TxDOT ALTERNATIVE DELIVERY SUPPORT TOOL
Short Course 2016
ENABLING LEGISLATION - Timeline for DB & CDA

**72nd Legislature**
- HB 749 - First Bill that authorized Public-Private Partnership Agreements

**77th Legislature**
- SB 342 - Created Regional Mobility Authorities and increased the ability to use PPP agreements

**78th Legislature**
- HB 3588 - Created CDAs & Pass-Through Finance

**80th Legislature**
- SB 792 - Imposed a moratorium on the CDA process with some exemptions

**82nd Legislature**
- SB 1420 - CDA and Primacy Legislation (SB 19) authorizes Regional Mobility Authorities & TxDOT to enter into 11 CDA projects
- SB 2702 - Authorized CDAs for tolled and non-tolled elements

**83rd Legislature**
- SB 1730 - CDA Legislation - Authorizes a total of 12 specific CDA projects
- SB 1730 - Primacy Legislation - Authorizes Regional Mobility Authorities & TxDOT to enter into a CDA for 10 specific projects

**84th Legislature**
- HB 20/Rider 47 – Authorizes TxDOT to enter into no more than 3 design-build contracts in each Fiscal Year.
- HB 20 – Changed Legislation - Design-Build contract with Maintenance agreement initial term no longer than 5 years. Option to extend in 5 years increments

Main Goals of the Tool

- Supports TxDOT decision makers in selecting a delivery method through an objective approach, driven by:
  - Applicable project characteristics
  - Weighted project goals
- Documentation provides transparency
- User-friendly and adaptable, utilizing MS Excel
- Recommendations are consistent, using a programmatic approach
Project Delivery Alternatives

- Design - Bid - Build
- Design – Build
- Construction Manager at Risk (CMAR)

These alternatives only represent major approaches. Specific contract strategies (such as A+B, multiple primes, Incentives, Operate & Maintain) should be analyzed after determining the delivery method.
Literature Review

- TCRP – Evaluation of Project Delivery Methods
- Colorado DOT Methodology
- CII – Project Delivery Contract Strategy
- Georgia DOT Tool
- Florida DOT
- Virginia DOT
- Minnesota DOT
- New York DOT
- Washington DOT
- NTTA Model
- AASHTO
Objective:

“To assist transit agencies in evaluating and selecting the most appropriate project delivery method for their projects and in documenting this decision in a Project Delivery Decision Report”

3 stages:

- Tier 1 – Qualitative (Like CDOT)
  Structured discussion
- Tier 2 – Quantitative (Texas model)
  Decision Matrix
- Tier 3 – Risk Analysis (contracting strategies)
  Detailed analysis of specific risks
Examples of Qualitative Tools

Project Delivery Selection Matrix Summary
Determine the factors that should be considered in the project delivery selection, discuss the opportunities and obstacles related to each factor, and document the discussion on the following pages. Then complete the summary below.

<table>
<thead>
<tr>
<th>Primary Evaluation Factors</th>
<th>DBB</th>
<th>DB</th>
<th>CM/GC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Delivery Schedule</td>
<td>X</td>
<td>++</td>
<td>-</td>
</tr>
<tr>
<td>2. Project Complexity &amp; Innovation</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>3. Level of Design</td>
<td>-</td>
<td>++</td>
<td>+</td>
</tr>
<tr>
<td>4. Initial Project Risk Assessment</td>
<td>NA</td>
<td>Risk can be properly allocated in a DB delivery</td>
<td>NA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Secondary Evaluation Factors</th>
<th>NA (factor 1 fatal flaw)</th>
<th>++</th>
<th>+</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. Cost</td>
<td>NA (factor 1 fatal flaw)</td>
<td>++</td>
<td>+</td>
</tr>
<tr>
<td>6. Staff Experience/Availability (Owner)</td>
<td>NA</td>
<td>pass</td>
<td>NA</td>
</tr>
<tr>
<td>7. Level of Oversight and Control</td>
<td>NA</td>
<td>pass</td>
<td>NA</td>
</tr>
<tr>
<td>8. Competition and Contractor Experience</td>
<td>NA</td>
<td>pass</td>
<td>NA</td>
</tr>
</tbody>
</table>

Key:
- + Most appropriate delivery method
- + Appropriate delivery method
- - Least appropriate delivery method
- X Fatal Flaw (discontinue evaluation of this method)
- NA Factor not applicable or not relevant to the selection of project delivery

ALTERNATE PROJECT DELIVERY OFFICE

DESIGN-BUILD EVALUATION GUIDELINES

October 12, 2016
Examples of Quantitative Tools

CII’s Delivery Methods’ Ranking

Design-Build Suitability Ranking Summary:

<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Relative Importance</th>
<th>Weighted Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Delivery Schedule</td>
<td>15</td>
<td>14.0</td>
</tr>
<tr>
<td>Innovation</td>
<td>30</td>
<td>27.0</td>
</tr>
<tr>
<td>Level of Design</td>
<td>10</td>
<td>9.0</td>
</tr>
<tr>
<td>Project Delivery Cost</td>
<td>5</td>
<td>3.7</td>
</tr>
<tr>
<td>Quality</td>
<td>10</td>
<td>7.3</td>
</tr>
<tr>
<td>Staff Experience</td>
<td>15</td>
<td>9.5</td>
</tr>
<tr>
<td>Marketplace Conditions, Competition and Design Build Team</td>
<td>15</td>
<td>9.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>80.0</strong></td>
</tr>
</tbody>
</table>

PDCS Rating

GDOT Design-Build Suitability Assessment
Findings

- Reviewed with members of TxDOT team
  - None of the existing methods is met all requirements
  - Not objective. Many of the tools are Tier 1 level – qualitative assessment
  - Not flexible or suitable for public highway projects
  - A list of about 34 characteristics/attributes that are part of various models
INDEPENDENT VARIABLES

PROJECT CHARACTERISTICS

Inherent to the project. Cannot be changed.

DEPENDENT VARIABLES

PROJECT GOALS

Owner objectives. Achievement will depend on the project characteristics and the delivery method chosen.
Our Approach

1. Score characteristics

2. Choose outcomes

3. Recommend method

(heat map – not absolutes)

Delivery methods

Project characteristics

Influence

Hinder or leverage the influence

Project performance by objectives and priorities.
Scoring of the joint impact of the *project characteristic* and the *delivery method* on each one of the goals

If the delivery method is to be **Design-Bid-Build**, And according to the Measurement Scale:

| ++ | Strong positive effect on goal |
| + | Positive effect on goal |
| 0 | Negligible |
| - | Negative effect on goal |
| -- | Strong negative effect on goal |

**GIVEN the following project Characteristic:**

1. The project has well-known site conditions that won’t cause significant field changes.

<table>
<thead>
<tr>
<th>GOALS</th>
<th>How will this characteristic contribute to achieve ...</th>
<th>SCORE ↓</th>
<th>Comments?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower capital cost</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Lower Capital Maintenance Cost</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Sample findings

– Use of Design - Bid - Build
  • Overlapping of project phases is not permitted
  • Project has well documented site conditions

– Use of Design - Build
  • Concurrent design and build phases has significant savings and potential value to stakeholders
  • Project may benefit from introduction of innovative design and construction methods
    – Horseshoe Project: Concrete splice girders
    – I-35 Express: ATCs for design/construction at Belt Line Road
**Project Characteristics:**

Inherent to the project. Cannot be changed.

1. The project has **well known site conditions** that won’t cause significant field changes.
   - Very applicable
   - Applicable
   - Somewhat applicable
   - Not applicable

3. The **project design (PS&E)** is currently at an advanced stage; the agency wants to avoid changes or rework in design.
   - Very applicable
   - Applicable
   - Somewhat applicable
   - Not applicable
### Project Goals:
Owner objectives. Achievement depends on the project characteristics and selection of the delivery method.

<table>
<thead>
<tr>
<th>Objective</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower capital cost</td>
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- **Safety & Quality** are always considered target objectives
- **Target duration** can be met with any Delivery Method and the proper incentives
OUTPUT

Tiered Recommendation and Heat Map

DESIGN-BUILD is the recommended Delivery Method for 'Project X'. However, Tier 3 analysis is recommended to analyze mitigation strategies for the method’s least supportive characteristics, which are listed below.
**OUTPUT**

Most and least supportive characteristics for each delivery method

### Design - Build Delivery Method (Most Suitable)

<table>
<thead>
<tr>
<th>Most Supportive Characteristics</th>
<th>Least Supportive Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>The project will benefit from the introduction of innovative methodologies early in the planning/design phase.</td>
<td>The agency is better equipped than the contractor to manage third party issues.</td>
</tr>
<tr>
<td>The project requires the benefit of designer-contractor integration to reduce coordination challenges.</td>
<td>Prescriptive project requirements for methods, materials, and/or procedures limit contractor innovation in terms of alternatives.</td>
</tr>
<tr>
<td>Early completion will add significant extra value for key project stakeholders.</td>
<td>For this project, alternate delivery methods shall create incremental agency efforts and expenses that are expected to be greater than the savings in capital expenses.</td>
</tr>
</tbody>
</table>

### Design - Bid - Build Delivery Method (Least Suitable)

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<tr>
<th>Most Supportive Characteristics</th>
<th>Least Supportive Characteristics</th>
</tr>
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<tbody>
<tr>
<td>The project has well-known site conditions that won’t cause significant field changes.</td>
<td>Completion date of ROW acquisition is highly uncertain.</td>
</tr>
<tr>
<td>The agency is better equipped than the contractor to manage third party issues.</td>
<td>Utility relocations have not been completely identified and are likely to result in important changes in the design, cost, and/or schedule of the project.</td>
</tr>
<tr>
<td>The project will benefit from the introduction of innovative methodologies early in the planning/design phase.</td>
<td>The project includes permits requiring coordination and regulator approval during the design and/or construction phases of the project.</td>
</tr>
</tbody>
</table>
Implementation Process:

– PFD is acting as the facilitator of the tool

– Gather input from project subject matter experts (SMEs) and pre-populate the tool
  
  • SMEs are familiar with project details

– Finalize input and results with a Panel of TxDOT management
  
  • Incorporates high-level, regional perspective

– An objective review of project is achieved by soliciting input from two separate panels (SMEs and Mgmt.)
Harbor Bridge Project
### PROJECT INFORMATION

<table>
<thead>
<tr>
<th><strong>Name:</strong></th>
<th>US 181 Harbor Bridge</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Location:</strong></td>
<td>Nueces County, Texas</td>
</tr>
<tr>
<td><strong>Brief Description:</strong></td>
<td>The design, construction, and maintenance of the New Harbor Bridge, and portions of US 181, I-37, SH 286, the demolition of the existing Harbor Bridge</td>
</tr>
<tr>
<td><strong>Budget:</strong></td>
<td>$969,950,861 (nominal)</td>
</tr>
<tr>
<td><strong>Source of funding:</strong></td>
<td>Categories 2, 6, 7, 12, Local Contribution, Port, City, and Strategy 102</td>
</tr>
<tr>
<td><strong>Required completion date:</strong></td>
<td>August 2021</td>
</tr>
<tr>
<td><strong>Main Stakeholders:</strong></td>
<td>City of Corpus Christi, San Patricio County, Nueces County, Corpus Christi MPO, Port of Corpus Christi Authority</td>
</tr>
</tbody>
</table>

### Project’s special characteristics, main risks and challenges:

- Bridge garnered nationwide attention. Providing 75-year service life of New Harbor Bridge (exotic, cable stay bridge design) while minimizing capital and maintenance costs.
- Coordinating with Port for accommodation of navigational needs.
- Intensive public outreach to address & mitigate community impacts, including aesthetic plan, 4f, Title 6, etc.
- Minimizing impacts to surface streets, businesses, tourism and residential areas during construction & mitigate permanent access impacts.
PROJECT CHARACTERISTICS

Please answer the following according to the characteristics of US 181 Harbor Bridge:

Refer to the User Manual for detailed explanations and examples of applicability.

1. The project has well-known site conditions that won't cause significant field changes.
   - Very applicable: Many projects developed on or around the same site.
   - Fairly known site conditions: Some projects developed on or around the same site.
   - Somewhat applicable: Only some site conditions are known.
   - Not applicable: No projects developed on the same site. Unknown.

2. The project will benefit from the introduction of innovative methodologies early in the planning/design phase.
   - Innovative methodologies could include innovative practices regarding planning, design, construction methods or sequences, traffic handling techniques, etc.
   - Very applicable: Unique project for the agency.
   - Applicable: Agency has done many similar projects.
   - Somewhat applicable: Some similar projects.
   - Not applicable: Agency has not done similar projects.

3. The project design (PS&E) is currently at an advanced stage; the agency wants to avoid changes or rework in design.
   - Very applicable: >50% of design done
   - Applicable: 35% - 50% of design done
   - Somewhat applicable: 20% - 35% of design done
   - Not applicable: 0-20% of design done - Only schematic
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# TxDOT Alternative Delivery Support Tool: Harbor Bridge Project

## TXDOT Project Delivery Selection - Decision support tool

### Step 3/5

#### PROJECT CHARACTERISTICS

Please answer the following according to the characteristics of US 181 Harbor Bridge:

*Refer to the User Manual for detailed explanations and examples of applicability.*

1. **The project has well-known site conditions** that won't cause significant field changes.

   - **Very applicable**
     - Many projects developed on or around the same site
   - **Applicable**
     - Fairly known site conditions
   - **Somewhat applicable**
     - Only some site conditions features are known
   - **Not applicable**
     - No projects developed on the same site or unknown

2. **The project will benefit from the introduction of innovative methodologies** early in the planning/design phase.

   *Innovative methodologies could include innovative practices regarding planning, design, construction methods or sequences, traffic handling techniques, etc.*

   - **Very applicable**
     - Unique project for the agency
   - **Applicable**
   - **Somewhat applicable**
     - Agency has done many similar projects
   - **Not applicable**

3. **The project design (PS&E) is currently at an advanced stage**; the agency wants to avoid changes or rework in design.

   - **Very applicable**
     - >50% of design done
   - **Applicable**
     - 35%-50% of design done
   - **Somewhat applicable**
     - 20%-25% of design done
   - **Not applicable**
     - <20% of design done - Only schematic
4. The project requires the benefit of designer-contractor integration to reduce coordination challenges.

*Coordination challenges include, but are not limited to, constructability issues, claims or rework due to design flaws, delays or extra costs due to lack of communication channels between the designer and the contractor, etc.*

- Very applicable
- Applicable
- Somewhat applicable
- Not applicable

5. **Prescriptive project requirements** for methods, materials, and/or procedures limit contractor innovation in terms of alternatives.

- Very applicable
- Applicable
- Somewhat applicable
- Not applicable

6. For this project, alternate delivery methods shall create *incremental agency efforts* and expenses that are expected to be greater than the savings in capital expenses.

*Incremental agency efforts and expenses include time spent preparing contracting documents and reviewing DB teams’ qualifications statements, proposals, stipends to unsuccessful proposers, independent legal and financial experts, QA effort, etc.*

- Very applicable
- Applicable
- Somewhat applicable
- Not applicable
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4. The project requires the benefit of designer-contractor integration to reduce **coordination challenges**.

   *Coordination challenges include, but are not limited to, constructability issues, claims or rework due to design flaws, delays or extra costs due to lack of communication channels between the designer and the contractor, etc.*

   - [ ] Very applicable
   - [ ] Applicable
   - [ ] Somewhat applicable
   - [ ] Not applicable
   - **Many coordination challenges expected**
   - **Some coordination challenges expected**
   - **Few coordination challenges expected**
   - **No coordination challenges expected**

5. **Prescriptive project requirements** for methods, materials, and/or procedures limit contractor innovation in terms of alternatives.

   - [ ] Very applicable
   - [ ] Applicable
   - [ ] Somewhat applicable
   - [ ] Not applicable
   - **Prescriptive specifications**
   - **Performance specifications**

6. For this project, alternate delivery methods shall create **incremental agency efforts** and expenses that are expected to be greater than the savings in capital expenses.

   *Incremental agency efforts and expenses include time spent preparing contracting documents and reviewing DB teams’ qualifications statements, proposals, stipends to unsuccessful proposers, independent legal and financial experts, QA effort, etc.*

   - [ ] Very applicable
   - [ ] Applicable
   - [ ] Somewhat applicable
   - [ ] Not applicable
   - **Incremental efforts will be significant**
   - **Incremental efforts expected**
**7. Early completion** will add significant extra value for key project stakeholders. *Extra value* refers to diminished traffic bottlenecks, faster travel time, and improved safety.

- Very applicable
- Applicable
- Somewhat applicable
- Not applicable

Early completion will entail major benefits for all stakeholders.

- Not applicable
- Early completion won’t entail major benefits

**8. The agency is better equipped** than the contractor to manage third party issues.

*Better equipped* means having greater experience, and thus likely to perform better than the contractor in terms of time and budget needed to solve those issues. *Third-party issues* refer to issues that are neither under the control of TxDOT nor under the developer’s control.

- Very applicable
- Applicable
- Somewhat applicable
- Not applicable

Agency is familiar with all third party issues and prefer to keep the risk.

- Not applicable
- Third party issues should be managed by the contractor

**9. The project is likely to benefit from shifting the risk of third party issues to the contractor.**

- Very applicable
- Applicable
- Somewhat applicable
- Not applicable

Agency prefers to shift the risk of third party issues to the contractor.

- Not applicable
- Agency is familiar with all the third party issues. Risk should be kept.
10. Completion date of **ROW acquisition** is highly uncertain.

*Uncertain* refers to a large number of parcels involved or complexity due to the location of the project.

- [ ] Very applicable
- [ ] Applicable
- [ ] Somewhat applicable
- [ ] Not applicable

11. **Utility relocations** have not been completely identified and are likely to result in important changes in the design, cost, and/or schedule of the project.

- [ ] Very applicable
- [ ] Applicable
- [ ] Somewhat applicable
- [ ] Not applicable

12. The project includes **permits** requiring coordination and regulatory approval during the design and/or construction phases of the project.

*Permits may include multiple step approvals, several review cycles, and/or mandatory processes that could delay or affect the sequence of work.*

- [ ] Very applicable
- [ ] Applicable
- [ ] Somewhat applicable
- [ ] Not applicable

- [ ] Numerous and time-demanding permits involved
- [ ] Only minor/usual permits required
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- [ ] Applicable
- [ ] Somewhat applicable
- [ ] Not applicable

- [ ] Numerous and time-demanding permits involved
- [ ] Only minor/usual permits required

October 12, 2016
**PROJECT/AGENCY GOALS**

Reflect the relative importance of the following project goals by distributing a total of 100 points. You can allocate 100% into a single objective, or distribute them in any way.

<table>
<thead>
<tr>
<th>GOAL</th>
<th>DESCRIPTION</th>
<th>POINTS ASSIGNED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower capital cost</td>
<td>The contractual cost of the project must be the lowest reasonable; the budget available is tight.</td>
<td></td>
</tr>
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<td>Lower capital maintenance cost</td>
<td>The agency is concerned about minimizing the maintenance costs during the life cycle of the project.</td>
<td></td>
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</table>

**TOTAL 100%**
Your poll will show here

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<tbody>
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<td>30%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>
**FINAL OUTPUT - US 181 Harbor Bridge**

**DESIGN-BUILD** is the recommended Delivery Method for 'US 181 Harbor Bridge'. However, Tier 3 analysis is recommended to analyze mitigation strategies for the method's least supportive characteristics, which are listed below.

**FINAL RECOMMENDATION**

- **Design-Build**: 0.54

**TIER 3 ANALYSIS**

- WEAK RECOMMENDATION

**RECOMMENDED DELIVERY METHOD**
TxDOT Alternative Delivery Support Tool: Harbor Bridge Project

Impact of Each Delivery Method on Projects Goals:

- **Lower Capital Cost:**
  - Design-Bid-Build
  - Design-Build

- **Higher Cost Predictability:**
  - Design-Bid-Build
  - Design-Build

- **Higher Schedule Predictability:**
  - Design-Bid-Build
  - Design-Build

- **Lower Capital Cost:**
  - Design-Bid-Build
  - Design-Build

Not Recommended Delivery Method

Neutral Zone

Recommended Delivery Method

Strongly Recommended

Overall Suitability of Each Delivery Method:

Design-Bid-Build

Design-Build

Design-Build

Design-Build
TxDOT Alternative Delivery Support Tool: Harbor Bridge Project

**Legend:**
- Overall suitability of each delivery method
  - Lower Capital Cost
  - Higher Cost Predictability
  - Higher Schedule Predictability
  - Lower Capital Maintenance

**Note:**
- Tier 3 Analysis Recommended for Final Scores Within This Range
The project characteristics that **most and least** support each delivery method can be seen below:

### Design-Build Delivery Method (Most suitable)

<table>
<thead>
<tr>
<th>Most supportive characteristics</th>
<th>Least Supportive Characteristics</th>
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<td>The project will benefit from the introduction of innovative methodologies early in the planning/design phase.</td>
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### Design-Bid-Build Delivery Method (Least suitable)

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</tr>
<tr>
<td>The project will benefit from the introduction of innovative methodologies early in the planning/design phase.</td>
<td>The project includes permits requiring coordination and regulatory approval during the design and/or construction phases of the project.</td>
</tr>
</tbody>
</table>
US 281 – Segment 1
## PROJECT INFORMATION

<table>
<thead>
<tr>
<th>Name</th>
<th>US 281 Segment 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location</td>
<td>Loop 1604 to Stone Oak Parkway</td>
</tr>
<tr>
<td>Brief Description</td>
<td>New 4-lane non-tolled expressway, non-tolled northern interchange connectors at Loop 1604, 2 HOV lanes, connection to VIA facility</td>
</tr>
<tr>
<td>Budget</td>
<td>$228M</td>
</tr>
<tr>
<td>Source of funding</td>
<td>Combination of local funding, UTP funds and TxDOT loan</td>
</tr>
<tr>
<td>Required completion date</td>
<td>Assume a 3 year construction duration</td>
</tr>
<tr>
<td>Main Stakeholders</td>
<td>Alamo RMA, Comal County, Bexar County, VIA, TxDOT</td>
</tr>
</tbody>
</table>

### Project’s special characteristics, main risks and challenges:
- Existing corridor with high traffic volumes and lengthy travel delays
- Interchange connectors at Loop 1604
- Elevated connection to VIA facility

---

**TxDOT Alternative Delivery Support Tool: US 281 (Seg. 1)**
1. The project has **well-known site conditions** that won’t cause significant field changes.

- **Very applicable**: Many projects developed on or around the same site/Known site conditions
- **Applicable**: Fairly known site conditions
- **Somewhat applicable**: Only some site conditions/features are known
- **Not applicable**: No projects developed on the same site/Unknown site conditions

2. The project will benefit from the introduction of **innovative methodologies** early in the planning/design phase.

   *Innovative methodologies could include innovative practices regarding planning, design, construction methods or sequences, traffic handling techniques, etc.*

- **Very applicable**: Unique project for the agency
- **Applicable**: 
- **Somewhat applicable**: Agency have done many similar projects

3. The project design (PS&E) is currently at an advanced stage; the agency wants to avoid changes or rework in design.

- **Very applicable**: > 50% of design done
- **Applicable**: 35% - 50% of design done
- **Somewhat applicable**: 20% - 35% of design done
- **Not applicable**: 0-20% of design done - Only schematic
4. The project requires the benefit of designer-contractor integration to reduce **coordination challenges**.

*Coordination challenges* include, but are not limited to, constructability issues, claims or rework due to design flaws, delays or extra costs due to lack of communication channels between the designer and the contractor, etc.

- **Very applicable** - Many coordination challenges expected
- **Applicable** - Some coordination challenges expected
- **Somewhat applicable** - Few coordination challenges expected
- **Not applicable** - No coordination challenges expected

5. **Prescriptive project requirements** for methods, materials, and/or procedures limit contractor innovation in terms of alternatives.

- **Very applicable** - Prescriptive specifications
- **Applicable** - Some prescriptive specifications
- **Somewhat applicable** - Few prescriptive specifications
- **Not applicable** - No prescriptive specifications

6. For this project, alternate delivery methods shall create **incremental agency efforts** and expenses that are expected to be greater than the savings in capital expenses.

*Incremental agency efforts and expenses* include time spent preparing contracting documents and reviewing DB teams’ qualifications statements, proposals, stipends to unsuccessful proposers, independent legal and financial experts, QA effort, etc.

- **Very applicable** - Incremental efforts will be significant
- **Applicable** - Some incremental efforts expected
- **Somewhat applicable** - Few incremental efforts expected
- **Not applicable** - No incremental efforts expected
### 7. Early completion will add significant extra value for key project stakeholders.

**Extra value** refers to diminished traffic bottlenecks, faster travel time, and improved safety.

<table>
<thead>
<tr>
<th>Very applicable</th>
<th>Applicable</th>
<th>Somewhat applicable</th>
<th>Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early completion will entail major benefits for all stakeholders</td>
<td>Early completion won't entail major benefits</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 8. The agency is better equipped than the contractor to manage third party issues.

**Better equipped** means having greater experience, and thus likely to perform better than the contractor in terms of time and budget needed to solve those issues.

**Third-party issues** refer to issues that are neither under the control of TxDOT nor under the developer's control.

<table>
<thead>
<tr>
<th>Very applicable</th>
<th>Applicable</th>
<th>Somewhat applicable</th>
<th>Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agency is familiar with all third party issues and prefer to keep the risk</td>
<td>Third party issues should be managed by the contractor</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 9. The project is likely to benefit from shifting the risk of third party issues to the contractor.

<table>
<thead>
<tr>
<th>Very applicable</th>
<th>Applicable</th>
<th>Somewhat applicable</th>
<th>Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agency prefers to shift the risk of third party issues to the contractor.</td>
<td>Agency is familiar with all the third party issues. Risk should be kept</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**TxDOT Alternative Delivery Support Tool: US 281 (Seg. 1)**
**10. Completion date of ROW acquisition** is highly uncertain.

*Uncertain refers to a large number of parcels involved or complexity due to the location of the project.*

- **Very applicable**
- **Applicable**
- **Somewhat applicable**
- **Not applicable**

**11. Utility relocations** have not been completely identified and are likely to result in important changes in the design, cost, and/or schedule of the project.

- **Very applicable**
- **Applicable**
- **Somewhat applicable**
- **Not applicable**

**12. The project includes permits requiring coordination and regulatory approval during the design and/or construction phases of the project.**

*Permits may include multiple step approvals, several review cycles, and/or mandatory processes that could delay or affect the sequence of work.*

- **Very applicable**
- **Applicable**
- **Somewhat applicable**
- **Not applicable**

**Not applicable**

- **Only minor/usual permits required**
### PROJECT/AGENCY GOALS

Reflect the relative importance of the following project goals by distributing a total of 100 points. You can allocate 100% into a single objective, or distribute them in any way.

<table>
<thead>
<tr>
<th>Goal</th>
<th>Description</th>
<th>Points Assigned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower capital cost</td>
<td>The contractual cost of the project must be the lowest reasonable; the budget available is tight.</td>
<td>35%</td>
</tr>
<tr>
<td>Higher cost predictability</td>
<td>The project must be completed within the budget. The agency wants to avoid cost growth.</td>
<td>35%</td>
</tr>
<tr>
<td>Higher schedule predictability</td>
<td>The project must be completed within the target schedule. The agency wants to avoid schedule growth.</td>
<td>20%</td>
</tr>
<tr>
<td>Lower capital maintenance cost</td>
<td>The agency is concerned about minimizing the maintenance costs during the life cycle of the project.</td>
<td>10%</td>
</tr>
</tbody>
</table>

**TOTAL** 100%
Your poll will show here

1. Install the app from pollev.com/app
2. Make sure you are in Slide Show mode

Still not working? Get help at pollev.com/app/help
or
Open poll in your web browser
A recommended Delivery Method for 'US 281 Segment 1' cannot be given, due to the small difference in the alternatives' scores. To select a Delivery Method, perform a detailed Tier 3 risks and opportunities' analysis for each alternative. See User Manual for additional information.
Impact of Each Delivery Method on Projects Goals

- Lower Capital Cost:
  - Not Recommended Delivery Method
  - Neutral Zone
  - Recommended Delivery Method
  - Strongly Recommended

- Higher Cost Predictability:
  - Design-Build
  - Design-Bid-Build

- Higher Schedule Predictability:
  - Design-Build
  - Design-Bid-Build

Overall Suitability of Each Delivery Method:

- Design-Build
- Design-Bid-Build
TxDOT Alternative Delivery Support Tool: US 281 (Seg. 1)

Legend:
- Overall suitability of each delivery method
- Lower Capital Cost
- Higher Cost Predictability
- Higher Schedule Predictability
- Lower Capital Maintenance

Note:
- Tier 3 Analysis Recommended for Final Scores Within This Range
## Design-Build Delivery Method (Most suitable)

<table>
<thead>
<tr>
<th>Most supportive characteristics</th>
<th>Least Supportive Characteristics</th>
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<tbody>
<tr>
<td>Early completion will add significant extra value for key project stakeholders.</td>
<td>Prescriptive project requirements for methods, materials, and/or procedures limit contractor innovation in terms of alternatives.</td>
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<tr>
<td>The project has well-known site conditions that won’t cause significant field changes.</td>
<td>For this project, alternate delivery methods shall create incremental agency efforts and expenses that are expected to be greater than the savings in capital expenses.</td>
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## Design-Bid-Build Delivery Method (Least suitable)

<table>
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<tr>
<th>Most supportive characteristics</th>
<th>Least Supportive Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>The project has well-known site conditions that won’t cause significant field changes.</td>
<td>Utility relocations have not been completely identified and are likely to result in important changes in the design, cost, and/or schedule of the project.</td>
</tr>
<tr>
<td>For this project, alternate delivery methods shall create incremental agency efforts and expenses that are expected to be greater than the savings in capital expenses.</td>
<td>Early completion will add significant extra value for key project stakeholders.</td>
</tr>
<tr>
<td>Prescriptive project requirements for methods, materials, and/or procedures limit contractor innovation in terms of alternatives.</td>
<td>Completion date of ROW acquisition is highly uncertain.</td>
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Questions

Nabeel Khwaja, PE
Center for Transportation Research
khwaja@mail.utexas.edu

Kristi Flagg, PE
Project Finance, Debt, and Strategic Contracts Division
Kristi.Flagg@txdot.gov