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September 27, 2021

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 – 2022 Lighting Circuit Upgrades

Dear Peter:

KL Engineering, Inc. is pleased to provide you with this proposal to perform lighting and electrical design for the 2022 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 B.1 – Circuit M-1 Description
- Attachment B.2 – Circuit N-4 Description
- Attachment B.3 – Circuit O-1 Description
- Attachment B.4 – Circuit O-2 Description
- Attachment C – Construction Engineering Contingency
- Attachment D – Design Fee Estimates
- Attachment E – Billing Schedule
- Attachment F – General Terms and Conditions

The total cost for the services listed below will be billed on an hourly basis utilizing the enclosed billing schedule with a maximum cost of **$105,002**. We will bill to each project individually, and our invoices will include subtotals for each project.

- M-1 (128 streetlights): $38,846
  - Preliminary Engineering: $11,080
  - Design Engineering: $10,393
  - Bidding and Administration: $17,373
- N-4 (103 streetlights): $34,026
  - Preliminary Engineering: $9,733
  - Design Engineering: $9,308
  - Bidding and Administration: $14,985
- O-1 (58 streetlights): $10,138
  - Preliminary Engineering: $2,961
  - Design Engineering: $3,214
  - Bidding and Administration: $3,963
- O-2 (115 streetlights): $36,992
  - Preliminary Engineering: $10,718
  - Design Engineering: $10,005
  - Bidding and Administration: $16,269
- *Total for all Circuits: $120,002*
  - *Total for Preliminary Engineering: $34,492*
  - *Total for Design Engineering: $32,920*
  - *Total for Bidding and Administration: $52,590*

- *2021 Circuit Conversion Design Contract Rollover Credit: -$15,000*

- *Total Contract Cost: $105,002*

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.

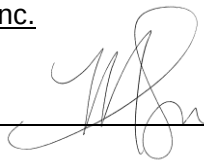
Our professional services will be performed, our findings obtained, and our recommendations prepared in accordance with generally accepted engineering principles and practices. No other warranty, either expressed or implied is made.

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 I

KL Engineering, Inc.	City of West Allis
Approved By: 	Approved By: _____
Title: Director – Infrastructure Services	Title: _____
Date: September 27, 2021	Date: _____

Attachment A

Project Background, Design Team, and Schedule

Lighting and Electrical Design Services
2022 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 2 years, resulting of the conversion of 9 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 2020 and 2021 Circuit Conversions will have converted 580 lighting units from high voltage series to low voltage parallel.

KL Engineering will implement several "best practices" that we have identified from our services preparing the 2020 & 2021 projects. Our team plans to deliver the 2022 conversion projects in an efficient and high-quality manner, with minimal time and resources needed from City staff.

All circuit conversion projects for 2022 have been carefully selected by the City based on available budget, adjacent construction, and existing system conditions. Projects included in the 2022 Streetlighting Circuit Conversion scope will account for the conversion of 365 lighting units and are as follows:

1. Circuit M-1
2. Circuit N-4
3. Circuit O-1
4. Circuit O-2

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 2022 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 2022 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

Travis Brush (Construction Manager, Germantown, WI)
Travis will assist Tony with construction oversight tasks if contracted work exceeds the capacity of a single inspector. Travis will provide field inspection and document electrical installations in coordination with the Construction lead. He will also coordinate with contractors, utilities, and other project stakeholders as necessary.

Andrew Lobdell (CAD Technician, 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 2022 lighting upgrade projects:

- October 5, 2021: Authorization to proceed
- Week of October 19th, 2021: Kickoff meeting
- Week of December 1st, 2021: Design review meeting #1
- Week of February 1st, 2022: Design review meeting #2
- April 11, 2022: Plans to City for Review
- April 22 & 29, 2022: Plans advertised for bids
- May 17, 2022: Award bids
- June, 2022: 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
2022 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 2021 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 2021 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 private utilities to determine potential locations of significant conflicts within the circuit conversion areas.
        - Coordination with diggers hotline for utility mapping of the circuit conversion area is not included with this contract.
    - 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 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 the 2021 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 December and February 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.

Attachment D

Design Fee Estimates

Lighting and Electrical Design Services
2022 Circuit Conversions
West Allis, Wisconsin

Engineering Fees for Circuits:

Below is a summary of our estimated hours by task for each project, as well as total hours, total cost, and average hourly rate. These costs shall be considered a not-to-exceed estimate based on the scope of services described in this proposal. We have been diligent in preparing our cost estimate and will strive to be as efficient as possible. If we complete the project in fewer hours than anticipated, we will bill correspondingly less. We intend to bill the project under a single contract I.D. regardless of which individual circuit is being worked on at the time of billing.

	Circuit M-1	Circuit N-4	Circuit O-1	Circuit O-2	Total for All Circuits
9/27/2021	128	103	19	115	365
Preliminary Engineering					
Hours	110	96	27	106	339
Cost	$11,080	$9,733	$2,961	$10,718	$34,492
Design Engineering					
Hours	99	88	28	95	310
Cost	$10,393	$9,308	$3,214	$10,005	$32,920
Bidding and Administration					
Hours	169	145	37	158	509
Cost	$17,373	$14,985	$3,963	$16,269	$52,590
Totals by Circuit					
Hours	378	329	92	359	1158
Cost	$38,846	$34,026	$10,138	$36,992	$120,002
TOTAL HOURS	1158				
ESTIMATE OF COST	$120,002				
AVERAGE HOURLY RATE	$104				
2021 DESIGN CREDIT	$15,000				
TOTAL CONTRACT COST	$105,002				

* Total contract cost is the project estimate less the 2021 design credit.

STANDARD BILLING RATE SCHEDULE
EFFECTIVE JANUARY 1, 2021

Administration	$70.00
Limited Term Employee	$55.00
Technician I	$66.00
Technician II	$75.00
Technician III	$84.00
Technician IV	$90.00
Technician V	$95.00
Senior Technician I	$100.00
Senior Technician II	$105.00
Senior Technician III	$115.00
Surveyor I	$75.00
Surveyor II	$78.00
Surveyor III	$81.00
Surveyor IV	$85.00
Surveyor V	$90.00
Senior Surveyor I	$95.00
Senior Surveyor II	$100.00
Senior Surveyor III	$105.00
Engineer I	$87.00
Engineer II	$91.00
Engineer III	$93.00
Engineer IV	$95.00
Engineer V	$100.00
Senior Engineer I	$110.00
Senior Engineer II	$115.00
Senior Engineer III	$130.00
Senior Specialist III	$115.00
Technical Leader	$120.00
Project Leader	$140.00
Senior Technical Leader	$142.00
Senior Project Leader	$145.00
Discipline Leader	$145.00
Director	$155.00
Principal	$160.00

Expenses

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

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 January 1, 2021 and will remain in effect until December 31, 2021 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, indemnity, 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.