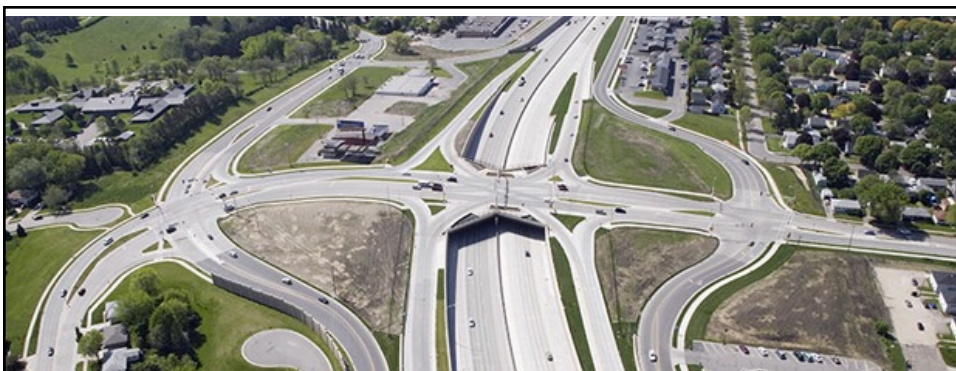




Design-Build in Minnesota

Peter Davich | Design-Build Program Manager
January 11, 2022

m1 DEPARTMENT OF
TRANSPORTATION

1

“Alternative Delivery” at MnDOT

Alternative Delivery (Design-Build and CMGC)

- **25-Year History**
 - 1996: First Design-Build project
 - 2002: First “modern” Design-Build project
 - 2007: Design-Bid-Build Best Value Authority
 - 2013: CMGC Authority and first project
- **55 Projects**
 - 32 Best Value Design-Build (\$1 - 238 Million)
 - 10 Low Bid Design-Build (\$2 – 30 Million)
 - 4 “Maximum scope” Design-Build (\$0.5 – 104 Million)
 - 8 CMGC (\$40 – 275 Million)
 - Typically 4-5 Alternative Delivery projects per year (of roughly 230 total)
(DB limited to 10% of program by NUMBER - CMGC limited to 20 total projects)



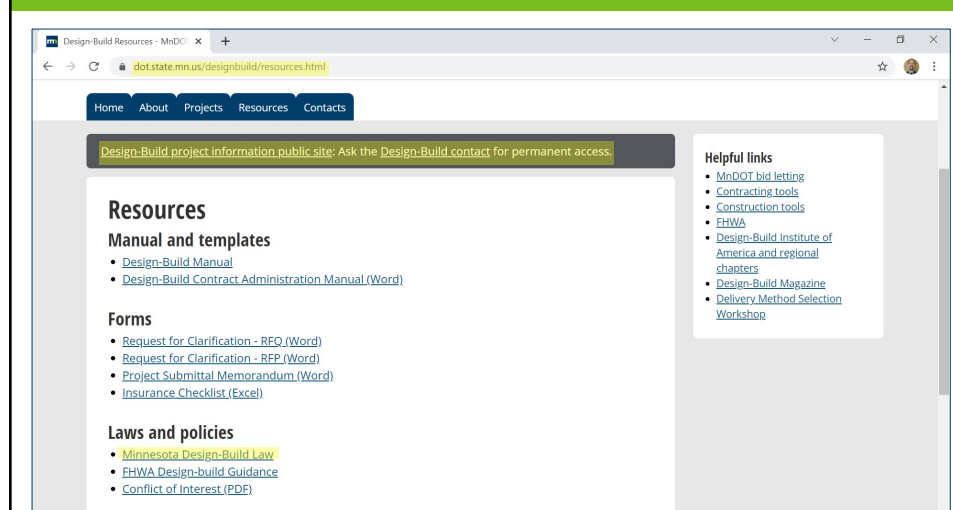
2

Alternative Delivery Staff

- **Central Staff Spread Between Offices**
 - Project Management (OPMTS): Peter Davich, Kevin Hagness, *Oversight Engineer*
 - Construction (OCIC): Kevin Kosobud
 - Bridge: Tony Lesch, *Open Position*
- **MnDOT personnel fill multiple functions**
 - Program Development
 - Project Selection
 - District Project Management Assistance
 - Project Controls “Gatekeeper”
 - Verification Management
 - Training
- **Programmatic consultant (GEC) provides experience and ‘horsepower’**
 - RFP Writing
 - Programmatic studies, PM support, etc
 - Preliminary Design
 - Project Management Support

3

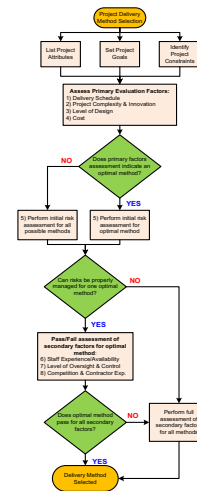
Design-Build Web Resources



4

Delivery Method Selection

- **Early Program Review**
 - 4-5 years prior to letting
 - Scoping worksheet; district manager review
 - Informal candidate list developed
- **Formal Selection Meeting**
 - 1-4 years prior to letting
 - Managed discussion focused on:
 - Risks
 - Cost
 - Schedule
 - Complexity
 - Staffing
 - Group recommends delivery method to Senior Leadership
 - Summary posted publicly



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Award Types for Design-Build

Low Bid

- Cost is only goal evaluated
- Most appropriate for projects with low complexity and risk

Best Value

- Contractor's effect on other goals evaluated:
 - Completion speed, maintainability, environmental impact
- Technical score typically given 20-40% as much weight as cost
 - Most appropriate for projects with high complexity or risk

Project Size	Percent of DB Program	Average Bid Vs DOT Estimate	Best Value Percentage
\$0-15 Million	36.3%	+0.40%	50%
\$15-50 Million	27.2%	-4.34%	75%
\$50-250 Million	36.3%	-2.81%	100%

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MN Design-Build Experience

- **Design-Build great for:**
 - “Design competition” (with contractor input)
 - Unique/complicated scopes
 - Acceleration (possibly emergency contracts)
- **Specify as needed, ATCs add flexibility**
- **Right size technical score versus cost**
 - Low Bid still has a place
- **Be transparent**
 - MN rather unique
 - AGC scorer
 - Comments posted
- **Offer as many “one on one” meetings as industry wants**
- **Small projects OK: have done successful \$500K/\$2M/etc DB**
 - Aggressively downsize contracts as needed



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MN Design-Build Evolution

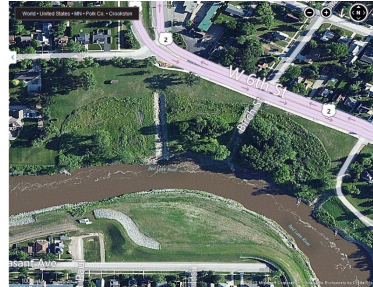
- **Not trying to increase/decrease usage**
 - Hold steady with selection tool
 - Trying to identify candidate project earlier
- **More internal writing/oversight?**
 - Only possible with stable 4+ projects annually
 - Still intending to fill “Oversight Engineer” position
- **Re-emphasizing Contractor Quality**
 - Contractor oversight missing in areas
 - MnDOT Quality oversight position?
- **“Sustainability” Criterion?**
- **Bundled projects?**
- **Progressive Design-Build?**
 - DB – CMGC Hybrid
 - May or may not have a place in MN



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Case Study: Crookston

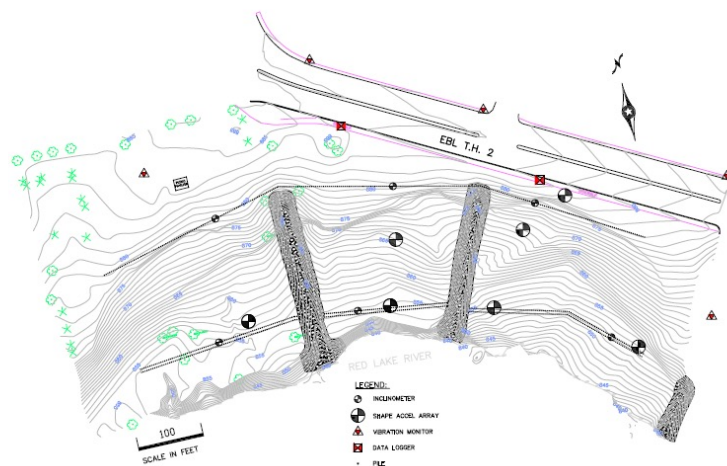
- **Unusual geotechnical project**
 - Deep slope failure with active “creep”
 - Historic slides: 1934 and 2008
 - Fails during drought conditions
 - No traffic impacts (yet)
 - Best solution unknown
 - Roughly \$8M estimate
- **Delivery Method?**
 - Good size for DBB, but bad scope
 - CMGC offers design control
 - Design-Build offers design competition
- **Design-Build selected**



The 1934 DARKOW Landslide in Crookston, Minnesota — The Green Gables tourist center was established here by Paul and Dought Darkow, later proprietors of the Country Club Motel, located in the same area. As picture indicates some of the Green Gables “took a drop.”

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Crookston: Piling Walls



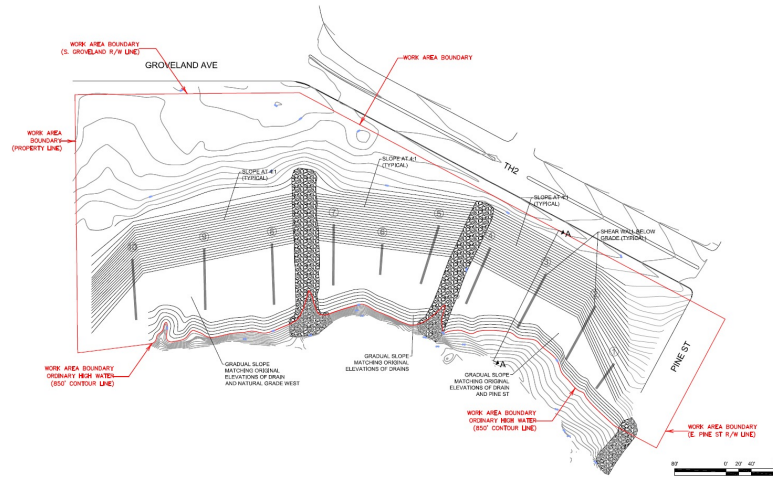
10



Crookston: Soil Mixing



Crookston: Shear Walls



13

Crookston: Results

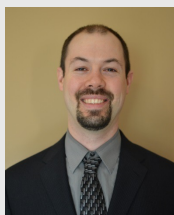
	Technical Proposal Score	Proposal Price	Adjusted Score (Price / Technical Score)
Team #1	85.00	\$ 6,808,808.00	80103.62
Team #2	82.61	\$ 7,496,356.00	90743.93
Team #3	93.40	\$ 7,218,533.00	77286.22
Nicholson	89.72	\$ 6,406,360.00	71403.92

The Engineer's Estimate was \$7,400,000

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Questions?



Peter Davich

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1/5/22