



King County Interim Bus Electrification (IBE) Project



Moving forward together

Project Review Committee Presentation – January 28, 2021

Application for Project Approval to Utilize Progressive Design-Build
Alternative Contracting (RCW 39.10)

Agenda

- Introductions Presenting Team
- About King County
- King County Capital Project Experience
- IBE Project Scope / Challenges
- Budget and Schedule
- Contracts / Procurement
- King County Equity and Social Justice
- Team Organization / Utilization
- Why Progressive Design-Build
- Statutory Compliance
- Summary

Project Evaluation Criteria Design-Build

Determine that the Agency's proposed use of Design-Build on the project meets the requirements alternative contracting procedures:

- A** Provides substantial fiscal benefit or traditional delivery method is not practical.
- B** Project meets qualifying criteria under RCW 39.10.300.
Public bodies may utilize the DB procedure for public works projects in which the total project cost is over two million dollars and where: *(Pass if meets 1 of 3)*
 1. The construction activities are highly specialized and a DB approach is critical in developing the construction methodology, or
 2. The projects selected provide opportunity for greater innovation or efficiencies between the designer and the builder; or
 3. Significant savings in project delivery time would be realized.
- C** Public Body has necessary experience or team:
(must meet all 6 to pass; 1 fail fails all)
 1. Project delivery knowledge and experience
 2. Sufficient contract administration personnel with construction experience
 3. Written management plan with clear & logical lines of authority
 4. Necessary & appropriate funding and time to carry out the project
 5. Continuity of project management team with project type & scope experience
 6. Necessary and appropriate construction budget
- D** For Design-Build projects, construction personnel independent of the DB team is knowledgeable in DB process & capable to oversee & administer the contract.
- E** Public Body has resolved any audit findings relative to previous projects.

Introductions - Presenting Team

King County

- Kevin Kibet, PMP
Design/Procurement Project Manager
- Carol Pennie
Contract Project Representative
- Trisha Roth, DBIA, CPPB
Contracting / Procurement Specialist

Advisory

- Scott Tomlinson, CCM, DBIA
Owner DB and Risk Advisor (Vanir)
- David Umstot, PE, CEM
PDB Advisor (Umstot)

King County

- 2,132 square miles service area
- Serves 2.1+ million population
- Provides 400,000 daily rides, removing 190,000 cars from the road
- 1,600+ buses fleet– including 185 zero-emission buses
- 100% zero-emissions fleet by 2040
- Increase to 2,200 battery-electric buses and electric trolley buses – to achieve King County’s Strategic Climate Action Plan target



King County Capital Project Experience

Project Name	Delivery Method	Planned Start	Planned Finish	Actual Start	Actual Finish	Planned Budget \$	Actual Cost \$	Notes
6-Year History of Completed Capital Improvement Projects								
Pier 50 Float Replacement	D-B	Feb. 2018	Sept. 2018	Mar. 2018	May 2019	\$7.2M	\$8.0 M	Float delivery delayed due to WSF construction delay. Budget changes due to moorage costs, float Installation costs and steel guide pile hoop design change.
Judge Patricia A. Clark Children and Family Justice Center - Phase 1A	D-B	Mar. 2015	Nov. 2019	Mar. 2015	Nov. 2019	\$154M	\$186M	Phase 1A construction was delayed by political opposition and issuance of the Master Use Permit. The team reduced and mitigated the impact of this delay by approximately two months through efficient management of the schedule and performance of the work.
Montlake HUB Capital Improvements	D-B-B	June 2017	May 2020	June 2020	July 2020	\$3.4M	\$3.5M	Budget changes due to Seattle City Light design changes, additional paving and power to the RTIS system. Time extension due to weather impacts.
Eastgate Park & Ride Comfort Station	D-B-B	Dec. 2017	Mar. 2017	Dec. 2017	July 2018	\$202,000	\$203,506	Time extension due to additional electrical permitting and geotechnical work required. Cost increase for water line change per local agency.
Third Avenue ORCA Reader Improvements	D-B-B	Mar. 2019	Mar. 2020	May 2019	June 2020	\$2.8M	\$3.3M	Additional funds were allocated to the budget to construct two additional bus zones. Contract time was extended to obtain Street Use Permits from the City.
South Interim Base (SIB) Development	D-B-B	June 2019	June 2021	July 2019	June 2021	\$23M	\$26.4M	Contract price was revised to include construction contingency.
South Interim Base (SIB) Demolition	D-B-B	Jan. 2019	June 2019	Jan. 2019	June 2019	\$2M	\$1.9M	Credit for work that was not required to be performed (light pole relocation and rainwater storage tanks).
Safety and Training Building	Lease - Build to Suit	Mar. 2020	Dec. 2019	Mar. 2020	Mar. 2021	\$3.7M	\$4.7M	Cost variance due largely to insecurity in GMP from owner as Design/Build was negotiated and completion date was impacted by Covid and permitting.
Passenger Ferry Terminal at Colman Dock	Joint Venture	Aug. 2017	Sept. 2018	Aug. 2017	Sept. 2019	\$35M	\$35M	Construction was delayed one year due to schedule impacts of the Colman Dock project. The project was delivered under budget despite the schedule delay. Final cost is still being determined (project is in closeout).

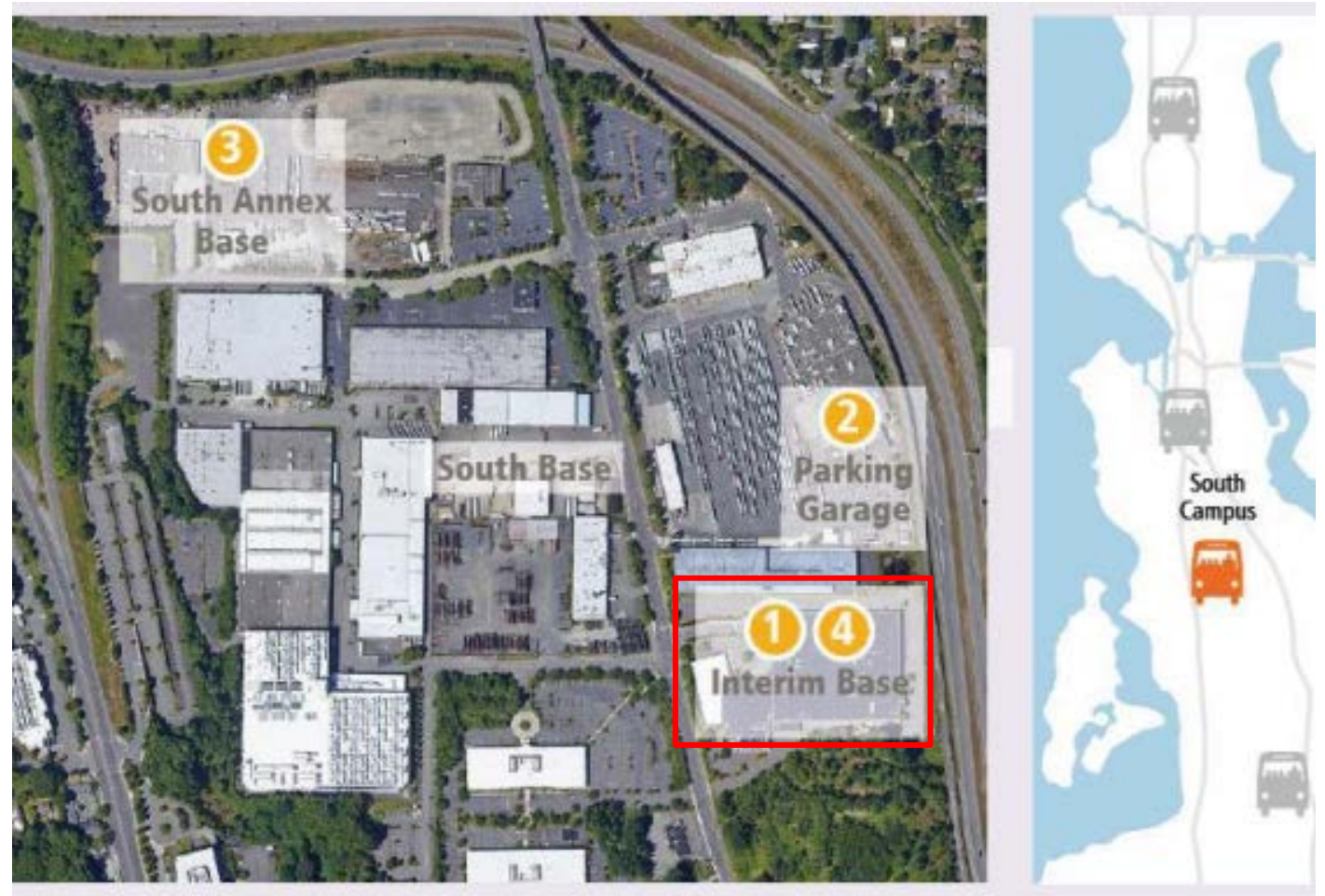


King County Capital Project Delivery Experience/Qualifications

- Many of King County's project team staff members have completed DBIA training
- Internal processes and control systems to efficiently plan and execute the work
- No audit findings on any of the public works projects

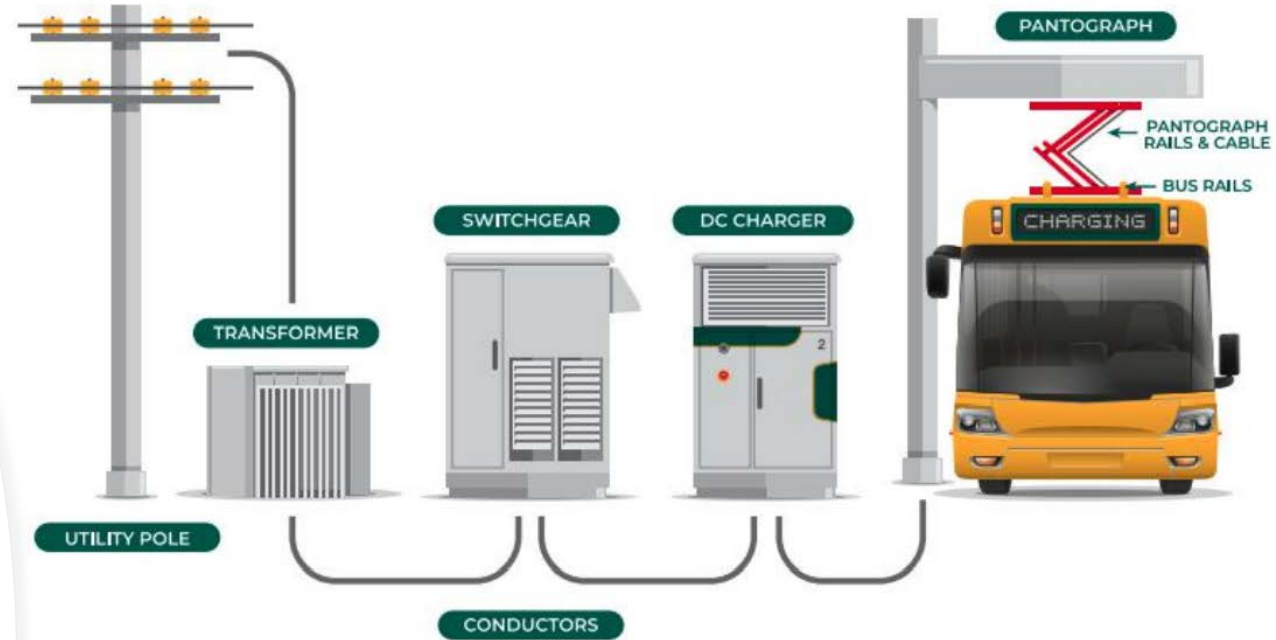
IBE Project Overview

- Located: King County Interim South Base (Tukwila, WA)
- 100% zero emissions fleet by 2040
- Start of bus electrification for King County
- Estimated project costs \$59M
- Project completion Nov. 2024



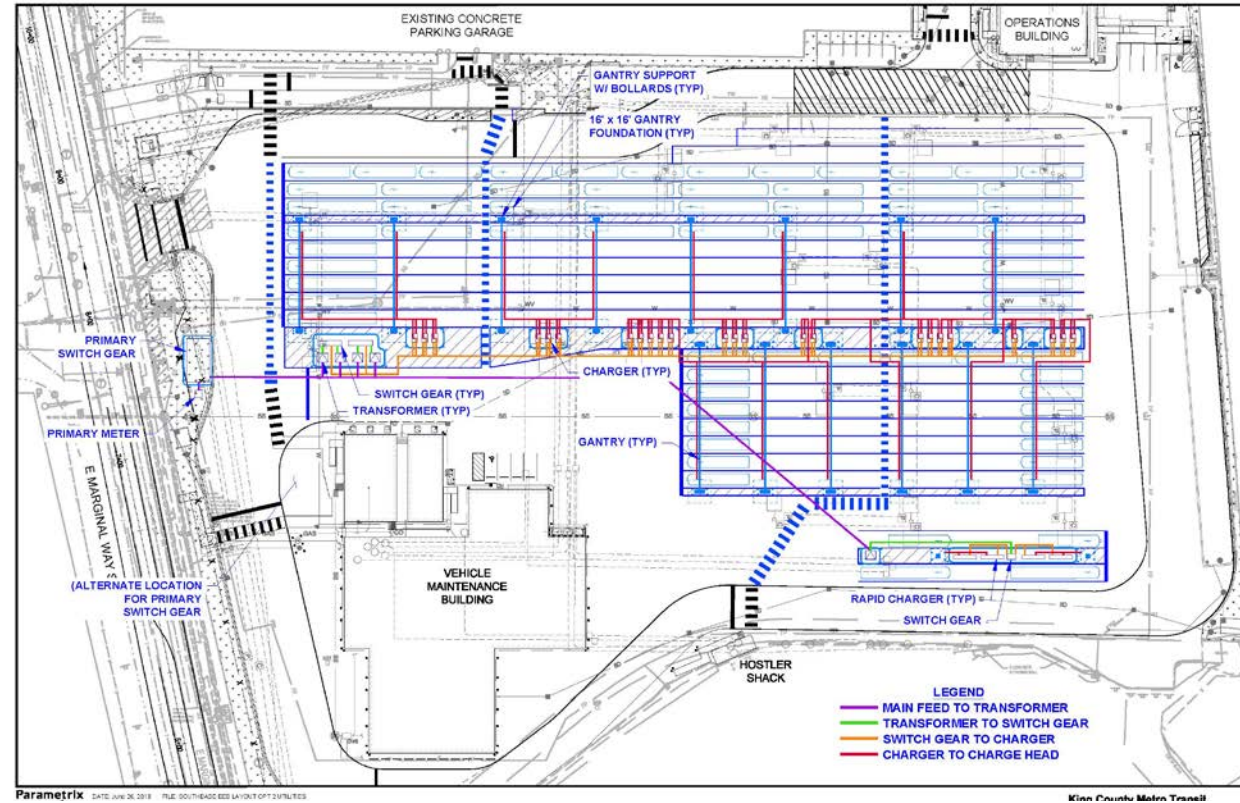
IBE Scope of Work

- Enhanced site work
- Charging stations for 120 buses
- Software charging interface / management with operations
- Seattle City Light power



IBE Challenges

- Capturing current charging innovations
- Management of software development and interface with battery electric bus (BEB) operations
- Schedule interface with BEB procurement
- Existing site coordination
 - High-water table (seasonal fluctuations)
 - Active site



Budget

Professional Services (Technical Reviews, Legal, OA/CM, Inspection)	\$ 3,075,000.00
Est. Project Design & Construction (Includes 10% Missing Scope Contingency)	\$ 35,329,000.00
Off-Site Costs (SCL)	\$ 500,000.00
Contingencies (Design & Owner)	\$ 10,599,000.00
Other Related Project Costs	\$ 9,583,000.00
Sales Tax N/A (Project Falls Under WAC 458-20-171 Exception)	\$ <u>0.00</u>
TOTAL	\$ 59,029,000.00

- IBE project is fully funded
- Seeking grant funding opportunities (FTA grants)

Contracts/Procurement

- Procurement meets RCW 39.10.300 requirements
- Utilizing UW's two-part contract
 - DB preliminary agreement takes design to 30% and negotiates GMP
 - Cost plus fee with a GMP for final design & construction
- Procurement plan parallels work plan

King County
Project Name
Project No.

Preliminary Agreement Between Owner and Design-Builder

This AGREEMENT is made as of the _____ day of _____, 2021, by and between the following parties, for services in connection with the Project identified below.

OWNER:
King County
King County Metro Department
Seattle, WA

DESIGN-BUILDER:
(Name and address)

PROJECT:

In consideration of the mutual covenants and obligations contained herein, Owner and Design-Builder agree as set forth herein.

Project Name and Number
Preliminary Agreement Between Owner and Design-Builder

King County
Interim Base Electrification
1139367
Agreement Between
Owner and Design-Builder - Cost Plus Fee with a
Guaranteed Maximum Price

This AGREEMENT is made as of the _____ day of _____, 2019, by and between the following parties, for Work and services in connection with the Project identified below.

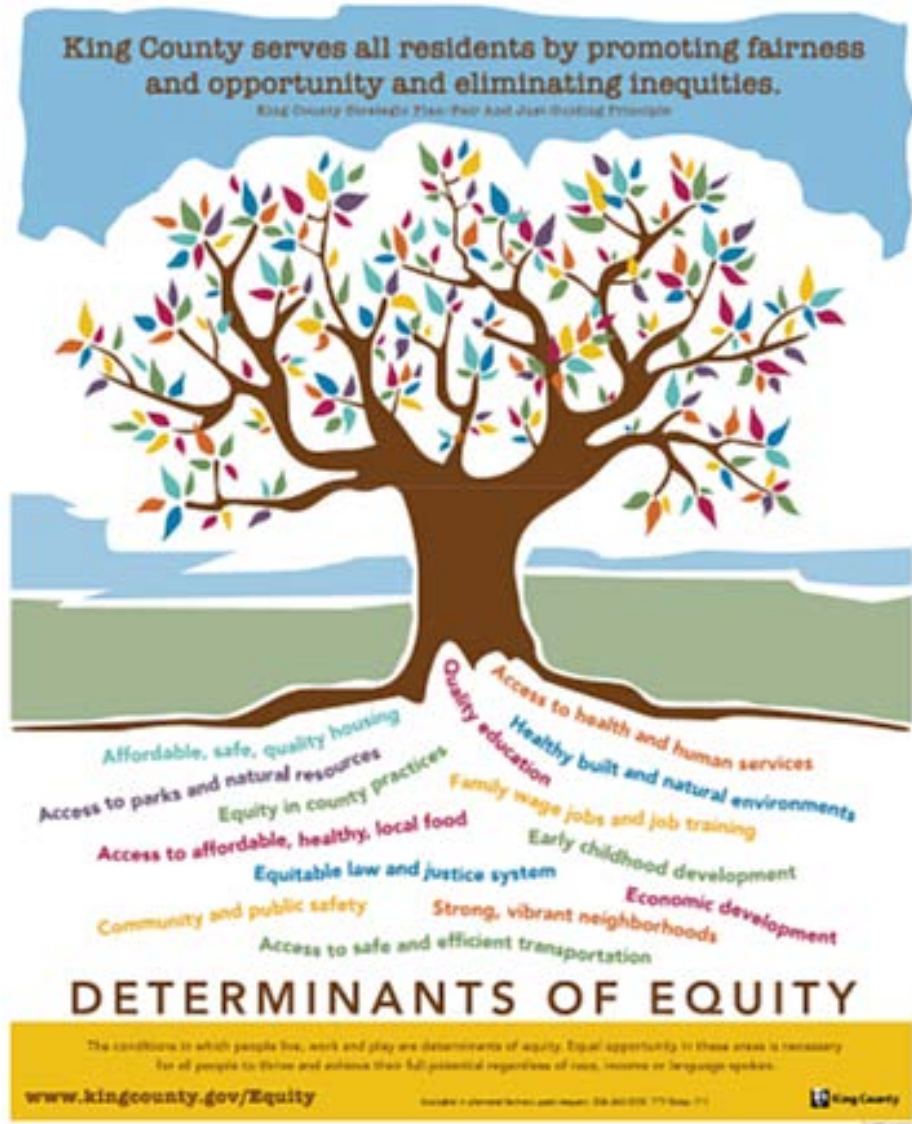
OWNER:
King County
Metro Transit
Address

DESIGN-BUILDER:
(Name and address)

PROJECT:

In consideration of the mutual covenants and obligations contained herein, Owner and Design-Builder agree as set forth herein.

Interim Base Electrification 1139367
Agreement Between Owner and Design-Builder - Cost Plus Fee with a GMP
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Rev 10.2020



King County Equity and Social Justice Results

- Committed to maximizing outreach to and participation of Small Business Enterprises (SBE)
- IBE project requirements
 - SBE: 13%
 - Apprenticeship requirement: 15%
- King County transit performance
 - 27 active FTA funded projects
 - \$29 million payments to date – with 20% SBE firms
 - 9 transit projects with 111,000 total labor hours with 18% (or 20,000) apprentice hours
 - All active transit projects meeting / exceeding apprenticeship requirements

Team Organization



**IBE Technical/
Permitting SME Team**

James Degnan, PE
Project Engineer

John Green
Environmental

Sadiq Anod
Electrical Engineer

Gina Franco
Civil Engineer

Sabet Vallejo
Structural Engineer

Jennifer Lee
Permitting

Project Controls

**IBE Project
Management Team**

Kevin Kibet - PMP
Project Manager

Carol Pennie
Project Representative

Thomas Kuffel, JD
Legal Advisory

Trisha Roth, DBIA, CPPB
*Contracting / Procurement
Specialist*

Gerald Williams
Construction Manager

DB Team

**Contractor
Designer**

Advisory/Support Team

Scott Tomlinson, CCM, DBIA (Vanir)
Owner DB and Risk Advisor

David Umstot, PE, CCM (Umstot)
PDB Advisor

Santosh Kuruvilla, PE, SE, PMP (Exeltech)
DB Advisor and CE/SE

Andrew Rutgers, PHD (Wise Charging)
Electrification /Bus Expert

Carol Rhodes, PE, PMP, DBIA (Vanir)
Project Manager

Michael Clark, PMP (Vanir)
Resident Engineer

Shanna Crutchfield (Vanir)
Contracting Equity Manager

Al Emter, PE, CESL (Exeltech)
Lead Project Estimator

Thomas Linville (CS3W)
Project Controls

Ankara
Auditing

Team Utilization

NAME	ROLE	FIRM	ROLE DURING PHASES		
			PLAN	DESIGN	CONST.
Scott Tomlinson, DBIA, CCM	Owner Advisor	Vanir	50%	50%	25%
David Umstot, PE, CEM	PDB Advisor	Umstot	15%	10%	5%
Carol Rhodes, PE, PMP, DBIA	Project Manager	Vanir	50%	50%	25%
Michael Clark, PMP	Resident Engineer	Vanir	30%	75%	100%
Santosh Kuruvilla, PE, SE, PMP	President	Exeltech	10%	5%	5%
Liz Krenzel, PE, PMP	Managing Director	King County	10%	10%	5%
Thomas Kuffel, JD	Supervising Attorney-Contracts	King County	20%	5%	5%
Trisha Roth, DBIA, CPPB	Contracts Specialist	King County	50%	25%	5%
Kevin Kibet, PMP	Project Manager	King County Metro	75%	50%	20%

NAME	ROLE	FIRM	ROLE DURING PHASES		
			PLAN	DESIGN	CONST.
Carol Pennie	Construction Project Rep.	King County Metro	50%	50%	75%
James Degnan, PE	Project Engineer	King County Metro	75%	75%	50%
Andrew Rutgers, PhD	Electrification/Bus Expert	Wise Charging	20%	20%	10%
TBD	Invoice & Labor Rate Verif. Auditing	Ankara	5%	5%	5%
Thomas Linville	Project Control Engineer	CS3W	25%	50%	100%
Al Emter, PE, CESCL	Lead Project Inspector	Exeltech	0%	20%	100%
Mary Barnes	Document Control	Vanir	50%	50%	50%
Rafael Martin, PE	Scheduling Manager	Vanir	25%	15%	10%
Ben Sabati	Estimating Manager	Vanir	25%	25%	10%

Why Progressive Design-Build for this Project?

RCW Topic	Design-Bid-Build	Progressive Design-Build
Complex, highly specialized infrastructure and technology	Sole sourcing issues and lack of input from the contractor	Provides an integrated approach, greater resources and shared expertise between design-build team and King County. Ability to capture technology throughout the project design phases collaboratively with the full project team.
Financial benefit or cost certainty	Lacks early cost certainty - often higher rate of change and claim cost	Effective project delivery method if limited scope and cost information are available. Ability to have early cost certainty. Transparency of costs.
Complex construction site constraints and technical project requirements	Inability to collaborate with integrated team before bid	Interim South Base is active - requiring operational coordination during IBE's construction. High water table at Interim South Base, fast tracking civil work can mitigate impact to operations. PDB allows for the design-builder's input into the phasing, constraints, and sequencing
Integrated design & construction team	Missing in design-bid-build	Allows for a higher level of integration between KC and the design-build team within the programming and planning process capturing latest state-of-the-science technologies. Ability to collaborate with battery electric bus procurement.
Significant savings in project delivery time	Requires full design and specification criteria - fast track is not feasible	Design-build team selection based on qualification and price enables significantly compression of the traditional design schedule and contractor ramp-up time. Procurement and construction can start while design is not 100% completed.
Public benefit	Design-bid-build often results in higher rate of change risks and claims than with integrated teams	Higher project success rate in quality, time and cost certainty as an integrated team can manage and resolve risks in a more effective manner than in a traditional design-bid-build (DBB) method.

Statutory Compliance

- ✓ Total Project cost of \$59 million exceeds \$2 million threshold (*RCW 39.10.300 (1)*)
- ✓ Highly specialized construction activities and DB approach critical for developing construction methodology (*RCW 39.10.300 (1a)*)
- ✓ Project provides for greater innovation and efficiency between designer and builder (*RCW 39.10.300 (1b)*)
- ✓ Significant savings in project delivery time would be realized (*RCW 39.10.300 (1c)*)
 - Eliminates two separate procurement processes (for Design–Bid–Build)
 - Work packages can be developed on a rolling basis

Statutory Compliance

- ✔ Substantial fiscal benefit: less risk, greater opportunities for cost and schedule savings OR DBB not practical for meeting desired quality and schedule objectives (*RCW 39.10.280 2a*)
- ✔ Qualified public body and consultant team with Fixed Price and Progressive DB experience (*RCW 39.10.280 2c and 2d*)
- ✔ Resolved audit findings – King County has had no audit findings (*RCW 39.10.280 2e*)

Summary

- IBE project meets qualifying RCW criteria
- Appropriate funding is in place for this project
- A Project Management Plan is developed with clear and logical lines of authority
- Appropriate construction budget has been identified for the project
- IBE project schedule provides appropriate time to manage and complete the work
- IBE project is highly specialized – PDB approach offers greater innovation and efficiencies between parties
- The Project team has the necessary experience and workload capacity
- We are prepared and ready to proceed

Thank You
Questions?