster County Engineer's Office will provide a cost estimate for the 28' top with centerline and edgeline rumble strips and safety edge on 148th Street from O Street to 750 feet south of Yankee Hill Road.
- The Lancaster County Engineer's Office will provide a cost estimate for shoulder widening from Princeton Road – Olive Creek Road and turn lanes on both approaches at Olive Creek Road.

TASK 4.1. Benefit/Cost Analysis

FHU will conduct a benefit cost analysis for up to five (5) improvements. Benefits can include but are not limited to reductions in traffic accidents resulting in saved lives, injuries, and property damage. Methodologies outlined in the Highway Safety Manual (HSM) will be used to quantify benefits from accident reductions. Societal cost of traffic accidents by crash severity and by crash type will be gathered from the Proposed 2016 428 NAC 2 Standards provided by NDOT. For the BCA analysis, Crash Modification Factors (CMF) / Crash Reduction Factors (CRF) will be obtained from the Crash Modification Factors Clearinghouse (<http://www.cmfclearinghouse.org>).

Supplemental #1 - Safety Analysis of S. 68th and I 48th Roads in Lancaster County

January 17, 2019

TASK 5.1. NDOT Safety Committee Meeting Prep and Presentation Materials

FHU will prepare a presentation summarizing the results of the safety and operations analysis and will include graphical illustrations of the study area and analysis. The presentation will include the crash analysis, countermeasures, conceptual design of improvements, cost estimates, and a benefit/cost analysis for up to five (5) safety improvements.

TASK 6.1 DR 530 Form

Should any of these safety improvements receive approval of the safety funds, NDOT will request the completion of a DR 530 form. FHU will complete the DR 530 form and submit to Lancaster County once completed.

TASK 7.1. Meetings

- a. *Draft Review Meetings* - FHU will schedule and attend a meeting to review the results of the draft study and receive the County's review comments from the submittals.
- b. *Board of Commissions Meeting* - FHU will attend one Lancaster County Board meeting to report on project progress and answer board member questions.
- c. *NDOT Safety Committee Meeting* - At the request of the County's Project Manager, FHU will attend one NDOT Safety Committee to present the findings of the project and answer Committee member questions.

DELIVERABLES

FHU will provide the following information:

- Documentation and application for HSIP funds

PROJECT SCHEDULE

January 28, 2019 – Notice to Proceed and Begin Data Collection

February 18, 2019 – Benefit Cost Analysis completed.

March 8, 2019 – Draft Presentation Materials completed.

March 2019 – Safety Memo presented to County Board of Commissioners.

April 2019 – Presentation to NDOT Safety Committee. Date for Meeting to be determined by Safety Committee Schedule.

COST ESTIMATE

FHU propose to conduct these supplemental services on a "time and materials" basis. Under such an agreement, we are compensated on an hourly basis for all labor and other direct costs, such as printing and traffic counts, are reimbursed at a rate of 1.1 times actual cost. The following are our standard hourly billing rates for the personnel expected to be involved in this project:

Associate	\$ 190.00/Hour	Sr. Designer	\$ 140.00/Hour
Sr. Engineer	\$ 180.00/Hour	Graphics Specialist V	\$ 120.00/Hour
Engineer IV	\$ 145.00/Hour	Engineer II	\$ 110.00/Hour

At these standard hourly rates, we have estimated that the analyses could be completed for a maximum budget of **\$14,370**. This amount would be established as a "not to exceed" limit beyond which no charges could be made without your prior approval. A more detailed breakdown of cost and hours is included in APPENDIX B.

