

**CITY OF LA VISTA
MAYOR AND CITY COUNCIL REPORT
OCTOBER 16, 2018 AGENDA**

Subject:	Type:	Submitted By:
PROFESSIONAL SERVICES AGREEMENT TRAFFIC SIGNAL TIMING GILES RD-108 TH TO I-80	◆ RESOLUTION ORDINANCE RECEIVE/FILE	JOHN KOTTMANN CITY ENGINEER/ASSISTANT PUBLIC WORKS DIRECTOR

SYNOPSIS

A resolution has been prepared approving a Professional Services Agreement with Felsburg, Holt & Ullevig (FHU) to provide traffic engineering services in amount not to exceed \$19,440.00.

FISCAL IMPACT

The FY19/20 Biennial Budget includes funding for this project.

RECOMMENDATION

Approval

BACKGROUND

It has been two years since the signal timings along Giles Road from I-80 to 108th Street were updated. In that period, development has continued in Southport East and Southport West, the intersection of 132nd and West Giles has been completed and re-opened, and 120th Street south of Centennial Road has been paved and provides access to several new developments to the south of Centennial Road. In addition, there is a Quik Trip facility planned for the intersection of 117th and Giles Road that will include a new traffic signal. For these reasons it is an opportune time to update the traffic signal timings. The work will include collecting updated traffic counts, analyzing existing conditions, incorporating ongoing development impacts, revising traffic signal timings and evaluating travel times along the Giles Road corridor before and after the timing changes. The results of this work will also provide information that can be used in considering the schedule for widening of Giles Road between 108th Street and I-80. FHU has performed the previous signal timings in this corridor and has the background of information to accomplish the task as efficiently as any other consultant.

RESOLUTION NO. _____

A RESOLUTION OF THE MAYOR AND CITY COUNCIL OF THE CITY OF LA VISTA, NEBRASKA APPROVING A PROFESSIONAL SERVICES AGREEMENT WITH FELSBURG, HOLT & ULLEVIG TO PROVIDE TRAFFIC ENGINEERING SERVICES REGARDING TRAFFIC SIGNAL TIMING ON GILES RD. FROM 108TH TO I-80.

WHEREAS, the City Council of the City of La Vista has determined that said traffic engineering services regarding traffic signal timing on Giles Rd. from 108th to I-80 are necessary; and

WHEREAS, the FY18/19 Biennial Budget provides funding for the proposed study; and

NOW, THEREFORE BE IT RESOLVED, by the Mayor and City Council of La Vista, Nebraska, approving and authorizing the Public Works Director to execute a Professional Services Agreement with Felsburg, Holt, & Ullevig to provide traffic engineering services regarding traffic signal timing on Giles Rd. from 108th to I-80 in an amount not to exceed \$19,440.

PASSED AND APPROVED THIS 16TH DAY OF OCTOBER 2018.

CITY OF LA VISTA

Douglas Kindig, Mayor

ATTEST:

Pamela A. Buethe, CMC
City Clerk



October 2, 2018

Mr. John Kottmann, PE
City Engineer
City of La Vista
9900 Portal Road
La Vista, NE 68128

Reference: Giles Road Traffic Signal Retiming Proposal - Revised

Dear Mr. Kottmann:

Thank you for the opportunity to submit this proposal to retime the traffic signals along the Giles Road corridor in La Vista. With new development in the area, a new traffic signal is set to be installed at the intersection of Giles Road with 117th Street. This signal will be amid a coordinated signal corridor and will need appropriate timings to maintain progression along the corridor. Signal timings and databases at nearby intersections will be reviewed and updated to optimize operations through the area. FHU will acquire turning movement counts at key intersections, optimize and field-implement new signal timings, and provide a letter memo summarizing the findings of the study.

Scope of Services

Task I – Data Collection

Traffic counts will be conducted by MNRG at the intersections of Giles Road with West Giles Road / Eastport Parkway (24-hour count) and with 114th Street (13-hour count). This information will be used as the base condition for our analysis.

Existing count data from January 2017 will be used for the intersection of Giles Road with 120th Street. Existing count data provided by the City of Papillion from March 2018 will be used for the intersection of Giles Road with 108th Street. The estimated volumes from the Traffic Impact Analysis conducted by Lamp Rynearson & Associates will be used for the intersection of Giles Road with 117th Street.

Field reviews will be conducted to validated existing geometry, signal phasing, and signal timings. Approach photos and cabinet photos will be collected to document the existing conditions. Signal timing sheets will be requested from the City to use as a basis for validating the existing signal timings in the field. Signal timing sheets will also be requested from NDOT for neighboring signals at the I-80 interchange on Giles Road to verify offsets. Study intersections will include:

- Eastport Parkway/West Giles Road & Giles Road
- 120th Street & Giles Road
- 117th Street & Giles Road
- 114th Street & Giles Road
- 108th Street & Giles Road

Assumptions

- FHU, via MNRG, will provide one (1) 24-hour turning movement count at the intersection of Giles Road with West Giles Road / Eastport Parkway. This count will be used as a basis to compare to historic ADT counts to determine background growth on Giles Road for timing adjustments.
- FHU, via MNRG, will provide one (1) 13-hour turning movement count at the intersection of Giles Road with 114th Street.

- FHU will contact NDOT to acquire the latest signal timings at the I-80 interchange on Giles Road.
- City of La Vista will provide existing signal timing sheets prior to FHU conducting field reviews.

Task 2 – Analysis, Optimization, & Implementation

Travel time runs, or “before runs,” will be conducted along the corridor. The before runs will be conducted during the AM (7:00 AM to 9:00 AM), Midday (11:00 AM to 1:00 PM), and PM (4:00 PM to 6:00 PM) peak periods. This information will be used to calibrate the existing Synchro models. The existing Synchro models for Giles Road will be updated based on information gathered during the data collection task and before runs.

Yellow change and Red clearance timings will be calculated based on information collected in the data collection task. The Synchro models will be updated with new clearance values and timings will be optimized. Optimized time-periods will be the AM, Midday, and PM peak hours. Tru-Traffic software will then be utilized to optimize progression along the corridor. The day plan schedule will be reviewed based on the collected turning movement counts and adjusted as necessary. Any existing special timing patterns for Paypal, etc., will be reviewed and updated or removed as necessary.

FHU will program the new timings into the traffic signal controllers and proceed to a fine-tuning effort immediately thereafter. Timings will be reviewed to ensure they are operating as designed and will be adjusted for optimal operation based on field conditions. Fine-tuning travel time runs will be conducted with Tru-Traffic software to determine offset and sequence adjustments for optimal progression based on field conditions.

Task 3 – Documentation

A letter memo will be prepared documenting the results of the signal timing effort. The letter will include updated signal timings, time-space diagrams, and a discussion of the results.

Task 4 – Meeting & Project Management

As part of this effort, FHU will attend one (1) meeting with the City of La Vista to discuss project goals and signal timing standards to follow. This task also includes preparing monthly progress reports with invoices and other project management related tasks.

Schedule and Fee Estimate

Upon receipt of a signed copy of this agreement, FHU will begin working on this assignment. A kick-off meeting will be scheduled to establish corridor priorities, signal timing standards, and a project schedule. The draft report will be submitted to the City of La Vista within 30 days of completing the field fine-tuning of the new traffic signal timings. This date is dependent on installation of the new signal at 117th Street. A two-week City review period is assumed. Once comments are received, FHU will update the report and submit a final version to the City within two weeks. FHU proposes to complete this traffic signal retiming assignment for a maximum budget amount of **\$19,440**. 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 the estimated cost by task is provided below:

TASKS	COSTS
Task 1 – Data Compilation & Field Review	\$2,180
Task 2 – Analysis, Optimization, & Implementation	\$10,350
Task 3 – Documentation	\$2,980
Task 4 – Meeting & Project Management	\$2,300
Other Direct Expenses (Counts, Mileage & Printing)	\$1,630
TOTAL LABOR AND DIRECT EXPENSES	\$19,440


October 2, 2018
Mr. John Kottmann, PE
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If the conditions of this proposal are acceptable, please print out this letter, sign below and send it back for our files. In an effort to expedite the study, please call or send an e-mail with the signed proposal back as your acceptance. If you have any questions about this proposal, please call Mark Meisinger at (402) 445-4405.

Sincerely,
FELSBURG HOLT & ULLEVIG



Kyle A. Anderson, PE, PTOE
Vice-President



Mark Meisinger, PE, PTOE
Project Manager

Accepted By

Title

Date

Attachment

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