

AMENDMENT NO. 1 TO L 30333

| | | | |
|----------------------------|------------|----------------------------|-------------|
| Contract Start Date: | 2/26/2020 | Original Total Amount: | \$79,774.00 |
| Original Completion Date: | 10/31/2020 | As Previously Amended: | \$79,774.00 |
| Amendment Completion Date: | 12/31/2020 | Current Amendment: | \$7,966.00 |
| Resolution: | 20-0815R | New Total Contract Amount: | \$87,740.00 |

This amendment, effective as of the date of attestation by the City Clerk (the "Effective Date"), by and between the City of Duluth, hereinafter referred to as "City", and SRF Consulting Group, Inc. located at 1 Carlson Parkway North, Suite 150, Minneapolis, MN 55447-4453, hereinafter referred to as "Consultant", for the purpose of rendering services to the City.

WHEREAS, on February 26, 2020, City and Consultant entered into an agreement bearing City of Duluth Contract No. L 30333 for design and construction administration services for a new traffic signal and ADA improvements at the intersection of Woodland Avenue, Kent Road, and East 8th Street in Duluth, MN, which Contract has not been previously amended and is hereinafter referred to as the "Contract"; and

WHEREAS, both parties desire to amend the Contract.

NOW THEREFORE, in consideration of the mutual covenants and conditions hereinafter set forth, the parties hereto hereby agree as follows:

In this Amendment changes in the language of the Contract which delete language will be shown as stricken and language added to the contract language will be underlined.

Revision 1. The Completion Date described in Section II G. 18 of the Contract is hereby amended as follows:

The construction administration and inspection phase shall be completed by ~~October 31, 2020~~ December 31, 2020.

Revision 2. The Total Not to Exceed described in Section V.C. of the Contract is hereby amended as follows:

All payments under this Contract, including work identified in Exhibit B and previously performed under Master Services Agreement L30086, are not to exceed ~~seventy nine thousand, seven hundred seventy four and 00/100 dollars (\$79,774.00)~~ eighty-seven thousand, seven hundred forty and 00/100 dollars (\$87,740.00).

Revision 3. Wherever in the agreement reference is made to Exhibit B, it shall also mean reference to Exhibit C, Engineer's Project Amendment Request 2, Woodland Avenue and Kent Road Traffic Signal Design, dated October 29, 2020, which is attached and hereby incorporated into the agreement.

In all other respects the contract, together with all of its terms, covenants and conditions, is hereby confirmed in its entirety.

[Remainder of page intentionally left blank. Signature page to follow.]

IN WITNESS WHEREOF, the parties have hereunto set their hands as of the date of attestation shown below:

CITY OF DULUTH

SRF CONSULTING GROUP, INC.

By:

By:

Mayor

Company Representative

Attest:

Its:

City Clerk

Title of Representative

Date Attested: _____

Date: _____

Countersigned:

City Auditor

Approved as to form:

City Attorney



SRF 12369.00

October 29, 2020

Ms. Taryn J. Erickson
Project Engineer
City of Duluth
411 West First Street, Room 211
Duluth, MN 55802

Subject: Project Amendment Request 2, Woodland Avenue and Kent Road Traffic Signal Design

Dear Ms. Erickson:

With this letter, we respectfully request a supplement to our current agreement for the design of and construction services for a new traffic signal system and ADA improvements at the intersection of Woodland Avenue and Kent Road in Duluth. This amendment extends the contract end date and accounts for additional work required. Attached is an updated Work Tasks and Person-Hours Estimate with the proposed amendment work appearing in red text.

Additional Services

Due to the actual construction sequence with more concrete pours than expected, five additional inspection trips were required compared to the total number of engineering/inspection trips that was originally anticipated. These extra trips also required additional coordination and documentation.

Schedule

We will complete this work within a mutually agreed-upon time schedule, which will be linked to the project construction schedule. We anticipate that most of our remaining tasks will be completed by November 30, 2020, and we request that the contract be extended to December 31, 2020.

Additional Costs

Based on our understanding of the project and our scope of services, we estimate the cost of our services associated with this amendment to be \$7,966, which includes both time and expenses. The previous contract amount was \$79,774 (original contract amount of \$40,918 and first amendment amount of \$38,856); this amendment adjusts the total contract amount to \$87,740. It is understood that in-construction services costs are highly dependent on factors beyond our control, such as construction contractor quality, construction contractor efficiency, and weather and as such, this is only an estimate.

www.srfconsulting.com

3701 Wayzata Boulevard, Suite 100 | Minneapolis, MN 55416-3791 | 763.475.0010

Equal Employment Opportunity / Affirmative Action Employer

Standard Terms and Conditions

The Original Agreement and any previous amendments are incorporated into this Amendment by reference. Except as amended herein, the Terms and Conditions of the Original Agreement and any previous amendments remain in full force and effect.

Acceptance/Notice to Proceed

A signed copy of this proposal, mailed or emailed to our office, will serve as acceptance of this proposal and our notice to proceed. The email address is ljames@srfconsulting.com.

We sincerely appreciate your consideration of this project amendment request and look forward to continuing to work with you on this project. Please feel free to contact us if you have any questions or need additional information.

Sincerely,

SRF CONSULTING GROUP, INC.



Luke S. James, PE (MN), PTOE
Project Manager



George M. Stuempfig, PE (MN IL WI), PTOE
Principal

LSJ/GMS

Attachment A-2 – Work Tasks and Person-Hours Estimate including amendment 2 tasks
Attachment B-2 – Amendment 1, which also includes the original proposal for design services

Approved: (City of Duluth)

(signature)

Name _____

Title _____

Date _____

This cost proposal is valid for a period of 90 days. SRF reserves the right to adjust its cost estimate after 90 days from the date of this proposal.

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12369.00

Attachment A-2 - Work Tasks and Person-Hours Estimate

SRF Consulting Group, Inc.

Client: City of Duluth

Project: Woodland Ave @ Kent Rd Traffic Signal Design

| TASK NO. | SUMMARY OF TASKS |
|----------|----------------------------|
| 1.0 | Project Management, QA/QC |
| 2.0 | Data Collection |
| 3.0 | Signal Justification |
| 4.0 | ADA Pedestrian Ramp Design |
| 5.0 | Traffic Signal Design |
| 6.0 | Construction Services |

Project Overview:
 This project involves providing signal justification to satisfy the MnDOT Office of State Aid, and designing a new traffic control signal system incorporating interconnect, intersection lighting and associated ADA-compliant pedestrian ramp improvements.
 The subject intersection is at Woodland Avenue and Kent Road. The signal will incorporate components at the Woodland Avenue/College Street intersection.



Attachment A-2 - Work Tasks and Person-Hours Estimate

SRF Consulting Group, Inc.
 Client: City of Duluth
 Project: Woodland Ave @ Kent Rd Traffic Signal Design

125869.00

| TASK NO. | TASK DESCRIPTION | PRINCIPAL | SR. ASSOC. | ASSOCIATE | SR. PROF. | PROF. | TECHNICAL | INTERN | TOTALS | EST. FEE |
|----------|---|-----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|----------------|
| 1.0 | Project Management, QA/QC Assumptions: • One trip to Duluth for a combined project kickoff meeting and field review. This will be a one-day trip without overnight lodging. • Design (and project management) will occur over a period of three months from NTP. | | | | | | | | | |
| 1.1 | Client Deliverables: • Attendance at project kickoff meeting. Day-to-day project management, internal/external coordination, monthly invoices | 8 | 0 | 6 | 8 | 0 | 0 | 0 | 22 | \$3,398 |
| 1.2 | Project kickoff meeting. Contact Gopher State One Call to obtain design locates of utilities within the project area. Create Utility Log to track correspondence and utility representative contact information. QA/QC review of work products. | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 4 | \$448 |
| 1.3 | | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 4 | \$448 |
| 1.4 | SRF Deliverables: • Monthly invoices. • Project kickoff meeting agenda and minutes. | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | \$1,470 |
| | SUBTOTAL - TASK 1 | 15 | 0 | 6 | 16 | 0 | 0 | 0 | 37 | \$5,764 |
| 2.0 | Data Collection Assumptions: • Topo survey will be conducted by a two person crew to account for potential adverse weather conditions (snow and ice). The topo survey will be scheduled to allow the survey crew to pick up the video camera upon completion of the video data collection. | | | | | | | | | |
| 2.1 | Client Deliverables: Topographic survey covering Woodland Avenue from Kent Road to College Street, inclusive. Gather video of intersection operations for use in performing turning movement counts. Perform 13 hours of turning movement counts from existing video. | 0 | 2 | 0 | 0 | 12 | 12 | 0 | 26 | \$3,000 |
| 2.2 | | 0 | 0 | 0 | 0 | 8 | 1 | 0 | 9 | \$904 |
| 2.3 | SRF Deliverables: • Topo survey data. • Video files. • Turning movement count data. | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 12 | \$720 |
| | SUBTOTAL - TASK 2 | 0 | 2 | 0 | 0 | 20 | 13 | 12 | 47 | \$4,624 |

SRF CONSULTING GROUP, INC.

ENGINEERS AND PLANNERS

WoodlandKentCA_AttachmentA-2.xlsx
 MINNEAPOLIS, MN

SRF Consulting Group, Inc. Attachment A-2 - Work Tasks and Person-Hours Estimate
 Client: City of Duluth
 Project: Woodland Ave @ Kent Rd Traffic Signal Design



1,2369.00

| TASK NO. | TASK DESCRIPTION | PRINCIPAL | SR. ASSOC. | ASSOCIATE | SR. PROF. | PROF. | TECHNICAL | INTERN | TOTALS | EST. FEE |
|--------------------------|--|-----------|------------|-----------|-----------|-------|-----------|--------|--------|----------------|
| 3.0 | Signal Justification Assumptions: • Only one round of agency review and comment on draft report. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | \$1,902 |
| 3.1 | Client Deliverables: • Review comments on draft SJR. | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | \$196 |
| 3.2 | Perform signal warrants analysis. Prepare draft signal justification report (SJR). Submit to MnDOT State Aid and City of Duluth for review. | 0 | 0 | 0 | 2 | 11 | 5 | 0 | 18 | \$1,902 |
| 3.3 | Address review comments. Prepare final SJR and route for signatures. SRF Deliverables: • Draft and final SJR. | 0 | 0 | 0 | 2 | 3 | 0 | 0 | 5 | \$518 |
| SUBTOTAL - TASK 3 | | | | | | | | | | \$2,616 |

SRF Consulting Group, Inc.
 Client: City of Duluth
 Project: Woodland Ave @ Kent Rd Traffic Signal Design

Attachment A-2 - Work Tasks and Person-Hours Estimate



12369.00

| TASK NO. | TASK DESCRIPTION | PRINCIPAL | SR. ASSOC. | ASSOCIATE | SR. PROE | PROE. | TECHNICAL | INTERN | TOTALS | EST. FEE |
|----------|---|-----------|------------|-----------|----------|-------|-----------|--------|--------|----------|
| 4.0 | ADA Pedestrian Ramp Design Assumptions: <ul style="list-style-type: none"> Basemaps and plans will be created and delivered in AutoCAD 2018 format. All work will fit within existing right-of-way. Acquisition of additional right-of-way will not be necessary. No storm sewer, watermain or other public utility work is required. City will perform all activities related to bidding and letting the project. As-built drawings not included. Client Deliverables: <ul style="list-style-type: none"> City of Duluth GIS data (existing ROW and utilities). City of Duluth AutoCAD template and associated supporting files. City AutoCAD layering files and definitions for design. Comments at 60% and 95% design reviews. | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 4 | \$436 |
| 4.1 | Prepare existing conditions basemap (AutoCAD digital drawing) of sufficient dimensions on all four legs of the intersection. Create existing ground surface. Show all key features, including edge of pavement, lane lines, median locations, drainage features and major above-ground features. | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | \$218 |
| 4.2 | Prepare Existing Utilities basemap (AutoCAD digital drawing) showing above- and below-ground utilities within the project area. Supplement survey with existing utility linework from City GIS information. | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | \$218 |
| 4.3 | Prepare existing right-of-way basemap (AutoCAD digital drawing) from City GIS information. | 0 | 0 | 0 | 0 | 14 | 0 | 0 | 26 | \$2,880 |
| 4.4 | Prepare 60% pedestrian ramp design including crosswalk layouts and stop bar locations. Submit 60% plans for review. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | \$548 |
| 4.5 | Prepare and submit 60% Division S special provisions. | 0 | 0 | 0 | 0 | 12 | 0 | 0 | 20 | \$2,170 |
| 4.6 | Develop 95% plan set based on 60% review comments. Submit for State Aid and City review. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | \$274 |
| 4.7 | Develop 95% Division S special provisions based on 60% review comments. | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 6 | \$666 |
| 4.8 | Prepare Engineer's Estimate. | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 10 | \$1,180 |
| 4.9 | Prepare and submit final PS&E package based on 95% review comments. Assemble final AutoCAD design files and associated supporting files. | 0 | 0 | 0 | 0 | 4 | 2 | 0 | 10 | \$1,180 |



12369.00

Attachment A-2 - Work Tasks and Person-Hours Estimate

SRF Consulting Group, Inc.
 Client: City of Duluth
 Project: Woodland Ave @ Kent Rd Traffic Signal Design

| TASK NO. | TASK DESCRIPTION | PRINCIPAL | SR. ASSOC. | ASSOCIATE | SR. PROF. | PROF. | TECHNICAL | INTERN | TOTALS | EST. FEE |
|------------|---|-----------|------------|-----------|-----------|-------|-----------|--------|--------|----------|
| | SRE Deliverables: | | | | | | | | | |
| | <ul style="list-style-type: none"> 60% draft plans (pdf, including title sheet, Standard Layouts and Plans (MnDOT ADA Level 2), Existing Conditions and Utilities, Removal Plans, Construction Plans and Signing/Pavement Marking Plans), 95% plans, pdf, including sheets from 60% submittal plus SEQ, Tabulations, Alignment Tabulations, Pedestrian Ramp and Intersection Details, and Signing/Pavement Markings Details and Tabulations. 60% (pdf) and 95% (pdf and Word) Specifications. 95% Engineer's Estimate (pdf, Excel). Final Plans (one paper copy, pdf), Specifications (one paper copy, pdf, Word) and Estimate (pdf, Excel) Final AutoCAD design files and associated supporting files. | 0 | 0 | 18 | 0 | 38 | 20 | 0 | 76 | \$8,590 |
| | SUBTOTAL - TASK 4 | 0 | 0 | 18 | 0 | 38 | 20 | 0 | 76 | \$8,590 |
| 5.0 | Traffic Signal Design | | | | | | | | | |
| | Assumptions: | | | | | | | | | |
| | <ul style="list-style-type: none"> Assumes a construction temporary signal will be necessary because of tight right-of-way at intersection. In the course of the design we will determine whether a temporary signal can be avoided. Assumes that existing fiber interconnect to 21st Avenue will be reused by rerouting in new conduit system at the intersection. Assumes that new fiber interconnect will be installed from Kent Road to Clover Street along Woodland Avenue. Electronic and paper files/information (AutoCAD, pdf, etc.) of available signal data, including signal plans at Woodland Ave/Kent Rd and Woodland Ave/Clover St. Assumes no temporary interconnect for construction temporary signal. | | | | | | | | | |
| | Client Deliverables: | | | | | | | | | |
| | <ul style="list-style-type: none"> Review comments on draft 60% and 95% plans and special provisions. | | | | | | | | | |
| 5.1 | Construction temporary signal design, plans. | 0 | 0 | 0 | 7 | 46 | 0 | 0 | 53 | \$5,292 |
| 5.2 | Permanent signal and interconnect design, plans. | 0 | 0 | 0 | 13 | 103 | 0 | 0 | 116 | \$11,550 |
| 5.3 | Division SS special provisions. | 0 | 0 | 0 | 4 | 10 | 0 | 0 | 14 | \$1,428 |
| 5.4 | Engineer's estimate for signal and interconnect work. | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 4 | \$392 |
| | SRE Deliverables: | | | | | | | | | |
| | <ul style="list-style-type: none"> 60% and 95% draft signal plans. 95% draft Division SS signal special provisions. Final signal plans, special provisions and estimate (PS&E). | 0 | 0 | 0 | 24 | 163 | 0 | 0 | 187 | \$18,662 |
| | SUBTOTAL - TASK 5 | 0 | 0 | 0 | 24 | 163 | 0 | 0 | 187 | \$18,662 |



12369.00

Attachment A-2 - Work Tasks and Person-Hours Estimate

SRF Consulting Group, Inc.
 Client: City of Duluth
 Project: Woodland Ave @ Kent Rd Traffic Signal Design

| TASK NO. | TASK DESCRIPTION | PRINCIPAL | SR. ASSOC. | ASSOCIATE | SR. PROF. | PROF. | TECHNICAL | INTERN | TOTALS | EST. FEE |
|----------|---|-----------|------------|-----------|-----------|-------|-----------|--------|--------|----------|
| 6.0 | Construction Services Assumptions: • Construction schedule assumed to be 12 weeks of primary construction, 4 weeks for punchlist and final completion. • Project administration/documentation consistent with State Aid requirements. • Assumes ten trips to Duluth by SRF engineering/inspection staff, including one pre-construction conference, one utility coordination meeting, six site inspection visits including during concrete pours, one trip to create punchlist, and one final inspection. • Assumes two trips by a two-person survey crew for construction staking; one for removals and one for new construction. | 12 | 0 | 0 | 0 | 12 | 0 | 0 | 24 | \$3,864 |
| 6.1 | Client Deliverables: • Provide a minimum of 48 hours notice prior to need for construction staking. • Project control for construction staking. Construction project management (2 hrs/wk over 12 weeks). Assign and manage staff, monthly progress reports, quality control reviews of deliverables. | 0 | 0 | 4 | 14 | 0 | 0 | 0 | 18 | \$2,116 |
| 6.2 | Construction engineering support. Shop drawing review, plan clarifications, plan revisions. | 0 | 0 | 0 | 32 | 0 | 0 | 0 | 32 | \$3,584 |
| 6.3 | Contract administration, project engineer. Pre-construction conference, utility coordination meeting, progress meetings (every other week), submittal tracking and review, contract change documents, pay requests, labor compliance review, final documentation package. | 0 | 0 | 0 | 42 | 0 | 70 | 0 | 112 | \$13,104 |
| 6.4 | Construction observation. Assume 6 trips to observe construction (every other week on average during primary construction activities), one punchlist trip, and one final inspection. Construction observation diaries; photo documentation, measure quantities for payment, schedule material testing, schedule staking, labor interviews, prepare punchlist, schedule final inspection with State Aid. | 0 | 4 | 0 | 0 | 0 | 64 | 0 | 68 | \$8,448 |
| 6.5 | Construction staking. Staking for removals/limits, signal bases, pedestrian push button stations, curb, sidewalk and pedestrian ramps. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | \$0 |
| 6.6 | Material testing. Task completed by AET; see attached AET scope; cost indicated on Subconsultant line below. | 2 | 0 | 2 | 8 | 0 | 0 | 0 | 12 | \$1,590 |
| 6.7 | As-built plans. Gather information on as-built conditions from contractor, prepare record drawings. | 2 | 0 | 0 | 5 | 0 | 50 | 0 | 57 | \$6,980 |
| 6.8 | Construction observation. 5 additional trips to observe construction. Construction observation diaries, photo documentation, measure quantities for payment, schedule material testing. | | | | | | | | | |



Attachment A-2 - Work Tasks and Person-Hours Estimate

SRF Consulting Group, Inc.
 Client: City of Duluth
 Project: Woodland Ave @ Kent Rd Traffic Signal Design

12369.00

| TASK NO. | TASK DESCRIPTION | PRINCIPAL | SR_ASSOC. | ASSOCIATE | SR_PROF | PROF. | TECHNICAL | INTERN | TOTALS | EST. FEE |
|----------|---|-----------|-----------|-----------|----------|----------|-----------|--------|--------|-----------------|
| | SRF Deliverables: | | | | | | | | | |
| | • Construction observation diaries and photo records. | | | | | | | | | |
| | • Shop drawing review documentation. | | | | | | | | | |
| | • Material testing reports (from AET). | | | | | | | | | |
| | • Punchlist documentation. | | | | | | | | | |
| | • Final record drawings. | | | | | | | | | |
| | • Final documentation package. | | | | | | | | | |
| | SUBTOTAL - TASK 6 | 16 | 4 | 6 | 113 | 0 | 184 | 0 | 323 | \$39,686 |
| | TOTAL ESTIMATED PERSON-HOURS | 31 | 6 | 30 | 157 | 237 | 222 | 12 | 695 | |
| | AVERAGE HOURLY BILLING RATES | \$210 | \$192 | \$137 | \$112 | \$98 | \$120 | \$60 | | |
| | ESTIMATED LABOR AND OVERHEAD | \$6,510 | \$1,152 | \$4,110 | \$17,584 | \$23,226 | \$26,640 | \$720 | | \$79,942 |
| | ESTIMATED DIRECT NON-SALARY EXPENSES | | | | | | | | | \$7,798 |
| | TOTAL ESTIMATED FEE | | | | | | | | | \$87,740 |

ESTIMATE OF DIRECT NON-SALARY EXPENSES:

| | | | | | | | | | | |
|---|---------------------|------|--|--|-----------|----------|--|--|--|----------------|
| MILEAGE: | | | | | | | | | | |
| HOTEL: | Personal Vehicles | 6860 | | | Miles @ | \$0.580 | | | | \$3,979 |
| MEALS: | Hotel | 2 | | | Nights @ | \$100.00 | | | | \$200 |
| REPRODUCTION: | Meals | 30 | | | Meals @ | \$15.00 | | | | \$450 |
| | Copy Duplication | 0 | | | Copies @ | \$0.10 | | | | \$0 |
| | Color Copies | 0 | | | Copies @ | \$0.35 | | | | \$0 |
| | Bond Prints | 0 | | | Prints @ | \$6.00 | | | | \$0 |
| | Mylar Prints | 0 | | | Prints @ | \$12.00 | | | | \$0 |
| COURTHOUSE COPIES: | | | | | Copies @ | \$1.00 | | | | \$0 |
| PRINTING: | | | | | | | | | | \$0 |
| SUPPLIES: | Mail, Express, Etc. | 0 | | | Minutes @ | \$0.30 | | | | \$0 |
| COMMUNICATIONS: | Cell Phone Charges | | | | | | | | | \$0 |
| SUBCONSULTANTS: AET (materials testing) | | | | | | | | | | \$0 |
| ESTIMATED DIRECT NON-SALARY EXPENSES | | | | | | | | | | \$3,169 |
| | | | | | | | | | | \$7,798 |

SRF CONSULTING GROUP, INC.

ENGINEERS AND PLANNERS

WoodlandKentCA_AttachmentA-2.docx
 MINNEAPOLIS, MN



February 3, 2020

Ms. Taryn J. Erickson
Project Engineer
City of Duluth
411 West First Street, Room 211
Duluth, MN 55802-1101

Subject: Project Amendment Request, Woodland Avenue and Kent Road Traffic Signal Design

Dear Ms. Erickson:

With this letter, we respectfully request a supplement to our current agreement for the design of a new traffic signal system and ADA improvements at the intersection of Woodland Avenue and Kent Road in Duluth. This amendment adds construction services to the scope of services. Attached is an updated Work Tasks and Person-Hours Estimate with the proposed amendment work appearing in red text.

Scope of Services

We propose to carry out the work ("Work Tasks and Person-Hours Estimate"), set forth in Attachment A, attached hereto and incorporated into this Agreement.

Assumptions

Specific assumptions for the construction services are included in the Work Tasks and Person-Hours Estimate, Attachment A, attached hereto and incorporated into this Agreement.

Schedule

We will complete this work within a mutually agreed-upon time schedule, which will be linked to the project construction schedule.

Basis of Payment/Budget

We propose to be reimbursed for our services on an hourly basis for the actual time expended. Other direct project expenses such as printing, supplies, reproduction, etc., will be billed at cost and mileage will be billed at the current allowable IRS rate for business miles. Invoices are submitted monthly for work performed during the previous month. Payment is due within 30 days.

Based on our understanding of the project and our scope of services, we estimate the cost of our services associated with this amendment to be \$38,856 which includes both time and expenses. The original contract amount was \$40,918; this amendment adjusts the total contract amount to \$79,774. It is understood that in-construction services costs are highly dependent on factors beyond our control, such as construction contractor quality, construction contractor efficiency, and weather and as such, this is only an estimate.

www.srfconsulting.com

1 Carlson Parkway North, Suite 150 | Minneapolis, MN 55447-4453 | 763.475.0010 Fax: 1.866.440.6364

An Equal Opportunity Employer

Changes in the Scope of Services

It is understood that if the scope or extent of work changes, the cost will be adjusted accordingly. Before any out-of-scope work is initiated, however, we will submit a budget request for the new work and will not begin work until we receive authorization from you.

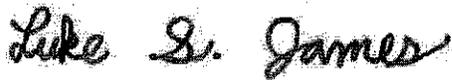
Acceptance/Notice to Proceed

A signed copy of this proposal, mailed or emailed to George Stuempfig in our office, will serve as acceptance of this proposal and our notice to proceed. The email address is gstuempfig@srfconsulting.com.

We sincerely appreciate your consideration of this project amendment request and look forward to continuing to work with you on this project. Please feel free to contact us if you have any questions or need additional information.

Sincerely,

SRF CONSULTING GROUP, INC.



Luke James, PE (MN)
Project Manager



George M. Stuempfig, PE, PTOE (MN IL WI)
Principal

LJ/GMS/ko

Attachment A – Work Tasks and Person-Hours Estimate including amendment tasks

Attachment B – Original Proposal for Design Services

Attachment C – AET Proposal

Approved: (City of Duluth)

(signature)

Name _____

Title _____

Date _____

This cost proposal is valid for a period of 90 days. SRF reserves the right to adjust its cost estimate after 90 days from the date of this proposal.

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Attachment A - Work Tasks and Person-Hours Estimate

SRF Consulting Group, Inc.
 Client: City of Duluth
 Project: Woodland Ave @ Kent Rd Traffic Signal Design



123369 rev2.rpt

Subconsultants:

| TASK NO. | SUMMARY OF TASKS |
|----------|----------------------------|
| 1.0 | Project Management, QA/QC |
| 2.0 | Data Collection |
| 3.0 | Signal Justification |
| 4.0 | ADA Pedestrian Ramp Design |
| 5.0 | Traffic Signal Design |
| 6.0 | Construction Services |

Project Overview:

This project involves providing signal justification to satisfy the MnDOT Office of State Aid, and designing a new traffic control signal system incorporating interconnect, intersection lighting and associated ADA-compliant pedestrian ramp improvements.

The subject intersection is at Woodland Avenue and Kent Road. The signal will incorporate components at the Woodland Avenue/College Street Intersection.

Attachment A - Work Tasks and Person-Hours Estimate

SRF Consulting Group, Inc.
 Client: City of Duluth
 Project: Woodland Ave @ Kent Rd Traffic Signal Design


 123691612.PPT

| TASK NO. | TASK DESCRIPTION | PRINCIPAL | SR. ASSOC. | ASSOCIATE | SR. PROF. | PROF. | TECHNICAL | INTERN | TOTALS | EST. FEE |
|----------|---|-----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|----------------|
| 1.0 | Project Management, QA/QC | | | | | | | | | |
| | Assumptions: | | | | | | | | | |
| | • One trip to Duluth for a combined project kickoff meeting and field review. This will be a one-day trip without overnight lodging. | | | | | | | | | |
| | • Design (and project management) will occur over a period of three months from NTP. | | | | | | | | | |
| | Client Deliverables: | | | | | | | | | |
| | • Attendance at project kickoff meeting. | | | | | | | | | |
| 1.1 | Day-to-day project management, internal/external coordination, monthly invoices | 8 | 0 | 6 | 8 | 0 | 0 | 0 | 22 | \$3,398 |
| 1.2 | Project kickoff meeting | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 4 | \$448 |
| 1.3 | Contact Gopher State One Call to obtain design locates of utilities within the project area. Create Utility Log to track correspondence and utility representative contact information. | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 4 | \$448 |
| 1.4 | QA/QC review of work products. | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | \$1,470 |
| | SRF Deliverables: | | | | | | | | | |
| | • Monthly invoices. | | | | | | | | | |
| | • Project kickoff meeting agenda and minutes. | | | | | | | | | |
| | SUBTOTAL - TASK 1 | 15 | 0 | 6 | 16 | 0 | 0 | 0 | 37 | \$5,764 |
| 2.0 | Data Collection | | | | | | | | | |
| | Assumptions: | | | | | | | | | |
| | • Topo survey will be conducted by a two person crew to account for potential adverse weather conditions (snow and ice). The topo survey will be scheduled to allow the survey crew to pick up the video camera upon completion of the video data collection. | | | | | | | | | |
| | Client Deliverables: | | | | | | | | | |
| 2.1 | Topographic survey covering Woodland Avenue from Kent Road to College Street, inclusive. | 0 | 2 | 0 | 0 | 12 | 12 | 0 | 26 | \$3,000 |
| 2.2 | Gather video of intersection operations for use in performing turning movement counts. | 0 | 0 | 0 | 0 | 8 | 1 | 0 | 9 | \$904 |
| 2.3 | Perform 13 hours of turning movement counts from existing video. | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 12 | \$720 |
| | SRF Deliverables: | | | | | | | | | |
| | • Topo survey data. | | | | | | | | | |
| | • Video files. | | | | | | | | | |
| | • Turning movement count data. | | | | | | | | | |
| | SUBTOTAL - TASK 2 | 0 | 2 | 0 | 0 | 20 | 13 | 12 | 47 | \$4,624 |

Attachment A - Work Tasks and Person-Hours Estimate



SRF Consulting Group, Inc.
 Client: City of Duluth
 Project: Woodland Ave @ Kent Rd Traffic Signal Design

| TASK NO. | TASK DESCRIPTION | PRINCIPAL | SR_ASSOC. | ASSOCIATE | SR_PROF | PROF. | TECHNICAL | INTERN | TOTALS | EST. FEE |
|--------------------------|--|-----------|-----------|-----------|---------|-------|-----------|--------|--------|----------------|
| 3.0 | Signal Justification Assumptions: • Only one round of agency review and comment on draft report. | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | \$196 |
| 3.1 | Client Deliverables: • Review comments on draft SJR. | 0 | 0 | 0 | 2 | 11 | 5 | 0 | 18 | \$1,902 |
| 3.2 | Perform signal warrants analysis. Prepare draft signal justification report (SJR). Submit to MnDOT State Aid and City of Duluth for review. | 0 | 0 | 0 | 2 | 3 | 0 | 0 | 5 | \$518 |
| 3.3 | Address review comments. Prepare final SJR and route for signatures. SRF Deliverables: • Draft and final SJR. | 0 | 0 | 0 | 2 | 3 | 0 | 0 | 5 | \$518 |
| SUBTOTAL - TASK 3 | | | | | | | | | | \$2,616 |

SRF Consulting Group, Inc.
 Client: City of Duluth
 Project: Woodland Ave @ Kent Rd Traffic Signal Design



12369rev2.rpt

Attachment A - Work Tasks and Person-Hours Estimate

| TASK NO. | TASK DESCRIPTION | PRINCIPAL | SR. ASSOC. | ASSOCIATE | SR. PROF. | PROF. | TECHNICAL | INTERN | TOTALS | EST. FEE |
|----------|---|-----------|------------|-----------|-----------|-------|-----------|--------|--------|----------|
| 4.0 | ADA Pedestrian Ramp Design Assumptions: | | | | | | | | | |
| | <ul style="list-style-type: none"> Basemaps and plans will be created and delivered in AutoCAD 2018 format. All work will fit within existing right-of-way. Acquisition of additional right-of-way will not be necessary. No storm sewer, watermain or other public utility work is required. City will perform all activities related to bidding and letting the project. As-built drawings not included. | | | | | | | | | |
| | Client Deliverables: | | | | | | | | | |
| | <ul style="list-style-type: none"> City of Duluth GIS data (existing ROW and utilities). City of Duluth AutoCAD template and associated supporting files. City AutoCAD layering files and definitions for design. Comments at 60% and 95% design reviews. | | | | | | | | | |
| 4.1 | Prepare existing conditions basemap (AutoCAD digital drawing) of sufficient dimensions on all four legs of the intersection. Create existing ground surface. Show all key features, including edge of pavement, lane lines, median locations, drainage features and major above-ground features. | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 4 | \$436 |
| 4.2 | Prepare Existing Utilities basemap (AutoCAD digital drawing) showing above- and below-ground utilities within the project area. Supplement survey with existing utility linework from City GIS information. | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 2 | \$218 |
| 4.3 | Prepare existing right-of-way basemap (AutoCAD digital drawing) from City GIS information. | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 2 | \$218 |
| 4.4 | Prepare 60% pedestrian ramp design including crosswalk layouts and stop bar locations. Submit 60% plans for review. | 0 | 0 | 4 | 0 | 14 | 8 | 0 | 26 | \$2,890 |
| 4.5 | Prepare and submit 60% Division S special provisions. | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 4 | \$548 |
| 4.6 | Develop 95% plan set based on 60% review comments. Submit for State Aid and City review. | 0 | 0 | 2 | 0 | 12 | 6 | 0 | 20 | \$2,170 |
| 4.7 | Develop 95% Division S special provisions based on 60% review comments. | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 | \$274 |
| 4.8 | Prepare Engineer's Estimate. | 0 | 0 | 2 | 0 | 4 | 0 | 0 | 6 | \$666 |
| 4.9 | Prepare and submit final PS&E package based on 95% review comments. Assemble final AutoCAD design files and associated supporting files. | 0 | 0 | 4 | 0 | 4 | 2 | 0 | 10 | \$1,180 |

Attachment A - Work Tasks and Person-Hours Estimate

SRF Consulting Group, Inc.
 Client: City of Duluth
 Project: Woodland Ave @ Kent Rd Traffic Signal Design



123899rev2.ppt

| TASK NO. | TASK DESCRIPTION | PRINCIPAL | SR_ASSOC. | ASSOCIATE | SR_PROF | PROF. | TECHNICAL | INTERN | TOTALS | EST. FEE |
|------------|---|-----------|-----------|-----------|---------|-------|-----------|--------|--------|----------|
| | SRF Deliverables: | | | | | | | | | |
| | <ul style="list-style-type: none"> 60% draft plans (pdf, including title sheet, Standard Layouts and Plans (MNDOT ADA Level 2), Existing Conditions and Utilities, Removal Plans, Construction Plans and Signing/Pavement Marking Plans). 95% plans, pdf, including sheets from 60% submittal plus SEQ, Tabulations, Alignment Tabulations, Pedestrian Ramp and Intersection Details, and Signing/Pavement Markings Details and Tabulations. 60% (pdf) and 95% (pdf and Word) Specifications. 95% Engineer's Estimate (pdf, Excel). Final Plans (one paper copy, pdf), Specifications (one paper copy, pdf, Word) and Estimate (pdf, Excel) Final AutoCAD design files and associated supporting files. | 0 | 0 | 18 | 0 | 38 | 20 | 0 | 76 | \$8,590 |
| | SUBTOTAL - TASK 4 | | | | | | | | | |
| 5.0 | Traffic Signal Design | | | | | | | | | |
| | Assumptions: | | | | | | | | | |
| | <ul style="list-style-type: none"> Assumes a construction temporary signal will be necessary because of tight right-of-way at intersection. In the course of the design we will determine whether a temporary signal can be avoided. Assumes that existing fiber interconnect to 21st Avenue will be reused by rerouting in new conduit system at the intersection. Assumes that new fiber interconnect will be installed from Kent Road to Clover Street along Woodland Avenue. Electronic and paper files/information (AutoCAD, pdf, etc.) of available signal data, including signal plans at Woodland Ave/Kent Rd and Woodland Ave/Clover St. Assumes no temporary interconnect for construction temporary signal. | | | | | | | | | |
| | Client Deliverables: | | | | | | | | | |
| | <ul style="list-style-type: none"> Review comments on draft 60% and 95% plans and special provisions. | | | | | | | | | |
| 5.1 | Construction temporary signal design, plans. | 0 | 0 | 0 | 7 | 46 | 0 | 0 | 53 | \$5,292 |
| 5.2 | Permanent signal and interconnect design, plans. | 0 | 0 | 0 | 13 | 103 | 0 | 0 | 116 | \$11,550 |
| 5.3 | Division SS special provisions. | 0 | 0 | 0 | 4 | 10 | 0 | 0 | 14 | \$1,428 |
| 5.4 | Engineer's estimate for signal and interconnect work. | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 4 | \$392 |
| | SRF Deliverables: | | | | | | | | | |
| | <ul style="list-style-type: none"> 60% and 95% draft signal plans. 95% draft Division SS signal special provisions. Final signal plans, special provisions and estimate (PS&E). | | | | | | | | | |
| | SUBTOTAL - TASK 5 | | | | | | | | | |
| | | 0 | 0 | 0 | 24 | 163 | 0 | 0 | 187 | \$18,662 |

Attachment A - Work Tasks and Person-Hours Estimate

SRF Consulting Group, Inc.
 Client: City of Duluth
 Project: Woodland Ave @ Kent Rd Traffic Signal Design



12389.rpt/2.PP

| TASK NO. | TASK DESCRIPTION | PRINCIPAL | SR_ASSOC. | ASSOCIATE | SR_PROF. | PROF. | TECHNICAL | INTERN | TOTALS | EST_FEE | |
|-----------------------------|--|-----------|-----------|-----------|----------|-------|-----------|--------|--------|----------|---------|
| 6.0 | Construction Services Assumptions: • Construction schedule assumed to be 12 weeks of primary construction, 4 weeks for punchlist and final completion. • Project administration/documentation consistent with State Aid requirements. • Assumes ten trips to Duluth by SRF engineering/inspection staff, including one pre-construction conference, one utility coordination meeting, six site inspection visits including during concrete pours, one trip to create punchlist, and one final inspection. • Assumes two trips by a two-person survey crew for construction staking; one for removals and one for new construction. | | | | | | | | | | |
| Client Deliverables: | | | | | | | | | | | |
| 6.1 | • Provide a minimum of 48 hours notice prior to need for construction staking. • Project control for construction staking. | 12 | 0 | 0 | 0 | 12 | 0 | 0 | 0 | 24 | \$3,864 |
| 6.2 | Construction engineering support. Shop drawing review, plan clarifications, plan revisions. | 0 | 0 | 4 | 14 | 0 | 0 | 0 | 0 | 18 | \$2,116 |
| 6.3 | Contract administration, project engineer. Pre-construction conference, utility coordination meeting, progress meetings (every other week), submittal tracking and review, contract change documents, pay requests, labor compliance review, final documentation package. | 0 | 0 | 0 | 32 | 0 | 0 | 0 | 0 | 32 | \$3,584 |
| 6.4 | Construction observation. Assume 6 trips to observe construction (every other week on average during primary construction activities), one punchlist trip, and one final inspection. Construction observation diaries, photo documentation, measure quantities for payment, schedule material testing, schedule staking, labor interviews, prepare punchlist, schedule final inspection with State Aid. | 0 | 0 | 0 | 42 | 0 | 70 | 0 | 112 | \$13,104 | |
| 6.5 | Construction staking. Staking for removals/limits, signal bases, pedestrian push button stations, curb, sidewalk and pedestrian ramps. | 0 | 4 | 0 | 0 | 0 | 64 | 0 | 68 | \$8,448 | |
| 6.6 | Material testing. Task completed by AET; see attached AET scope, cost indicated on Subconsultant line below. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | \$0 | |
| 6.4 | As-built plans. Gather information on as-built conditions from contractor, prepare record drawings. | 2 | 0 | 2 | 8 | 0 | 0 | 0 | 12 | \$1,590 | |

- SRE Deliverables:**
- Construction observation diaries and photo records.
 - Shop drawing review documentation.
 - Material testing reports (from AET).
 - Punchlist documentation.
 - Final record drawings.

Attachment A - Work Tasks and Person-Hours Estimate

SRF Consulting Group, Inc.
 Client: City of Duluth
 Project: Woodland Ave @ Kent Rd Traffic Signal Design


 Consulting Group, Inc.
 12569 rev2.RP

| TASK NO. | TASK DESCRIPTION | PRINCIPAL | SR_ASSOC. | ASSOCIATE | SR_PROF | PROF. | TECHNICAL | INTERN | TOTALS | EST. FEE |
|----------|---|-----------|-----------|-----------|----------|----------|-----------|--------|--------|-----------------|
| | • Final documentation package. | | | | | | | | | |
| | SUBTOTAL - TASK 6 | 14 | 4 | 6 | 108 | 0 | 134 | 0 | 266 | \$32,706 |
| | TOTAL ESTIMATED PERSON-HOURS | 29 | 6 | 30 | 152 | 237 | 172 | 12 | 638 | |
| | AVERAGE HOURLY BILLING RATES | \$210 | \$192 | \$137 | \$112 | \$98 | \$120 | \$60 | | |
| | ESTIMATED LABOR AND OVERHEAD | \$6,090 | \$1,152 | \$4,110 | \$17,024 | \$23,226 | \$20,640 | \$720 | | \$72,962 |
| | ESTIMATED DIRECT NON-SALARY EXPENSES | | | | | | | | | \$6,812 |
| | TOTAL ESTIMATED FEE | | | | | | | | | \$79,774 |

ESTIMATE OF DIRECT NON-SALARY EXPENSES:

| | | | | | | | | | | |
|---|---------------------|------|--|--|--|--|--|--|--|----------------|
| MILEAGE: | | | | | | | | | | |
| HOTEL: | Personal Vehicles | 5160 | | | | | | | | \$2,993 |
| MEALS: | Hotel | 2 | | | | | | | | \$200 |
| REPRODUCTION: | Meals | 30 | | | | | | | | \$450 |
| | Copy Duplication | 0 | | | | | | | | \$0 |
| | Color Copies | 0 | | | | | | | | \$0 |
| | Bond Prints | 0 | | | | | | | | \$0 |
| | Mylar Prints | 0 | | | | | | | | \$0 |
| COURTHOUSE COPIES: | | | | | | | | | | \$0 |
| PRINTING: | | | | | | | | | | \$0 |
| SUPPLIES: | | | | | | | | | | \$0 |
| COMMUNICATIONS: | | | | | | | | | | \$0 |
| SUBCONSULTANTS: AET (materials testing) | | | | | | | | | | \$0 |
| ESTIMATED DIRECT NON-SALARY EXPENSES | Mail, Express, Etc. | 0 | | | | | | | | \$0 |
| | Cell Phone Charges | 0 | | | | | | | | \$0 |
| | | | | | | | | | | \$3,169 |
| | | | | | | | | | | \$6,812 |



SRF No. 12369.PP(rev)

January 17, 2019

Ms. Cari Pedersen
Chief Transportation Engineer
City of Duluth
411 West First Street, Room 211
Duluth, MN 55802-1101

Subject: Proposal for Professional Services for Woodland Avenue
and Kent Road Traffic Signal Design
Duluth, MN

Dear Ms. Pedersen:

Based on your request, SRF Consulting Group, Inc. (SRF) is pleased to submit this proposal to provide professional services for traffic signal and ADA pedestrian ramp design at Woodland Avenue and Kent Road.

Scope of Services

We propose to carry out the work ("Scope of Services"), set forth in Attachment A, attached hereto and incorporated into this Agreement.

Schedule

We anticipate completing the design this winter to enable the start of construction in summer 2019.

Basis of Payment/Budget

We propose to be reimbursed for our services on an hourly basis for the actual time expended. Other direct project expenses such as printing, supplies, reproduction, etc., will be billed at cost and mileage will be billed at the current allowable IRS rate for business miles. Invoices are submitted on a monthly basis for work performed during the previous month. Payment is due within 30 days.

Based on our understanding of the project and our scope of services, we estimate the cost of our services to be \$40,918 which includes both time and expenses.

Changes in the Scope of Services

It is understood that if the scope or extent of work changes, the cost will be adjusted accordingly. Before any out-of-scope work is initiated, however, we will submit a budget request for the new work and will not begin work until we receive authorization from you.

www.srfconsulting.com

1 Carlson Parkway North, Suite 150 | Minneapolis, MN 55447-4453 | 763.475.0010 Fax: 1.866.440.6364

An Equal Opportunity Employer

Contract No. L 30333-01

Standard Terms and Conditions

The existing Master Agreement for Professional Services and Work Tasks and Person-Hours Estimate (Attachment A), together with this proposal for professional services, constitute the entire agreement between the Client and SRF Consulting Group, Inc. and supersede all prior written or oral understandings. This agreement may only be amended, supplemented, modified, or canceled by a duly executed written instrument.

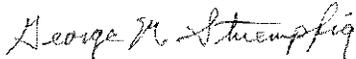
Acceptance/Notice to Proceed

A signed copy of this proposal, mailed or emailed to our office, will serve as acceptance of this proposal and our notice to proceed. The email address is gstuempfig@srfconsulting.com.

We sincerely appreciate your consideration of this proposal and look forward to working with you on this project. Please feel free to contact us if you have any questions or need additional information.

Sincerely,

SRF CONSULTING GROUP, INC.



George M. Stuempfig, PE, PTOE
Principal

GMS/lf

Attachment A—Work Tasks and Person-Hours Estimate

Approved

(signature)
Name _____
Title _____
Date _____

This cost proposal is valid for a period of 90 days. SRF reserves the right to adjust its cost estimate after 90 days from the date of this proposal.

Attachment A - Work Tasks and Person-Hours Estimate

SRF Consulting Group, Inc.
 Client: City of Duluth
 Project: Woodland Ave @ Kent Rd Traffic Signal Design



12369rev.PP

Subconsultants:

| TASK NO. | SUMMARY OF TASKS |
|----------|----------------------------|
| 1.0 | Project Management, QA/QC |
| 2.0 | Data Collection |
| 3.0 | Signal Justification |
| 4.0 | ADA Pedestrian Ramp Design |
| 5.0 | Traffic Signal Design |

Project Overview:

This project involves providing signal justification to satisfy the MnDOT Office of State Aid, and designing a new traffic control signal system incorporating interconnect, intersection lighting and associated ADA-compliant pedestrian ramp improvements.

The subject intersection is at Woodland Avenue and Kent Road. The signal will incorporate components at the Woodland Avenue/College Street Intersection.

The scope includes design of a construction temporary signal system. This task will be eliminated if it is determined that the new signal system can be constructed while the existing signal continues to operate.

The scope does not include shop drawing review or in-construction services. These can be added if desired.

SRF Consulting Group, Inc.

Client: City of Duluth
 Project: Woodland Ave @ Kent Rd Traffic Signal Design

Attachment A - Work Tasks and Person-Hours Estimate



| TASK NO. | TASK DESCRIPTION | PRINCIPAL | SR_ASSOC. | ASSOCIATE | SR_PROE | PROF. | TECHNICAL | INTERN | TOTALS | EST_FEE |
|----------|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|----------------|
| 1.0 | Project Management, QA/QC Assumptions: | | | | | | | | | |
| | • One trip to Duluth for a combined project kickoff meeting and field review. This will be a one-day trip without overnight lodging. | | | | | | | | | |
| | • Design (and project management) will occur over a period of three months from NTP. | | | | | | | | | |
| | Client Deliverables: | | | | | | | | | |
| | • Attendance at project kickoff meeting. | | | | | | | | | |
| 1.1 | Day-to-day project management, internal/external coordination, monthly invoices | 8 | 0 | 6 | 8 | 0 | 0 | 0 | 22 | \$3,398 |
| 1.2 | Project kickoff meeting. | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 4 | \$448 |
| 1.3 | Contact Gopher State One Call to obtain design locates of utilities within the project area. Create Utility Log to track correspondence and utility representative contact information. | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 4 | \$448 |
| 1.4 | QA/QC review of work products. | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | \$1,470 |
| | SRE Deliverables: | | | | | | | | | |
| | • Monthly invoices. | | | | | | | | | |
| | • Project kickoff meeting agenda and minutes. | | | | | | | | | |
| | SUBTOTAL - TASK 1 | 15 | 0 | 6 | 16 | 0 | 0 | 0 | 37 | \$5,764 |
| 2.0 | Data Collection Assumptions: | | | | | | | | | |
| | • Topo survey will be conducted by a two person crew to account for potential adverse weather conditions (snow and ice). The topo survey will be scheduled to allow the survey crew to pick up the video camera upon completion of the video data collection. | | | | | | | | | |
| | Client Deliverables: | | | | | | | | | |
| 2.1 | Topographic survey covering Woodland Avenue from Kent Road to College Street, inclusive. | 0 | 2 | 0 | 0 | 12 | 0 | 0 | 26 | \$3,000 |
| 2.2 | Gather video of intersection operations for use in performing turning movement counts. | 0 | 0 | 0 | 0 | 8 | 1 | 0 | 9 | \$904 |
| 2.3 | Perform 13 hours of turning movement counts from existing video. | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 12 | \$720 |
| | SRE Deliverables: | | | | | | | | | |
| | • Topo survey data. | | | | | | | | | |
| | • Video files. | | | | | | | | | |
| | • Turning movement count data. | | | | | | | | | |
| | SUBTOTAL - TASK 2 | 0 | 2 | 0 | 0 | 20 | 13 | 12 | 47 | \$4,624 |

SRF Consulting Group, Inc.
 Client: City of Duluth
 Project: Woodland Ave @ Kent Rd Traffic Signal Design

Attachment A - Work Tasks and Person-Hours Estimate



12369 Rev PP

| TASK NO. | TASK DESCRIPTION | PRINCIPAL | SR_ASSOC. | ASSOCIATE | SR_PROE | PROE | TECHNICAL | INTERN | TOTALS | EST.FEE |
|--------------------------|---|-----------|-----------|-----------|----------|-----------|-----------|----------|-----------|----------------|
| 3.0 | Signal Justification Assumptions: • Only one round of agency review and comment on draft report. Client Deliverables: • Review comments on draft SJR. | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | \$196 |
| 3.1 | Perform signal warrants analysis. | 0 | 0 | 0 | 2 | 11 | 5 | 0 | 18 | \$1,902 |
| 3.2 | Prepare draft signal justification report (SJR). Submit to MnDOT State Aid and City of Duluth for review. | 0 | 0 | 0 | 2 | 3 | 0 | 0 | 5 | \$518 |
| 3.3 | Address review comments. Prepare final SJR and route for signatures. SRE Deliverables: • Draft and final SJR. | 0 | 0 | 0 | 4 | 16 | 5 | 0 | 25 | \$2,616 |
| SUBTOTAL - TASK 3 | | 0 | 0 | 0 | 4 | 16 | 5 | 0 | 25 | \$2,616 |

Attachment A - Work Tasks and Person Hours Estimate

SRF Consulting Group, Inc.
 Client: City of Duluth
 Project: Woodland Ave @ Kent Rd Traffic Signal Design



| TASK NO. | TASK DESCRIPTION | PRINCIPAL | SR. ASSOC. | ASSOCIATE | SR. PROF | PROF. | TECHNICAL | INTERN | TOTALS | EST. FEE |
|----------|--|-----------|------------|-----------|----------|-------|-----------|--------|--------|----------|
| 4.0 | ADA Pedestrian Ramp Design Assumptions: <ul style="list-style-type: none"> Basemaps and plans will be created and delivered in AutoCAD 2018 format. All work will fit within existing right-of-way. Acquisition of additional right-of-way will not be necessary. No storm sewer, watermain or other public utility work is required. City will perform all activities related to bidding and letting the project. As-built drawings not included. | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 4 | \$436 |
| | Client Deliverables: <ul style="list-style-type: none"> City of Duluth GIS data (existing ROW and utilities). City of Duluth AutoCAD template and associated supporting files. City AutoCAD layering files and definitions for design. Comments at 60% and 95% design reviews. | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | \$218 |
| 4.1 | Prepare existing conditions basemap (AutoCAD digital drawing) of sufficient dimensions on all four legs of the intersection. Create existing ground surface. Show all key features, including edge of pavement, lane lines, median locations, drainage features and major above-ground features. | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | \$218 |
| 4.2 | Prepare Existing Utilities basemap (AutoCAD digital drawing) showing above- and below-ground utilities within the project area. Supplement survey with existing utility linework from City GIS information. | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | \$218 |
| 4.3 | Prepare existing right-of-way basemap (AutoCAD digital drawing) from City GIS information. | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 26 | \$2,880 |
| 4.4 | Prepare 60% pedestrian ramp design including crosswalk layouts and stop bar locations. Submit 60% plans for review. | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 4 | \$548 |
| 4.5 | Prepare and submit 60% Division S special provisions. | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 20 | \$2,170 |
| 4.6 | Develop 95% plan set based on 60% review comments. Submit for State Aid and City review. | 0 | 0 | 2 | 0 | 0 | 6 | 0 | 20 | \$2,170 |
| 4.7 | Develop 95% Division S special provisions based on 60% review comments. | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 | \$274 |
| 4.8 | Prepare Engineer's Estimate. | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 6 | \$666 |
| 4.9 | Prepare and submit final PS&E package based on 95% review comments. Assemble final AutoCAD design files and associated supporting files. | 0 | 0 | 4 | 0 | 0 | 4 | 0 | 10 | \$1,180 |

Attachment A - Work Tasks and Person-Hours Estimate

SRF Consulting Group, Inc.
 Client: City of Duluth
 Project: Woodland Ave @ Kent Rd Traffic Signal Design



12369rev.PP

| TASK NO. | TASK DESCRIPTION | PRINCIPAL | SR. ASSOC. | ASSOCIATE | SR. PROF. | PROF. | TECHNICAL | INTERN | TOTALS | EST. FEE |
|----------|--|-----------|------------|-----------|-----------|-------|-----------|--------|--------|----------|
| | SRF Deliverables: | | | | | | | | | |
| | <ul style="list-style-type: none"> 60% draft plans (pdf, including title sheet, Standard Layouts and Plans (MnDOT ADA Level 2), Existing Conditions and Utilities, Removal Plans, Construction Plans and Signing/Pavement Marking Plans). 95% plans, pdf, including sheets from 60% submittal plus SEQ, Tabulations, Alignment, Tabulations, Pedestrian Ramp and Intersection Details, and Signing/Pavement Markings Details and Tabulations. 60% (pdf) and 95% (pdf and Word) Specifications. 95% Engineer's Estimate (pdf, Excel). Final Plans (one paper copy, pdf), Specifications (one paper copy, pdf, Word) and Estimate (pdf, Excel) Final AutoCAD design files and associated supporting files. | 0 | 0 | 18 | 0 | 38 | 20 | 0 | 76 | \$8,590 |
| | SUBTOTAL - TASK 4 | | | | | | | | | |
| 5.0 | Traffic Signal Design | | | | | | | | | |
| | Assumptions: | | | | | | | | | |
| | <ul style="list-style-type: none"> Assumes a construction temporary signal will be necessary because of tight right-of-way at intersection. In the course of the design we will determine whether a temporary signal can be avoided. Assumes that existing fiber interconnect to 21st Avenue will be reused by rerouting in new conduit system at the intersection. Assumes that new fiber interconnect will be installed from Kent Road to Clover Street along Woodland Avenue. Electronic and paper files/information (AutoCAD, pdf, etc.) of available signal data, including signal plans at Woodland Ave/Kent Rd and Woodland Ave/Clover St. Assumes no temporary interconnect for construction temporary signal. | | | | | | | | | |
| | Client Deliverables: | | | | | | | | | |
| | <ul style="list-style-type: none"> Review comments on draft 60% and 95% plans and special provisions. | | | | | | | | | |
| 5.1 | Construction temporary signal design, plans. | 0 | 0 | 0 | 7 | 46 | 0 | 0 | 53 | \$5,292 |
| 5.2 | Permanent signal and interconnect design, plans. | 0 | 0 | 0 | 13 | 103 | 0 | 0 | 116 | \$11,550 |
| 5.3 | Division SS special provisions. | 0 | 0 | 0 | 4 | 10 | 0 | 0 | 14 | \$1,428 |
| 5.4 | Engineer's estimate for signal and interconnect work. | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 4 | \$392 |
| | SRF Deliverables: | | | | | | | | | |
| | <ul style="list-style-type: none"> 60% and 95% draft signal plans. 95% draft Division SS signal special provisions. Final signal plans, special provisions and estimate (PS&E). | | | | | | | | | |
| | SUBTOTAL - TASK 5 | | | | | | | | | |
| | | 0 | 0 | 0 | 24 | 163 | 0 | 0 | 187 | \$18,662 |

Attachment A - Work Tasks and Person-Hours Estimate

SRF Consulting Group, Inc.
 Client: City of Duluth
 Project: Woodlawn Ave @ Kent Rd Traffic Signal Design



Consulting Group, Inc.
 12389 rev/PP

| TASK NO. | TASK DESCRIPTION | PRINCIPAL | SR_ASSOC. | ASSOCIATE | SR_PROF | PROF. | TECHNICAL | INTERN | TOTALS | EST. FEE |
|----------|--------------------------------------|-----------|-----------|-----------|-----------|------------|-----------|-----------|------------|-----------------|
| | TOTAL ESTIMATED PERSON-HOURS | 15 | 2 | 24 | 44 | 237 | 38 | 12 | 372 | |
| | AVERAGE HOURLY BILLING RATES | \$210 | \$192 | \$137 | \$112 | \$98 | \$120 | \$80 | | |
| | ESTIMATED LABOR AND OVERHEAD | \$3,150 | \$384 | \$3,288 | \$4,928 | \$23,226 | \$4,560 | \$720 | | \$40,256 |
| | ESTIMATED DIRECT NON-SALARY EXPENSES | | | | | | | | | \$662 |
| | TOTAL ESTIMATED FEE | | | | | | | | | \$40,918 |

ESTIMATE OF DIRECT NON-SALARY EXPENSES:

| | | | | | | | | | |
|--------------------------------------|---------------------|-----|-----------|----------|--|--|--|--|-------|
| MILEAGE: | Personal Vehicles | 960 | Miles @ | \$0.580 | | | | | \$557 |
| HOTEL: | Hotel | 0 | Nights @ | \$100.00 | | | | | \$0 |
| MEALS: | Meals | 7 | Meals @ | \$15.00 | | | | | \$105 |
| REPRODUCTION: | Copy Duplication | 0 | Copies @ | \$0.10 | | | | | \$0 |
| | Color Copies | 0 | Copies @ | \$0.35 | | | | | \$0 |
| | Bond Prints | 0 | Prints @ | \$6.00 | | | | | \$0 |
| | Mylar Prints | 0 | Prints @ | \$12.00 | | | | | \$0 |
| COURTHOUSE COPIES: | | | | \$1.00 | | | | | \$0 |
| PRINTING: | | | | | | | | | \$0 |
| SUPPLIES: | Mail, Express, Etc. | | | | | | | | \$0 |
| COMMUNICATIONS: | Cell Phone Charges | 0 | Minutes @ | \$0.30 | | | | | \$0 |
| SUBCONSULTANTS: | | | | | | | | | \$0 |
| ESTIMATED DIRECT NON-SALARY EXPENSES | | | | | | | | | \$662 |



**AMERICAN
ENGINEERING
TESTING, INC.**

CONSULTANTS
· ENVIRONMENTAL
· GEOTECHNICAL
· MATERIALS
· FORENSICS

January 31, 2020

SRF Consulting Group, Inc.
1 Carlson Parkway North
Plymouth, MN 55447-4443

Attn: Mr. George M. Stuempfig, PE (gstuempfig@srfconsulting.com)

RE: Quality Assurance Testing Proposal
Woodland Avenue & Kent Road/East 8th Street Signal Replacement
S.A.P. 118-134-018, 118-153-003, & 118-157-024
Client Project No. 1807
Duluth, Minnesota
AET Proposal No. 07-20506

Dear Mr. Stuempfig:

Thank you for the opportunity to provide a proposal to perform testing services on the referenced project. This proposal has been prepared in response to your recent request on January 31, 2020, and describes our understanding of the project, our anticipated scope of services, our unit rates, and an estimated total fee to perform these services.

PROJECT INFORMATION

The City of Duluth (the City) will be performing intersection improvements (or reconstruction) project during the 2020 construction season at Woodland Avenue and Kent Road. The project will be funded with state aid funds.

Plans and Specifications were prepared by SRF. We understand Construction Inspection and Contract Management of the project will be performed by SRF.

The project includes curb and gutter, concrete pavement, concrete sidewalk, and pedestrian ramps.

PROJECT APPROACH

During the construction improvements, AET will provide experienced MnDOT certified Engineering Technicians to perform sampling and material testing services in accordance with the 2019 State Aid for Local Transportation Schedule of Materials Control (2019 SALT SMC). For this project, Chelsea Buck will be AET's contact. She can be reached at (218) 216-9903 (office). The field staff which will service this project will be mobilized from our Duluth, Minnesota location.

We understand that the City will contract with others for concrete plant monitoring.

550 Cleveland Avenue North | Saint Paul, MN 55114

Phone (651) 659-9001 | (800) 972-6364 | Fax (651) 659-1379 | www.amengtest.com | AA/EEO
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Contract No. L 30333-01

SCOPE OF SERVICES

Based on our review of the available plans, our anticipated scope of services is outlined below. These services will be provided on a part-time, will-call basis coordinated through authorized SRF field personnel.

Concrete Sampling and Testing

During the placement of concrete, AET will perform field testing consisting of slump, air content, temperature of the plastic concrete, and casting of cylinders for compression testing. The 2019 SALT SMC requires field testing for slump, air content, and temperature per every 100 cubic yards of each type of concrete placed each day. Compressive strength cylinders (1 set of 3 cylinders) are required once per every 300 cubic yards of each type of concrete placed each day; the cylinders will be retrieved the following day for curing and testing in our laboratory. The 3 cylinders are to be tested at 28-days. We are proposing to cast sets of 5 cylinders, with compressive strength testing as follows: 1 at 7 days, 3 at 28 days, and the 5th cylinder will be held in reserve for future testing if the 28-day strength requirement is not met.

We have assumed SRF personnel will be compiling the concrete batch tickets, certificates of compliance, and AET's field test results of the plastic concrete, which we will provide each day we are on-site performing testing services.

Concrete Plant Inspection

This proposal does not incorporate the time and cost to perform concrete plant inspections. These services will be provided at your request.

REPORTING

AET staff will prepare reports for SRF to review. These reports will include the results of our field and laboratory testing as performed per the 2019 SALT SMC.

ESTIMATED FEES

Our services will be provided on a unit cost basis according to the unit rates provided in the attached Materials Testing Estimate. Our invoices will be determined by multiplying the number of personnel hours or tests by their respective unit rates. The rates are from the annual fee schedule for 2020 projects.

We have estimated a "likely needed estimate" which is the cost that we anticipate will be required to complete the previously described testing services, based on our experience and assumed scheduling of the project. Our "likely needed" estimated fee is **\$3,169.00**. We refer you to the attached Materials Testing Estimate as reference to how we arrived at this estimated cost. We caution that this is only an estimated cost.

We caution that this is only an estimated cost. Often, variations in the overall cost of the services occur due to reasons beyond our control, such as weather delays, changes in the contractor's

SRF – Woodland Avenue & Kent Road/East 8th Street Signal Replacement; Duluth, Minnesota
AET Proposal No. 07-20506
January 31, 2020
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schedule, unforeseen conditions, or retesting. These variations will affect the actual invoice totals, either increasing or decreasing our total costs for the project from those estimated in this proposal. If more time or tests are required, additional fees may be needed to complete the project testing services. If less time or tests are needed, a cost savings will be realized. We will not, however, exceed the estimated total cost for the project without first obtaining your authorization.

TERMS AND CONDITIONS

Our services will be provided subject to a signed Professional Services Subconsultant Agreement between SRF Consulting Group, Inc. and American Engineering Testing, Inc.

ACCEPTANCE

AET requests written acceptance of this proposal in the Proposal Acceptance box below, but the following actions shall constitute your acceptance of this proposal together with the Terms and Conditions: 1) issuing an authorizing purchase order for any of the Services described in this proposal, 2) authorizing AET's presence on site, or 3) written or electronic notification for AET to proceed with any of the Services described in this proposal. Please indicate your acceptance of this proposal by signing below and returning a copy to us. When you accept this proposal, you represent that you are authorized to accept on behalf of the Client.

GENERAL REMARKS

AET appreciates the opportunity to provide this service for you and looks forward to working with you on this project. If you have any questions or need addition information, please contact me.

Sincerely,
American Engineering Testing, Inc.

Prepared By:

Reviewed By:



Justin L. Staker, PE
Staff Engineer
Phone: (651) 523-1265
Email: jstaker@amengtest.com

Attachments: Materials Testing Estimate



Materials Testing Estimate for Woodland Ave & Kent Rd Signal Replacement – 2019 SALT SMC
SAP 118-134-018, 118-153-003, 118-157-024; CP 1807; Duluth, Minnesota

| Material | Units | Quantity | Trips | Hours | Agency Testing & Frequency | # of Tests | | Cost per Test (\$) | Cost (\$) | |
|---|-----------------|----------------|-------|-------|---|------------|---------------|--------------------------|---------------------------|-----------------|
| | | | | | | Likely | Likely | | | |
| Common Embankment | yd ³ | 10 (note 1) | | | Proctor (1/soil type) Specified Density Nuclear Gauge (1/4,000 yd ³) Moisture Content (1/10,000 yd ³ , 10 max) | | | 145.00 30.00 13.00 | 0.00 0.00 0.00 | |
| Aggregate Base Class 5 | yd ³ | 9 (note 1) | | | Gradation (2 per lot, 1 lot ≤ 2,000 yd ³) DCP (1/500 yd ³), assumes not test rolled Moisture Content (1/1,000 yd ³ , 10 max) | | | 105.00 50.00 13.00 | 0.00 0.00 0.00 | |
| Concrete - Pavement, Walkk, Pedestrian Ramps, Curb & Gutter | yd ³ | 17 (note 2) | 6 | 18 | Plastic Concrete Testing (1 set of tests/100 yd ³ /day) - Included in hourly rate Cylinder Molds (5 cylinders/300 yd ³ /day) Concrete Compressive Strength, Curing, & Handling 4x8 Cylinders Concrete sample pick up from job site | | 30 30 6 | 3.00 22.00 75.00 | 90.00 660.00 450.00 | |
| | | | | | | | | Subtotal = | | 1,200.00 |

Notes:

- Per the 2019 SALT SMC, less than 500 tons (250 CY) may be accepted by the Engineer without testing.
- Material Quantities are estimated based upon Statement of Estimated Quantities, standard conversions, and plans.

| Time and Mileage | Unit | Rate (\$) | Likely Quantity | Cost |
|--------------------|------|-----------|-----------------|-----------------|
| Mileage | Mile | 0.75 | 84 | 63.00 |
| Technician Time | Hour | 91.00 | 18 | 1,638.00 |
| Project Management | Hour | 134.00 | 2 | 268.00 |
| Subtotal = | | | | 1,969.00 |

Estimate prepared by: **Justin Staker**

| | |
|------------------------------|---------------|
| Total Cost Estimate = | Likely |
| 3,169.00 | |