



WisDOT Design-Build Update

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WisDOT/WTBA Contractor Engineers Conference

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Presentation Overview

- WisDOT Design-Build Background
- WisDOT Design-Build Program Development Project
- WisDOT Design-Build Process
- State of WisDOT Design-Build Program
- Next Steps



WisDOT Design-Build Program Background

Design-Build – “an agreement that provides for design and construction of improvements by a contractor or private developer.” from 23 CFR Part 636

- 2019 legislation – Statute 84.062 Alternative Project Delivery
 - “The department shall administer a program for design-build projects”
 - Request for Qualifications
 - Request for Proposals
- 2021 legislation
 - Pilot program
 - \$250 million dollar cap on program
 - 6 projects - one of each type, 3 TBD



Types of Design-Build Procurement

- Best Value

- Points assigned to the technical proposal and the cost proposal
- Contract awarded to the proposer whose proposal has the best combined score on these two items.

- Fixed-price variable scope

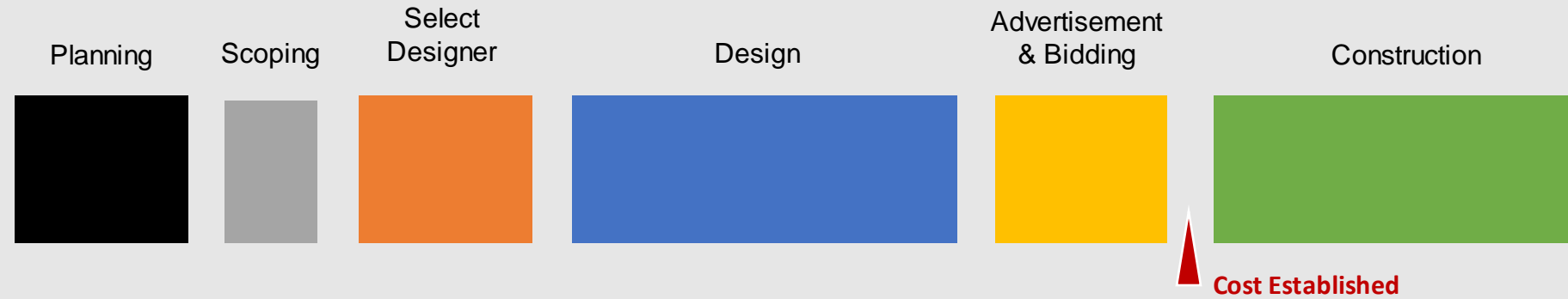
- Contract awarded to proposer that submits the lowest price and the best qualitative scope of work
- Price must not exceed a fixed price set by WisDOT

- Low Bid

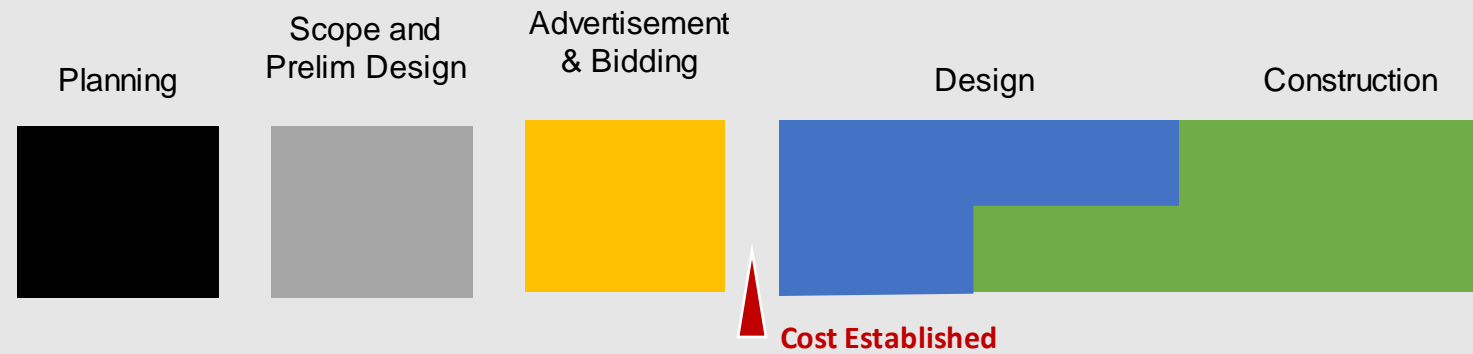
- Contract awarded to proposer that submits the lowest price and has a responsive technical proposal.
- To be responsive, the technical proposal must meet or exceed requirements specified in RFP

Design-Build vs Design-Bid-Build

Design-Bid-Build

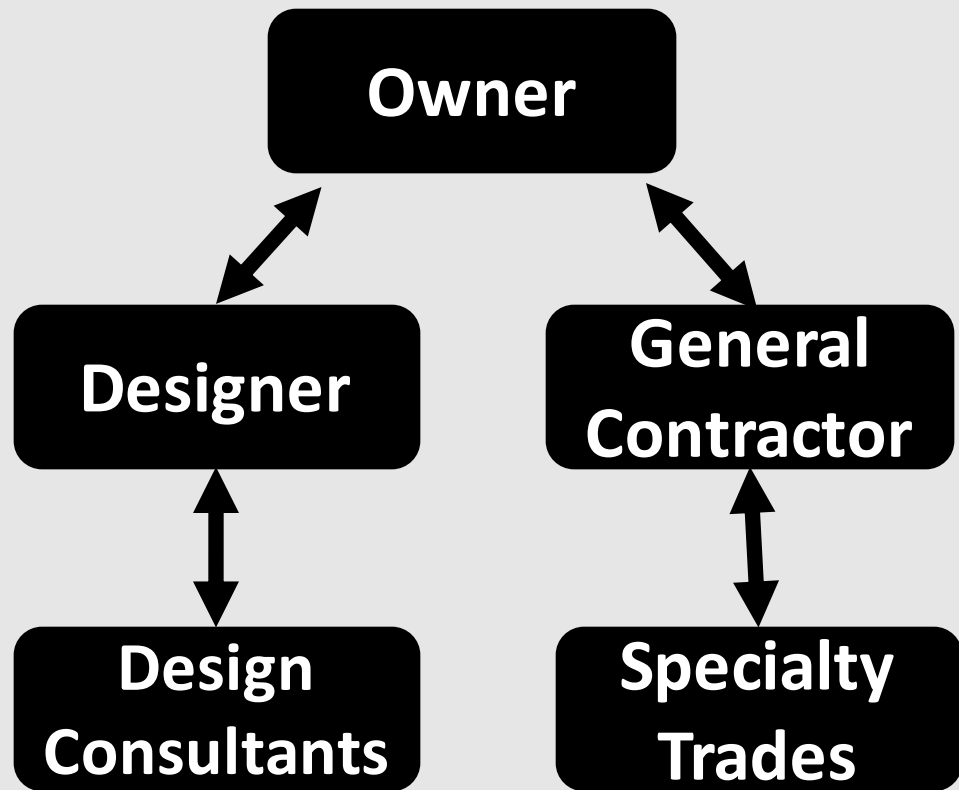


Design-Build

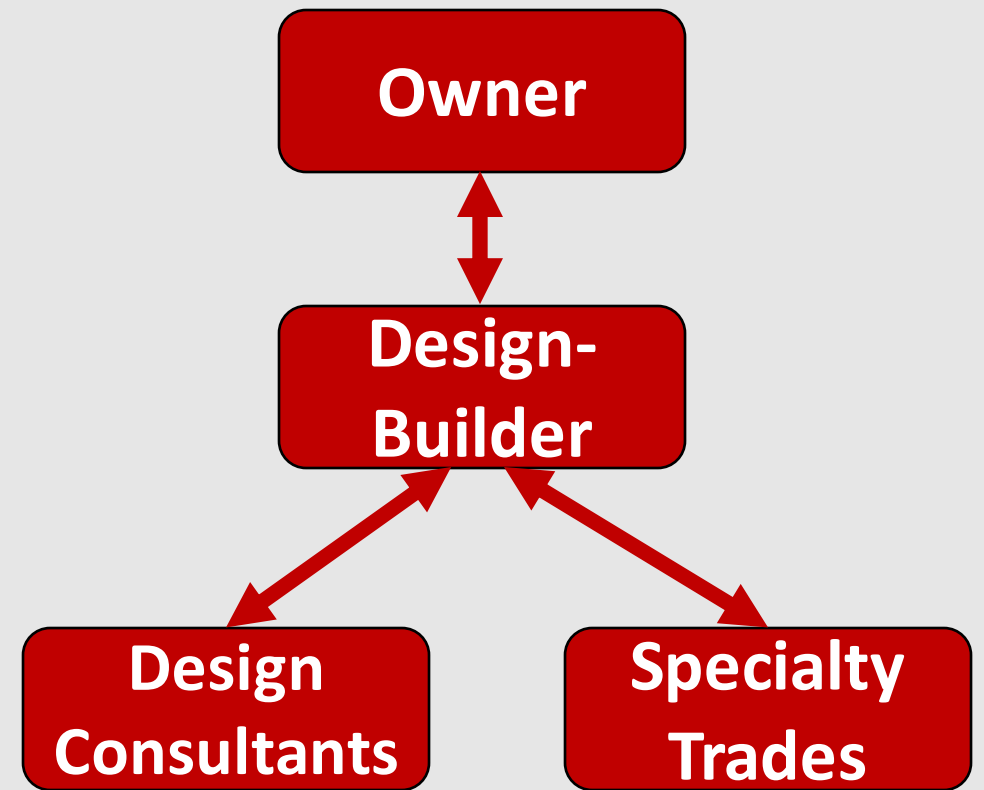


Delivery Method Comparison – Contract Structure

Design-Bid-Build



Design-Build



Design-Build Benefits and Challenges

Benefits

- Expedited Schedule
- Earlier Schedule and Cost Certainty
- Early Contractor Input/ Enhanced Constructability
- Built-in Opportunities for Value Engineering
- Innovation

Challenges

- Less WisDOT control over final product
- Preliminary design efforts
 - RE/Utilities/Environmental/Permits
- Proposal development efforts
- Process development efforts
- Learning curve for WisDOT and industry



WisDOT Design-Build Program Development Project

- Contracting with AECOM as a consultant to assist with design-build program development
 - Created template documents for procurement
 - Developing internal manual to document WisDOT procedures and requirements for design-build
 - Creating system for facilitating and tracking design-build project submittals
 - Creating methodology for selecting appropriate future projects for design-build
 - Stakeholder outreach
- UW-Milwaukee research project
 - Process review
 - Peer state comparisons
 - Lessons learned
 - Future project selection



WisDOT Design-Build Process

- WisDOT (or design consultant)
 - Develops preliminary plans
 - Completes an accepted environmental document
 - Design approximately 30% complete
 - Preferable to have Real Estate obtained by RFP release
 - Preferable to have utility coordination underway by RFP release
- 2-Step procurement process for design-builder
 - Request for Qualifications (RFQ)
 - Request for Proposals (RFP)



Procurement Process Phase 1 - RFQ

Request for Qualifications ensures a qualified pool of proposers will be included in Phase 2

- Project Goals
- Scope of Work
- Project Schedule
- Qualification Requirements
- Criteria for evaluating respondents' qualifications



RFQ Evaluation

- Organization and Experience
- Submitter Experience
- Key Personnel Experience
- Project Management Approach
- Design-Construction Integration
- Experience of all major project participants
- Past projects of similar size/scope
- Examples of successful schedule/cost control
- System for Accountability
 - Design/Construction Quality
 - Environmental



Procurement Process Phase 2 - RFP

Request for Proposals allow WisDOT to choose a project team that offers the most beneficial proposal

- Final design requirements.
- Requirements and criteria to develop proposals and bids
- Procurement schedule
- Alternative technical concept process
- Stipend information
- Contract terms and conditions
- Project technical requirements
- Applicable standards
- Reference information documents
- Technical proposal content and delivery instructions



State of Design-Build Program Development

- Template documents drafted
- First two project RFQs posted
- First SOQs reviewed
- First RFP under development
- External (UW-M) process review and project selection evaluation underway

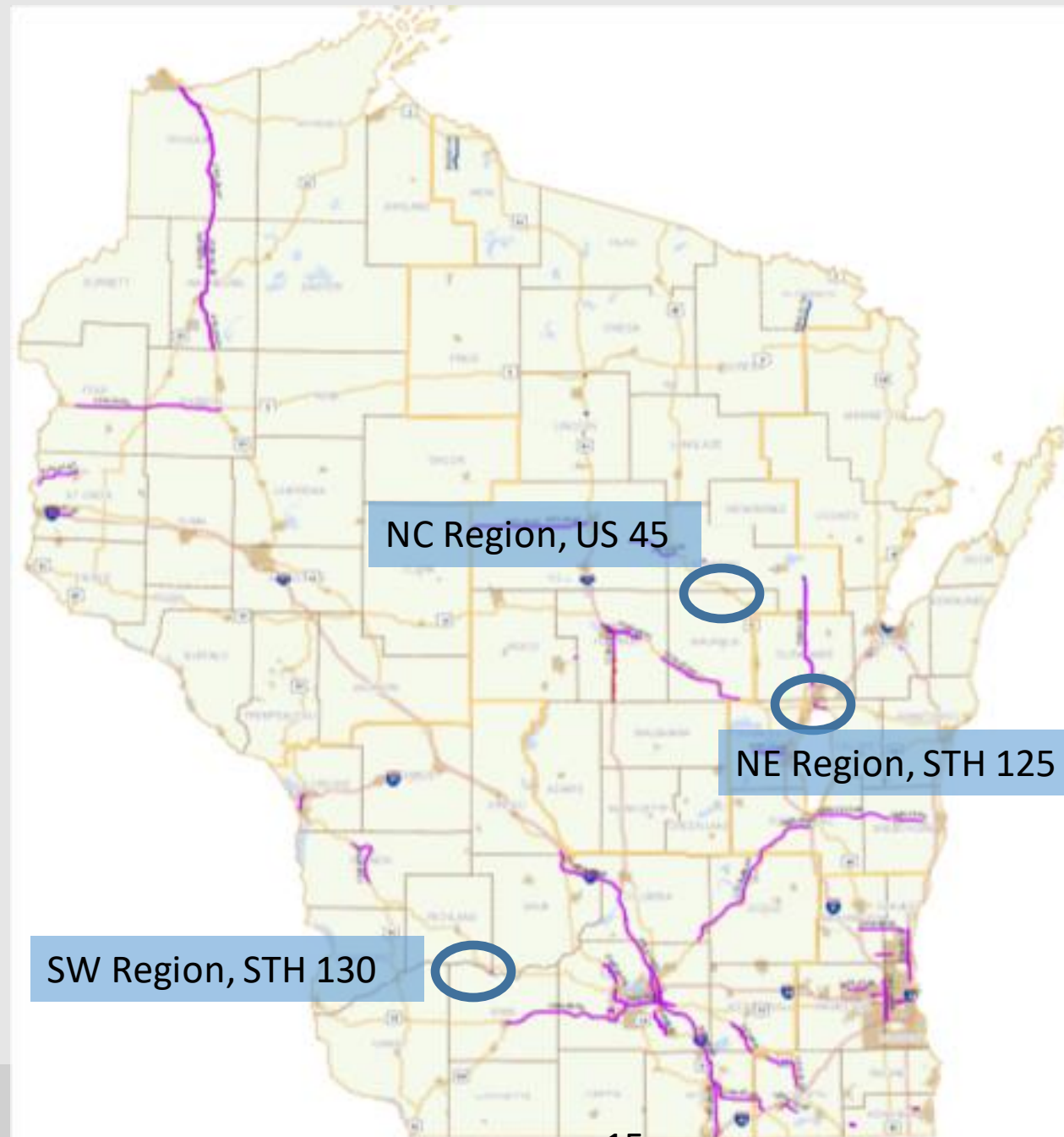


Selection of Potential WisDOT Design-Build Projects

- Limit project risks
 - Well-defined project scope
 - Limit environmental risks
 - Limit right-of-way requirements
 - Limit utility risks
- Opportunities for innovation or projected benefits from early contractor involvement
- Projects early in design process
- FHWA Alternative Contracting Evaluation Tool for risk analysis



First 3 Design-Build Projects



USH 45 - CTH C to Gollnow Rd (Asphalt Pavement Replacement) Low-Bid Design-Build: Canceled

Design-Build Qualities

- Good size
- Potential staging alternatives (4-lane divided to be built under traffic)

Potential Risks to Mitigate

- Safety improvements at STH 110 intersection to be determined
- Potential for additional R/W needs
- Utility risks

Project ID 1600-15-70

USH 45

CTH C to Gollnow Road

Waupaca/Shawano County

PAVEMENT REPLACEMENT

NC Region

8.03 Miles



STH 130 STH 23 – Lone Rock (Bridge Replacement) Best Value Design-Build: SOQs Submitted

Design-Build Qualities

- New bridges on new alignment
- Potential for accelerated schedule

Potential Risks to Mitigate

- Environmentally sensitive area
- 4(f) impacts – historical and recreational lands

Project ID 5770-01-71

STH 130

WI River RDWY& RPL B-25-XX-XXX

Richland County

ROADWAY & STRUCTURE REPLACEMENT

SW Region

0.7 Miles

Shortlist to be posted 1/21

RFP planned for advertisement 2/4



STH 125 - IH 41 to Bluemound Dr. (Bridge Replacement) Best Value Design-Build: RFQ planned for February

Design-Build Qualities

- Potential staging alternatives in high volume constricted area
- Bridge type design options including ABC
- Need for accelerated schedule for businesses/traffic

Potential Risks to Mitigate

- Stream crossing environmental risks
- Utility risks
- Requires coordination with nearby projects
- Staging concerns for business stakeholders

Project ID 6526-00-71

STH 125

IH 41 to Bluemound Drive

Outagamie County

BRIDGE REPLACEMENT

NE Region

RFP planned for
advertisement in April



Next Steps

- STH 130
 - Shortlist 1/21
 - RFP Advertisement 2/4
- STH 125
 - RFQ anticipated Feb 2022
 - RFP anticipated April 2022
- UW-M Final Report anticipated Nov 2022
 - Program effectiveness measures
 - Project selection
- Three more projects -TBD



More information

- WisDOT Design-Build Website
 - <http://wisconsindot.gov/designbuild>
- Contact
 - Benjamin.Thompson@dot.wi.gov

