

AMENDMENT NO. 1 TO L 30274

Contract Start Date:	10/16/2019	Original Total Amount:	\$206,200.00
Original Completion Date:	12/31/2020	As Previously Amended:	0
Amendment Completion Date:	12/31/2021	Current Amendment:	\$218,500.00
Resolution:		New Total Contract Amount:	\$424,700.00

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 TKDA located at 11 East Superior St., Suite 420, Duluth, MN 55802, hereinafter referred to as “Engineer”, for the purpose of rendering services to the City.

WHEREAS, on October 16, 2019, City and Engineer entered into an agreement bearing City of Duluth Contract No. L30274 for professional engineering services for the 2020 Street Preservation project, which Contract has not been previously amended, hereinafter referred to as the “Contract”; and

WHEREAS, both parties desire to amend the Contract to extend the dates of completion and add additional locations for 2021 as described in Engineer’s Proposal, attached hereto as Exhibit A.

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 Study and Report Phase Completion Time described in Section II.A of the Contract is hereby amended as follows:

The Study and Report Phase shall be completed and report submitted by November 15, ~~2019~~ 2020.

Revision 2. The Preliminary Survey Phase Completion Time described in Section II.B of the Contract is hereby amended as follows:

The Preliminary Survey Phase shall be completed and report submitted by November 15, ~~2019~~ 2020.

Revision 3. The Preliminary Design Phase Completion Time described in Section II.C of the Contract is hereby amended as follows:

The Preliminary Design Phase shall be completed and report or plan submitted by December 4, ~~2019~~ 2020.

Revision 4. The Final Design Phase Completion Time described in Section II.D of the Contract is hereby amended as follows:

The Final Design Phase shall be completed and contract documents submitted by February 28, ~~2020~~2021.

Revision 5. The Bidding Phase Completion Time described in Section II.E of the Contract is hereby amended as follows:

The Bidding Phase shall be completed by April 2, ~~2020~~2021.

Revision 6. The Construction Survey & Layout Phase Completion Time described in Section II.F of the Contract is hereby amended as follows:

The Construction Survey and Layout Phase shall be completed by August 21, ~~2020~~2021.

Revision 7. The Construction Administration and Inspection Phase Completion Time described in Section II.G of the Contract is hereby amended as follows:

The Construction Administration and Inspection Phase shall be completed by December 15, ~~2020~~2021.

Revision 8. The Payment Total Not to Exceed described in Section V.C of the Contract is hereby amended as follows:

All payments under this Contract are not to exceed ~~two hundred and six thousand, two hundred and 00/200 dollars (\$206,200.00)~~ Four Hundred Twenty-Four Thousand Seven Hundred and no/100ths Dollars (\$424,700.00).

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

TKDA

By:

By:

Mayor

Company Representative

Attest:

Its:

City Clerk

Title of Representative

Date Attested: _____

Date: _____

Countersigned:

City Auditor

Approved as to form:

City Attorney

CITY OF DULUTH
2021 Street Preservation Project
Design and Construction Phase
Project No. 1693



Jeff Goetzman, PE
Project Manager
jeff.goetzman@tkda.com | 218.390.9295

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Duluth, Minnesota 55802

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October 29, 2020

Mr. Patrick Loomis
City Engineering
City of Duluth
411 West 1st Street
Room 240
Duluth, MN 55802

Re: 2021 Street Preservation Project – Design and Construction Phase—City Project #1693

Dear Mr. Loomis:

TKDA is pleased to submit our proposal for the design and construction of the City's 2021 Street Preservation project. Our team has appreciated the opportunity to work with you and the City on the 2020 Street Preservation project, and we are well-positioned to assist with developing construction documents for the 2021 project under the terms of a mutually agreeable contract. We understand the City's design standards and quality requirements. We plan to serve your street improvement needs by providing:

Proven Local Experience – TKDA is a local team that has a broad range of experience working with the City of Duluth and surrounding areas. Having just completed work on the 2020 project, members of our team have a deep understanding of the approach and needs of the City on the next project.

Client Dedication and Responsiveness – TKDA is fully committed to helping the City of Duluth deliver a successful street improvement project in a cost-effective, time-efficient manner. We have a proven track record of client dedication and quick response, and want to help deliver this project on the City's desired schedule. We are excited for the opportunity to be part of the City's 2021 Street Preservation project!

Our design team understands the design requirements and goals for this project as well as the City's design review process and utility operations. The street improvements are being completed to support and improve the City's local transportation network.

Our proposal offers staff who are local to the project, invested in the Duluth community, and have an understanding of the City of Duluth and specific project needs. Please contact Jeff Goetzman directly at 218.390.9295 or jeff.goetzman@tkda.com with any questions you have regarding our proposal. We look forward to a continued work relationship with the City. Thanks once again for the opportunity to provide this proposal and to be of service on the upcoming project.

Sincerely,

A blue ink signature of Jeff S. Goetzman.

Jeff S. Goetzman, PE
Project Manager

A blue ink signature of Douglas W. Fischer.

Douglas W. Fischer, PE
Vice President, Municipal Services

JSG:DWF:sfs

Project Overview

The City of Duluth would like to retain a consultant to provide design and construction services for the 2021 Street Preservation Project. Street work will include material removal, reclamation, milling, bituminous paving, grading, stormwater drainage improvements and ditching, curb and gutter replacement, pedestrian ramps, turf establishment as necessary, and re-striping if present.

The proposed 2021 project site list includes 30 locations where local streets are in need of rehabilitation, including two that have full reconstruction planned. Of the 30 locations, TKDA has already developed design plans for 7 of the locations as part of the 2020 Street Preservation project. However, these were removed from the 2020 project at the time of construction due to budget constraints.

Goals/Objectives

The improvements being made as part of Duluth's 2021 Street Preservation Project provide an opportunity to update road conditions in several neighborhoods as illustrated by the City's map (i.e. east, central, west project maps) included with the project RFP. Our team has made a preliminary assessment of the project sites and details. There are several goals of the 2021 Street Preservation project which can be summarized as follows:

1. Utilize 5% sales tax revenue to make upgrades and improvements to local streets in Duluth. The City will make improvements to deteriorated road surfacing by reconstructing roadways, reclaim and overlays, mill and overlays, or overlaying existing gravel or pavements.
2. Improve stormwater collection and primary treatment. The City of Duluth has steep road grades which contribute significant amounts of runoff and sediment loads to the City's storm sewer system. Improvements to stormwater infrastructure where appropriate are included in the project scope.
3. Improve pedestrian/public safety. There is a need to address ADA access issues with provision of curb ramps and truncated domes along with grades that provide suitable accessibility. Sidewalks will also be included along Burning Tree Road.
4. Utilize public information meetings to keep affected landowners informed. Our team will use a public open house forum for providing project updates to affected landowners. Our engineers typically utilize large-format exhibits to provide an overview of known design issues to groups of affected residents or landowners, and then follow up with one-on-one conversations regarding individual concerns.

As a part of this project, we anticipate having a series of six (6) public meetings. We recognize that in-person meetings may not be possible as part of this project due to Covid-19 restrictions and social-distancing. TKDA has also developed tools with which to host virtual meetings with owners and can work with the City to arrange meetings in alternate formats should that option be necessary.

Project Tasks

TKDA envisions four principal phases for the City's 2021 Street Preservation Project: Information Gathering, Preliminary and Final Design, Project Bidding, and Construction. Tasks and deliverables for each phase are described in detail in our Work Plan.



Project Experience

2020 Street Preservation Project, Duluth, MN

The City of Duluth retained TKDA to design and manage construction for its 2020 Street Preservation Project. The project included 41 sites for pavement rehabilitation, curb and gutter repairs, storm structure repairs, and pedestrian ramp construction. TKDA performed an initial verification of construction costs, developed plans and specifications for the project, and assisted the City with construction observation and administration.

Team Members:

Jeff Goetzman (PM), Tanja Mattonen (Design/Construction), Will DeRocher (Design/Construction), Jeff Dyer (Construction)

Relevant Project Features:

- Pavement reclamation, milling
- Removal and replacement of damaged curb and gutter.
- ADA improvements.
- Storm sewer modification.
- Signing and striping.
- Surveying and staking.
- Construction observation.
- Public engagement.



59th Avenue West Street and Utility Improvements, Duluth MN

Design the reconstruction of 900 LF of 59th Avenue West and 350 feet of Fremont Street, from Waseca Street to the Hallett Dock property. The street reconstruction project included grading, edge drains, curb and gutter, storm sewers, water main replacement, sanitary sewer repairs, and bituminous pavement. A cul-de-sac was designed to provide a turn-around point for trucks on both 59th Avenue and on Fremont Street. The project involved coordination of access for commercial businesses located on 59th Avenue West during construction.

Team Members:

Jeff Goetzman (PM), Will DeRocher (Design, Observation), Jon Kamp (Survey, Design)

Relevant Project Features:

- 1,200 LF of City street reconstruction.
- New storm sewers and water quality structure.
- The watermain replacement began to the north of the street reconstruction and a casing was bored under the existing BNSF railroad tracks.
- Phased to keep traffic and access to local businesses and Hallett Dock operational.

1st Street NW - Minnesota Avenue to 2nd Avenue, Aitkin, MN

This was a complete reconstruction of four and a half blocks of downtown Aitkin. Includes storm sewer improvements, curb and gutter replacement, sidewalk replacement, parking lot entrances, ADA-compliant intersections, and on-street parking. The project utilized State Aid funding.

Team Members:

Jon Loye (PM), Will DeRocher (Design), Jon Kamp (Design), Jeff Goetzman (QA/QC)

Relevant Project Features:

- Municipal State Aid design bounded by Hwy 169 and MN 210.
- Coordination of access for businesses located in this area, along with a city park, parking lots. Driveways, parking lots, sidewalks and other existing structures required careful consideration for matching connection points.
- A steep entrance at the fire hall required a change in the road section from a crown to a straight grade.



Pine Road Paving Design and Construction Observation, Fall Lake Township, MN

TKDA provided engineering services for design and construction observation for bituminous paving on Pine Road between CSAH 16 and the boat access on White Iron Lake.

The project placed a seven-ton capacity bituminous surface with striped shoulders and a bike/pedestrian lane on Pine Road between CSAH 16 and the public boat access. This provides the public with a safer roadway to the access, reduce dust and road grading/maintenance requirements, and provide a safer route for pedestrians and cyclists who frequently use Pine Road as a continuation of the bicycle/pedestrian path on Kawishiwi Trail (CSAH 16) down to White Iron Lake.

Team Members:

Jeff Goetzman (PM), Will DeRocher (Design/Staking/Field), Jon Kamp (Survey/Design)

Relevant Project Features:

- Performed a topographic survey to verify existing roadway conditions.
- Evaluated the existing roadway grade and designed bituminous pavement on one mile of Pine Road.
- Coordinated with the Lake County Highway Engineer and the MnDOT Office of State Aid for approval of applicable design standards.

Ugstad Road Reconditioning, Hermantown MN

The Ugstad Road Reconditioning was a State Aid project involving preliminary design, final design, special provisions, construction cost estimates and construction services for approximately one mile of Ugstad Road north of the Morris Thomas Road. During design poor subgrade soils were identified and ultimately reconstruction was needed.

Team Members:

Jeff Goetzman (PM), Jon Kamp (Survey/Design), Jon Loye (Design/Observation)

Relevant Project Features

- Complete street reconstruction.
- Topographic survey, construction staking and the preservation and remonumentation of section corners.
- Construction administration and observation were provided.

Jackson Estates, 4th Addition Hermantown, MN

The project consisted of platting residential building lots, all public improvements including two new streets (Truman Road and Jefferson Drive), water mains, sanitary sewers, and stormwater controls. TKDA services included land survey and platting, utility and roadway design, permitting, construction observation and staking services, and stormwater management.

Team Members:

Jeff Goetzman (PM), Will DeRocher (Design Engineer and Observation), Jon Kamp (Survey and CAD Drafting), Jon Loye (Stormwater)

Relevant Project Features

- Construction of 2,600 LF of new City street.
- Design and construction of stormwater controls.

2020 Street Improvements, Hermantown, MN

This project provided an opportunity to update road conditions and improve safety on some of the City's oldest roads. Project is currently finishing construction,

rehabilitating the surfacing on 1.875 miles of City roadway, ditching and spot storm sewer repairs, replacement of culverts, and spot utility repairs to sanitary sewers and water mains. The project improved safety by making improvements to increase visibility for motor and pedestrian traffic. TKDA worked with the City to communicate to residents about the impacts to private property and schedule during construction.

Team Members:

Jon Loye (PM), Will DeRocher (Design Engineer), Jeff Goetzman (QA/QC), Jon Kamp (Survey and Design), Jeff Dyer (Construction/Staking)

Relevant Project Features

- Hermantown Road is a State Aid road requiring plans to meet State Aid standards
- Design work includes mill and overlay and full reconstruction of roads, including spot utility repairs on 1.875 miles of City
- Several hundred residents impacted by the project, numerous public meetings and decisions based on the outcome of the meetings.

Additional Project Experience

CSAH 2 10-Ton Mill and Overlay, Pavement Design Lake County, MN

TKDA provided design engineering services for rehabilitation of 5.524 miles of Lake County CSAH 2 north of Two Harbors, MN. Project was Federal Aid mill and overlay intended to rehabilitate pavement structure and improve roadway strength to 10-ton rating. The design included bituminous milling and removal, repair of spot subgrade failures, new bituminous pavement, shouldering, and striping.

Team Members:

Jeff Goetzman (PM), Will DeRocher (Design)

St. Louis County Jail Parking Lot, Pavement Design and Construction Observation,

St. Louis County, MN

TKDA provided design and construction phase engineering services for rehabilitation of the parking lot at the St. Louis County Jail in Duluth, MN. Project included bituminous milling and removal, repair of spot subgrade failures, spot curb and gutter replacement, sidewalk repairs, storm sewer repairs, and new bituminous pavement for 2 acres of bituminous parking surface and access roads.

Team Members:

Jon Loye (PM), Jon Kamp (Survey, Staking, Design), Will DeRocher (Design/Observation), Jeff Goetzman (QA/QC)

UMD Parking Lot T2 and L2 UMD Parking Lot T2 and L2, Pavement Design and Construction Observation, University of Minnesota-Duluth, MN

TKDA provided design and construction phase engineering services for rehabilitation of the parking lot at the University of Minnesota Duluth. Project scope included storm utility updates, pavement milling and structural repairs for two separate parking lots on the UMD campus.

Team Members:

Jeff Goetzman (PM), Will DeRocher (Design/Observation)

UMD University Drive Reclaim and Pave, Pavement Design and Construction Observation

University of Minnesota-Duluth, MN

TKDA provided design and construction phase engineering services for rehabilitation of 800 LF of University Drive on the UMD Campus. Project included bituminous milling and removal, spot curb and gutter replacement, sidewalk repairs, storm sewer repairs, and new bituminous pavement.

Team Members:

Jeff Goetzman (PM), Will DeRocher (Design/Observation)

Key Personnel

TKDA's Team includes staff with experience in street and utility reconstruction, surveying, State Aid, public engagement, and construction services. Our team will work with City staff to deliver a quality project that meets City and State Aid standards.



Jeff Goetzman, PE Project Manager

Jeff Goetzman has designed and managed street, bridge, drainage, and municipal utility

projects from planning through design and construction for 27 years. Jeff spent 10 years on the engineering staff at two Minnesota counties and has completed dozens of pavement design projects. Jeff also spent eight years leading the City of Superior's Public Works Department, where his staff rehabilitated 440 blocks of City streets. Jeff's project experience includes City streets, County State Aid highways, sewers, watermains, trails, and parks. Jeff will serve as the City's point of contact and will complete QA/QC reviews of all engineering work product, ensuring it meets the requirements of the City.



Tanja Mattonen, EIT Design and Inspection

Tanja Mattonen is an EIT-certified Civil Engineer with nearly 4 years of experience including time as an

Engineering Aide Trainee with St. Louis County. She has infrastructure design experience, including signing, striping, traffic signals and bridges. Tanja's work will involve performing field review of project sites and creating construction plans and specifications. She will also work with contractor and City as lead inspector in 2021 during construction.



Jeff Dyer, EIT Survey

Jeff Dyer has been working in the survey, design and construction of city streets, parking lots,

and commercial development for four years. Jeff is well-versed in stormwater design, pavement and street design as well as field survey and the use of Civil 3D for design work. Jeff's work will involve performing field review of project sites and creating construction plans and specifications.



Will DeRocher, PE Design and Inspection

Will DeRocher has been designing building sites, roadways, trails, and utility improvements for seven years. Will's work

includes Federal Aid trail design, City pavement and street design, site work and grading, stormwater management, utility coordination, road and parking lot design, habitat restoration, and ADA improvements. He is certified through the City of Duluth for HDPE Pipe Fusion, and MnDOT certified for Aggregate Production, Bituminous Street (I & II), Concrete Field (I & II), Grading and Base (I & II), and ADA Construction Training. Will is also certified by the University of Minnesota for Design of Construction SWPPP. Will is going to assist with developing roadway alignments and construction plans.



Jon Loye, PE Stormwater Design

Civil engineer Jon Loye has designed new and updated roadways, utilities,

trails, parks, and building sites for 14 years. He brings expertise in project management, agency coordination, public engagement, planning, preliminary and final design, plan production oversight, cost estimating, and construction administration for extensive site work, utilities, and stormwater management. Jon will be involved with design of stormwater improvements as part of this project.



Larry Poppler, PE QA/QC - State Aid

Larry Poppler has served as city engineer, project manager, inspections director, and project

engineer on street, water supply systems, and civil site design projects for over 24 years, with 15 of those years at the City of Prior Lake. He has developed and implemented capital improvements for communities; established policies; and provided MnDOT State Aid administration and asset management. He has managed multiple consultants and staff members to assist with project design, inspection, surveying, studies, public engagement, and infrastructure management. Larry will provide an outside QA review of construction documents for the project.

Work Plan – Detail

Phase 1: Information Gathering

Communication is key to on-time project delivery. TKDA involves all stakeholders in the process through open communication and incorporates their needs into the improvements. For the 2021 Street Preservation project, City staff will provide essential guidance as to the project requirements, as well as operation and maintenance needs. TKDA will maintain open communication with City staff throughout the project and will document communication with meeting agendas, meeting minutes, and written updates.

Project Kick-Off

The project kick-off meeting will introduce key participants, establish means of communication, discuss the project schedule, and gather information on the City's roadway and utility needs. At the kick-off meeting we will review the project scope, request information needed for completion of the design, and may visit specific sites to review the existing conditions. We will also discuss the most effective way to produce construction documents considering the various types of work (i.e. full reconstruction, mill and overlay, overlay, reclaim), and the geographical locations of the project work (i.e. east, central, and west project mapping). This will likely follow the methodology used in the 2020 project, but our team will verify that approach.

TKDA Tasks:

- Participate in project kick-off and coordination meeting with City staff to review preliminary and record information, and to confirm project scope and complexity.
- Review and establish project design criteria, generate project design report.
- Participate in onsite visits with City staff to review specific site conditions and design issues.
- Review public utility information including City's televising reports or recommendations, coordinate utility location and information for project plans.

City Tasks:

- Ensure availability for City staff to participate in project kick-off and design meetings as required.
- Review meeting minutes and design summary and provide comments to TKDA team.

Deliverables:

- Meeting minutes.
- Project design summary.

Reconnaissance, Field Surveys, and Geotechnical Exploration

Following the kick-off meeting, we will complete a topographic survey and field measurements for each of the project sites as necessary. Elements included in the survey include mapping of the existing roadway and drainage features, right-of-way, known survey monuments, location of utility structures, driveways and side streets to the right-of-way, and locations of curb cuts, catch basins, manholes, or other structures.

Our team has extensive experience in performing surveys which include elements necessary to improve sidewalks and pedestrian ramps to meet current ADA standards. We will also work with our partner, American Engineering Testing (AET), to pick up the locations of any soil borings to more accurately depict the geotechnical information in our plan set. We plan to divide our team into two crews to obtain field survey and measurements in order to keep the project on schedule.

Our design team includes AET in Duluth who will perform the necessary geotechnical exploration at the site and provide a geotechnical report with recommendations for roadway construction. We have planned to perform soil borings at approximately one boring per block of street; should we encounter unique conditions which warrant additional study, we will work with City staff to add scope as needed.

TKDA Tasks:

- Perform topographic survey for project site including streets, curbs, driveways, relevant survey monuments, and utilities present in the project limits.
- Create base mapping for project design.
- Collect information needed to assemble any permit applications.
- Perform geotechnical exploration and document locations to confirm roadway section and pavement condition with partner AET.

City Tasks:

- Review survey information/monument information included in our topographic survey.
- Perform utility locates in affected segments.
- Review design recommendations from our team (TKDA/AET) for concurrence.
- Submit any permit applications necessary as prepared by our project team.

Deliverables:

- Topographic survey and base mapping.
- Permit applications for submittal by City.
- Geotechnical report and recommendations.

Public Participation and Meetings

Our team has a long history of planning and hosting public meetings for City projects to communicate design issues and schedules with residents impacted by projects. We will work with City staff to arrange six (6) neighborhood (in-person or virtual) meetings for this project. We will utilize open-house meetings where we introduce key decision makers and design staff, provide a short presentation, then break up into smaller groups to discuss any concerns or questions residents may have. We plan to use three (3) of the public meetings early on to introduce the project and gather feedback from affected residents. One meeting would be held in each of the mapped project areas (i.e. east, west, central). Remaining meetings would be used to discuss design plans and the anticipated construction and traffic impacts to the public.

TKDA Tasks:

- Prepare exhibits and lead a series of public meetings to convey project schedule and design issues to affected landowners.

City Tasks:

- Schedule locations and send notices/publications for public meetings.
- Review TKDA presentation materials prior to meetings for consistency with City policy/message.

Deliverables:

- Minutes/notes from public meetings.
- Materials to be used for presentation.

Phase 2: Preliminary and Final Design

This goal of this phase is the completion of a final design and preparation of detailed construction plans for the project. Our final plans will be prepared in accordance with City of Duluth and MnDOT State Aid requirements showing removals, typical sections, plan/views estimated quantities, construction notes, tabulations, construction details, traffic control, and erosion control. Our approach will be to create plan sheets utilizing aerial photography behind construction notes and layouts. For segments with full reconstruction, we will create plan and profile drawings as necessary to facilitate construction.

Our team will provide the City with final plans, specifications, construction cost estimate, and SWPPP. We will create background plan sheets from aerial photography and incorporate the City's GIS information on known utilities. Topographic survey information, construction notes, and details will be incorporated into these base drawings. TKDA will subcontract with AET for the soils exploration, testing, and report.

The first step in the design process will be for our team to analyze existing data and prepare a preliminary construction cost estimate for the project. We will take the City's initial guidance as to what the rehabilitative approach is at each project segment and create an initial cost estimate broken down by street. We will review this information with City staff to be sure that the design and cost alternatives fall in line with City objectives and budget constraints for the project prior to beginning work on plans and specifications.

The Work Plan table (attached) illustrates the remaining work tasks required to perform the design, permitting, and approval of the construction documents for the roadway segments included in the 2021 Street Preservation Project. Our plan set will follow the drawing sequence set forth by the City of Duluth standards and will include drawings and details required by MnDOT State Aid where required.

Special provisions will be developed in accordance with the City's standards. All work shall be in accordance with the current version of the City of Duluth Guidelines for Engineering Requirements and the City Standard Specifications. The current edition of the Minnesota Department of Transportation "Standard Specifications for Construction" and the current edition of the "Materials Lab Supplemental Specifications for Construction" shall be used.



TKDA Tasks:

- Create initial recommendations report with cost estimate listed by project street segment.
- Complete and submit 30% (Preliminary) Design Plan Set to include any geometric corrections, corrections for ADA, evaluation of stormwater features, and feasibility of any utility improvements.
- Complete and submit 90% (Final) Design Plan Set which is complete to a level that primary design decisions have been addressed to construct the project including phasing issues such as traffic control.
- Complete and submit 100% Design Plan Set, representing a complete design to biddable level which includes estimated construction quantities and details.
- Participate in three (3) plan review meetings with City staff. One meeting to review initial design and cost alternatives, one at 30% plan development, and one at 90% plan development.

City Tasks:

- Review and provide feedback on 30% and 90% plans.

Deliverables:

- 30% and 90% design submittals including plans and cost estimates.
- 100% design submittal and bid-ready plans and special provisions for project work (PDF, C3D, MSWord).

Cost Estimating

Accurate cost estimating is important. Identifying anticipated construction costs (and possible alternatives) early on in project development can help control project costs. We will prepare cost estimates before beginning development of construction plans and specifications and then at the completion of the 30% and 90% plan sets and at the completion of the final plans and specifications. Cost estimates will be based on a combination of recent project experience, published references, and knowledge of the local construction environment. Cost estimates will be prepared using the guidance of the American Association of Cost Engineers.

TKDA Tasks:

- Prepare cost estimates as required, preliminary assessment phase and then at 30%, 90%, and 100% stages of design. The 100% estimate will be a final detailed construction cost estimate.

City Tasks:

- Provide TKDA with any historical or recent project cost data relevant to estimating costs for this project.
- Review and provide comment on cost estimates at each level.

Deliverables:

- Cost estimates at each level of design including the preliminary assessments, 30%, 90%, and 100% design levels. Our final detailed estimate will be provided in Excel and PDF formats to the City.

Phase 3: Project Bidding

The project is expected to be advertised for bidding in March of 2021. During the bidding process, TKDA will help the City by attending a pre-bid meeting, answering questions from contractors during bidding process, and evaluating bids from contractors to recommend an award.

TKDA Tasks:

- Prepare and provide complete bid package of all design files to City of Duluth.
- Host pre-bid meeting for contractors bidding the project.
- Answer contractor questions during bidding process.

City Tasks:

- Coordinate the advertising, bidding, and letting process in accordance with City requirements and timing.

Deliverables:

- Final bid package for use in obtaining contractor bids in MS Word, PDF, and ACAD formats.
- Minutes from pre-bid meeting and information/ addenda as required.



Phase 4: Construction

TKDA's team will provide documents and engineering services for construction staking and layout, construction inspection, and project management through final completion of project work and acceptance by the City. We have assumed a construction schedule of 18 weeks for the construction phase for purposes of this proposal.

TKDA Tasks:

- Contract administration/management to include entering pay items in One Office, review of pay applications, change orders, and related documents.
- Perform review of shop drawings, arrange for independent materials testing (i.e. City-hired firm), and create weekly progress reports.
- Facilitate weekly onsite construction meetings with City staff, contractor, and affected landowners.
- Construction staking and/or marking required for contractor to construct improvements.
- Observation of key portions of the work.
- Assist selected contractor with layout and construction of pedestrian ramps where necessary.
- Provide full-time construction observation in the field for 60 hours/week.
- Preparation of final review and acceptance letter.
- Develop a set of record drawings for the project in accordance with City Engineering guidelines.

City Tasks:

- Attend weekly construction meetings, review and approve pay applications, and review TKDA comments on shop drawings and other submittals.
- Provide point person from Staff to assist in discussion on any change orders or field issues that arise during construction.

Deliverables:

- Final bid package for use in obtaining contractor bids in MS Word, PDF, and ACAD formats.
- Minutes from onsite weekly meetings and information/ addenda as required.
- Record drawings for the project in accordance with City Engineering guidelines.



Knowledge of Duluth Requirements

TKDA is currently working on the 2020 Street Preservation project, several trail and park projects, and performed work on the 59th Avenue West Street and Utility Improvements Project. TKDA is familiar with the City of Duluth's street and utility standards and understands the design review process necessary to successfully complete the project.

The following criteria will govern the design of the 2021 Street Preservation project:

- 2019 City of Duluth, Minnesota Construction Standard Specifications.
- 2015 City of Duluth, Minnesota Engineering Guidelines for Professional Engineering Services and Developments.
- Municipal State Aid standards.

Our team will incorporate these standards as we prepare road and utility plans and specifications for the Project. As part of our work on the 2020 Street Preservation project and the 59th Avenue West project TKDA's team provided both design and construction phase engineering services to the City of Duluth. Our team followed the requirements of the City's standards for street and utility construction, and worked with City staff to successfully document and construct the project.

Our project team for the 2021 Street Preservation Project understands City requirements for the Project and can provide quality design and construction phase services.

The list of street segments and locations included in the project are shown in the table below and comprise approximate 8 miles of roadway improvements.

2021 Street Preservation Plan

Year	Proj No	Segment	Mileage	Const notes
2020	1692	Vermillion Rd, from end of concrete past Oxford to current end of pave	0.10	Mill/Overlay
2020	1692	Melrose Ave- Arrowhead Road to Brookline	0.13	Mill/Overlay
2020	1692	Stuart Ct, from Brookline St to W St Marie St	0.13	Mill/Overlay
2020	1692	Restormal St- Third St to dead end 264' West of Anson Ave	0.41	Mill/Overlay
2020	1692	131st Ave W- TH23 to Mission Ck Pkwy	0.40	Overlay
2020	1692	Elk, Vermillion to Lochaire	0.69	Overlay
2020	1692	Norton- Howard Gnesen to Hice Lake Road	2.23	Reclaim

Year	Proj No	Segment	Mileage	Const notes
2021	1693	90th Ave W, from Hilton St to Falcon St	0.13	Mill and overlay
2021	1693	Falcon Street, from 93rd Ave W to 88th Ave W	0.30	Mill and overlay
2021	1693	Thurber Road, from Norton Road to End of pavement	0.38	Reclaim
2021	1693	Burning Tree Rd, from Maple Grove Rd to 160 feet south of Min Shadow Dr	0.24	Reconstruct
2021	1693	Min Shadow Dr, from Burning Tree Rd to Mall Dr	0.18	Mill and overlay
2021	1693	Mall Dr, from Decker Rd to Min Shadow Dr	0.08	Mill and overlay
2021	1693	Matterhorn Dr, from Burning Tree Rd to Maple Grove Rd	0.25	Mill and overlay
2021	1693	Matterhorn Circle, from Matterhorn Drive xxx feet	0.04	overlay
2021	1693	Joshua Ave, from Central Entrance to the end of divided Rd east	0.04	Mill and overlay
2021	1693	Frontage Road to TH53, from Joshua Ave to change in pavement 900 ft north	0.18	Mill and overlay
2021	1693	Pinewood Lane, from Crescent View Drive to 3rd Street	0.25	Mill and overlay
2021	1693	3rd Street, from Pinewood Lane to 37th Ave E	0.22	Mill and overlay
2021	1693	4th Street, from Pinewood Lane southerly 550 feet	0.1	Mill and overlay
2021	1693	Hidgewood Road, from 34th Ave E to 800 feet	0.15	Mill and overlay
2021	1693	Raleigh, from Central Ave to 59th Ave W	0.25	Mill and overlay
2021	1693	3rd Ave W, from 2nd St alley to 4th St	0.18	Mill and overlay
2021	1693	Lake Ave, from 1st St alley to 2nd St alley	0.07	Remove brick/pave
2021	1693	W 9th Street, from 5th Ave W to 8th Ave W	0.18	overlay
2021	1693	12th St alley, from 6th Ave E westerly	0.07	overlay
2021	1693	W Stowe St, Griak to Commonwealth	0.14	Reclaim
2021	1693	Elinor, N 56th Ave W to Central Ave	0.06	Mill and overlay
2021	1693	56th Ave W, from Elinor to 8th Street	0.28	Mill and overlay
2021	1693	58th Ave W, from Elinor to 8th Street	0.14	Mill and overlay

Total Preservation project 8.00
 Total 2021 Preservation Project Budget (\$4,000,000)

Work Schedule

Duration or Milestone Date	Task
October, 2020	Proposal Submitted to City
October – November, 2020	Kickoff Meeting, Layouts/Field Review, Develop Initial Costs, Survey, and Borings, Preliminary Cost Estimate
November – December, 2020	Preliminary Design Work, 30% Plan Review, and Cost Estimate 2
January 29, 2021	90% Plan Review and Cost Estimate 3
February 26, 2021	Final Plan, Specification, Final Cost Estimate and SWPPP delivered to the City
March 3, 2021	Advertise for Bids
March 31, 2021	Receive Bids
May--September, 2021	Construction
December 15, 2021	Submittal of Record Drawing

References

City of Duluth

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City of Aitkin

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Fall Lake Township

Craig Seliskar, Board Chair
393 Kawishiwi Trail
Ely, MN 55731
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City of Mendota Heights

Ryan Ruzek, Public Works Director
1101 Victoria Curve
Mendota Heights, MN 55118
651.255.1152



Project Plan Estimate

Client:		City of Duluth						Date:		10/29/2020	
Project:		2021 Street Preservation Project--Design and Construction Phase						By:		JSG	
Task	Task Description	Estimated Person Hours Required						Total Hours	Total Dollars		
		SRE	SRE	Reg Eng	Tech III	Reg Eng	Grad Eng			Grad Eng	
2020 Billing Rate/Hr x Multiplier		\$ 179	\$ 186	\$ 97	\$ 87	\$ 97	\$ 83	\$ 83			
Phase 1: Information Gathering											
	Project Kick-off Meeting & Minutes	2		3				3	8	\$ 898	
	Evaluate Existing Information	2		12	8			10	32	\$ 3,048	
	Public Participation and Meetings										
	Public Neighborhood Meetings with Residents (5)	10						16	26	\$ 3,118	
	Reconnaissance, Field Surveys, and Geotechnical Exploration*										
	Topographic Survey/Review (ROW, Utilities, Road, ADA)	2		8	40	4	40	40	134	\$ 11,642	
	Create Base Drawing	2			30	8		30	70	\$ 6,234	
	Coordinate Geotechnical Exploration (w/AET)	1						6	7	\$ 677	
	Regulatory Agency Consultation	1				2		4	7	\$ 705	
Phase 2: Preliminary and Final Design											
	Preliminary Design Recommendations and Costs/City Meeting			2		40		40	86	\$ 8,110	
	Preliminary Design Recommendations and Costs	4									
	Plans and Specifications										
	30% Review Plans	4	1		40	40		80	165	\$ 14,902	
	Storm Sewer Repairs/Design (Burning Tree and adjustments)	1		20		4		16	41	\$ 3,835	
	90% Review Plans and Specifications	4	2	8		8	30	80	132	\$ 11,770	
	Final Storm Sewer Repairs/Design	2		8		8		16	34	\$ 3,238	
	90% Review Meeting	2						3	5	\$ 607	
	Final Plans and Specifications to City	4	2			8		24	38	\$ 3,856	
	QA/QC--Compliance w/City (and MSA) Specifications	4	4						8	\$ 1,460	
	Cost Estimates (4 total)										
	Construction Estimate 30%	1				4		16	21	\$ 1,895	
	Construction Estimate 90%	1				4		4	9	\$ 899	
	Final Construction Estimate	1				2		8	11	\$ 1,037	
2021 Billing Rate/Hr x Multiplier		\$ 184	\$ 191	\$ 100	\$ 89	\$ 100	\$ 85	\$ 85			
Phase 3: Project Bidding											
	Attend Prebid Meeting	2						3	5	\$ 623	
	Answer Bidder Questions	1				1		4	6	\$ 624	
	Bid Review and Recommendation of Award	1						4	5	\$ 524	
Phase 4: Construction											
	Contract Management/Administration	30				30			60	\$ 8,520	
	Weekly Progress Meetings	8				24			32	\$ 3,872	
	Shop Drawing Reviews			1				4	5	\$ 440	
	Record Drawings per City Requirements/Closeout			2		4		8	14	\$ 1,280	
	Construction Staking--Layouts and Full Reconstruction Area				60				60	\$ 5,340	
	Observation--18 Weeks Field Time (60 hrs/wk)						200	880	1,080	\$ 91,800	
Total Design Hours & Fee		48	9	61	118	132	70	396	834	\$ 77,931	
Total Construction Hours & Fee		42	-	3	60	59	200	903	1,267	\$ 113,023	
Expenses:											
Travel & Subsistence (TS)									\$1,500	\$ 1,500	
Sub-consultant American Engineering & Testing--Geotechnical Work									\$26,000	\$ 26,000	
Expenses Subtotal									\$27,500	\$ 27,500	
TOTAL										\$ 218,454	
TOTAL (ROUNDED)										\$ 218,500	

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