PROFESSIONAL ENGINEERING SERVICES AGREEMENT

ENGINEER & CITY OF DULUTH

THIS AGREEMENT, effective as of the date of attestation by the City Clerk, is made by and between the City of Duluth, Minnesota hereinafter referred to as the "City" and:

Name: TKDA, Inc.
Address: 11 E. Superior St., Suite 420, Duluth, MN 55802

hereinafter referred to as the "Engineer", in consideration of the mutual promises contained herein.

Payments hereunder, in the estimated amount of Sixty-Two Thousand Five Hundred and 00/100th Dollars ($62,500.00) shall be made from Funding 452-030-5530-HANDHTAX 1528-02 and 452-030-5530 HANDHTAX 1524 and 452-030-5530-HANDHTAX-1519; Resolution No. 17-0084R passed on February 13, 2017 and Requisition Number 17-0160.

The professional engineering services obtained by the City under this agreement concern the following described project hereinafter referred to as the "Project":

Project Name: Stewart Creek Bridge and Clyde Connector Trails
Project Description: Stewart Creek Bridge Rehabilitation and Construction of Clyde Connector Trails

The professional engineering services to be provided under this agreement consist of those phases A through H checked below. A more particular description of each phase is contained in Section II, "Basic Services", of the agreement.

	Phase	Description
	A.	Study and Report Phase
X	B.	Preliminary Survey Phase
X	C.	Preliminary Design Phase
X	D.	Final Design Phase
X	E.	Bidding Phase
X	F.	Construction Survey and Layout Phase
X	G.	Construction Administration and Inspection Phase
	H.	Additional Services

SECTION I. GENERAL

A. ENGINEER

The Engineer shall provide professional engineering services for the City in all phases of the Project to which this agreement applies, serve as the City's professional engineering representative for the Project as set forth below and shall give professional engineering consultation and advice to the City during the performance of services hereunder. All services provided hereunder shall be performed by the Engineer in accordance with generally accepted Engineering standards to the satisfaction of the City.

B. NOTICE TO PROCEED

The Engineer shall only begin performance of each Phase of work required hereunder upon receipt of a written

Notice to Proceed by City representative with that Phase.

C. TIME
The Engineer shall begin work on each successive phase promptly after receipt of the Notice to Proceed and shall devote such personnel and materials to the Project so as to complete each phase in an expeditious manner within the time limits set forth in Section II. Time is of the essence to this agreement.

D. CITY'S REPRESENTATIVE
The City's representative to the Engineer shall be the City Engineer or his or her designees assigned in writing.

E. ENGINEERING GUIDELINES
All work performed as part of this project shall conform to the most current edition of the Engineering Guidelines for Professional Engineering Services and Developments as approved by the City Engineer and on file in the office of the City Engineer.

F. SUBCONSULTANTS
Engineer may contract for the services of sub-consultants to assist Engineer in the performance of the services to be provided by Engineer hereunder but the selection of any sub-consultant to perform such services shall be subject to the prior written approval of the City Engineer. Engineer shall remain responsible for all aspects of any services provided by such sub-consultants to City under this Agreement. City shall reimburse Engineer for sub-consultant services under the categories of services to be provided by Engineer under Phases A through H as applicable and within the amounts allocated for such services pursuant to Section V.D below.

SECTION II. BASIC SERVICES

A. STUDY AND REPORT PHASE

_____ Included in this agreement

_X_ Not included in this agreement

The Engineer shall:

1) City's Requirements
Review available data and consult with the City to clarify and define the City's requirements for the Project.

2) Advise Regarding Additional Data
Advise the City as to the necessity of the City's providing or obtaining from others data or services of the types described in Section III.C, in order to evaluate or complete the Project and, if directed by the City's representative, act on behalf of the City in obtaining other data or services.

3) Technical Analysis
Provide analysis of the City's needs, planning surveys, site evaluations, and comparative studies of prospective sites and solutions.

4) Economic Analysis
Provide a general economic analysis of various alternatives based on economic parameters and assumptions provided by the City.

5) Report Preparation
Prepare a report containing schematic layouts, sketches and conceptual design criteria with appropriate exhibits to indicate clearly the considerations involved and the alternative solutions available to the City and setting forth the Engineer's findings and recommendations with opinions of probable total costs for the Project, including construction cost, contingencies, allowances for charges of all professionals and consultants, allowances for the cost of land and rights-of-way, compensation for or damages to properties and interest and financing charges (all of which are hereinafter called "Project Costs").

6) Report Presentation

Furnish three copies of the report and present and review the report in person with the City as the City Representative shall direct.

7) Supplementary Duties
The duties and responsibilities of Engineer during the Study and Report Phase shall also include any additional duties and responsibilities to be provided pursuant to the Engineer's proposal attached as Exhibit A.

8) Completion Time
The Study and Report Phase shall be completed and report submitted by n/a.

B. PRELIMINARY SURVEY PHASE

X Included in this agreement

_____ Not included in this agreement

After written authorization by the City's representative to proceed with the preliminary survey phase, the Engineer shall:

1) General
Perform topographic survey as necessary to prepare the design and provide Construction Survey and Layout as described in Section II.F

2) Boundary Survey
Perform boundary survey if checked.

3) Document Presentation
Furnish a CADD file of the survey base map to the City. Files shall be in the software specified in the Engineering Guidelines for Professional Engineering Services and Developments described in Section I.E.

4) Supplementary Duties
The duties-responsibilities of the Engineer during the preliminary survey phase shall also include any additional duties and responsibilities to be provided pursuant to the Engineer's proposal attached as Exhibit A.

5) Completion Time
The preliminary survey phase shall be completed and submitted by March 15, 2017.

C. PRELIMINARY DESIGN PHASE

X Included in this agreement

_____ Not included in this agreement

After written authorization by the City's Representative to proceed with the Preliminary Design Phase, the Engineer shall:

1) Preliminary Design Documents
Prepare preliminary design documents consisting of final design criteria, preliminary drawings and outline specifications.

2) Revised Project Costs
Based on the information contained in the preliminary design documents, submit a revised opinion of probable Project costs.

~~3) Preparation of Grants; Environmental Statements~~
~~Preparation of applications and supporting documents for governmental grants, loans or advances in connection with the Project, preparation or review of environmental assessments and impact statements; review and evaluation of the effect on the design requirements of the Project of any such statements and~~

~~documentation prepared by others; and assistance in obtaining approvals of authorities having jurisdiction over the anticipated environmental impact of the Project.~~

~~4) Renderings and Models~~
~~Providing renderings or models for the City's use.~~

~~5) Economic Analysis~~
~~Investigations involving detailed consideration of operations, maintenance and overhead expenses; providing value engineering during the course of design; the preparation of feasibility studies, cash flow and economic evaluations, rate schedules and appraisals; assistance in obtaining financing for the Project; evaluating processes available for licensing and assisting the City in obtaining licensing; detailed quantity surveys of material, equipment and labor; and audits of inventories required in connection with construction performed by the City.~~

~~6) Document Presentation~~
~~Furnish three copies of the above preliminary design documents and present and review such documents in person with the City as the City Engineer may direct.~~

7) Supplementary Duties
The duties and responsibilities of the Engineer during the Preliminary Design Phase shall also include any additional duties and responsibilities to be provided pursuant to the Engineer's proposal attached as Exhibit A.

8) Completion Time
The Preliminary Design Phase shall be completed and report or plan submitted by March 15, 2017.

D. FINAL DESIGN PHASE

X Included in this agreement

_____ Not included in this agreement

1) Drawings and Specifications
On the basis of the accepted preliminary design documents and the revised opinion of probable Project costs, prepare for incorporation in the contract documents Construction Plans to show the character and extent of the Project and specifications.

2) Approvals of Governmental Entities
Furnish to the City such documents and design data as may be required for, and prepare the required documents so that the City may apply for approvals and permits of such governmental authorities as have jurisdiction over design criteria applicable to the Project, and assist in obtaining such approvals by participating in submissions to and negotiations with appropriate authorities.

3) Adjusted Project Costs
Advise the City of any adjustments to the latest opinion of probable Project costs, identify cause of change and furnish a revised opinion of probable Project cost based on the drawings and specifications.

4) Contract Document Preparation
Prepare for review and approval by the City, its Attorney and other advisors, contract agreement forms, general conditions and supplementary conditions and (where requested) bid forms, invitations to bid and instructions to bidder, including for federally funded Projects, all documentation, including wage determinations, in order to comply with Davis-Bacon Act or City code requirements, and assist in the preparation of other related contract documents. To the extent possible, the Engineer will follow the document format supplied by the City and use the standard terms and conditions supplied by the City in preparation of these documents.

~~5) Real Estate Acquisition: Legal Description~~
~~Based on preliminary design documents, furnish a legal description and recordable reproducible 8-1/2" X 11" plat of each parcel of real estate in which the City must acquire an interest in order to proceed with construction of the Project.~~

6) Document Presentation
Furnish three copies of the above documents and present and review them in person with the City.

7) Supplementary Duties
The duties and responsibilities of the Engineer during the Final Design Phase shall also include any additional duties and responsibilities to be provided pursuant to the Engineer's proposal attached as Exhibit A.

8) Completion Time
The Final Design Phase shall be completed and contract documents submitted by March 30, 2017.

E. BIDDING PHASE

X Included in this agreement

_____ Not included in this agreement

The Engineer shall:

1) Assist in Bidding
Assist the City in obtaining bids for each separate City contract for construction, materials, equipment and services.

2) Advise Regarding Contractors and Subcontractors
Consult with and advise the City as to the acceptability of subcontractors and other persons and organizations proposed by the City's contractor(s) (hereinafter called "Contractor(s)" for those portions of the work as to which such acceptability is required by the bidding documents).

3) Consult Regarding Substitutes
Consult with and advise the City as to the acceptability of substitute materials and equipment proposed by the contractor(s) when substitution prior to the award of contracts is allowed by the bidding documents.

4) Evaluation of Bids
Assist the City in evaluating bids or proposals and in assembling and awarding contracts.

5) Supplementary Duties
The duties and responsibilities of the Engineer during the Bidding Phase shall also include any additional duties and responsibilities to be provided pursuant to the Engineer's proposal attached as Exhibit A.

6) Completion Time
The bidding phase shall be completed by April 28, 2017.

F. CONSTRUCTION SURVEY AND LAYOUT PHASE

X Included in this agreement

_____ Not included in this agreement

1) General
This phase of work may or may not be performed in conjunction with Phase G, "Construction Administration and Inspection Phase" of this agreement. Inclusion of this phase in the agreement does not imply that services identified under Phase G are to be provided unless specifically indicated in this agreement.

2) Duties
The Engineer shall provide horizontal and vertical control line and grade to enable construction of the improvement as depicted in the Project plans. The number of control points to be established by the Engineer shall be sufficient to permit the construction contractor to construct the improvement within the construction tolerances established in the Project specifications. In addition, the number of control points shall be consistent with standard engineering practice.

3) Accuracy

The Engineer shall provide the horizontal and vertical control points within the same measurement tolerances as the construction tolerances established in the Project specifications. The Engineer shall be responsible for the accuracy of the control points which are established. The Engineer shall be responsible for costs which may result from errors in placement of control points. The Engineer shall be required to establish control points at Engineer's costs only one time. Control points which are lost, damaged, removed or otherwise moved by the Contractor or others shall be promptly replaced by the Engineer and costs for such replacement shall be computed on a time and materials basis, and reimbursed by the City. The Engineer shall take all reasonable and customary actions to protect the control points established by the Engineer.

4) Supplementary Duties

The duties and responsibilities of the Engineer during the construction survey and layout phase shall also include any additional duties and responsibilities to be provided pursuant to the Engineer's proposal attached as Exhibit A.

5) Completion Time

The construction survey & layout phase shall be completed by June 2, 2017.

G. CONSTRUCTION ADMINISTRATION AND INSPECTION PHASE

X Included in this agreement

_____ Not included in this agreement

1) General Duties

Consult with and advise the City and act as its representative as provided herein and in the General Conditions of the construction contract for the Project. This phase of the work may or may not be performed in conjunction with Phase F "Construction Survey and Layout Phase" of this agreement. Inclusion of this phase in the agreement does not imply that services identified under Phase F are to be provided unless specifically indicated in this agreement.

2) Construction Inspection and Reporting

Make visits to the site with sufficient frequency at the various stages of construction to observe as an experienced and qualified design professional the progress and quality of the executed work of the contractor(s) and to insure that such work is proceeding in accordance with the contract documents. During such visits and on the basis of on-site observations, the Engineer shall keep the City informed of the progress of the work, shall endeavor to guard the City against defects and deficiencies in such work and may disapprove or reject work failing to conform to the contract documents.

3) Warranty Inspection

Eleven months following construction completion, conduct an inspection to document any items to be repaired by the contractor under the conditions of the construction contract warranty. Submit work to be corrected to the Contractor and the City.

4) Review of Technical and Procedural Aspects

Review and approve (or take other appropriate action in respect to Shop Drawings), the results of tests and inspections and other data which each contractor is required to submit, determine the acceptability of substitute materials and equipment proposed by the con- tractor(s), and receive and review (for general content as required by the specifications) maintenance and operating instructions, schedules, guarantees, bonds and certificates of inspection which are to be assembled by the contractor(s).

5) Contract Documents

Receive from each contractor and review for compliance with contract documents all required document submissions including but not limited to performance and payment bonds, certificates of insurance report forms required by any City, State or Federal law or rule or regulation and submit the forms to the City for final approval.

6) Conferences and Meetings

Attend meetings with the contractor, such as preconstruction conferences, progress meetings, job conferences and other Project-related meetings, and prepare and circulate copies of the minutes thereof including to the City.

7) Records

a) Maintain orderly files for correspondence, reports of job conferences, shop drawings and samples, reproductions of original contract documents, including all work directive changes, addenda, change orders, field orders, additional drawings issued subsequent to the execution of the contract, the Engineer's clarifications and interpretations of the contract documents, progress reports, and other Project-related documents.

b) Keep a diary or log book, recording the contractor's hours on the job site, weather conditions, data relative to questions of work directive changes, change orders, or changed conditions, list of job site visitors, daily activities, decisions, observations in general, and specific observations in more detail, as in the case of observing test procedures and send copies to the City. Take multiple photographs of the Work and keep a log and file of the photos. Specifically maintain records of acceptance and rejection of materials and workmanship.

c) Record names, addresses and telephone numbers of all the contractors, subcontractors, and major suppliers of materials and equipment.

8) Reports

a) Furnish the City periodic reports, as required, on progress of the work and of the contractor's compliance with the progress schedule and schedule of shop drawings and sample submittals.

b) Consult with the City, in advance of scheduled major tests, inspections, or start of important phases of the Work.

c) Draft proposed change orders and work directive changes, obtaining back-up material from the contractor, and make recommendations to the City regarding change orders, work directive changes and field orders.

d) Report immediately to the City upon the occurrence of any accident.

9) Contract Interpretation, Review of Quality of Work

Issue all instruction of the City to the contractor(s); issue necessary interpretations and clarifications of the contract Documents and in connection therewith prepare change orders as required, subject to the City's approval; have authority, as the City's representative, to require special inspection or testing of the work; act as initial interpreter of the requirements of the contract documents and judge of the acceptability of the work there under and make decisions on all claims of the contractor(s) relating to the acceptability of the work or the interpretation of the requirements of the contract documents pertaining to the execution and progress of the work.

10) Change Orders and Revisions

Prepare change orders to reflect changes in the Project requested or approved by the City, evaluate substitutions proposed by the contractor(s) and make revisions to drawings and specifications occasioned thereby, and provide any additional services necessary as the result of significant delays, changes or price increases occurring as a direct or indirect result of material, equipment or energy shortages.

11) Review of Applications for Payment

Based on the Engineer's on-site observations as an experienced and qualified design professional and on review of applications for payment and the accompanying data and schedules, determine the amount owing to the contractor(s) and recommend in writing payments to the contractor(s) in such amounts; such recommendations of payment will constitute a representation to the City, based on such observations and review, that the work has progressed to the point indicated, that, to the best of the Engineer's knowledge, information and belief, the quality of such work is in accordance with the contract documents (subject to an evaluation of such work as a functioning Project upon substantial completion, to the results of any subsequent tests called for in the contract documents, and to any qualifications stated in his recommendation), and that payment of the amount recommended is due the contractor(s).

12) Determination of Substantial Completion

Conduct an inspection to determine if the Project is substantially complete and a final inspection to determine if the work has been completed in accordance with the contract documents and if each contractor has fulfilled all of his obligations there under so that the Engineer may recommend, in writing, final payment to each contractor and may give written notice to the City and the contractor(s) that the work is acceptable (subject to any conditions therein expressed).

13) Authority and Responsibility

The Engineer shall not guarantee the work of any contractor or subcontractor, shall have no supervision or control as to the work or persons doing the work, shall not have charge of the work, shall not be responsible for safety in, on, or about the job-site or have any control of the safety or adequacy of any equipment, building component, scaffolding, supports, forms or other work aids. If the Engineer determines that there are deficiencies in materials or workmanship on the Project, or otherwise deems it to be in the best interest of the City to do so, the Engineer shall be responsible to stop any contractor or subcontractor from performing work on the Project, until conditions giving rise to this need, therefore, are rectified.

14) Engineer Not Responsible for Acts of Contractor

The Engineer shall not be responsible for the supervision or control of the acts or omissions or construction means, methods or techniques of any contractor, or subcontractor, or any of the contractor(s)' or subcontractors' or employees or any other person (except the Engineer's own employees and agents) at the site or otherwise performing any of the contractor(s) work; however, nothing contained in this paragraph shall be construed to release the Engineer from liability for failure to properly perform duties undertaken by him in these contract documents or this agreement.

15) Preparation of Record Drawings

The Engineer shall prepare a set of record drawings in accordance with the Engineering Guidelines for Professional Engineering Services and Development described in Section I.E.

~~16) Manuals~~

~~The Engineer shall furnish operating and maintenance manuals; protracted or extensive assistance in the utilization of any equipment or system (such as initial start-up, testing, and adjusting and balancing); and training personnel for operation and maintenance.~~

17) Supplementary Duties

The duties and responsibilities of the Engineer during the construction administration and inspection phase shall also include any additional duties and responsibilities to be provided pursuant to the Engineer’s proposal attached as Exhibit A.

18) Completion Time

The construction administration and inspection phase shall be completed by November 30, 2017.

H. ADDITIONAL SERVICES

_____ Included in this agreement

_X_ Not included in this agreement

If authorized in writing by the City, the Engineer shall furnish or obtain other additional services of the following types which are not considered normal or customary basic services except to the extent specifically provided in Section II; these will be paid for by the City as indicated in Section V.

1) Significant Changes

Services resulting from significant changes in extent of the Project or its design including, but not limited to, changes in size, complexity, City's schedule or character of construction or method of financing; and revising previously accepted studies, reports, design documents or contract documents when such revisions are due to causes beyond the Engineer's control.

2) Alternate Bid Documents

Preparing documents for alternate bids requested by the City for contractor(s)' work which is not executed or documents for out-of-sequence work.

3) Services Resulting from Acts Beyond Engineer's Control

Additional or extended services during construction made necessary by (1) work damaged by fire or other cause during construction, (2) a significant amount of defective or neglected work of the contractor(s) as determined by the city representative, (3) prolongation of the contract time due to delays by the contractor, (4) acceleration of the progress schedule involving services beyond normal working hours, and (5) default by the contractor.

4) Services After Construction Phase

Services after completion of the construction phase excluding the warranty inspection.

5) Legal Proceedings

Preparing to serve or serving as a consultant or witness for the City in any litigation, public hearing or other legal or administrative proceeding involving the Project (except as agreed to under Basic Services).

6) Services Not Otherwise Provided

Additional services in connection with the Project, including services normally furnished by the City and services not otherwise provided for implicitly or by fair implication of this agreement.

7) Supplementary Duties

The following additional services have been identified and are included in the Additional Services Phase any additional duties and responsibilities to be provided pursuant to the Engineer’s proposal attached as Exhibit A.

8) Completion Time

The time limit to complete additional services cannot be fully specified in this agreement because the full nature and full extent of additional services are unknown.

SECTION III. CITY'S RESPONSIBILITIES

A. FURNISH REQUIREMENTS AND LIMITATIONS

Provide all criteria and full information as to the City's requirements for the Project, including design objectives and constraints, space, capacity and performance requirements, flexibility and expendability, economic parameters and any budgetary limitations; and furnish copies of all design and construction standards which the City will require to be included in the Drawings and Specifications.

B. FURNISH INFORMATION

Assist the Engineer by placing at the Engineer's disposal all available information reasonably known to and in possession of the City.

C. REVIEW DOCUMENTS

Examine all studies, reports, sketches, drawings, specifications, proposals and other documents presented by the Engineer.

D. OBTAIN APPROVALS AND PERMITS

Furnish approvals and permits from all governmental authorities having jurisdiction over the Project and such approvals and consents from others as may be necessary for completion of the Project.

E. ACCOUNTING, LEGAL AND INSURANCE SERVICE

Provide such accounting, independent cost estimating and insurance counseling services as may be required for the Project, such auditing service as the City may require to ascertain how or for what purpose any contractor has used the monies paid to him under the construction contract, and such inspection services as the City may require to ascertain that the contractor(s) are complying with any law, rule or regulation applicable to their performance of the work except as otherwise provided in Section II.

F. NOTIFY THE ENGINEER OF DEFECTS OR DEVELOPMENT

Give prompt written notice to the Engineer whenever the City observes or otherwise becomes aware of any development that affects the scope or timing of the Engineer's services, or any defect in the work of the contractor(s).

G. COSTS OF THE CITY'S RESPONSIBILITIES

Bear all costs incident to compliance with the requirements of this Section III.

SECTION IV. GENERAL CONSIDERATIONS

A. SUCCESSORS AND ASSIGNS

The City and the Engineer each binds their respective partners, successors, executors, administrators and assigns to the other party of this agreement and to the partners, successors, executors, administrators, and assigns of such other party, in respect to all covenants of this agreement; the Engineer shall not assign, sublet, or transfer their respective interests in this agreement without the written consent of the City. Nothing herein shall be construed as creating any personal liability on the part of any officer or agent of any public body which may be a party hereto, nor shall it be construed as giving any rights or benefits hereunder to anyone other than the City and the Engineer.

B. OWNERSHIP OF DOCUMENTS

All drawings, specifications, reports, records, and other work product developed by the Engineer in connection with this Project shall remain the property of the City whether the Project is completed or not. Reuse of any of the work product of the Engineer by the City on extensions of this Project or any other Project without written permission of the Engineer shall be at the City's risk and the City agrees to defend, indemnify and hold harmless the Engineer from all damages and costs including attorney fees arising out of such reuse by the City or others acting through the City.

C. ESTIMATES OF COST (COST OPINION)

Estimates of construction cost provided are to be made on the basis of the Engineer's experience, qualifications and the best of their professional judgment, but the Engineer does not guarantee the accuracy of such estimates as compared to the contractor's bids or the Project construction cost.

D. INSURANCE

1) Engineer shall provide the following minimum amounts of insurance from insurance companies authorized to do business in the state of Minnesota unless Engineer shall have successfully demonstrated to the City Attorney, in the reasonable exercise of his or her discretion that such insurance is not reasonably available in the market. If the Engineer demonstrates to the reasonable satisfaction of the City Attorney that such insurance requires hereunder is not reasonably available in the market, the City Attorney may approve an alternative form of insurance which is reasonably available in the market which he or she deems to provide the highest level of insurance protection to the city which is reasonably available.

a) Workers' compensation insurance in accordance with the laws of the State of Minnesota.
b) Commercial General Liability Insurance in the amount of **$1,500,000** Single Limit, and twice the limits provided when a claim arises out of the release or threatened release of a hazardous substance; shall be in a company approved by the City of Duluth; and shall provide for the following: Liability for Premises, Operations, Completed Operations, Independent Contractors, and Contractual Liability.
c) Automobile Liability coverage in the amount of **$1,500,000** combined single limit.
d) Professional Liability Insurance in an amount not less than **$1,500,000** Single Limit; provided further that in the event the professional malpractice insurance is in the form of "claims made," insurance, Engineer hereby commits to provide at least 60 days' notice prior to any change to the Professional Liability Insurance policy or coverage ; and in event of any change, Engineer agrees to provide the City with either evidence of new insurance coverage conforming to the provisions of this paragraph which will provide unbroken protection to the City, or, in the alternative, to purchase at its cost, extended coverage under the old policy for the period the state of repose runs; the protection to be provided by said "claims made" insurance shall remain in place until the running of the statute of repose for claims related to

this Agreement.

e) **City of Duluth shall be named as Additional Insured** under the Public Liability and Automobile Liability, or as an alternate, Engineer may provide Owners-Contractors Protective policy, naming himself and City of Duluth. Engineer shall also provide evidence of Statutory Minnesota Workers' Compensation Insurance. Engineer to provide Certificate of Insurance evidencing such coverage with notice to City of cancellation in accordance with the provisions of the underlying insurance policy included. The City of Duluth does not represent or guarantee that these types or limits of coverage are adequate to protect the Engineer's interests and liabilities.

f) If a certificate of insurance is provided, the form of the certificate shall contain an unconditional requirement that the insurer notify the City without fail not less than the notice provisions contained in the underlying insurance policy or policies. In addition, Engineer commits to provide to City notice to City at least 30 days prior to any change of the policy or coverages.

2) The insurance required herein shall be maintained in full force and effect during the life of this Agreement and shall protect Engineer, its employees, agents and representatives from claims and damages including but not limited to personal injury and death and any act or failure to act by Engineer, its employees, agents and representatives in the performance of work covered by this Agreement.

3) Certificates showing that Engineer is carrying the above described insurance in the specified amounts shall be furnished to the City prior to the execution of this Agreement and a certificate showing continued maintenance of such insurance shall be on file with the City during the term of this Agreement.

4) The City shall be named as an additional insured on each liability policy other than the professional liability and the workers' compensation policies of the Engineer.

5) The certificates shall provide that the policies shall not be cancelled during the life of this Agreement without advanced notice being given to the City at least equal to that provided for in the underlying policy of insurance.

6) Except as provided for in Section IV D.1.d) above, Engineer hereby commits to provide notice to City at least 30 days in advance of any change in the insurance provided pursuant to this Section IV or in advance of that provided for in the underlying insurance policy or policies whichever is longer. For the purposes of Section IV. D of this Agreement, the term, "changed", shall include cancellation of a policy of insurance provided hereunder and any modification of such policy which reduces the amount of any coverage provided thereunder below the amounts required to be provided hereunder or otherwise reduces the protections provided under such policy to City.

E. HOLD HARMLESS

The Engineer agrees that it shall defend, indemnify and hold harmless the City of Duluth and its officers, agents, servants and employees from any and all claims including claims for contribution or indemnity, demands, suits, judgments, costs and expenses asserted by any person or persons including agents or employees of the City of Duluth or the Engineer by reason of death or injury to person or persons or the loss or damage to property arising out of, or by reason of, any act, omission, operation or work of the Engineer or its employees while engaged in the execution or performance of services under this Agreement except to the extent that such indemnification is specifically prohibited by Minnesota Statutes Chapter 337 or Section 604.21. Engineer shall not be required to indemnify City for claims of liability arising out of the sole negligent or intentional acts or omission of the City but shall be specifically required to and agrees to defend and indemnify City in all cases where claims of liability against the City arise out of acts or omissions which are passive or derivative of the negligent or intentional acts or omissions of Engineer, including but not limited to, the failure of the City to supervise, the failure to warn, the failure to prevent such acts or omission by Engineer and any other such source of liability. On ten days' written notice from the City of Duluth, the Engineer shall appear and defend all lawsuits against the City of Duluth growing out of such injuries or damages.

F. TERMINATION

1) This agreement may be terminated in whole or in part in writing by either party in the event of substantial failure by the other party to fulfill its obligation under this agreement through no fault of the

terminating party; provided that no such termination may be affected unless the other party is given not less than fifteen (15) calendar days' prior written notice (delivered by certified mail, return receipt requested) of intent to terminate.

2) This agreement may be terminated in whole or in part in writing by the City for its convenience; provided that the Engineer is given (1) not less than fifteen (15) calendar days' prior written notice (delivered by certified mail, return receipt requested) of intent to terminate and (2) an opportunity for consultation with the City prior to termination.

3) Upon receipt of a notice of intent to terminate from the City pursuant to this agreement, the Engineer shall (1) promptly discontinue all services affected (unless the notice directs otherwise), and (2) make available to the City at any reasonable time at a location specified by the City all data, drawings, specifications, reports, estimates, summaries, and such other information and materials as may have accumulated by the Engineer in performing this agreement, whether completed or in process.

4) Upon termination pursuant to this agreement, the City may take over the work and prosecute the same to completion by agreement with another party or otherwise.

G. LAWS, RULES AND REGULATIONS

The Engineer agrees to observe and comply with all laws, ordinances, rules and regulations of the United States of America, State of Minnesota, the City of Duluth and their respective agencies and instrumentalities which are applicable to the work and services to be performed hereunder.

H. INDEPENDENT CONTRACTOR STATUS

Nothing contained in this agreement shall be construed to make the Engineer an employee or partner of the City. The Engineer shall at all times hereunder be construed to be an independent contractor.

I. FEDERAL FUNDING

If Federal Funds (i.e. HUD, FEMA, Revenue Sharing) are utilized as a source of Project funding, the Engineer shall abide by the terms of all Federal requirements in the performance of duties hereunder.

J. AMENDMENT OF AGREEMENT

This agreement shall be amended or supplemented only in writing and executed by both parties hereto.

SECTION V. PAYMENT

A. BASIS OF BILLING

City shall pay the Engineer an amount based on hourly rates not to exceed $ 62,500.00 for all services rendered under Section II Phases A through H, including any and all Project-related expenses such as travel, reproduction of reports and drawings, tolls, mileage, etc. For the purposes of this agreement, the principals and employees of the Engineer and their hourly rates are set forth in Exhibit B.

B. PAYMENT FOR WORK COMPLETED

1) Monthly progress payments may be requested by the Engineer for work satisfactorily completed and shall be made by the City to the Engineer as soon as practicable upon submission of statements requesting payment by the Engineer to the City. When such progress payments are made, the City may withhold up to five percent (5%) of the vouchered amount until satisfactory completion by the Engineer of all work and services within a phase called for under this agreement. When the City determines that the work under this agreement for any specified phase hereunder is substantially complete, it shall release to the Engineer any retainage held for that phase.

2) No payment request made pursuant to subparagraph 1 of this Section V shall exceed the estimated maximum total amount and value of the total work and services to be performed by the Engineer under this agreement without the prior authorization of the City. These estimates have been prepared by the Engineer and supplemented or accompanied by such supporting data as may be required by the City.

3) Upon satisfactory completion of the work performed hereunder, and prior to final payment under this agreement, and as a condition precedent thereto, the Engineer shall execute and deliver to the City a release

of all claims against the City arising under or by virtue of this agreement.

4) In the event of termination by City under Section IV.F., upon the completion of any phase of the Basic Services, progress payments due Engineer for services rendered through such phase shall constitute total payment for such services. In the event of such termination by City during any phase of the Basic Services, Engineer also will be reimbursed for the charges of independent professional associates and consultants employed by Engineer to render Basic Services, and paid for services rendered during that phase on the basis of hourly rates defined in Exhibit B of this agreement for services rendered during that phase to date of termination by Engineer's principals and employees engaged directly on the Project. In the event of any such termination, Engineer will be paid for all unpaid additional services plus all termination expenses. Termination expenses mean additional expenses directly attributable to termination, which, if termination is at City's convenience, shall include an amount computed as a percentage of total compensation for basic services earned by Engineer to the date of termination as follows: 10% of the difference between the amount which the Engineer has earned computed as described in paragraphs A and B of this section and the maximum payment amount described in paragraph D of this section. The above applies only if termination is for reasons other than the fault of the Engineer.

C. STANDARD PAYMENT

The Engineer shall complete all services described in Section II.A through G including all attachments to Section II for an amount including all Project-related expenses for the estimated amounts shown hereunder:

Section II	Description		Estimated Compensation
A.	Study and Report Phase	$	0.00
B.	Preliminary Survey Phase	$	3,350.00
C.	Preliminary Design Phase	$	22,732.00
D.	Final Design Phase	$	24,006.00
E.	Bidding Phase	$	1,520.00
F.	Construction Survey and Layout Phase	$	600.00
G.	Construction Administration and Inspection Phase	$	10,292.00
	TOTAL	$	62,500.00

The maximum compensation for all phases A through G shall not exceed **Sixty-Two Thousand, Five Hundred and 00/100th Dollars**.

D. PAYMENT FOR ADDITIONAL SERVICES

City shall pay the Engineer for all additional services rendered under Section II.H an amount based on hourly rates shown in Exhibit B for services rendered by principals and employees assigned to the Project. The maximum payment described in Section V.C shall not apply to additional services.

The Engineer and City agree that the full extent of additional services may be unknown. Those additional services which have been identified are described in Section II.H, and that payment for those additional services is estimated to be $0.00.

This agreement is made between the City and the Engineer entered into on the last date below written. In witness, the parties have executed this agreement.

E. TOTAL NOT TO EXCEED:

All payments under this Contract are not to exceed $62,500.00 Payable under funding 452-030-5530 HANDHTAX 1528-02 and 452-030-5530 HANDHTAX 1524 and 452-030-5530 HANDHTAX 1519.

SECTION VI. SPECIAL PROVISIONS

The following exhibits are attached to and made part of this agreement:

1) Exhibit A, Engineer’s Proposal

2) Exhibit B**,** Engineer's Hourly Rates and Project Fee Estimate

In the event of a conflict between the agreement and any Exhibit, the terms of the Agreement will be controlling.

SECTION VII. COUNTERPARTS

This Agreement may be executed in two or more counterparts, each of which shall be deemed to be an original as against any party whose signature appears thereon, but all of which together shall constitute but one and the same instrument. Signatures to this Agreement transmitted by facsimile, by electronic mail in "portable document format" (".pdf"), or by any other electronic means which preserves the original graphic and pictorial appearance of the Agreement, shall have the same effect as physical delivery of the paper document bearing the original signature.

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

CITY OF DULUTH-Client

By:

_____
Mayor

Attest:

_____
City Clerk

Date Attested: _____

Countersigned:

_____
City Auditor Date

_____
Assistant City Attorney Date

ENGINEER
TKDA

_____
Company Representative Date

Its:

_____
Title of Representative

EXHIBIT A

TKDA
11 East Superior Street, Suite 420
Duluth, MN 55802
218.724.8578
tkda.com

December 15, 2016

Via Email Only: mlebeau@duluthmn.gov

Mr. Michael LeBeau
Construction Project Supervisor
City of Duluth
Properties & Facilities Management
1532 West Michigan Street
Duluth, Minnesota 55806

Re: Proposal for Engineering Services
Stewart Creek Bridge Rehabilitation and Clyde Connector Trails

Dear Mr. LeBeau:

TKDA is pleased to submit this Proposal to provide Engineering Services related to the rehabilitation of the Stewart Creek Bridge and construction of the Clyde Connector Trail. Established in 1910, TKDA is a full-service Engineering, Architecture, and Planning firm based in Minnesota. Our longevity is the result of our diverse professionals and the long-standing client relationships built by creating quality design solutions that meet or exceed our clients' expectations. Our services will be provided in the manner described in this Proposal, subject to execution of a mutually-agreeable contract consistent with those previously executed with the City of Duluth.

I. EXECUTIVE SUMMARY

The City of Duluth is seeking Professional Engineering Services to develop a biddable set of construction documents for rehabilitation of the Stewart Creek Bridge as well as for the construction of the Clyde Connector Trails. Work tasks will include Engineering Design, developing construction documents, bidding assistance, and construction observation/administration as needed to supplement City staffing. As we understand it, this Project has grant funding associated with it and the bridge and trail work need to be tracked separately to comply with funding requirements and simplify record-keeping for the City. There is $300,000 available for the design/construction/testing of the Clyde Connector Trail, and $450,000 for the Stewart Creek Bridge rehabilitation. The main goal of the proposed improvements is to improve safety and accessibility on the Clyde Connector Trail to link neighborhood users into the larger trail network as well as to rehabilitate the Stewart Creek Bridge to a condition where it is safe for trail users.

Our Project Team has extensive experience in delivering this type of Project and is committed to delivering this Project on the schedule established by the City. Our recent experience with the City of Duluth on the Western Waterfront Trail Renewal Project demonstrates our ability to provide Engineering solutions tailored to match the City's budget for a Project of this type. The following sections demonstrate our experience and approach to delivering this Project for the City of Duluth.

II. KEY PERSONNEL/QUALIFICATIONS

TKDA has the knowledge and experience to provide a quality Project for the City of Duluth at a reasonable cost. Our Team is comprised of professionals who work and live in the Northland and who have delivered projects for local agencies including the City of Duluth, St. Louis County, the City of Hermantown, and others. Team members are well-versed in applicable design standards, writing project memorandums, plan development standards, developing technical specifications, and contract administration.

Jeff Goetzman, PE will serve as the Project Manager/Lead Engineer and has over 23 years of experience in the design and management of street, bridge, drainage, and municipal type projects. Jeff served as both County Bridge Engineer and Resident Engineer for the St. Louis County Public Works Department, was employed as Assistant County Highway Engineer for Renville County, and is a former Public Works Director for Superior, Wisconsin. In these positions, he gained extensive experience in working within municipal systems and in overseeing capital improvement projects including street, trail, and utility construction. Jeff's project design work includes dozens of Federal and State Aid-bridge, highway, and municipal type projects. His experience from both the owner and designer perspectives is valuable in developing projects such as this. Some of Jeff's recent and relevant project experience includes:

- Pine Road Paving and Construction Observation | Fall Lake Township, MN
- 59th Avenue West Utility and Street Improvements | Duluth, MN
- SW Area Utility and Road Reconstruction | Aitkin, MN
- Western Waterfront Trail Renewal | Duluth, MN

John Sanders, PE will serve as the Design Engineer for the bridge portion of the Project. John has been with TKDA since 1988 and has extensive experience in the design of railroad bridges and retaining walls, including new construction and rehabilitation. John has served as TKDA's Project Manager and lead Design Engineer for BNSF Railway Company bridge rehabilitations and bridge rebuilds at more than 340 sites in 17 states. He has also completed designs of bridges and retaining walls for the Minnesota Department of Transportation, including new construction and rehabilitation, and is accomplished in the use of MicroStation and AutoCAD for construction document preparation. As a TKDA Project Manager since 1997, John oversees budgets and is responsible for quality control, scheduling, and client contacts. Some of John's relevant project experience includes:

- MnDNR Duluth 93rd Avenue Pedestrian Bridge | Duluth, MN
- MnDNR Duluth Grand Avenue Pedestrian Bridge | Duluth, MN

Mark Daubenberger, PE has more than 23 years of experience in the design of highway, railroad, and pedestrian bridges, including new construction and rehabilitations, trails, and railroad fueling facilities. His activities on these projects include project management, feasibility studies, environmental documentation, preliminary and final design and plan production, cost estimating, special provisions, and construction contract administration. Some of Mark's recent and relevant project experience includes:

- TH 57 Historic Retaining Wall Restoration | MnDOT, Mantorville, MN
- Medicine Lake Regional Trail Rehabilitation | Three Rivers Park District, Maple Grove, MN
- Bridge 62.78, St. Croix Valley Railway Over the Snake River | MnDOT, Pine City, MN

Will DeRocher, EIT will serve as Design Engineer for the Clyde Connector Trail portion of the Project. Will is a graduate engineer in TKDA's Municipal Services Group, with advanced coursework including Design of Concrete Structures, Pavement Management and Rehabilitation, Water Quality Engineering, Well Hydraulics, Hydraulic Design, Hydraulics and Hydrology, Environmental Modeling, Applied Geostatics, Environmental Engineering, Geotechnical Design, Advanced Infrastructure Materials and Advanced Soil Mechanics. He is versed in AutoCAD, MathCAD, HEC RAS, and HEC HMS. Some of Will's recent and relevant project experience includes:

- Western Waterfront Trail Renewal | Duluth, MN
- Lot M2 Reconstruction (UMD)| Duluth, MN
- Jackson Estates 4th Addition | Hermantown, MN
- SW Area Utility and Road Reconstruction | Aitkin, MN

Jon Kamp, LSIT will serve as a Field/Survey Technician on the Project. Jon began his surveying career in 1979 and has held positions as Project Manager, Crew Chief, and CAD Technician. His expertise includes boundary survey calculations, construction staking computations, preparation of survey-related documents and subdivision plats, and CAD Standards implementation and design. Jon is a valuable resource for multi-faceted design projects and for his skilled AutoCAD expertise.

- Ugstad Road Reconditioning | Hermantown, MN
- 59th Avenue West Utility and Street Improvements | Duluth, MN
- Hawk Circle Drive Road Improvements | Hermantown, MN
- Pine Road Paving and Construction Observation | Fall Lake Township, MN
- SW Area Utility and Road Reconstruction | Aitkin, MN

III. RELATED PROJECT EXAMPLES

TKDA has extensive experience designing and constructing projects that are required to meet federal, state, county, and municipal standards, and we have strong relationships with the various review agencies. These relationships gained through years of experience help us to achieve our clients' project and funding goals. We have numerous projects with the City of Duluth and surrounding communities and have trained staff using current design standards. Our knowledge of standards and quality processes will lessen rework, saving you time and money.

Our Team for this Project has a breadth of experience in development of roadway, municipal, trail, and building projects which involve many sets of design standards including accessibility guidelines. This Project involves making improvements to the Stewart Creek Bridge for re-purposing as a pedestrian/trail structure, as well as improving the safety and user experience of the Clyde Connector Trail. The Clyde Connector Trail connects the Munger State Trail with Skyline Parkway, and is a 10-foot wide natural surface trail. The following projects are examples of recent work by our Team.

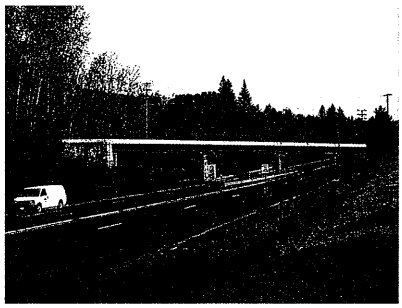
Willard Munger State Trail, 93rd Avenue Pedestrian Bridge, Duluth, MN

The Minnesota Department of Natural Resources retained TKDA for Engineering Services for Design and Construction Management to rehabilitate the bridge carrying the Willard Munger State Trail over 93rd Avenue in Duluth, Minnesota. The goal of this project was to rehabilitate the existing trail bridge to meet AASHTO Specifications and also meet ADA standards and to provide a surface to better serve the multiple types of use that this trail serves.

TKDA performed an existing bridge assessment. With this information, TKDA recommended repairs and checked the capacity of the superstructure to carry the dead load of a proposed deck in addition to the live load of either pedestrians or H-15 vehicle. During the conceptual phase, deck replacement alternatives were evaluated and the transversely laminated timber deck with a bituminous wear surface option was selected.

The former railroad bridge over 93rd Avenue was constructed in 1915. This bridge consists of three through plate girder spans with span lengths of 13'-0", 63'-5", 13'-0". The bridge was constructed on a 1.06% grade descending toward the north. The substructures are skewed 49 degrees 31 minutes from perpendicular and bear on timber piling. Final design plans were created to provide a 12-foot minimum clear width.

TKDA also provided Construction Administration and Construction Observation services during the construction phase through project close-out.



Willard Munger State Trail, Grand Avenue Pedestrian Bridge, Duluth, MN

The Minnesota Department of Natural Resources retained TKDA for Engineering Services for Design and Construction Management to rehabilitate the bridge carrying the Willard Munger State Trail over Grand Avenue (TH 23) in Duluth, Minnesota. The goal of this project was to rehabilitate the existing trail bridge to meet AASHTO Specifications and also meet ADA standards and provide a surface to better serve the multiple types of use that this trail provides.

TKDA performed an existing bridge assessment. With this information, TKDA checked the capacity of the superstructure to carry the dead load of a proposed deck in addition to the live load of either pedestrians or H-15 vehicle. During the conceptual phase, deck replacement alternatives were evaluated and the cast-in-place concrete deck option was selected.

This former railroad bridge was originally constructed in 1940 and consists of four 60-foot-long steel beam spans bearing on cast-in-place concrete substructures that are skewed 59 degrees 33 minutes from perpendicular. The bridge was constructed on a 0.98% grade descending toward the north. A Cooper's E-72 loading, which includes a 72,000 pound axle, was used for the design. The substructures utilize spread footings.

Final design plans were created to provide a 12-foot minimum clear trail width. The existing ornamental metal railing system was salvaged, refinished and installed on new concrete curbs to meet current AASHTO Specifications.

TKDA provided Construction Administration and Construction Observation services during the construction phase through project close-out.

Western Waterfront Trail Renewal, Duluth, MN

The Western Waterfront Trail offers nearly five miles of waterfront accessible to all. Several marsh habitats along the shoreline make this a gem in the park system of Duluth. This trail was designed specifically to provide non-motorized access on an old railroad right-of-way, on a route that provided service between Duluth and St Paul in the late 1800s.

The trail today links the Riverside neighborhood to the Lake Superior Zoo, and nearby is the Willard Munger State Trail, a paved pathway that links this area to Jay Cooke State Park and other communities south of Duluth.

TKDA's work on this project included organizing and responding to public input through the use of town hall style meetings, design in connection with restoring the surface and width on 3.4 miles of the trail, re-establishing proper drainage by replacing washed out 15- and 18-inch culverts, replacing bridge decking on two steel pedestrian bridges, and replacing a deteriorating 25-foot long section of boardwalk in a wetland with a 25-foot single-span timber pedestrian bridge. Additionally the project included regrading four sections of trail, approximately 1,100 feet total, to meet guidelines for accessible trails. Through the regrading efforts, a handicap accessible access point will be provided at the trailhead parking lot to provide better accommodations for a broad spectrum of users.

IV. PROJECT WORK PLAN AND TIMELINE

WORK PLAN - STEWART CREEK BRIDGE REHABILITATION

TASK 1 • PROJECT KICKOFF AND SCOPING MEETING

A kick-off meeting with the City of Duluth will set expectations and introduce key Team members. We anticipate that the kick-off meeting can address both the bridge and trail aspects of the Project. TKDA will meet on site with City representatives to review Project scope and complexity, design criteria, and existing conditions.

A major element of the Project includes developing construction documents for the rehabilitation of the Stewart Creek Bridge for use by pedestrians, skiers, mountain bikers, equestrians, snowmobiles, and service vehicles.

Our Team is familiar with the Project site and has made a preliminary review of the bridge. Early on in the Project, we will finalize the schedule and discuss the best means of communication for those involved in the Project.

TKDA Responsibilities:

- Prepare documentation of the Project kick-off meeting and data provided by the City for the TKDA Team, as well as prepare and maintain a detailed Project schedule.

City Responsibilities:

- Attend on site scoping meeting; assist in providing background information relevant to Project.

TASK 2 • SITE OBSERVATIONS

The City has decided, based on available funding and desired use, that the Stewart Creek Bridge will be rehabilitated instead of replaced. The bridge over Stewart Creek is an abandoned railroad structure formerly carrying the Duluth, Winnipeg and Pacific Railway. It is a five-span deck plate girder bridge with spans consisting of 59'-30'-60'-30'-59'. The existing steel appears to be in relatively good condition considering the age of this structure. Based on the May 2015 "DWP Trail Bridge Assessment Report" for the Stewart Creek Bridge, it appears that LHB has previously performed a capacity review and it was their opinion that the structure capacity will be more than adequate to carry any of the potential uses of pedestrian, ATV/Snowmobile or Equestrian. We did not include a capacity analysis of the bridge in this Proposal.

We assume that the existing construction plans for this bridge are not available, so as our first step in the Project development, plan to visit the site to obtain dimensions of in-place components. Once this information has been obtained, we will be able to perform the bridge rehabilitation design tasks.

TKDA Responsibilities:

- Perform on site measurement and observation of the existing Stewart Creek Bridge.

TASK 3 • PLANS AND SPECIFICATIONS

TKDA's Team will prepare construction drawings and specifications as necessary for the rehabilitation of the Stewart Creek Bridge and the construction of the Clyde Connector Trail. Our approach to the design work for the bridge rehabilitation, in general, is as follows and will contain the following major areas of design effort:

- The original design to carry railroad loading should be more than adequate to carry the loads of a pedestrian bridge. Other than removing the debris on the top of the girders and around the bearings, we propose leaving the existing steel girders alone. This will reduce the complexity and construction cost of the Project while providing the strength needed for the intended bridge use. The girders support 12-foot long timber ties with 20-foot long timber walk ties spaced about every sixth tie. The majority of ties are in adequate shape to be reutilized as a subdeck.
- We recommend spot replacement of some of the existing timber ties. We will detail installing timber planking diagonally over the existing ties to create a 12-foot wide deck with smoother ride surface for trail users. The existing 20-foot long timber walk ties will be utilized to support a new timber railing, on both sides of the deck, similar to that used on the bridge carrying the Willard Munger trail over 93rd Street.
- At the tower bent legs, we will detail removal of the spalled concrete and placement of concrete shells that will encapsulate the existing concrete bases.

TKDA will perform design calculations and develop the construction plans needed to rehabilitate the bridge for trail use as outlined above. The main elements of the design work will include plans for concrete repairs to the spalled elements and enlarged footings, deck modifications, new decking details for the riding surface, railing details, and construction specifications to accompany the plans. We will also prepare an opinion of probable cost for the proposed repairs to confirm the Project is in alignment with the City's budget for the Project.

TASK 4 • BIDDING ASSISTANCE

Upon completion of the final plans and specifications for the bridge work, TKDA will provide the City with technical specifications/special provisions and construction plans necessary for contractor bidding and award. We have included time in our Proposal for responding to contractor questions during the bidding process, and to attend a pre-bid meeting one week after the advertisement for construction bids has been placed. This meeting often brings clarity to potential bidders, resulting in better construction pricing for the City.

In our Project Schedule we show completion of the plans, specifications and estimate by March 1, 2017, so that the review process through City staff can be completed and bidding take place in early March 2017, with a construction start of May 2017.

TKDA Responsibilities:

- Final construction plans and special provisions/technical specifications needed to obtain contractor bids.
- Assist in responding to contractor questions during Project's bidding phase.
- Host/attend a pre-bid meeting to explain the Project details and answer bidder questions.
- Record the pre-bid meeting minutes.

City Responsibilities:

- Prepare the contractor bidding package, advertise Project, sell/deliver plans/specifications.
- Set time/date/location for pre-bid meeting.

TASK 5 • CONSTRUCTION OBSERVATION

TKDA has included an estimate of hours required for field observation of contractor methods and performance of the work shown in the construction plans and to verify compliance with those plans per the City's request. Our approach is to offer assistance which supplements the work efforts of City staff assigned to the Project. We will use these hours as needed and directed by the City.

On recent projects such as the Western Waterfront Trail Renewal Project, TKDA staff provided construction staking and measurement of quantities and made periodic onsite observations when City staff were on other assignments or needed assistance. We propose to follow that model on this Project as well.

This time will also be used for administration of the contract between the City and the contractor, which will include processing payment applications and change orders.

WORK PLAN - CLYDE CONNECTOR TRAILS

TASK 1 • PROJECT KICKOFF AND SCOPING MEETING

A kick-off meeting with the City of Duluth will set expectations and introduce key Team members. We anticipate that the kick-off meeting can address both the bridge and trail aspects of the Project. TKDA will meet on site with City representatives to review Project scope and complexity, design criteria, and existing conditions.

The Project involves developing construction documents for the grading and establishing a portion of the Clyde Connector Trail on a new alignment from its current location. The Trail was designed and constructed as a connection between the Munger State Trail and Skyline Parkway, and is a consistent 10-foot wide natural surface trail. The Project calls for the restoration of approximately 0.2 miles of trail and creation/redevelopment of approximately 0.3 miles of trail.

Our Team is familiar with the Project site and early on in the Project we will finalize the schedule and discuss the best means of communication for those involved in the Project.

TASK 2 • SITE OBSERVATIONS

Once the kick-off meeting has occurred, our Team will visit the site to take notes of the existing terrain, potential storm water conflicts at the existing trail, and other features. We will perform a topographic survey of the intended route for the Clyde Connector Trail to determine the existing grades and areas that will be impacted by redevelopment/construction of a new trail alignment. As we understand it, there are some areas where an old rock cut/former road alignment may provide a suitable location for a portion of the trail that will provide grades which could meet the Architectural Barriers Act (ABA) requirement of 8.33% grade. This is the same approach that was taken by our design Team on the Western Waterfront Trail Renewal Project, where trail alignments were reduced in several areas to 8.33% or less to provide a more accessible trail for the City's system users.

TASK 3 • PLANS AND SPECIFICATIONS

Construction plans bring together a Project's many elements to produce a coherent product to be used for construction of planned improvements. The plans will cover development of the trail location and section (strength), review of existing culverts, storm water pollution prevention plan (SWPPP), and details necessary for constructing the Project. We propose to follow an approach similar to the Western Waterfront Trail Renewal Project, wherein our survey work will determine what areas need to be graded to achieve an ABA-compliant grade of 8.33% or flatter for the proposed trail alignment.

The trail surfacing will be similar to that used on the Waterfront Trail Renewal Project as well - a natural surfacing material which can be compacted to "firm and stable" standards of trail design. Our construction plans will provide the contractor with the route, grades, and typical sections needed to construct the Clyde Connection Trail as intended.

Our Team will perform a brief review of existing drainage patterns and culverts to confirm that existing storm drainage is functioning as intended. Some improvements or changes to storm culverts are anticipated as a part of this Project since storm water damage did occur in this area as a result of the 2012 flood. Any future improvements will need to consider design of storm water channels or culverts that prevent large-scale ponding and flooding so as not to damage the trail once constructed. We have included time in this Proposal for analyzing this element of the Project and for designing culverts, sediment traps, and rip-rap armoring for areas along the Clyde Connector Trail. We will meet with City Engineering to discuss the requirements for storm water design and permitting as a part of our work.

We understand that the City has retained Barr Engineering to handle the environmental and cultural resources portion of this Project and we will be responsible to coordinate our work with Barr. We have a past working relationship with Barr Engineering, and our Team will provide the details and background information necessary so that permits are "ready to submit" for the Project. TKDA will coordinate utility improvements and relocations that may be necessary to facilitate construction of the Project.

TKDA's Quality Assurance process plays a major role in controlling Project costs. We dedicate time within our schedule for senior TKDA professionals to carefully review construction documents for omissions, errors and clarity prior to issuing. Once approved, we then review the documents with the client sheet by sheet. This two-step process minimizes errors and reduces the potential need for change orders, saving the City construction costs. The end product will provide the plans and technical specifications that the City needs to assemble the complete bid package for contractor bidding.

TKDA Responsibilities:

- Prepare documentation of the Project kick-off meeting and the data provided by the City to the TKDA Team. We will prepare and maintain a detailed Project schedule.
- Review Record Plans and determine public and private utility relocation needs.
- Develop construction plans including all disciplines in conformance with design standards.
- Evaluate storm culverts, prepare designs if needed, and prepare SWPPP.
- Provide information necessary to complete permitting applications and submittals; provide to City and/or Barr Engineering for submittal and follow up.
- Provide City with regular updates on design progress via email or teleconference.
- Submit Design Status Report at 60%, and final stages of completion. Plans will be submitted to City for review for review/approval
- Develop and maintain construction cost estimates for 60% and final design stages.
- Submit final plans, special provisions and all required documents to the City to assemble complete bidding package for the Project. TKDA will provide design files in CAD, PDF, and/or paper format as needed. Special provisions and final plans will be provided to City by March 1, 2017, to allow time to prepare the bid package and advertisement.

City Responsibilities:

- Attend on site scoping meeting; assist in providing background information relevant to Project.
- Provide any additional background/record drawing information that may be required to complete the design work.
- Perform plan reviews and provide feedback as required to maintain the Project schedule.
- Submit permit applications and handle public involvement as necessary for the Project.

TASK 4 • BIDDING ASSISTANCE

On completion of the final plans and specifications for the bridge work, TKDA will provide the City with technical specifications/special provisions and construction plans necessary for contractor bidding and award. We have included time in our Proposal for responding to contractor questions during the bidding process, and to attend a pre-bid meeting one week after the advertisement for construction bids has been placed. This meeting often brings clarity to potential bidders, resulting in better construction pricing for the City.

In our Project schedule we show completion of the plans, specifications and estimate by March 1, 2017, so that the review process through City staff can be completed and bidding may take place in early March 2017, with a construction start of May 2017.

TKDA Responsibilities:

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- Assist in responding to contractor questions during Project's bidding phase.
- Host/attend a pre-bid meeting to explain the Project details and answer bidder questions.
- Record the pre-bid meeting minutes.

City Responsibilities:

- Prepare the contractor bidding package, advertise Project, sell/deliver plans/specifications.
- Set time/date/location for pre-bid meeting.

TASK 5 • CONSTRUCTION OBSERVATION

TKDA has included an estimate of hours required for field observation of contractor methods and performance of the work shown in the construction plans and to verify compliance with those plans per the City's request. Our approach is to offer assistance which supplements the work efforts of City staff assigned to the Project. We will use these hours as needed and directed by the City. On recent projects such as the Western Waterfront Trail Renewal Project, TKDA staff provided construction staking and measurement of quantities and made periodic onsite observations when City staff were on other assignments or needed assistance. We propose to follow that model on this Project as well.

This time will also be used for administration of the contract between the City and the contractor, which will include processing payment applications and change orders. During trail construction, we would anticipate a need for staking of trail layout and grades as well. Last, the trail construction will need to mesh with the rehabilitation of the Stewart Creek Bridge, and our Team will work to make the two projects dovetail together as required.

SCHEDULE

The TKDA Team understands that work associated with this Project must be completed so as to facilitate advertising the Project for bids in March 2017 and we have the resources, available personnel, expertise and enthusiasm to immediately begin work on your Project. We have estimated the following schedule for completion of the Stewart Creek Bridge rehabilitation and Clyde Connector Trails Project:

December 15, 2016	Proposal Submitted to City
December 23, 2016	Consultant Selected for Project
January 2-6, 2017	Kick-off/Onsite Scoping Meeting w/City
January 2-6, 2017	Obtain Topographic Survey Information
February, 2017	Plans (60%) Submitted to City for Review
January 16-20, 2017	Final Plan/Special Provision Revisions Made
March 1, 2017	Approved P/S/E to City for Bidding
March 2017	Advertise for Contractor Bids
March 2017	Pre-bid Meeting with Contractors
May-October 2017	Project Construction

V. ADDITIONAL SERVICES

If authorized in writing by the City of Duluth, we will furnish or obtain from others Additional Services of the types listed below which are not considered as basic services under this Proposal. Additional Services shall be billable on an Hourly Time and Materials basis and such billings shall be over and above any maximum amounts set forth in this Proposal.

A. Further effort or documentation beyond that described in SECTION IV.

B. Permit application fees and publication costs.

C. Significant alteration to the proposed schedule or performance of public involvement meetings.

D. A full rating of the Stewart Creek Bridge, with in-depth steel measurements.

E. Planning assistance and/or bidding documents (PS&E) for steel repairs, rehabilitation, and/or painting to protect the City's current investment by extending useful life.

F. Other subconsultants such as a cultural resources firm, should cultural resources need to be field-verified by specialized personnel.

VI. CITY'S RESPONSIBILITIES

These responsibilities include, but are not limited to, the following:

A. Designate one individual to have complete authority to transmit instructions, receive information, interpret and define policies, and make decisions with respect to critical elements pertinent to the Project.

B. Provide TKDA with access to the site as required to perform services listed in SECTION IV.

C. Provide reviews of materials furnished by TKDA in a reasonable and prompt manner so that the Project schedule can be maintained.

VII. COMPENSATION

Compensation to TKDA for services provided as described in this Proposal shall be on an Hourly Time and Materials basis in an amount not to exceed $62,500. Our Detailed Project Fee Estimate is attached.

The level of effort required to accomplish services can be affected by factors which are beyond our control. Therefore, if it appears at any time that charges for services rendered will exceed the above, we agree that we will not perform services or incur costs which will result in billings in excess of such amount until we have been advised by you that additional funds are available and our work can proceed.

VIII. CONTRACTUAL INTENT

We appreciate the opportunity to propose on your Project. We agree to execute a mutually agreeable contract that incorporates this Proposal. Please contact Jeff Goetzman at 218.491.7835 or email at jeff.goetzman@tkda.com if you have any questions.

Sincerely,

Jeffrey S. Goetzman, PE
Project Manager

Dennis M. Postler, PE
Vice President, Municipal Services

JSG:DMP:adh
ATTACHMENT: PROJECT FEE ESTIMATE

EXHIBIT B

TKDA

Project Fee Estimate

Client:	City of Duluth	**Date:**	12/15/2016
Project:	Stewart Creek Bridge Rehabilitation and Clyde Connector Trails	**Prepared By:**	JSG

Task	Task Description	Estimated Person Hours Required						Total Hours	Total Dollars
		Sr Reg Eng	Sr Reg Eng	Sr Reg Eng	Grad Eng	Tech III	Tech II		
	STEWART CREEK BRIDGE REHABILITATION								
1	Project Kick-off Meeting	2	2					4	$ 610
2	Site Visit/Observations	2	8					10	$ 1,516
3	Plans and Specifications								
	Concrete Repair Plans		40	3				43	$ 6,433
	Existing Deck Modifications		12	2				14	$ 2,074
	New Deck Details		24	2				26	$ 3,886
	Railing Details		32	2				34	$ 5,094
	Specifications		12	2			4	18	$ 2,298
	Opinion of Probable Costs		8	1				9	$ 1,339
4	Bidding Assistance	2	4					6	$ 912
5	Construction Observation/Admin. (hourly as needed)	4	28					32	$ 4,844
	SUBTOTAL HOURS	10	170	12	-	-	4	196	
	SUBTOTAL LABOR FEES								$ 29,006
	CLYDE CONNECTOR TRAILS								
1	Project Kick-off Meeting	2						2	$ 308
2	Site Visit/Observations	4			4			8	$ 916
3	Plans and Specifications								
	Topographic survey/field work	2			16	16		34	$ 2,740
	Create boundary and topographic drawings	1			4	24		29	$ 2,302
	Develop Trail Grading Plan	16			80	40		136	$ 11,544
	Hydraulics/Drainage/Rip Rap Design	2			32	8		42	$ 3,324
	SWPPP	1			8	2		11	$ 908
	Erosion Control/Details	1			20	8		29	$ 2,270
	Specifications	4			8		4	16	$ 1,440
	Opinion of Probable Costs	1			6			7	$ 604
4	Bidding Assistance	2			4			6	$ 608
5	Construction Observation/Admin. (hourly as needed)	12			48			60	$ 5,448
6	Construction Staking				8			8	$ 600
	SUBTOTAL HOURS	48	-	-	238	98	4	388	
	SUBTOTAL LABOR FEES								$ 33,012
Total Person Hours		58	170	12	238	98	8	584	
Billing Rate/Hr x Multiplier		$ 154	$ 151	$ 131	$ 75	$ 77	$ 56		
Total Billable for Charged Time		$ 8,932	$ 25,670	$ 1,572	$ 17,850	$ 7,546	$ 448		$ 62,018
Expenses:									
Mileage	Mileage at: 100	$0.54	/ mile						$ 54
Survey Equipment	Hours at: 8	$40.00	/ hour						$ 320
Reproduction & Reprographics									$ 50
Total Project Fees									**$ 62,442**
Total Not to Exceed									**$ 62,500**