US-54 | US-400 − SEDGWICK AND BUTLER COUNTIES (EAST KELLOGG | K-96 TO 159TH STREET PROJECT) PROGRESSIVE DESIGN-BUILD PROCESS

PURPOSE

The purpose of this document is to provide additional details about the anticipated procurement and contracting approach for the East Kellogg | K-96 to 159th Street Project (the Project). This information is being provided as a supplement to the Request for Qualifications (RFQ) as reference information to allow for better understanding of critical elements of the Progressive Design-Build (PDB) delivery method.

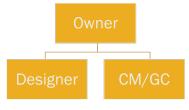
Nothing in this document shall be construed as a requirement. Phrases such as "KDOT will..." and "Design-Builder shall..." are intended to convey an anticipated approach. All requirements will be established in the RFQ, Request for Proposals (RFP), and the Progressive Design-Build Contract.

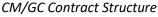
OVERVIEW OF PROGRESSIVE DESIGN-BUILD

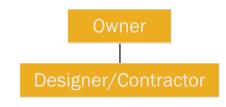
PDB is an alternative delivery procurement method that uses a qualifications-based or best value selection to select a design-builder, followed by a process whereby the owner then progresses towards a design and construction price with the design-builder (thus the term "progressive"). Kansas Statute 68-2332 (2021) authorizes the use of alternative delivery procurement methods, including PDB. PDB delivery allows for:

- Early selection and involvement of a design-builder (pre-NEPA in many cases).
- The design-builder to provide services over multiple phases including planning, preconstruction, and construction.
- Project cost and schedule development and refinement in collaboration with the owner during the planning and preconstruction phases.
- Design advancement and risk mitigation which improve price and schedule accuracy.

While similar to the Construction Manager/General Contract (CM/GC) delivery method, PDB is comprised of a single contract between the owner and the designer/contractor.



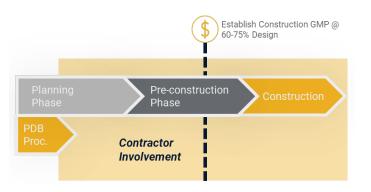




PDB Contract Structure

In addition to the design-builder, an independent cost estimator (ICE) with construction, open-book pricing, and alternative delivery experience will be engaged by KDOT to develop independent cost estimates for the Project that validate the costs submitted by the design-builder at pricing milestones. Additional information on the ICE can be found in the section below on open book pricing.

Following selection of a design-builder and ICE, the owner works collaboratively with the design-builder to progressively advance and refine the design and construction price until a guaranteed maximum price (GMP) can be established. PDB occurs in three phases: planning, preconstruction, and construction, as further described below. The use of PDB is anticipated to expedite delivery of the Project with a goal of opening mainline US-54/US-400 to traffic by the end of 2025.





Planning Phase

The planning phase of the Project will begin at execution of the Design-Build Contract. The Design-Build Contract, particularly with respect to the planning phase, is designed to ensure that:

- There is an objective NEPA process.
- Public officials and citizens have the necessary environmental impact information for federally funded actions before actions are taken.
- The Design-Builder does not assume an unnecessary amount of risk in the event the NEPA process results in a significant change in the Project.
- The amount payable by KDOT to the Design-Builder does not include significant contingency as the result of risk placed on the Design-Builder associated with significant changes in the Project arising out of the NEPA process.

Consistent with 23 C.F.R. Section 636.109, the Design-Build Contract will include:

- Provisions ensuring that all environmental and mitigation measures identified in connection with required environmental approvals will be implemented.
- Provisions ensuring that no commitments are made to any alternative being evaluated in connection with required environmental approvals.
- Provisions providing for the right to terminate the Design-Build Contract in the event of Project revisions derived from the required environmental approvals, including in the case that the no-build alternative is selected in connection therewith.

Work related to environmental document preparation has been initiated by KDOT. In accordance with federal requirements, the work of the Design-Builder during the planning phase will be limited to specific activities in the scope of work set forth in the Design-Build Contract and conducted under communication protocols necessary to keep the functions separated. Reference RFQ, Section 1.4.1 for tasks that may be required during the planning phase.

The Design-Builder's compensation for the planning phase will be on an hourly basis for work performed at the fully loaded hourly rates submitted with the Proposal. For employees of design firms with approved FAR rates, the rates included with the proposal shall be FAR approved rates. For employees of contractors and other firms that do not have FAR approved rates, hourly rates will be subject to reasonableness evaluation by KDOT related to the amount of overhead and other indirect costs that comprise the hourly rates. The Design-Builder will also be compensated for reasonable and documented direct costs. The total compensation for this phase will be capped at a not-to-exceed (NTE) amount set by KDOT in coordination with the Design-Builder and subject to adjustment in accordance with the Design-Build Contract. The fully loaded hourly rates and NTE amount will be documented in the Design-Build Contract at execution. Once the NEPA process is complete, KDOT will either negotiate an amendment to authorize the Design-Builder to proceed with work for the preconstruction phase, with agreed scope, schedule, and compensation terms, or will terminate the Design-Build Contract.

Preconstruction Phase

The preconstruction phase will begin upon execution of the preconstruction phase amendment. Reference RFQ, Section 1.4.2 for tasks that may be required during the preconstruction phase.

Compensation during this phase is expected to be at the fully loaded hourly rates established for the planning phase. If it becomes necessary to provide additional resources that were not identified in the proposal to complete the work, hourly rates will be established for those resources by agreement between KDOT and the Design-Builder. KDOT will also pay reasonable and documented direct costs. In KDOT's discretion, a lump sum for preconstruction phase services may be established in lieu of hourly rates. The total compensation for this phase will be capped at a NTE amount set by KDOT, subject to



adjustment in accordance with the Design-Build Contract. The fully loaded hourly rates, NTE amount, and any lump sums will be documented in the preconstruction phase amendment.

Construction Phase

Authorization to proceed with any construction work will require an amendment in accordance with the Design-Build Contract, which will be contingent on KDOT and Design-Builder agreeing to a GMP and schedule for such Work. The preconstruction phase and the construction phase may overlap depending on when construction work is authorized. If construction work is authorized during the preconstruction phase, all requirements related to construction work will be applicable for the authorized work (e.g., insurance, payment and performance security, etc.).

Upon agreement on the GMP, the Design-Builder will construct the Project subject to an agreed plan/breakdown. Reference RFQ, Section 1.4.3 for tasks that may be required during the construction phase.

If KDOT and the Design-Builder fail to reach agreement on the GMP, the contract will be terminated and KDOT will evaluate the best method to advance the project.

PDB PROCUREMENT

Pursuant to Kansas legislation, the PDB procurement process will include two steps: 1) a qualifications phase and 2) a proposal phase. KDOT initiated the first step with the issuance of the RFQ which includes requirements for the submission of Statements of Qualification (SOQ). The SOQs will be used to identify and short-list the most qualified firms. The short-listed firms will be provided with an RFP at the beginning of the second step. The RFP will detail submittal requirements for a proposal and associated evaluation criteria to select a preferred proposer.

RFQ

The RFQ was issued on April 28, 2022. KDOT will evaluate the SOQs based on the criteria in the RFQ and will shortlist no more than four firms who may respond to the RFP.

RFP

Proposals will be evaluated based on the requirements listed in the RFP. Unlike traditional Design-Build procurements, the scored elements for PDB do not typically require significant design development effort. A best-value formula considerate of the technical proposal, price proposal and the interview will be defined in the RFP to establish the preferred proposer.

<u>Technical Proposal</u>

The technical proposal content is typically focused on confirming Proposers have an effective approach and sufficient resources for each of the development phases (planning, preconstruction, and construction) and the overall approach to the project. The table below shows general submittal requirements.

General Project Approach	 Approach to coordination and communication with KDOT. Approach to forecasting necessary staff levels for each phase of the Project. Approach to support KDOT's coordination with stakeholders. Approach to scheduling and quality management for each phase of the Project.
Planning Phase	 Approach to coordination and collaboration with KDOT and KDOT's environmental consultant. Approach to delivery of preliminary design and engineering and other planning phase work as requested and overseen by KDOT. Innovative concepts during planning phase.



Preconstruction Phase	 Approach to development, quality, and delivery of the Project design, including collaboration with KDOT and integration of related issues, such as right of way, permitting, stormwater management, and utilities. Approach to integrate and optimize the construction schedule with the design schedule and identify factors that may control the schedule. Proposer's approach to risk identification and mitigation during the preconstruction phase of the Project. Proposer's approach to development of work packages (including early work packages) that would optimize project delivery. Innovative concepts during the planning phase.
Construction Phase	 Proposer's overall construction management approach, including project control methods and approach to their quality program during the construction phase. Proposer's subcontracting approach. Proposer's approach to enhancing DBE participation and Equal Employment Opportunities. Proposer's approach to risk management during the construction phase of the Project. Innovative concepts during construction phase.

Price Proposal

The RFP will include requirements for submission of a price proposal. The price proposal will include hourly rates for proposer personnel who will support the Project during the planning and preconstruction phases. Proposers will be required to distribute an assumed number of hours to the planning phase personnel. The assumed number of hours will be provided by KDOT in the RFP. KDOT will evaluate the price proposal considering the extent to which hourly rates are consistent with prevailing market rates and the distribution of hours is consistent with the proposer's project approach and staffing plan. Proposers will not be required or expected to provide construction price as part of the price proposal.

Interview

The RFP will also include requirements for an interview with KDOT. This will provide an opportunity for KDOT to evaluate Proposers' understanding of the PDB process and ability to work in a collaborative environment.

RISK MANAGEMENT AND ALLOCATION

Risk allocation for PDB projects is different than traditional design-build projects. Very few events are specifically identified in the initial Design-Build Contract that allow schedule or cost relief to the PDB team. Only standard risks such as unknown hazardous materials, unidentified archeological remains, and force majeure events are initially included as grounds for increased time or costs. For PDB, risk allocation will be developed as the project progresses and will be documented in the Project's risk register. This allows for a more granular approach to risk management. PDB risk management will focus on mitigating risks to the maximum extent possible prior to GMP, assigning risks to the party best capable of managing them, and establishing pre-determined costs and payment mechanisms for certain risks that are not capable of being mitigated.

The Design-Builder, KDOT, and ICE will work collaboratively to develop the risk register during the preconstruction phase. KDOT has final approval of the risk register. The risk register will identify the preconstruction and construction risk issues (each, risk register events), define mitigation strategies to



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be used for risk register events, and identify probable cost and time impacts to the Project. All risk register events are assigned a champion and are categorized as either a KDOT risk, a Design-Builder risk, or a provisional risk to be shared by the parties. All provisional risk items shall designate in the risk register how the Design-Builder will be compensated upon the occurrence of such risk register event, which may include payment through provisional sums.

The image below shows the requirements of PDB projects related to the risk register.

High Confidence Owner Risk Owner Best Able to Manage	Risks Difficult to Price with Certainty Detailed Planning Creates Value	High Confidence Design-Builder Risk Design-Builder Best Able to Manage
Owner Accepted Risk	Provisional Risks	Design-Builder Accepted Risk
 Documented in the Risk Register Risks fully allocated to Owner Design-Builder must follow documented Change Order process for payment when an event triggers the risk Owner determines budget to cover potential Change Orders using Risk Register 	 Documented in the Risk Register Provisional risks are jointly managed by the Design-Builder and Owner. Risk Register includes requirements for: verification of occurrence and costs; payment responsibility and processes; and Provisional Sums Increase or decrease of a Provisional Sum requires documentation through a Change Order Owner determines budget to cover payment in excess of the Provisional Sums 	 Documented in the Risk Register Risks fully allocated to the Design-Builder Costs included in the Construction Phase Amendment No payment made by Owner for Design-Builder accepted risks

The Risk Register is an essential part of the PDB process that is collaboratively developed during the Preconstruction Phase.

The Risk Register becomes part of the Contract Documents upon approval by the Department.

· By the end of the Preconstruction Phase, the Risk Register should describe all known project risks, identify the owner of each project risk, define unit costs or other payment

mechanisms for Provisional Sum items, and set forth requirements for payment of the Risk Register Events

The risk register will include dates on which KDOT gives its written approval of a particular risk register event, and the risk register event shall be deemed as being in effect as of that date. Portions of the work involving risk register events in the preconstruction phase or construction phase may not commence until relevant risk register events have been approved by KDOT.

If a risk register event occurs, the Design-Builder must give notice to KDOT. The mitigation strategy identified in the risk register will be employed unless the parties agree otherwise in writing based on the circumstances of the event. If such a risk register event is a Design-Builder risk, then the Design-Builder bears the schedule impact and pays all costs associated with the risk register event and the mitigation strategy. If such a risk item is a KDOT risk or a provisional risk, then the Design-Builder is entitled to seek cost and schedule relief as set out in the risk register. If an event occurs that is not identified in the risk register, then the Design-Builder bears the schedule impact and pays all costs associated with such event and any appropriate mitigation strategy (unless otherwise expressly provided in the Design-Build Contract).

OPEN BOOK PRICING

The Design-Builder will work collaboratively with KDOT to maximize the scope, value, and quality of the Project during the planning and preconstruction phases. Initially, the Design-Builder and KDOT will meet to define expectations and approach to developing the construction cost for the Project. The Design-Builder will develop a cost model using a format agreed upon by the Design-Builder and KDOT. The cost model will include:

- Unit prices and quantity take-offs. •
- Material costs, equipment costs, labor costs, hourly labor rates, crew sizes, shifts per day, and hours per shifts (labor rates shall include employee benefits, payroll taxes, and other payroll burdens).
- Risk assumptions and assignment of risks.
- Production rates, transportation, and other facilities necessary for the proper execution of the work.



- Copies of quotations from subcontractors and suppliers.
- Field indirect costs, bonds, taxes, and insurance.

At various milestones, the Design-Builder will use the cost model to prepare an opinion of probable construction cost (OPCC). The ICE selected by KDOT will develop independent cost estimates at the pricing milestones to validate the Design-Builder's OPCC. Once the OPCC and ICE estimate are within the acceptable percentage range (as determined by KDOT), the Design-Builder will submit the GMP to KDOT. The construction phase will begin once the construction phase amendment (which will include the GMP) is executed.

