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May 23, 2022

Peter Daniels, P.E.
City Engineer
City of West Allis Engineering Department
7525 W Greenfield Ave. Room 212
West Allis, WI 53214

RE: Proposal for Lighting Design Services – City of West Allis – 2023 Lighting Circuit Upgrades

Dear Peter:

KL Engineering, Inc. is pleased to provide you with this proposal to perform lighting and electrical design for the 2023 Lighting Circuit Upgrades. The following attachments are included with this letter, and should be considered part of our contract for engineering services:

- Attachment A – Project Background, Design Team, and Schedule
- Attachment B – Contract Assumptions and Scope of Services
- Attachment C – Billing Schedule
- Attachment D – General Terms and Conditions

The total cost for lighting design services will be billed on an hourly basis utilizing the enclosed billing schedule with a maximum cost of **\$120,000**. The level of effort for KL Engineering to provide lighting and electrical design is described in **Attachment A**.

The assumptions, schedule, and cost included with this proposal have been based on our experience with the previous circuit conversion projects. For reference, the cost for lighting and electrical design included with this proposal is within similar magnitude and proportion to our previous circuit conversion project costs, average approximately 350 lighting units converted between both City and Contractor forces, at approximately \$350/light.

Upon delegation of circuits to be converted with this design contract, KL will coordinate with the City of West Allis to ensure the work and budget are compatible. KL will produce a written document to confirm contract scope and budget, and any discrepancies will be handled via amendment as necessary.

Basis of Payment and General Conditions

This work shall be completed in accordance with the attached General Terms and Conditions, which shall be considered a part of this contract upon the written approval indicated below. KL Engineering will submit monthly invoices for work completed under this proposal. City of West Allis will reimburse KL Engineering within 30 days from the date of the invoice.

Standard billing rates provided with this contract will be subject to revision as necessary after January 1, 2023. These rates will be reflected in KL's invoice statements at that time.

Our professional services will be performed, our findings obtained, and our recommendations prepared in accordance with generally accepted engineering principles and practices. No other warranty, either expressed or implied is made.


We look forward to working with you on this project. Please let us know if you have any questions regarding this proposal. You may indicate your approval for us to proceed with the specific tasks by signing the appropriate section of this proposal and returning it to us.

Sincerely,
KL Engineering, Inc.



Jake Joyal, P.E.
Senior Engineer II

KL Engineering, Inc.

Approved By:  _____

Title: Director – Infrastructure Services

Date: May 23, 2021

City of West Allis

Approved By: _____

Title: _____

Date: _____

Attachment A

Project Background, Design Team, and Schedule

Lighting and Electrical Design Services 2023 Circuit Conversions West Allis, Wisconsin

Project Background:

In 2019 the City of West Allis completed a planning study which evaluated alternatives for upgrading the City's lighting systems. The purpose of this study was to ensure lighting remains operational, to increase overall efficiency and to take advantage of cost savings resulting from decreased energy usage and reduced maintenance. The study concluded that 225 LPS luminaires must be converted annually from high voltage series circuitry to low voltage parallel circuitry in order to keep pace with impending LPS outages.

KL Engineering has provided lighting design services for Circuit Conversions over the past 3 years, resulting of the conversion of 13 high voltage lighting systems. Approximately half of the construction has been performed by the City's electrical staff, while the other half was publicly let for the work to be performed by contractor forces. In total, the past 3 years of Circuit Conversions will have converted 900 lighting units from high voltage series to low voltage parallel.

KL Engineering will continue to implement several "best practices" that we have identified from our services preparing the previous projects. Our team plans to deliver the 2023 conversion projects in an efficient and high-quality manner, with minimal time and resources needed from City staff.

Circuits designated for conversion in 2023 will be determined upon notice to proceed through coordination with West Allis Engineering and Electrical Maintenance. In keeping pace with depletion of LPS backstock, capacity of city forces, and annual circuit conversion budget, this contract assumes the 2023 projects will consist of approximately 350 lighting units, with up to 200 being converted by contractor forces.

Design Team:

KL is prepared to dedicate a team to fulfill the tasks outlined in this proposal. Professional resumes of the team members can be made available upon request. The KL project team consists of engineers, technicians, and a master electrician who have been selected based on experience and knowledge of the specific services offered with this proposal. A larger support staff beyond those mentioned will be available to supplement our planning, design, and construction efforts when required.

Jake Joyal, PE (Project Manager, Madison, WI)

As the project manager for the 2023 street lighting circuit conversion project, Jake will be responsible for coordinating KL team performance and committing firm resources to ensure successful completion of project tasks. Jake will also be responsible for leading the design team preparation of the plans and specifications and reviewing all project work for accuracy and completeness. Jake has established relationships with City of West Allis staff and will be their primary contact for coordination through the preliminary and final design stages.

Mike Scarmon, PE (Quality Control and Admin, Madison, WI)

As the project administrator in charge of quality control for the 2023 street lighting circuit conversion project, Mike will be responsible for providing internal quality control for KL's project tasks through preliminary and final design, and construction. Mike's primary focus will include contract documents, administrative coordination with the City of West Allis and other miscellaneous planning tasks.

Tony Steinert (Electrical Designer and Construction Lead, Green Bay, WI)

Tony will provide field documentation and assist with electrical design for the circuit conversion projects. He will focus on establishing existing and proposed infrastructure location, condition, and electrical

capacity. Tony's role will include reviewing plans, estimates, and constructability. He will also coordinate with contractors, utilities, and other project stakeholders

Andrew Lobdell (Lighting Designer, Madison, WI)

Andrew will be responsible for drafting the plans, and any necessary construction details. He will create existing lighting design files from the GIS files provided by the city and will create as-built files for the City to import back into their GIS database. He will also assist with bid item quantities, and estimates developed for the street lighting circuit conversion project.

Project Schedule:

We anticipate quickly mobilizing upon receiving authorization to proceed with the intent to prepare biddable plans for a construction site in early spring. See below for the anticipated design schedule for the 2023 lighting upgrade projects:

- June 1, 2022: Authorization to proceed
- Week of July 11th, 2022: Kickoff meeting
- Week of October 3rd, 2022: Design review meeting #1
- Week of January 16th, 2023: Design review meeting #2
- March 10, 2023: Plans to City for Review
- March 22 & 29, 2023: Plans advertised for bids
- April, 2023: Award bids
- May, 2023: Start construction

The schedule for the remainder of the construction season will be dictated by the contractor(s) who will be selected to complete the work and other factors that will be determined through the design process.

Attachment B

Contract Assumptions and Scope of Services

Lighting and Electrical Design Services 2023 Circuit Conversions West Allis, Wisconsin

Preliminary Engineering:

The preliminary engineering phase includes data collection and investigative efforts necessary to establish the design parameters that will be subsequently used in the Design Engineering phase.

The scope of preliminary engineering work is similar for all project segments. The preliminary engineering sub-tasks include the following:

- Update the Lighting System Analyzer Database
 - The database prepared as part of the planning study will be updated and maintained on an ongoing basis.
 - Updates include adjusting estimates to reflect 2022 bid results.
- Meetings – KL will facilitate a kickoff meeting in mid-October at the City of West Allis to confirm the following project details:
 - Lessons learned from 2022 Circuit Conversion Design Process
 - Schedule and project milestones
 - Design methodology and standard practices
 - Points of contact and coordination
- Mapping
 - KL will use the City's GIS database to develop a 2D layout of the extents of each circuit to be used in lieu of actual survey data. This database will also be used to obtain rough approximations of gas and electric utility locations, as well as existing streetlighting infrastructure.
 - KL will coordinate with diggers hotline for utility mapping of the circuit conversion area to determine potential locations of significant conflicts.
 - KL will perform a field review and manually locate all streetlighting units and controls. Data will be uploaded into Civil 3D for design utilization to create removal plans.
 - Field survey will not be collected except for when work falls within roadway reconstruction limits, where KL will coordinate with the City to obtain survey data from others. KL may request additional survey to be completed by the City when more specific mapping data is required.
- Field Work
 - KL will perform field reviews to manually locate all existing streetlighting infrastructure for the specified high voltage series circuits.
 - KL will inspect all existing lighting infrastructure to determine and document its availability for re-use.
 - KL will measure all applicable panel amperages and circuit voltage drops on existing low voltage electrical services to determine capacity for carrying additional loads from converted high voltage systems.
 - KL will field verify and document any significant potential conflicts including complex overhead or underground utility configurations, steep grades, railroad corridors, tree canopy issues, paved terrace areas, and other similar features.
 - KL will field document all existing signing within the project limits as it pertains to shared lighting infrastructure.
- Electrical Standards
 - Includes revisions to the electrical standards and details as necessary based on lessons learned from previous Circuit Conversion projects.
- Deliverables
 - Includes plans with existing conditions mapping and depiction of all features described above.
 - Includes site photos, electrical documentation, and other field notes.

Design Engineering:

This task includes completion of streetlighting and electrical design for the high voltage circuits, as well as development of plans, specifications and construction estimates for preliminary and final project intervals. The scope of design engineering work is similar for all project segments.

The design engineering sub-tasks include the following:

- Meetings – KL will meet with City staff at two (2) design intervals in October and January to review all circuit conversion design plans and determine any conflicts with scheduling or roadway reconstruction projects.
- Design Standards
 - Lighting design will utilize and reference West Allis standard electrical specifications and details.
 - Lighting infrastructure will be designed to meet NEC specifications.
 - Lighting design will be based on a 1-for-1 replacement with existing lighting units. Exact layout will be designed based on best practices, field conditions, and construction coordination.
 - Photometric modeling and illumination documentation are not included.
 - All lighting infrastructure will conform to the standardized materials as determined for use with these projects. Exceptions to standard conditions may require additional design effort to complete.
- Electrical Service and Controls Coordination
 - Using the City mapping created from GIS and manual locates, proposed cabinet locations will be determined. Proposed cabinet locations shall be optimized by taking consideration of neighboring low voltage service capacities, as well as all future high voltage circuit conversion projects.
 - It is assumed that existing low voltage lighting services outside of the project limits may be considered as a potential power source.
 - It is assumed that proposed low voltage lighting services may be installed with the anticipation for future expansion beyond the project limits.
 - This task includes coordination with the electrical utility for up to one (1) new electrical service per high voltage series circuit being converted, completing the permit form and application, and conflict mitigation.
- Street Lighting Design
 - All existing street lighting infrastructure that was located from manual inspection and GIS databases will be mapped in AutoCAD Civil 3D and required removals will be determined.
 - Final lighting layout, electrical conduit routing, pull box and control cabinet locations will be mapped in AutoCAD Civil 3D.
 - Using the proposed layouts, voltage drop calculations will be performed to determine optimized electrical circuiting and conductor sizing. All calculations will be documented with spreadsheets and will be available for review upon request.
 - Includes establishing requirements for temporary connections, temporary lighting, and other construction operations.
 - Includes accounting for sign replacement where infrastructure is shared
- Field Work
 - Upon completion of pre-final design, KL will field verify all proposed lighting, pull box and cabinet locations to ensure design efficiency and mitigate conflicts with existing geometrics and known utilities.

Bidding and Administration:

This task includes preparing and submitting deliverables for project advertisement and letting. The scope of bidding and administration work is similar for all project segments.

The bidding and administration sub-tasks include the following:

- Prepare Bidding Plans and Specifications – KL will develop and submit construction documents for each circuit conversion for two project intervals, pre-final and final, with one (1) opportunity for official review after the pre-final submittal. Deliverables will include the following:
 - Lighting Removal Plans
 - Lighting Plans
 - Signing Plans
 - Construction Details (4 pages)
 - Technical Specifications

- Bid Tabulations
- Project Delivery and Administration
 - This proposal assumes that construction estimates will be updated continuously and presented at check-in meetings with the City of West Allis.
 - This proposal assumes lighting designs associated with any concurrent roadway reconstruction projects will be included with the circuit conversion project lettings and will not be bid as part of the roadway projects. Preparing lighting deliverables for multiple lettings may require additional services to complete.
 - This proposal is based on the City completing bidding documents and advertisement for one (1) letting per all high voltage series circuit conversions. The required contractor sealed bid submittal package will include the following elements that then assure conformance with state bidding and construction laws as noted in Wisconsin Statutes 66.0901, and 62.15:
 - Bid bond
 - Signed bid form (binding price)
 - All proposed material submittals (correlate with the bid price)
 - Affidavit of organization
 - Project bidding manual
 - Project advertisement on Quest
 - Other front-end documents as required
- Meetings and Coordination:
 - Includes one (1) kick-off meeting as described previously.
 - Includes two (2) design review meetings as described previously.
 - Includes one (1) pre-bid meeting with contractors.



**STANDARD BILLING RATE SCHEDULE
EFFECTIVE DECEMBER 1, 2021**

Administration	\$80.00
Limited Term Employee	\$60.00
Technician I	\$66.00
Technician II	\$75.00
Technician III	\$85.00
Technician IV	\$90.00
Technician V	\$95.00
Senior Technician I	\$100.00
Senior Technician II	\$105.00
Senior Technician III	\$120.00
Surveyor I	\$75.00
Surveyor II	\$80.00
Surveyor III	\$85.00
Surveyor IV	\$88.00
Surveyor V	\$90.00
Senior Surveyor I	\$95.00
Senior Surveyor II	\$103.00
Senior Surveyor III	\$105.00
Engineer I	\$90.00
Engineer II	\$94.00
Engineer III	\$98.00
Engineer IV	\$102.00
Engineer V	\$105.00
Senior Engineer I	\$110.00
Senior Engineer II	\$120.00
Senior Specialist III	\$120.00
Senior Engineer III	\$130.00
Technical Leader	\$130.00
Project Leader	\$143.00
Senior Technical Leader	\$145.00
Senior Project Leader	\$145.00
Discipline Leader	\$155.00
Director	\$165.00
Principal	\$175.00

Expenses

Out-of-pocket direct job expenses at cost
(reproductions, sub-consultants, equipment rental, etc)

Travel Expenses

Company or Personal Car Mileage IRS rate
Lodging and Subsistence at cost

Billing and Payment

Travel time is charged for work required to be performed out-of-office.

Invoicing is on a monthly basis for work performed. Payment for services is due within 30 days from the date of the invoice. An interest charge of 1.5% per month is made on the unpaid balance starting 30 days after the date of the invoice.

This schedule of billing rates is effective December 1, 2021 and will remain in effect until October 31, 2022 unless unforeseen increases in operational costs are encountered. We reserve the right to change rates to reflect such increases.

KL ENGINEERING, INC.

General Terms and Conditions of the Engineering Services

1. KL Engineering, Inc. will begin engineering services upon written authorization to proceed. Receipt of a signed contract will be considered written authorization. For projects requiring phased services a written authorization of approval of the prior phase and notice to proceed on the subsequent phase must be received prior to commencement of services. Phases, when applicable, shall be divided into study and report phase, preliminary design phase, final design phase and construction phase.
2. KL Engineering, Inc. will bill the Owner monthly with net payment due in thirty (30) days. Past due balances shall be subject to an interest charge at a rate of 1½% per month. In addition, KL Engineering, Inc., may after, giving seven (7) days' written notice, suspend service under any agreement until the Owner has paid in full all amounts due for services rendered and expenses incurred, including the interest charge on past due invoices.
3. The quoted fees and scope of engineering services constitute the estimate of the fees and tasks required to perform the services as defined. This agreement, upon execution by both parties hereto, can be amended only by written instrument signed by both parties. For those projects involving conceptual or process development service, activities often cannot be fully defined during initial planning. As the project progresses, facts uncovered may reveal a change in direction which may alter the scope. KL Engineering, Inc., will promptly inform the Owner in writing of such situations so that changes in this agreement can be made as required.
4. Costs and schedule commitments shall be subject to change for delays caused by the Owner's failure to provide specified facilities or information or for delays caused by unpredictable occurrences including, without limitation, fires, floods, riots, strikes, unavailability of labor or materials, delays or defaults by suppliers of materials or services, process shutdowns, acts of God or the public enemy, or acts or regulations of any governmental agency. Temporary delays of services caused by any of the above which result in additional costs beyond those outlined may require renegotiation of this agreement.
5. KL Engineering, Inc., will maintain insurance coverage for: Worker's Compensation, General Liability, Auto Liability, and Professional Liability. KL Engineering, Inc., will provide information as to specific limits upon written request. If the Owner requires coverages or limits in addition to those in effect as of the date of the agreement, premiums for additional insurance shall be paid by the Owner. The liability of KL Engineering, Inc., to the Owner for any indemnity commitments, or for any damages arising in any way out of performance of this contract is limited to such insurance coverages and amounts which KL Engineering, Inc., has in effect.
6. Owner shall indemnify and hold harmless KL Engineering, Inc. from and against all judgments, losses, damages, and expenses (including attorney fees and defense costs) to the extent such judgments, losses, damages, or expenses are caused by any negligent act, error, or omission of Owner or any person or organization for which Owner is legally liable. Upon completion of all Services, obligations, and duties provided for in this Agreement, or in the event of termination of this Agreement for any reason, the terms and conditions of this Article shall survive.
7. In the event of a dispute between KL Engineering, Inc. and Owner arising out of or related to this Agreement, the aggrieved party shall notify the other party of the dispute within a reasonable time after such dispute arises. If the parties cannot thereafter resolve the dispute, each party shall nominate a senior officer of its management to meet to resolve the dispute by direct negotiation or mediation. Should such negotiation fail to resolve the dispute, KL Engineering, Inc. and Owner agree that all disputes between them arising out of or relating to this Agreement shall be submitted to non-binding mediation unless the parties mutually agree otherwise. During the pendency of any dispute, the parties shall continue diligently to fulfill their respective obligations hereunder.
8. Termination of this agreement by the Owner or KL Engineering, Inc., shall be effective upon seven (7) days' written notice to the other party. The written notice shall include the reasons and details for termination. KL Engineering, Inc., will prepare a final invoice showing all charges incurred through the date of termination; payment is due as stated in paragraph 2. If the Owner violates the agreements entered into between KL Engineering, Inc., and the Owner or if the Owner fails to carry out any of the duties contained in these terms and conditions, KL Engineering, Inc., may upon seven (7) days' written notice, suspend services without further obligation or liability to the Owner unless, within such seven (7) day period, the Owner remedies such violation to the reasonable satisfaction of KL Engineering, Inc.
9. Reuse of any documents and/or engineering services pertaining to this project by the Owner or extensions of this project or on any other project shall be at the Owner's sole risk. The Owner agrees to defend, indemnify, and hold harmless KL Engineering, Inc., from all claims, damages, and expenses including attorneys' fees and costs arising out of such reuse of the documents and/or engineering services by the Owner or by others acting through the Owner.
10. KL Engineering, Inc., will provide engineering services in accordance with generally accepted professional practices. KL Engineering, Inc., does not make any warranty or guarantee, expressed or implied, nor have any agreement or contract for services subject to the provisions of any uniform commercial code. Similarly, KL Engineering, Inc., will not accept those terms and conditions offered by the Owner in its purchase order, requisition, or notice of authorization to proceed, except as set forth herein or expressly agreed to in writing. Written acknowledgement of receipt, or the actual performance of services subsequent to receipt of such purchase order, requisition, or notice of authorization to proceed is specifically deemed not to constitute acceptance of any terms or conditions contrary to those set forth herein.
11. KL Engineering, Inc., intends to serve as the Owner's professional representative for those services as defined in this agreement, and to provide advice and consultation to the Owner as a professional. Any opinions of probable project costs, reviews and observations, and other decisions made by KL Engineering, Inc., for the Owner are rendered on the basis of experience and qualifications and represents the professional judgment of KL Engineering, Inc. However, KL Engineering, Inc., cannot and does not guarantee that proposals, bids or actual project or construction costs will not vary from the opinion of probable cost prepared by it. Owner agrees to hold KL Engineering, Inc., harmless for any claim arising out of or related in anyway to project or construction costs.
12. This agreement shall not be construed as giving KL Engineering, Inc., the responsibility or authority to direct or supervise construction means, methods, techniques, sequence, or procedures of construction selected by the contractors or subcontractors or the safety precautions and programs incident to the work of the contractors or subcontractors.
13. This agreement shall be construed and interpreted in accordance with the laws of the State of Wisconsin.
14. This agreement cannot be changed or terminated orally. No waiver of compliance with any provision or condition hereof should be effective unless agreed in writing duly executed by the parties hereto.
15. This agreement contains the entire understanding between the parties on the subject matter hereof and no representations, inducements, promises or agreements not embodied herein (unless agreed in writing duly executed) shall be of any force or effect, and this agreement supersedes any other prior understanding entered into between the parties on the subject matter hereof.