

Work Plan

Special Experimental Project No. 14 (SEP-14)

Texas Department of Transportation

**Sealed Technical Concepts for Design-Bid-Build
Projects**

IH-35 Capital Express Central Drainage Tunnels

October 2023

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1. PURPOSE

The Texas Department of Transportation (TxDOT) proposes to use an optional Sealed Technical Concept (STC) approach on a trial basis under the provisions of Special Experimental Project No. 14 (SEP-14). The project is to be delivered using a traditional Design-Bid-Build (DBB) delivery method subject to modification to TxDOT's specifications and FHWA SEP-14 approval. In the Design-Build (DB) delivery process, Alternative Technical Concepts (ATC) are typically incorporated as a means for proposers to suggest changes in the design and/or construction of a project that could result in improved project quality and delivery. The STC is similar to an ATC in that it is a mechanism for bidders to propose changes to a project. It differs in the timing and delivery method of the change. Bidders are allowed to submit STCs that, if approved, TxDOT would provide a signed and sealed pre-bid design after the signed and sealed base design is substantially complete. TxDOT has a well-established Alternative Technical Concept (ATC) process in coordination with FHWA on its Design-Build (DB) program with significant benefits that could also apply to this unique DBB tunnel project.

The purpose of pre-Bid STCs is to include innovation into the design phase of a low bid DBB project in order to maintain the aggressive three-year tunnel schedule. TxDOT has been hosting closed door one-on-one meetings with bidders of the tunnel project for over a year and bidders have not shared innovative ideas due to concerns of confidentiality. Through the one-on-ones, TxDOT has obtained positive feedback from bidders on a sealed innovative approach. The CapEx Central Drainage Tunnels project (Project) is a major component of the \$4.5B CapEx Central program -that includes six separate DBB break out projects under a combined FEIS/ROD published in August 2023. It was during the Cost and Schedule Risk Assessment (CSRA) conducted with FHWA in June 2023 that the concept of SEP-14 was first identified.

The Project schedule is critical because the drainage tunnel must be complete before excavation of the \$3.2B downtown and university roadway projects begins, as the project will lower the IH 35 mainlanes and managed lanes below the surface streets between US 290 and Lady Bird Lake. This lowering will sever the existing drainage systems crossing the IH-35 corridor, necessitating the construction of the tunnels to collect and convey the stormwater and prevent the submergence of the mainlane improvements. No substantial roadway excavation can occur on IH 35 until the tunnels are complete and surface connections are made to the off-site storm drain system. Lowering the roadway allows opportunity for locally funded enhancements to help reconnect the communities of East and West Austin. TxDOT is targeting no longer than a 10-year construction duration for CapEx Central to the Austin residents and visitors for this transformational project.

2. SCOPE

2.1 Project Description

TxDOT proposes to conduct this experimental STC contracting approach for the Project (CSJ 0015-13-433, CSJ 0015-13-440, and CSJ 0914-04-341) in Travis County, Texas, Austin District. Project limits on IH-35 are from Airport Blvd. to North of Holly Street and on Cesar Chavez from IH-35 to the Colorado River. Refer to Figure 1 and Figure 2 for project location and schedule. Further details of this project including the key project risks are shown in **Appendix A**.

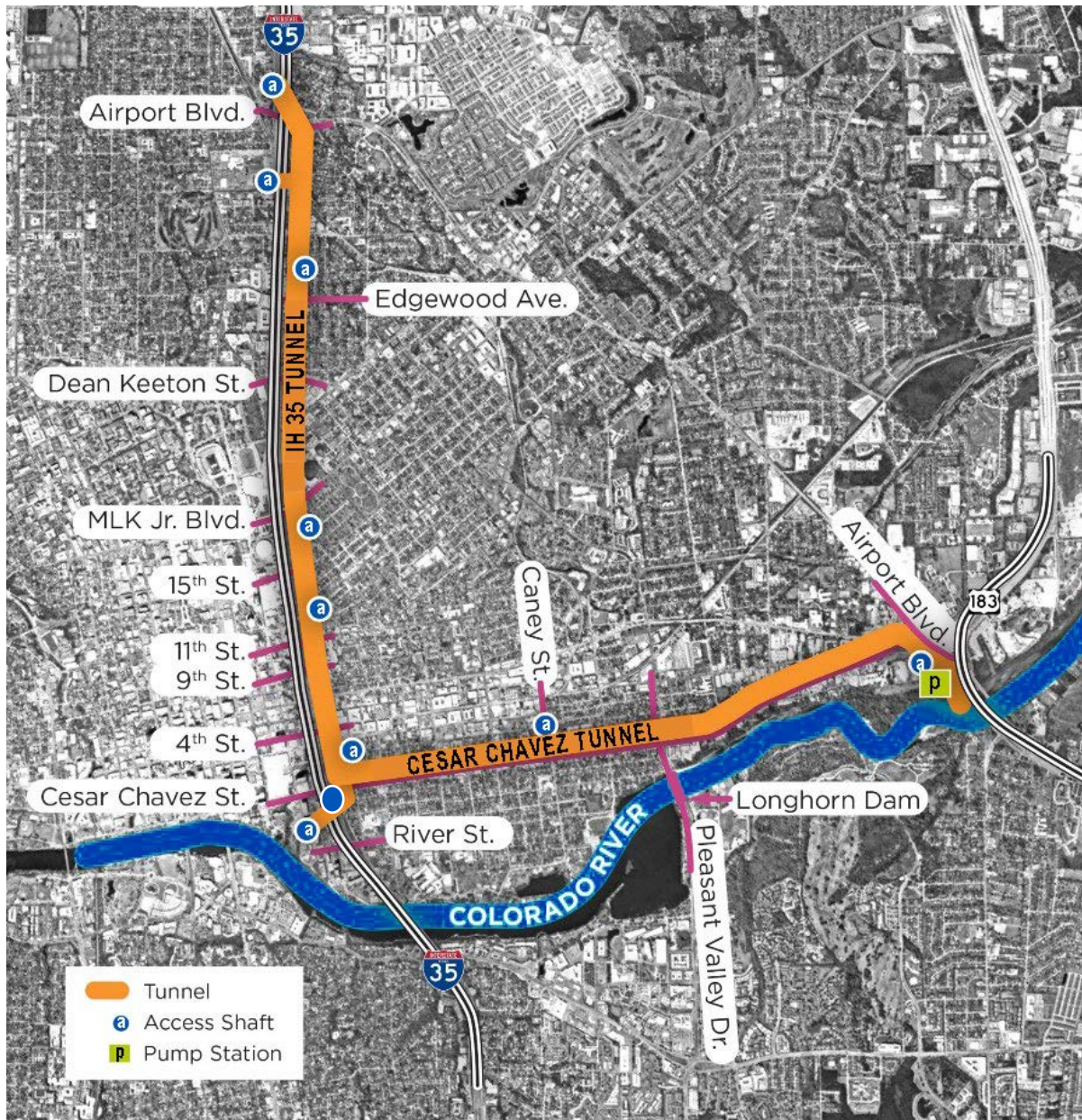


Figure 1 – Project Location Map

2.2 Process

The proposed process for the use of STCs on this project (see **Appendix B**) adopts certain processes adopted by TxDOT in its Design-Build program, with necessary modifications to adapt to use in Design-Bid-Build. TxDOT will develop, obtain necessary approvals and issue to Bidders the required Specification Amendments to accommodate the use of STCs with Design-Bid-Build.

STCs are anticipated to be requested primarily for project elements that are part of the permanent work. Examples of potential STCs include increasing the size of the tunnel to suit a contractor's available Tunnel Boring Machine (TBM) and segment molds, or changing the size or configuration of a drop shaft or adit to suit a contractor's means and methods. Temporary designs, such as support of excavation or dewatering systems, are typically the responsibility of the contractor and therefore are generally not expected to require STC approvals. However, STCs may be needed if the contractor's proposed temporary works approach does not meet project specification requirements or results in impacts to the limits of disturbance, utilities, or other project constraints that may require revisions to the contract documents or additional design team coordination.

Key steps in the process are shown below in Figure 3. TxDOT anticipates releasing a 60% progress design to Bidders to initiate the procurement process. This will be followed by an industry workshop at which TxDOT intends to brief interested Bidders on the process and the first round of one-on-one meetings at which Bidders will have an opportunity to ask questions. Bidders will then have an opportunity to prepare and submit Initial STCs (Round 1), during which time the 90% base design plans will be prepared and posted by TxDOT.

One-on-one meetings will be scheduled to discuss the 90% base design plans, at which time Bidders will also have the opportunity to discuss their initial STCs (Round 1) and receive informal feedback from TxDOT. Submittal of Initial STCs will not be a compulsory precondition to Bidders submitting Final STCs (Round 2), but will be strongly encouraged. Following the 90% design one-on-one meetings, Bidders will have the opportunity to submit Final STCs (Round 2). The number of STCs that may be submitted in each round will be limited to: a maximum of six (6) Initial STCs in Round 1; and a maximum of three (3) Final STCs in Round 2. These limits recognize the limited resources available to review the submittals and subsequently to perform designs for any accepted STCs in a reasonable time period

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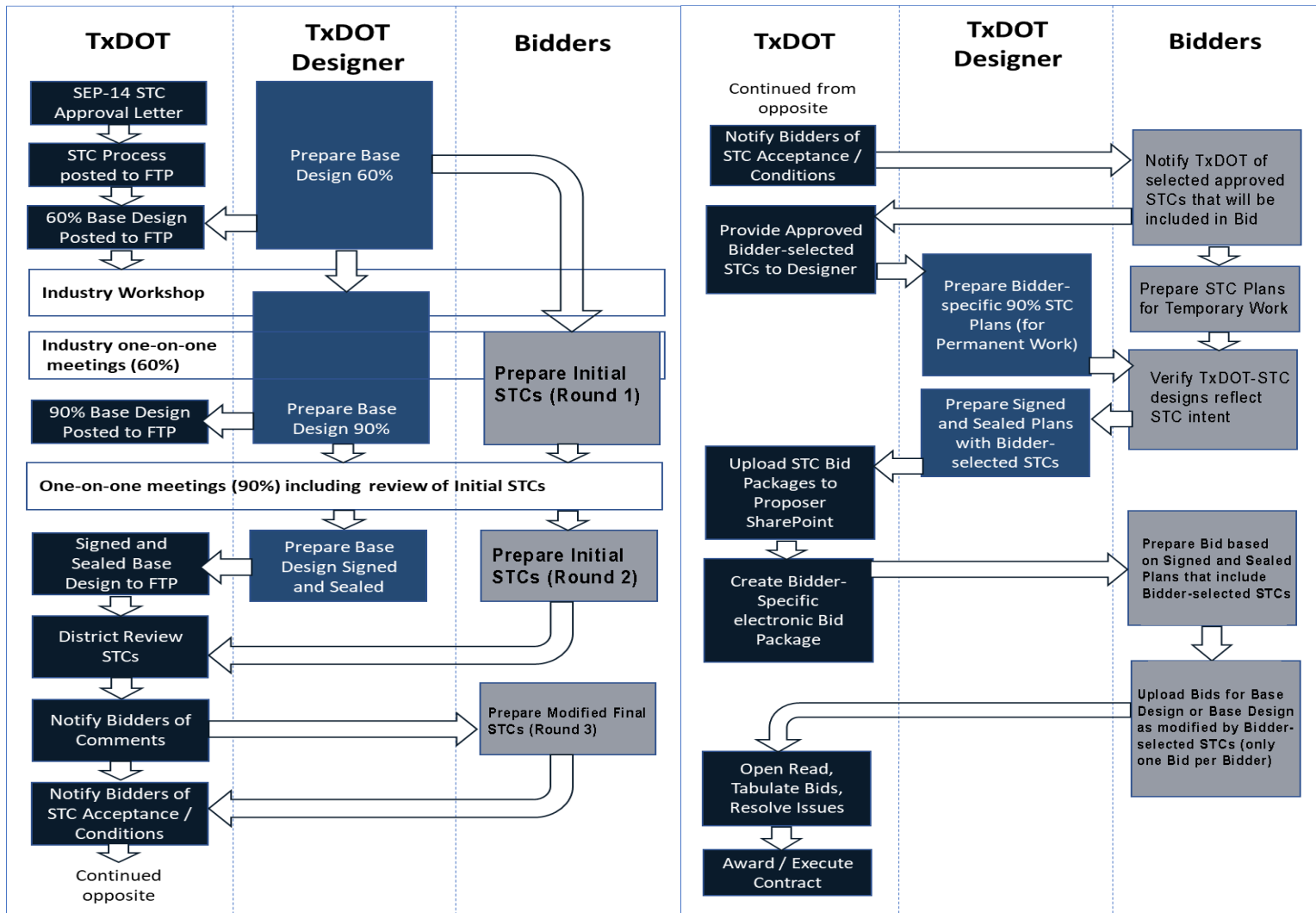


Figure 3

TxDOT will review Final STCs, following which TxDOT will notify Bidders which of their Final STCs have been approved (together with any conditions attached to the approval) and which have been rejected. Each Bidder will be required to revise Final STCs to address any conditional approval comments (Round 3), and must then notify TxDOT of the approved Final STCs that it has selected to incorporate into its bid. Such STCs shall not be mutually exclusive. Upon Bidder notification to TxDOT, TxDOT will then transmit approved Bidder-selected Final STCs to its designer who will prepare 90% Plans with respect to permanent work to accommodate each such Final STC. Once a Bidder has notified TxDOT of the approved Final STC(s) that it has selected to incorporate into its Bid, TxDOT will proceed to prepare a Bid package specific to that Bidder incorporating all such Final STCs. Following notification to TxDOT, each Bidder will not subsequently be entitled to request that TxDOT prepares a Bid package consisting of different Final STCs or parts thereof and its Bid must be based upon the approved Bidder-selected Final STCs as notified to TxDOT. Bidders will be responsible for all STC design associated with temporary works.

Bidders will then be required to verify that the 90% Plans reflect the intent of their approved and selected Final STCs, following which TxDOT's designer will prepare Signed and Sealed Plans as a Bid package incorporating all approved and Bidder-selected Final STCs into individual STC Bid packages for each bidder.

Bidders are not required to submit STCs. Not submitting an STC(s) will not preclude a contractor from bidding the project and will not result in the Bid being considered unresponsive.

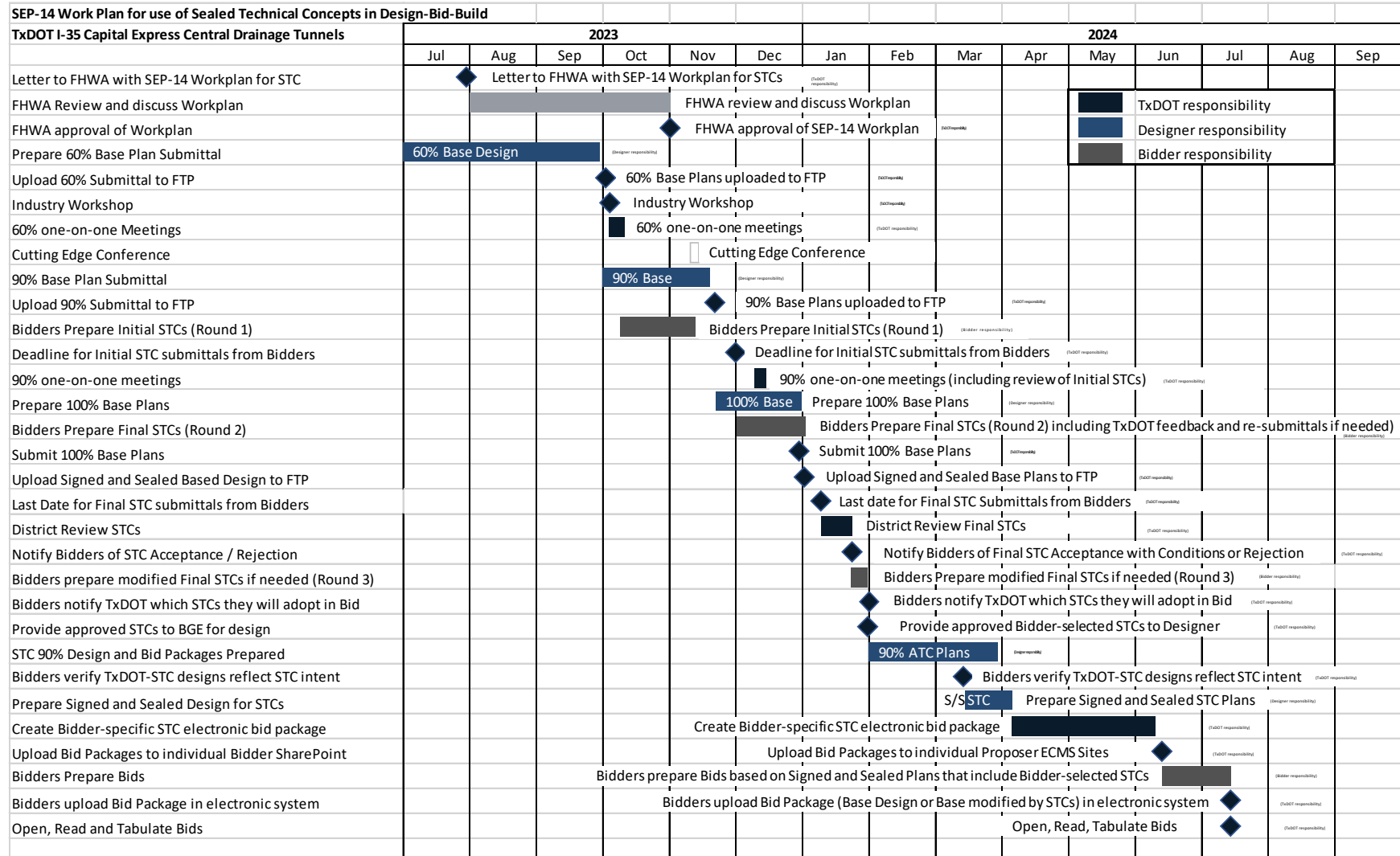
After Signed and Sealed Plans with STCs are complete, TxDOT will upload Bidder-specific bid packages to secure Bidder team sites on TxDOT's Electronic Content Management System (ECMS). Bidders must then prepare and submit their Bids electronically, incorporating the applicable STCs. After opening, reading and tabulating Bids and resolving any issues, TxDOT will then announce the award and shortly thereafter and execute the contract.

As a condition to TxDOT's approval of an STC and preparation of Signed and Sealed Plans, each Bidder must accept that TxDOT is entitled to use such Plans after award in any way it chooses, including to make such Plans available to the selected Contractor.

3. SCHEDULE

The anticipated schedule from current date to execution of a contract, incorporating the STC process is shown below. Construction is anticipated to start [6] months after contract execution with a 3½-year duration.

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4. MEASURES

4.1 Advantages

The use of STCs is expected to have the following advantages which will be taken into consideration when evaluating and reporting the outcome of the innovation. A number of benefits associated with the use of STCs with DBB are also cited by FHWA [Link](#).

Enables additional contractor-initiated innovations – Introducing an STC process as proposed is expected to encourage pre-bid contractor-initiated innovations to save on schedule compared to the traditional process in which any contractor-initiated changes would need to be submitted for TxDOT’s approval by the selected Bidder after award.

Aligned with Industry Requests for this project – TxDOT has hosted multiple one on one meetings with Industry and feedback received expressed support for the use of STCs. For a tunnel project there are often significant contractor-specific innovations that can be introduced to suit specific means and methods.

Mitigates Contractor Risk Concerns - The contractor will know at the time of bidding whether TxDOT will accept their proposal and under what conditions and assumed risks. This should allow Bidders to reduce contingencies in their bid compared to the situation where a Bidder may have contemplated in its Bid submitting a post-award change request that may or may not be accepted by TxDOT.

Allows Contractors Familiarity with Plans - The early involvement of Bidders before the base design is finalized gives each Bidder a better understanding of the plans, including the ability to plan phasing and sequencing, verify assumptions on production rates and conduct a more comprehensive assessment of constructability and means and methods than would be possible under TxDOT’s traditional DBB process. This benefit extends to Bidders that decide not to submit an STC.

Encourages Efficient Design – The STC process, including the one-on-one interaction with Bidders, is anticipated to provide a more robust constructability review process over traditional DBB projects. Where a process for STCs including one-on-one meetings is included, the constructability of the design and assumptions regarding means and methods will be shared with TxDOT by Bidders. The STC process is anticipated to encourage constructive dialog on these items and result in improvements to the base design regardless of submitted STCs.

Enhances Competition - Contractors who do not participate directly in the STC process through submittal of STCs may have to bid more aggressively due to the uncertainty of what innovations their competitors may bid on as approved STCs.

Focuses Attention on Construction Impacts – There will be construction impacts associated with 24-hour construction noise and lighting, increased truck traffic due to haul trucks entering and exiting the launch tunnel sites, and other construction-related activities. The use of the STC process with one-on-one meetings will allow TxDOT to emphasize to Bidders the importance of minimizing these impacts, to explain the enforcement regime in the Contract Documents and ensure Bidders allow sufficient measures in their Bids to achieve the required mitigations and use of BMPs.

Reduces Risks to the TxDOT regarding Contractor Interpretations – The STC process, including review of the plans, one on one meetings, and submittal of Initial STCs, allows TxDOT to receive feedback from Bidders that would typically be received through a formal written request for information process during procurement. The Initial STC process allows Bidders to ask questions at an early stage that will help TxDOT identify any aspects of the documents that may be subject to incorrect interpretation and to address matters not directly related to a proprietary STC through addenda to the solicitation documents.

4.2 Disadvantages / Risks and Measures Adopted

The following lists potential disadvantages / risks associated with the use of STCs in DBB and identifies the measures to be adopted in the solicitation documents to mitigate these risks.

Lowest Cost not Necessarily Best Value – An STC may incur increased life cycle costs. As a mitigation measure, TxDOT would accept an STC based upon a life cycle cost / benefit analysis and the STC process will include safeguards to ensure no reduction in quality and life cycle performance and prohibitions on certain STCs where TxDOT is not prepared to entertain an alternative. TxDOT will ultimately retain decision making authority as to whether to accept and develop an STC. The solicitation documents will provide that if, during development of the STC, it becomes apparent that the value is less than the base design, TxDOT is entitled to reject the STC.

Confidentiality issues – It is essential to safeguard a bidder's STCs through confidentiality and failure to do so could cause bid protests or Bidders withdrawing from the bid. Therefore, the Bidder-specific sealed bid STC bid package information prepared by TxDOT's designer will need to be made available solely to the applicable Bidder and to no other party. As a mitigation measure, TxDOT will include within the STC process, protocols to ensure each Bidder's information is maintained in a confidential manner. TxDOT has experience of handling confidential information from STCs in its Design-Build procurement also in coordination with FHWA.

Changes to Base Design after STC Submittals – Changes in the Base Design after Final STCs may invalidate or require changes to STCs that have already been submitted. Given that TxDOT does not intend to offer a payment for work product for STCs developed by unsuccessful Bidders, this is a risk that Bidders must absorb. As a mitigation measure, TxDOT intends to avoid substantive changes to the Base Design after the date for Final STC Submittals.

Utilities, ROW, Environmental Impact and Third Party Impact - Each STC may result in a different requirement for Utility Adjustments, ROW, environmental impact and effect on third parties. The secondary impacts to the design of an STC may extend beyond the immediate location of the alternative. Regarding a specific STC, there may be a need for TxDOT to discuss the impact with utilities and third parties which may require disclosure of confidential concepts to third parties. As a mitigation measure, TxDOT will require each Bidder to identify the impact of its STC(s) on utilities, ROW, environmental impact and third parties and will take into consideration any cost differentials in assessing the viability of the STC. In the STC response, TxDOT will identify as a condition to acceptance the need for TxDOT to disclose certain aspects of the concept to utilities and third parties where this is needed to develop the design for bidding.

5. REPORTING

TxDOT will evaluate the success of this process based on the factors listed below and taking into consideration the advantages, disadvantages and mitigating measures adopted in the solicitation documents as identified in Section 4 above.

Reporting will be conducted in three stages: (i) an initial evaluation report will be submitted within 3 months after the award of the contract; (ii) an interim report will be submitted within 3 months after tunnel boring operations have commenced; and (iii) the final report will be submitted within 3 months after final completion of the project and will provide an update on the initial report, based upon the additional knowledge and evidence accumulated during the implementation of the project.

Items to be included in the evaluation reports will include:

1. Industry Input: TxDOT will record and track the response from our contracting industry. This will also include an assessment of improvements to the process that may be proposed by industry.

2. STCs Proposed: TxDOT will assess the number of STC concepts proposed, the number of concepts approved for further development, and the number of concepts proposed at the time of bidding.

3. Achievement of Objectives: TxDOT will identify the extent to which the STC process achieved the objectives, including, to the extent known at that time, whether the stated advantages listed in Section 4.1 above were realized. The primary objectives are:

- Encouraging innovations from Bidders that save time and / or cost without adversely affecting performance of the project;
- Enabling TxDOT to benefit from Bidder concepts equal or better than the Base Design which are of value to TxDOT on this project and which may have application elsewhere;
- Conducting a fair procurement process that results in award within the specified timeline; and
- Conducting a procurement process that encourages competition and is attractive to Bidders.

4. Success of Measures: TxDOT will identify whether the measures adopted in the solicitation documents successfully mitigated the potential risks identified.

5. Lessons Learned: TxDOT will provide a summary of any lessons learned throughout the project and will include any items that may be improved for any future projects that propose to utilize STC processes in DBB.

APPENDIX A PROJECT SCOPE OF WORK AND KEY RISKS

Capital Express Central Drainage Tunnel Project (Project) (CSJ 0015-13-433, CSJ 0015-13-440, and CSJ 0914-04-341) in Travis County, Texas, Austin District is a critical path project to the overall \$4.5B Capital Express Central Major Roadway Project in coordination with FHWA. Project limits for the drainage tunnels are as follows: on IH-35 from Airport Blvd. to North of Holly Street, and on Cesar Chavez Street from IH-35 to the Colorado River.

The IH-35 Capital Express (CapEx) Central project proposes upgrading IH 35 within the City of Austin, Travis County, from US 290E to US290W/SH 71/Ben White Boulevard to current design standards. The work consists of constructing two bored drainage tunnels.

The Project is approximately 3.5 miles (18,000 linear feet) of approximately 25-ft outer diameter tunnel, located up to up to 200 ft below existing ground under IH-35 , from River Street to Airport Boulevard. The connecting Cesar Chavez Tunnel is approximately 3 miles (16,000 linear feet) of approximately 25-ft outer diameter tunnel, located up to approximately 100 ft below ground under East Cesar Chavez Street, from IH-35 to just west of the Cesar Chavez Street/Airport Boulevard/US 183 interchange.

The drainage tunnel system includes nine access shafts providing storm connection drop pipes and maintenance access. The design contemplates two tunnel launch sites where construction access shafts will be sunk to lower the Tunnel Boring Machines (TBMs) into the ground and begin tunneling operations. Two other vertical shafts will be constructed to retrieve the TBMs upon completion of the tunnel runs. Excavated earth and rock will be moved from the TBMs back to the launch sites for removal and hauled to contractor-determined off-site locations for storage or disposal.

The estimated capital cost for the project is \$600 million.

Key Project risks are

- IH 35 and Cesar Chavez Tunneling and Shaft construction
 - Confined and tight construction staging areas in Downtown Austin
 - Multiple geologic strata and faults
 - Right-of-way acquisition, utility relocations, and potential third-party impacts and coordination
- Tunneling Conditions
 - Potential for high groundwater flows
 - Settlement risks
 - Geologic risks such as unstable ground conditions, unknown faults, or problematic geologic formations
 - Potential for conflicts or interactions between existing and future subsurface infrastructure (foundations, walls, shafts, and tunnels)
- Schedule
 - Timely completion of the tunnel system on schedule is critical to the delivery of the \$4.3 billion CapEx Central project. The tunnel system must be operational before excavation can begin to lower the mainlanes on IH-35.
 - This tunnels project is on the critical path for the entire CapEx Central Project
- Other Challenges

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- Non-TBM tunnel sections requiring road header, jack and bore, open cut, and/or other methods for adits, near surface structures, and launch structures
- Interfaces among the various construction contracts in the project corridor and the potential for conflicts or interface issues that impact construction productivity
- Long lead procurement items such as two TBMs.

APPENDIX B: PROPOSED DESIGN-BID-BUILD STC PROCESS

The Sealed Technical Concept (STC) processes for Design-Bid-Build (DBB) described in this Appendix B are adapted from TxDOT's Alternative Technical Concept (ATC) Process for Design-Build, with necessary modifications for use with DBB¹. Following approval of the Work Plan, the STC processes would be implemented through amendment to the following TxDOT Specification Items:

- *Specification Item 1 (Abbreviations and Definitions)*
- *Specification Item 2 (Instructions to Bidders)*
- *Specification Item 3 (Award and Execution of Contract).*

Specification amendments would be implemented through issue of a Special Provision for one-time use².

1 Introduction and Definitions

1.1 This Specification sets forth a process for the preparation of draft STC concepts by Bidders and the review by TxDOT of STCs submittals. This process is intended to allow Bidders to incorporate innovation and creativity into the Bids, reflecting the same in the prices. This process allows savings associated with Final STCs to be included in the Bid and is intended to avoid delays and potential conflicts in the design associated with contractor-initiated requests for design changes after award.

1.2 "Sealed Technical Concepts" or "STCs" would be kept confidential between bidders and final designs signed and sealed by TxDOT before advertisement. STCs are changes to the base requirements for design or construction of the Project or otherwise require a modification of the technical requirements of the Contract Documents but that may nevertheless be proposed in accordance with the terms and conditions set forth in the Instructions to Bidders. STCs allow for innovation, project schedule reduction and cost savings to obtain the best value for the project that meets or exceeds the project goals, and which provides a product equal to or better than the concept it replaces. STCs may address concepts, design standards, specifications, materials, products, construction methods, design solutions, construction staging or traffic control.

2 STC Submittals and Constraints

2.1 Bidders are entitled but not obligated to submit STCs for TxDOT's review as follows:

- **Initial STCs (Round 1)** – Bidders may submit up to six Initial STCs. Each Initial STC must be supported by sufficient information to allow TxDOT to understand the concept, the anticipated cost and schedule savings, other benefits and the key risks. The information provided shall be sufficient to allow TxDOT to provide feedback to the Bidder without requiring a significant initial design cost. However, it is the contractor's responsibility to produce sufficient information with the Initial STC submittal to provide a clear and concise understanding of the proposed STC in order to provide adequate

¹ Refer to Section 3 of the [DB Instructions to Proposers](#)

² Refer to [List of previously issued one-time use Special Provisions](#)

evaluation by TxDOT. The deadline for submittal of Initial STCs is shown in the Instructions to Bidders [currently anticipated to be December 1, 2023].

- **Final STCs (Round 2)** - Bidders may submit up to three (3) Final STCs. Final STCs must be submitted using the proforma included as **Exhibit 1**. The deadline for submittal of Final STCs is shown in the ITP [currently anticipated to be January 10, 2024].
- **Modified Final STCs (Round 3)** – Bidders may submit up to three (3) modified Final STCs. Final STCs must be submitted using the proforma included as **Exhibit 1**. The deadline for submittal of Final STCs is shown in the ITP [currently anticipated to be January 26, 2024].

2.2 The Base Design identifies the work necessary for the project to be bid. Bidders will only be allowed to submit one Bid for the project which may be based upon the Base Design or the Base Design as modified by Final STCs that have been approved by TxDOT.

3 Design Responsibility for STCs

3.1 TxDOT will assume the responsibility for the preparation of the 90% design, the bid package and Signed and Sealed Plans for any permanent work included in an approved Final STC. Before TxDOT commences design preparation, and to avoid unnecessary design effort for TxDOT, Bidders shall provide notification to TxDOT of any approved STCs that they do not intend to bid. Where TxDOT undertakes design and prepares bid packages in connection with an approved Final STC, Bidders shall verify that the TxDOT-prepared designs and bid packages reflect the Bidder's intent.

3.2 Bidders are required to assume design responsibility for the design and the bid package of any temporary works included in an approved Final STC.

4 Allocation of Costs

4.1 Neither Bidders nor the selected Contractor will be reimbursed for any costs associated with the preparation of an STC and its incorporation into a Bid including:

- Preparing Initial STCs
- Modifying Initial STCs in consultation with TxDOT based upon feedback at one-on-one meetings
- Preparing Final STCs for submittal to the necessary level of detail per Exhibit 1 of this Appendix B
- Modifying Final STCs to accommodate TxDOT comments or changes in the Base Design
- Providing design work associated with temporary works in connection with a Final STC
- Reviewing TxDOT-provided plans and bid packages to verify that a Final STC incorporates the Bidder's intent.

4.2 The above cost stipulations shall apply regardless of whether or not an STC is approved, and regardless of whether or not a Bidder is awarded the Contract.

5 Discussion of STCs at One-on-One Meetings

5.1 If a Bidder is unsure whether a concept is consistent with the Instructions to Bidders or Contract Documents or if that concept would be considered an STC by TxDOT, TxDOT recommends that the Bidder submit such concept for review as an Initial STC (Round 1) to allow discussion of the principles at the 60% design one-on-one meeting.

5.2 Bidders are entitled to request that time is allocated at the confidential one-on-one meetings to discuss their STC submittals. Bidders shall be responsible for preparing the agenda for the one-on-one meetings and for leading the meetings. Details of the available one-on-one meetings and how these meetings may be used for STC discussion are shown below.

60% Design one-on-one meetings	Scheduled for Early October 2023	Duration 2 hours maximum per Bidder	Bidders may use part of this meeting to present Initial STCs
90% Design One-on-one Meetings	Scheduled for late November 2023	Duration 2 hours maximum per Bidder	Bidders may use part of this meeting to present / discuss and obtain feedback from TxDOT on submitted Initial STCs

6 General Requirements for STCs and Exclusions

6.1 STCs eligible for consideration shall be limited to those deviations from the requirements of the as-issued Contract Documents that result in performance and quality of the end product that is equal to or better than the performance and quality of the end product absent the deviation, as determined by TxDOT in its sole discretion. TxDOT will not consider any STCs that will not provide an equal or better solution. Bidders shall demonstrate that STCs are independent of each other (i.e., that the safety performance of one STC do not impact the operations and safety performance of another STC).

6.2 A concept is not eligible for consideration as an STC if, in TxDOT's discretion, it is premised upon or would require:

- (i) a reduction in Project scope, performance or reliability;
- (ii) an increase in the life-cycle cost; or
- (iii) an increase in the amount of time required for Substantial Completion.

In addition to the foregoing, TxDOT will not consider proposed STCs that would require:

- a. additional right of way acquisition;
- b. change the final pre-cast liner for the tunnels;
- c. use of pipe and lagging systems for support of excavations for shafts

6.3 STCs that, if implemented, would require further environmental evaluation or reevaluation of the Project, Design Exceptions, or affect other Governmental Approvals, may be conditionally approved, provided that the Bidder (prior to Contract award) and the Contractor (after Contract award) shall bear the schedule and cost risk associated with such activities.

6.4 If implementation of an STC will require approval by a third party (e.g., a Governmental Entity), TxDOT will take reasonable steps to obtain such approvals during preparation of 100% Signed and Sealed Plans, but if unable to obtain such approvals within the necessary time frame, TxDOT reserves the right to reject the STC. If any third-party approval that would have been required to implement an STC is not subsequently granted after Contract award with the result that the Contractor must comply with the requirements of the Base Design in the original Contract Documents, the Contractor will not be entitled to a Change Order for additional compensation or time under the Contract.

6.5 A Bidder shall not make any public announcement or disclosure to third parties concerning any STC until after approval (including conditional approval) has been obtained. Following approval (including conditional approval), if a Bidder wishes to make any such announcement or disclosure, it must first notify TxDOT of its intent to take such action, including details as to date and participants, and obtain TxDOT's prior consent, in its discretion, to do so.

6.6 If TxDOT determines, based on a proposed STC or otherwise, that the Instructions to Bidders or the Contract Documents contains an error, ambiguity or mistake, TxDOT reserves the right to modify the Instructions to Bidders or the Contract Documents to correct the error, ambiguity or mistake, regardless of whether such modification requires a change to an STC already submitted or renders a proposed STC unnecessary.

7 Pre-Bid Submittal of Initial STCs (Round 1)

7.1 Bidders may submit Initial STCs for review by TxDOT by uploading the Initial STC materials to a subfolder entitled "Initial STCs" under the "Bidder Incoming TxDOT" folder on their respective secure Bidder team sites on TxDOT's Electronic Content Management System (ECMS). The purpose of Initial STCs is to provide TxDOT with information regarding proposed concepts prior to the 90% design one-on-one meetings in order to facilitate the discussions. TxDOT will not provide responses to Initial STCs, and such materials will not be considered a part of any subsequent Final STC submitted by a Bidder. Submittal of Initial STCs is at each Bidder's election and is not a precondition to submittal of Final STCs. Any Initial STCs will be treated as confidential by TxDOT to the extent permitted by law.

7.2 Initial STCs are limited to [ten] pages and shall include the following information:

- a. A narrative overview description of the Initial STC and the requirements being deviated from;
- b. The benefits of the Initial STC to TxDOT and the Project's goals;
- c. A brief explanation of how, where and why the Initial STC would be used on the Project;
- d. A brief explanation of how the Initial STC is an "equivalent or better" technical solution than would be the case if the Contract Documents are not modified as requested;
- e. A high-level assessment if and how the Initial STC will potentially affect Governmental Approvals, ROW and third parties;
- f. An order of magnitude estimate of cost and schedule savings; and

- g. A brief description of any other Initial STCs that may be impacted by the implementation of the Initial STC and how the other Initial STC(s) may be impacted.

If an Initial STC relates to a proposed deviation to the Base Design, Bidders may include 3-D Files prepared in SELECT Series 10 or³ in accordance with TxDOT Specifications, as an exhibit to the Initial STC materials.

8 Pre-Bid Submittal of Final STCs (Round 2)

8.1 Using the form attached at **Exhibit 1** (Form of Final STC Proposal), a Bidder may submit Final STCs for review as set forth in this Section 8.1, until the last date and time for submittal of STCs [January 10, 2024]. All submitted Final STCs must comply with the instructions on Exhibit 1. Bidders are advised to allow sufficient time in their submittals of Final STCs to allow for at least one round of comments by TxDOT, followed by a re-submittal of the Final STC within the required deadline. If the Bidder does not use Exhibit 1, TxDOT is will not accept the submittal as a Final STC.

8.2 For any Final STCs that relate to a proposed deviation to the Base Design, Bidders shall include 3-D Files prepared [in SELECT Series 10 or] in accordance with TxDOT Specifications, as a supplement to their STC submittals. Bidders shall submit all STCs by uploading such STCs, including a completed Exhibit 1 form for each STC, to a subfolder entitled “STC” under the “Bidder Incoming to TxDOT” folder on their respective secure Bidder team sites on TxDOT’s (ECMS)⁴.

9 TxDOT Review of Pre-Bid Submittal of Final STCs (Round 3)

9.1 TxDOT may request additional information regarding Final STCs at any time and will, in each case, return responses to each Bidder regarding its Final STC, provided that TxDOT has received all required and requested information regarding such Final STC. TxDOT’s responses will be limited to one of the following statements:

- a. the Final STC is acceptable for inclusion in the Bid, provided that such acceptance may be subject to conditions that will be stated in TxDOT’s response (this response is referred to as an approved Final STC);
- b. the Final STC is not acceptable for inclusion in the Bid;
- c. the Final STC is not acceptable in its present form, but may be acceptable upon the satisfaction, in TxDOT’s discretion, of certain identified conditions which must be met or clarifications or modifications that must be made;
- d. the submittal is not eligible as a Final STC but may be included in the Bid because it appears to be within the requirements of the Contract Documents; or
- e. the submittal is not eligible as a Final STC and may not be included in the Bid.

9.2 If TxDOT determines that implementation of the Final STC will decrease overall Project costs but will result in an increase in TxDOT’s post-award costs, TxDOT will provide in the STC

³ Include if the Base Design is provided in SS10 or prior to permit Bidders the option to submit 3-D files with their STCs in either SELECT Series 10 or in OpenRoads Designer

⁴ Confirm that an ECMS will be available for Bidders to upload their STCs

approval letter the amount of such increased TxDOT's costs as estimated by TxDOT, as well as the basis for its determination. Such amount shall be the Final STC adjustment and shall be added to the Bid Price for evaluation purposes.

9.3 Approval of a Final STC will constitute a change in the specific requirements of the Contract Documents associated with the approved Final STC for that specific Bidder. Bidders will be responsible for ensuring that the STCs submitted with the Bid comply with the requirements of the Contract Documents. Each Bidder, by submittal of its Bid, acknowledges that the opportunity to submit STCs was offered to all Bidders, and waives any right to object to TxDOT's determinations regarding acceptability of STCs and any STC adjustments made in accordance with this Section 9 and the Instructions to Bidders.

9.4 TxDOT's rejection of a pre-Bid submittal of a Final STC will not entitle a Bidder to an extension of the Bid Submission Date or the date that the Final STCs are due; provided, however, that the foregoing shall not limit TxDOT's absolute and sole right to modify the Bid Submission Date or any other date in connection with this procurement. TxDOT anticipates that comments provided to a Bidder will be sufficient to enable that Bidder to make any necessary changes to its Final STCs. However, if a Bidder wishes additional clarifications regarding necessary changes, that Bidder may provide a request for clarifications in accordance with the Instructions to Bidders.

9.5 TxDOT reserves the right to reject any Final STC request for any reason. An approved Final STC that includes multiple elements must be bid as a whole. Selective implementation of less than all elements of an approved Final STC will not be accepted. Conditional approval may be granted if some elements of the Final STC are recommended for approval, provided that any additional requirements imposed by TxDOT are met. Partial approval may be granted whereby some elements of a Final STC are approved and other elements are not approved. Where TxDOT provides a response per 9.1 (c) above requiring conditions, clarifications or modifications to a Final STC submittal, a Bidder is entitled to revise and re-submit the Final STC to address the comments received from TxDOT provided that such re-submittal is received by TxDOT within the required deadline.

9.6 TxDOT intends to evaluate each Final STC within 10 working days of submittal. Written notification will be provided to the Bidder for each STC that is approved, conditionally approved, partially approved or not approved. TxDOT reserves the right to take longer than 10 working days to review submittals, depending on the availability of resources and evaluation needs of the specific STC and will notify the Bidder accordingly.

10 Activities Following TxDOT Approval of Final STCs

10.1 Upon TxDOT's approval of a Final STC, Bidders shall be entitled but not obligated to include such STC in their Bid. Bidders shall notify TxDOT in writing of any approved STCs that such Bidder does not intend to include within its Bid no later than [7 days] after approval of the STC. TxDOT will pass accepted and biddable STCs related to permanent work to its designer who will prepare 90% Plans to accommodate each STC. Once complete, Bidders will be provided the opportunity to verify that such 90% plans prepared by TxDOT's designer capture the intent of the approved Final STC. TxDOT's designer will then prepare Signed and Sealed Plans for each Final STC and will upload Bidder-specific bid packages to secure Bidder team

sites on TxDOT's ECMS. Bidders must then notify TxDOT which of their approved STCs they intend to adopt and must prepare and submit their Bids electronically, incorporating the applicable STCs.

11 Incorporation of STCs in the Contract Documents

11.1 Following Conditional Award of the Contract, the STCs that were approved by TxDOT and incorporated in the Bid by the successful Bidder shall be included in the Contract Documents. If TxDOT responded to any STC by stating that it would be acceptable if certain conditions were met, those conditions will become part of the Contract Documents. The Contract Documents will be conformed after the execution of the Contract as a \$0 change order to reflect the STCs, including any TxDOT conditions thereto. Notwithstanding anything to the contrary herein, if the Contractor does not comply with one or more TxDOT conditions of pre-approval for an STC or the Contractor fails to obtain a required permit or third party approval for an STC, the Contractor will be required to comply with the original requirements of the Contract Documents including the Base Design without additional compensation or extension of time.

11.2 As a condition to TxDOT's approval of an STC and preparation of Signed and Sealed Plans, each Bidder acknowledges that TxDOT is entitled to use such Plans after award of the Contract in any way it chooses, including: (i) prior to execution of the Contract, STCs from unsuccessful Bidders may be presented to the selected Contractor for possible incorporation in the Contract Documents during negotiation of the final terms of the Contract; and (ii) following execution of the Contract, STCs from unsuccessful Bidders may be presented to the selected Contractor as a TxDOT-Directed Change in accordance with the Contract.

11.3 If the successful Bidder elected: (i) not to submit for TxDOT's approval a Final STC for which TxDOT had provided a response per 9.1 (c) above requiring conditions, clarifications or modifications to a Final STC submittal; or (ii) not to submit an approved STC with the Bid, the successful Bidder (acting as the Contractor) may resubmit its approved STC as a contractor-initiated change request. The fact that a concept was commented upon or approved by TxDOT as an STC shall have no bearing on its potential approval as contractor-initiated change request, and it will be reviewed independently.

12 Confidentiality

12.1 Subject to the provisions of the Act and the Rules, STCs and all communications regarding STCs will remain confidential until a decision is made to select a Bidder or cancel the procurement, at which time all confidentiality rights, if any, shall be of no further force and effect except as otherwise allowed under the Act, applicable Law, and Section # of the ITP. Any STC submittal that is rejected by TxDOT on the grounds set forth in Sections 9.1 (d) and (e) shall not be considered an STC pursuant to 23 CFR 636.209 and shall not be subject to the confidentiality requirements of this Section 12.

APPENDIX C

**Subject to FHWA
Approval**



Special Provision to Item 2

Instructions to Bidders

Item 2, "Instructions to Bidders," of the Standard Specifications is amended with respect to the clauses cited below. No other clauses or requirements of this Item are waived or changed.

Article 2., "Eligibility of Bidders," is supplemented by the following:

- 2.1. **Technical Prequalification.** A technical pre-qualification is required of the Bidder prior to the submittal of Final STC as set forth in Item 2, Article 6 and this Special Provision 002-xxxx. To pre-qualify, file acceptable documentation demonstrating the capability of the Bidder or the Bidder's designated subcontractors to perform the specific categories of work that are described below which apply to this Contract. The categories of work that apply to this Contract are listed in the "Important Notice to Contractors" Special Provision in the Contract.

Submit completed pre-qualification documents electronically with the first Final STCs submitted for TxDOT's review and approval (Round 2) to CapEx_Contractors@txdot.gov. TxDOT will respond with approval or rejection no later than 5 days after receipt of the submission. Any documentation which does not correctly address all specified items will be rejected for the reason of insufficient data. If the reason for rejection is missing information that can be provided immediately upon receipt of TxDOT's notification of rejection, the Bidder may, at TxDOT's sole discretion, be provided with the opportunity to submit the missing information. Submit pre-qualification documentation under cover letter from the Bidder. Failure to submit the qualification forms and supporting documentation by the deadline will cause any bid submitted by that Bidder to be considered nonresponsive in accordance with Article 2.7., "Nonresponsive Bid."

Technical Qualification Forms and additional information on becoming a qualified Bidder may be found on TxDOT's website or by contacting the Austin District by email at CapEx_Contractors@txdot.gov.

After TxDOT has determined that a Bidder or the Bidder's designated subcontractor(s) meet the requirements of this Special Provision, and following award of the Contract, the Bidder must notify the Austin District if: (i) there is a change in the circumstances of the Bidder or any Bidder's designated subcontractor that would cause the Bidder or Bidder's designated subcontractor to no longer meet the requirements of this Special Provision; (ii) the Bidder or any Bidder's designated subcontractor intends to perform Work in a work category for which they were not prequalified under this Special Provision; or (iii) the Bidder proposes to replace a Subcontractor who had been prequalified for particular work categories, in which case the Bidder must submit details demonstrating that the new Subcontractor is prequalified in the applicable work categories and receive TxDOT approval before such Subcontractor performs any Work.

A Bidder or the Bidder's designated subcontractor(s) must have the level of expertise needed to successfully complete the work. If multiple subcontractors are proposed, each must satisfy the technical pre-qualifications herein for their work. Vendor reference statements for equipment experience are required under certain work categories but may be waived at TxDOT's sole discretion if the Bidder has acceptable documentation from a vendor demonstrating their experience installing the particular equipment without on-site assistance.

Bidders must demonstrate experience with the following:

- 2.1.1. Category A.1.0. Tunnel and Shafts.

The Bidder or the Bidder's designated subcontractor must meet the following experience requirements:

- 2.1.1.1. Ten years continuous existence offering services in the construction of tunnels and shafts. Experience shall include the following:
1. tunneling under Railroad ROW, other state DOT and interstate highways, and in urban settings,
 2. constructing tunnels, shafts and adits in ground conditions similar to those provided in the Geotechnical Data Report (GDR) and Geotechnical Baseline Report (GBR), which must include at least two of the following: (i) tunneling in rock with pervious overburden; (ii) tunnelling both above and below groundwater table; (iii) tunnelling through soil and rock formations with seams, crushed zones, weathered zones or fault zones; (iv) tunnelling through bentonite layers, shales and clay minerals,
 3. tunneling using closed-face tunnel boring machines with a tail shield, and earth pressure balance tunnel boring machines, and supporting the tunnel using precast concrete segments,
 4. conducting pre-excavation probe hole drilling and grouting,
 5. constructing shafts using secant pile walls, concrete diaphragm walls, shoring wall by cement deep soil mixing, sheet pilings, soldier piles and lagging, structural steel wales and struts, ring beams, liner plates, and initial rock support,
 6. implementing complex management of water used and entering the work area for large portal/ramps structures, and shafts,
 7. implementing geotechnical instrumentation and monitoring programs in urban settings,
 8. implementing ventilation plants to provide fresh air supply along with safe removal of gases and dust to work areas that comply with all applicable laws, safety codes and regulations.
 9. utilizing a Tunnel Boring Machine (TBM) to excavate tunnel diameters greater than 18 feet with drive lengths of at least 3 linear miles,
 10. utilizing a TBM to excavate tunnel diameters 12 feet and greater with drive lengths of at least 3 linear mile in ground conditions consisting of hard rock or a combination of mixed ground with at least 50% of the length in hard rock,
 11. constructing shafts in ground conditions consisting of hard rock or a combination of mixed ground with significant lengths of hard rock with minimum shaft diameter over 20 feet and depths over 125 feet deep,
 12. constructing hand-mined adits excavated through rock to connect shafts and tunnels, and
 13. implementing complex dewatering systems for large excavations
- 2.1.1.2. Two completed tunnel projects where the Bidder or Bidder's designated subcontractor utilized a Tunnel Boring Machine (TBM) to excavate diameters greater than 18 feet with drive lengths of at least 1 linear mile.
- 2.1.1.3. One completed tunnel project where the Bidder or Bidder's designated subcontractor utilized a TBM to excavate diameters greater than 18 feet with a drive length over 3 linear miles.
- 2.1.1.4. Furnish written documentation demonstrating the Bidder or Bidder's designated subcontractor(s) meet the requirements set forth in Sections 2.1.1.1 through 2.1.1.3 above. The Project examples used to demonstrate compliance must include at least one project completed within the last five years and three completed tunnel projects within the last 10 years. Submit no more than ten project examples not to exceed four pages for each project. The experience requirements for each work category listed below include a specified number of completed projects, one of which must have been completed within the past 5 years.
- Documentation must include the following:
- owner's name, email, and phone number for verification of each referenced project,
 - sufficient details and descriptions of the means and methods for excavation of the tunnels, shafts and adits,

- Sufficient detail to verify the experience thresholds set forth in Sections 2.1.1.1 to 2.1.1.3 above.

2.1.1.5. Demonstrate current employment of a tunnel project manager with at least ten years of experience in construction of TBM tunnels, and at least five years of continuous tenure with the Bidder.

Experience must include the following:

- Management of two completed tunnel projects in similar ground conditions within the last 10 years (refer to Section 2.1.1 for the definition of “similar”).
- One completed tunnel project demonstrating the tunnel project manager’s cooperation with technical representatives of the TBM Manufacturer proposed to perform the tunneling work.

2.1.1.6. Furnish written documentation for the tunnel project manager demonstrating the experience, qualifications, and reference requirements (not to exceed three pages).

Experience must include the following:

- work history which describes project experience, including the roles and responsibilities for each assignment involved in delivering similar tunnel projects over the last 10 years,
- current project assignments,
- technical and managerial experience,
- education and formal training, and
- three references including the reference’s name, email, and phone number.

2.1.2. Category A.2.0. TBM Manufacturer.

The Bidder or the Bidder’s designated subcontractor must meet the following experience requirements:

2.1.2.1. Ten years continuous existence offering services in the fabrication of new TBMs or refurbishment of TBMs.

Experience must include the following:

- design, manufacturing, and/or rebuilding TBMs of the type proposed,
- demonstrated experience from the TBM manufacturer of full and complete design coordination with the lining design, and
- affirming the compatibility of the TBM and support equipment with lining, segment erector, and backfill grout injection system.

Article 6, “Preparing the Bid,” is supplemented by the following:

6.1. Introduction and Definitions

6.1.1. This specification sets forth a process for the preparation of STC requests by Bidders and the review by **TxDOT** of STC submittals. This process is intended to allow Bidders to incorporate innovation and creativity into the Bids, reflecting the same in the prices and schedule. This process allows project schedule reduction and cost savings associated with Final STCs to be included in the Bid and is intended to avoid delays and potential conflicts in the design.

“Sealed Technical Concepts” or “STCs” are concepts that conflict with or deviate from the requirements for design, or construction of the Project or otherwise require a modification of the technical requirements of the Contract Documents but that may nevertheless be proposed in accordance with the terms and conditions set forth in the Instructions to Bidders. STCs allow for innovation, project schedule reduction and cost savings to

obtain the best value for the project that meets or exceeds the project goals, and which provides a product equal to or better than the concept it replaces. STCs may address concepts, design standards, specifications, materials, products, , design solutions, construction staging or traffic control.

- 6.2. STC Submittals and Constraints. Bidders are entitled but not obligated to submit STCs for **TxDOT**'s review as follows:
- 6.2.1. Initial STCs (Round 1). Bidders may submit up to six (6) Initial STCs. Each Initial STC must be supported by sufficient information to allow **TxDOT** to understand the concept, the anticipated cost and schedule savings, other benefits, and the key risks. The information provided shall be sufficient to allow **TxDOT** to provide feedback to the Bidder without requiring a significant initial design cost. However, it is the Bidder's responsibility to produce sufficient information with the Initial STC submittal to provide a clear and concise understanding of the proposed STC to provide adequate evaluation by **TxDOT**.
- 6.2.2. Final STCs (Round 2): Bidders may submit up to three (3) Final STCs. Final STCs must be submitted using the proforma provided by **TxDOT**.
- 6.2.3. Modified Final STCs (Round 3): Bidders may submit up to three (3) modified Final STCs. The purpose of Round 3 Submittals is solely to provide missing information, clarifications or address conditions raised by TxDOT and shall not be used to introduce new concepts.
- 6.2.4. STC Process Schedule. The schedule for the STC process is reflected in Table 1.

Table 1
STC Process Schedule

Date	Milestone
October 2, 2023	60% design package posted to the TxDOT Austin District FTP website in preparation for the industry informational meeting. Blast email sent to Bidders and design consultants.
October 3, 2023	Industry informational meeting held at the TxDOT Austin District Headquarters Office in Austin, TX to outline the project, explain the draft STC and bidding processes, present the draft STC submittal schedule and answer questions.
October 4, 2023, to October 24, 2023	One-on-one meetings held at the TxDOT Austin District Headquarters Office in Austin, TX with potential prime Bidders
November 10, 2023	Draft guidelines and procedures document for the STC process posted to the project website.
December 1, 2023	Bidders may submit up to six (6) Initial STCs for consideration and feedback by TxDOT (Round 1)
November 21, 2023	90% design package posted to the TxDOT Austin District FTP website. Blast email sent to potential Bidders.
January 10, 2024	Last day for Bidders to submit Final STCs for review and approval (Round 2). Be advised that Bidders will not be permitted to re-submit STCs that receive conditional/partial approval, or STCs that are rejected after this date; however, TxDOT reserves the right to require Final STCs to be modified (Round 3) to address specified comments, conditions or missing information.
January 10, 2024, to January 19, 2024	TxDOT reviews the Bidder's Final STCs, and determines a decision for the proposed STCs
January 22, 2024	TxDOT to provide Bidder with its determination decision / conditions for each STC.
January 26, 2024	Bidders to address any TxDOT comments / conditions through Modified STC Submittals (Round 3) – Note no new STCs may be submitted at this time – this step is solely to enable Bidders to address TxDOT conditions / provide missing information / clarifications with respect to approved Final STCs.

Date	Milestone
January 26, 2024	Bidders to notify TxDOT which of the approved STCs they will select to incorporate into their Bid.
April 5, 2024	The Bidder provides comments for the 90% STC PS&E package
June 14, 2024	TxDOT post the advertisement on the Electronic State Business Daily (ESBD)
July 9, 2024	Letting

- 6.2.5. **One-on-One Meetings.** Bidders may request confidential one-on-one meetings with TxDOT and members of the IH 35 Capex Drainage Tunnels STC Review Team to discuss their STC submittal within the time frames shown in Table 2. Meetings may be requested in writing or by phone and should allow a minimum of two (2) weeks' notice. Meetings will be held at the TxDOT Austin District Headquarters Office, 7901 N Interstate Hwy 35, Austin, TX 78753. Meetings will be limited to two (2) hours in length. The Bidder is responsible for furnish an agenda for the one-on-one meetings and for leading the meetings. TxDOT reserves the right to limit the number of one-on-one meetings depending on schedule and workload.
- 6.2.6. Base Design. The Base Design identifies the work necessary for the project to be bid. Bidders will only be allowed to submit one Bid for the project which may be based upon the Base Design, or the Base Design as modified by up to three (3) Final STCs approved by **TxDOT**.
- 6.3. Design Responsibility for STCs
- 6.3.1. **TxDOT** will assume the responsibility for the preparation of the 90% design, the bid package and Signed and Sealed design for any permanent work included in an approved Final STC. Before **TxDOT** commences design preparation, and to avoid unnecessary design effort for **TxDOT**, Bidders shall provide notification to **TxDOT** of which approved Final STCs they have selected to include in their Bid. Once a Bidder has notified TxDOT of the approved Final STC(s) that it has selected to incorporate into its Bid, TxDOT will proceed to prepare a signed and sealed STC bid package specific to that Bidder incorporating all such Final STCs. Following notification to TxDOT, each Bidder will not subsequently be entitled to request that TxDOT prepares a bid package consisting of different Final STCs or parts thereof and its Bid must be based upon the approved Bidder-selected Final STCs as notified to TxDOT. Where **TxDOT** undertakes design and prepares bid packages in connection with an approved Final STC, Bidders shall verify that **TxDOT**-prepared designs and bid packages reflect the Bidder's intent.
- 6.3.2. Bidders are required to assume design responsibility for the design and the bid package of any temporary works included in an approved Final STC.
- 6.4. Allocation of Costs
- 6.4.1. **TxDOT** will not provide payment or reimbursement to Bidders or the selected Contractor for any costs associated with the preparation of an STC and its incorporation into a Bid including:
- Preparing Initial STCs
 - Modifying Initial STCs in consultation with TxDOT based upon feedback at one-on-one meetings
 - Preparing Final STCs for submittal to the necessary level of detail per Exhibit 1 of Appendix A
 - Modifying Final STCs to accommodate TxDOT comments or changes in the Base Design
 - Providing design work associated with temporary work in connection with a Final STC
 - Reviewing TxDOT-provided plans and bid packages to verify that a Final STC incorporates the Bidder's intent.
- 6.4.2. The above cost stipulations shall apply regardless of whether or not an STC is approved, and regardless of whether or not a Bidder is awarded the Contract.

- 6.4.3. Bidders are required to assume design responsibility for the design and the bid package of any temporary work included in an approved Final STC.
- 6.5. Discussion of STCs at One-on-One Meetings
- 6.5.1. If a Bidder is unsure whether a concept is consistent with the Instructions to Bidders or Contract Documents or if that concept would be considered an STC by **TxDOT**, **TxDOT** recommends that the Bidder submit such concept for review as an Initial STC (Round 1) to allow discussion of the principles at the 60% design one-on-one meeting.
- 6.5.2. Bidders are entitled to request that time is allocated at the confidential one-on-one meetings to discuss their STC submittals. Bidders shall be responsible for preparing the agenda for the one-on-one meetings and for leading the meetings. Details of the available one-on-one meetings and how these meetings may be used for STC discussion are shown in Table 2.

Table 2
STC Process Schedule

Description	Date	Duration	Remarks
90% Design One-on-one Meetings	November 27 – December 22, 2023	Max. duration 2 hours per Bidder	Bidders may use part of this meeting to present / discuss and obtain feedback from TxDOT on submitted Initial STCs

- 6.6. General Requirements for STCs and Exclusions
- 6.6.1. **TxDOT** will only consider an STCs to those deviations from the Base Design that result in performance and quality of the end product that is equal to or better than the performance and quality of the end product absent the deviation, as determined by TxDOT in its discretion. **TxDOT** will not consider any STCs that does not provide an equal or better solution. Demonstrate that STCs are independent of each other (i.e., that the traffic operations and safety performance of one STC do not impact the operations and safety performance of another STC).
- 6.6.2. A concept is not eligible for consideration as an STC if, in **TxDOT**'s discretion, it is premised upon or would require:
 - a reduction in Project scope, performance or reliability,
 - an increase in the life-cycle cost, and
 - an increase in the amount of time required for Substantial Completion.

In addition to the foregoing, TxDOT will not consider proposed STCs that:

 - require additional ROW acquisition,
 - increase the number of working days specified for completion of the work,
 - require further environmental evaluation or reevaluation of the project. These items include, but are not limited to: NEPA, access justification reports, design exceptions, etc. This information is provided on TxDOT Austin District FTP site.
 - change the design for final pre-cast liner for the tunnels, and
 - use of piles and lagging systems for support of excavations for shafts
- 6.6.3. STCs that, if implemented, would require further environmental evaluation or reevaluation of the Project, Design Exceptions, or affect other Governmental Approvals, will not be approved **TxDOT**. These items include, but are not limited to: NEPA, access justification reports, design exceptions, etc. This information is provided on the Capital Express website: [IH 35 Capital Express Central Project – Final Environmental Impact Statement and Record of Decision – Capital Express \(my35capex.com\)](http://my35capex.com)

- 6.6.4. If implementation of an STC will require approval by a third party (e.g., a Governmental Entity), TxDOT will take reasonable steps to obtain such approvals during preparation of 100% Signed and Sealed Plans, but if unable to obtain such approvals within the necessary time frame, TxDOT reserves the right to reject the STC. If any third-party approval that would have been required to implement an STC is not subsequently granted after Contract award with the result that the Contractor must comply with the requirements of the Base Design in the original Contract Documents, the Contractor will not be entitled to a Change Order for additional compensation or time under the Contract.
- 6.6.5. A Bidder shall not make any public announcement or disclosure to third parties concerning any STC until after approval (including conditional approval) has been obtained. Following approval (including conditional approval), if a Bidder wishes to make any such announcement or disclosure, it must first notify **TxDOT** of its intent to take such action, including details as to date and participants, and obtain **TxDOT**'s prior consent, in its discretion, to do so.
- 6.6.6. If **TxDOT** determines, based on a proposed STC or otherwise, that the Instructions to Bidders or the Contract Documents contains an error, ambiguity or mistake, **TxDOT** reserves the right to modify the Instructions to Bidders or the Contract Documents to correct the error, ambiguity, or mistake, regardless of whether such modification requires a change to an STC already submitted or renders a proposed STC unnecessary.
- 6.7. Pre-Bid Submittal of Initial STCs (Round 1)
- 6.7.1. Bidders may submit Initial STCs for review by **TxDOT** by uploading such Initial STC materials to a subfolder entitled "Initial STCs" under the "Bidder Incoming **TxDOT**" folder on their respective secure Bidder team sites on **TxDOT**'s Electronic Content Management System (ECMS). The purpose of Initial STCs is to provide **TxDOT** with information regarding proposed concepts prior to the 60% design one-on-one meetings in order to facilitate the discussions. **TxDOT** will not provide responses to Initial STCs, and such materials will not be considered a part of any subsequent Final STC submitted by a Bidder. Submittal of Initial STCs is at each Bidder's election and is not a precondition to submittal of Final STCs. Any Initial STCs will be treated as confidential by **TxDOT** to the extent permitted by law.
- 6.7.2. Initial STCs are limited to [ten] pages and shall include the following information:
- A narrative overview description of the Initial STC and the requirements being deviated from;
 - The benefits of the Initial STC to TxDOT and the Project's goals;
 - A brief explanation of how, where and why the Initial STC would be used on the Project;
 - A brief explanation of how the Initial STC is an "equivalent or better" technical solution than would be the case if the Contract Documents are not modified as requested;
 - A high-level assessment of how the Initial STC will potentially affect Governmental Approvals, ROW and third parties;
 - An order of magnitude estimate of cost and schedule impacts; and
 - A brief description of any other Initial STCs that may be impacted by the implementation of the Initial STC and how the other Initial STC(s) may be impacted.
- If an Initial STC relates to a proposed deviation to the Base Design, Bidders may furnish DGN files fully compatible with the version of the MicroStation graphics platform currently used by TxDOT, as a supplement to the Initial STC materials.
- 6.8. Pre-Bid Submittal of Final STCs (Round 2)
- 6.8.1. **TxDOT** will post an STC Form provided on **TxDOT** Austin District FTP site for submittal as specified herein. Using the Final STC Proposal form provided by **TxDOT**, a Bidder may submit Final STCs for review as set forth in this Section, no later than 12:00 Noon CST on 1/10/24. Any STCs submitted after this time will not be

considered. All submitted Final STCs must comply with the instructions on the Final STC Proposal form. If the Bidder does not use **TxDOT's** forms the submission may not be treated as an STC by **TxDOT**.

6.8.2. For any Final STCs that relate to a proposed deviation to the Base Design, include 3-D DGN files fully compatible with the version of the MicroStation graphics platform currently used by the State, as a supplement to their STC submittals. Bidders shall submit all STCs by uploading such STCs, including a completed Final STC Proposal form for each STC, to a subfolder entitled "STC" under the "Bidder Incoming to **TxDOT**" folder on their respective secure Bidder team sites on **TxDOT's** Electronic Content Management System.

6.9. TxDOT Review of Pre-Bid Submittal of Final STCs

6.9.1. **TxDOT** may request additional information regarding Final STCs at any time and will, in each case, return responses to each Bidder regarding its Final STC, provided that **TxDOT** has received all required and requested information regarding such Final STC. **TxDOT's** responses will be limited to one of the following statements:

- (a) the Final STC is acceptable for inclusion in the Bid, provided that such acceptance may be subject to conditions that will be stated in **TxDOT's** response (this response is referred to as an approved Final STC),
- (b) the Final STC is not acceptable for inclusion in the Bid,
- (c) the Final STC is not acceptable in its present form, but may be acceptable upon the satisfaction, in **TxDOT's** discretion, of certain identified conditions which must be met or clarifications or modifications that must be made,
- (d) the submittal is not eligible as a Final STC but may be included in the Bid because it appears to be within the requirements of the Contract Documents, or
- (e) the submittal is not eligible as a Final STC and may not be included in the Bid.

6.9.2. If **TxDOT** determines that implementation of the Final STC will decrease overall Project costs but will result in an increase in **TxDOT's** post-award costs, **TxDOT** will provide in the STC approval letter the amount of such increased **TxDOT's** costs as estimated by **TxDOT**, as well as the basis for its determination. Such amount shall be the Final STC adjustment and shall be added to the Bid Price for evaluation purposes. For clarification, **TxDOT** intends to use the STC adjustment solely for additional direct costs relating to its post-award administration and oversight costs prior to substantial completion of the project and will not use this mechanism to calculate a life cycle cost adjustment. Approval of a Final STC will constitute a change in the specific requirements of the Contract Documents associated with the approved Final STC for that specific Bidder. Bidders will be responsible for ensuring that the STCs submitted with the Bid comply with the requirements of the Contract Documents. Each Bidder, by submittal of its Bid, acknowledges that the opportunity to submit STCs was offered to all Bidders, and waives any right to object to **TxDOT's** determinations regarding acceptability of STCs and any STC adjustments made in accordance with this Article 6 and the Instructions to Bidders.

6.9.3. **TxDOT's** rejection of a pre-Bid submittal of a Final STC will not entitle a Bidder to an extension of the Bid Submission Date or the date that the Final STCs are due; provided, however, that the foregoing shall not limit **TxDOT's** absolute and sole right to modify the Bid Submission Date or any other date in connection with this procurement. **TxDOT** anticipates that comments provided to a Bidder will be sufficient to enable that Bidder to make any necessary changes to its Final STCs. However, if a Bidder wishes additional clarifications regarding necessary changes, that Bidder may provide a request for clarifications in accordance with the Instructions to Bidders.

6.9.4. **TxDOT** reserves the right to reject any Final STC request for any reason. An approved Final STC that includes multiple elements must be bid as a whole. Selective implementation of less than all elements of an approved Final STC will not be accepted. Conditional approval may be granted if some elements of the Final

STC are recommended for approval, provided that any additional requirements imposed by **TxDOT** are met. Partial approval may be granted whereby some elements of a Final STC are approved and other elements are not approved. Where **TxDOT** provides a response requiring conditions, clarifications or modifications to a Final STC submittal, a Bidder is entitled to revise and re-submit the Final STC to address the comments received from **TxDOT** provided that such re-submittal is received by **TxDOT** within the required deadline.

- 6.9.5. **TxDOT** intends to evaluate each Final STC within 10 working days of submittal. Written notification will be provided to the Bidder for each STC that is approved, conditionally approved, partially approved or not approved. **TxDOT** reserves the right to take longer than 10 working days to review submittals, depending on the availability of resources and evaluation needs of the specific STC and will notify the Bidder accordingly.
- 6.9.6. **TxDOT** and FHWA will be the sole judges of acceptability of STCs. **TxDOT** and FHWA reserve the right to reject any STC request for any reason.
- 6.10. Activities Following TxDOT Approval of Final STCs. Upon **TxDOT**'s approval of a Final STC, Bidders shall be entitled but not obligated to include such STC in their Bid. Bidders must notify **TxDOT** in writing of any approved STCs that such Bidder intends to include within its Bid by the date shown in the schedule. **TxDOT** will pass approved, Bidder-selected STCs related to permanent work to the project design engineer who will prepare 60% and 90% plans to accommodate each STC. Once complete, Bidders will be provided the opportunity to verify that such 60% and 90% plans prepared by **TxDOT**'s project design engineer capture the intent of the approved Final STC. **TxDOT** will then upload Bidder-specific bid packages to secure Bidder team sites on **TxDOT**'s ECMS and will create Bidder-specific electronic bid submittal pages. Bidders must then notify **TxDOT** which of their accepted STCs they intend to adopt and must prepare and submit their Bids electronically, incorporating the applicable STCs.
- 6.11. Incorporation of STCs in the Contract Documents
- 6.11.1. Following Conditional Award of the Contract, the STCs that were approved by **TxDOT** and incorporated in the Bid by the successful Bidder will be included in the Contract Documents. If **TxDOT** responded to any STC by stating that it would be acceptable if certain conditions were met, those conditions will become part of the Contract Documents. The Contract Documents will be conformed after the execution of the Contract as a \$0 change order to reflect the STCs, including any **TxDOT** conditions thereto. Notwithstanding anything to the contrary herein, if the Contractor does not comply with one or more **TxDOT** conditions of pre-approval for an STC or the Contractor fails to obtain a required permit or third party approval for an STC, the Contractor will be required to comply with the original requirements of the Contract Documents including the Base Design without additional compensation or extension of time.
- 6.11.2. Prior to execution of the Contract, STCs from unsuccessful Bidders may, subject to approval in writing by such unsuccessful Bidder, be presented to the selected Contractor for possible incorporation in the Contract Documents during negotiation of the final terms of the Contract. Following execution of the Contract, STCs from unsuccessful Bidders may, subject to approval in writing by such unsuccessful Bidder, be presented to the selected Contractor as a **TxDOT**-Directed Change in accordance with the Contract.
- 6.12. Confidentiality. Subject to the provisions of the Act and the Rules, STCs and all communications regarding STCs will remain confidential until a decision is made to select a Bidder or cancel the procurement, at which time all confidentiality rights, if any, shall be of no further force and effect except as otherwise allowed under the Act, applicable Law. Any STC submittal that is rejected by **TxDOT** on the grounds set forth in Sections 6.9.1 (d) and (e) shall not be considered an STC pursuant to 23 CFR 636.209 and shall not be subject to the confidentiality requirements of this Section 6.12.

Exhibit 1
FORM OF FINAL STC PROPOSAL

Final STC Proposal No.

[BIDDER'S NAME] The [PROJECT NAME]

Part A: *Sequentially number each Sealed Technical Concept Proposal (STC). Multi-part or multi-option STCs must be submitted as separate, individual STCs with unique sequential numbers. Complete Part A of this Exhibit 1 and attach it to the front cover of the STC. Each STC must provide more detailed information requested in Part B of this Exhibit 1. Provide the required number of copies of the STC as stated in the RFP.*

1. This STC impacts (check all that apply):

- Development (Design/Construction)
- Maintenance

2. How will this STC be applied to the Project?

- Location Specific
- Project Wide

3. Provide a brief written description of the proposed STC (if location specific, please provide the location).

4. Bidder is requesting a change affecting the following technical requirements of the Request for Proposals (check all that apply):

- TxDOT Base Design (Permanent Work)
- Temporary Works Design
- Specifications # _____

5. Please complete the following table:

	Decrease	Increase
Potential Price/Cost Impact (nominal \$)		
Price	(\$)	\$
TxDOT's Maintenance Cost	(\$)	\$
Totals	(\$)	\$
Net Total Price/Cost Impact		\$
Potential Schedule Impact (Days)		

6. Potential Price decrease is due to (check all that apply):

- Design modification(s)
- Reduction of overall quantities
- Materials fabrication/sourcing
- Improved constructability
- Construction sequencing
- Reduced construction time
- Other (Describe):

7. Potential Price increase is due to (check all that apply):

- Improved safety
- Improved operational capacity
- Reduced lifecycle costs
- Greater compatibility with future improvements
- Other (Describe):

8. Potential TxDOT Maintenance Cost decrease is due to (check all that apply):

- Design modification(s)
- Reduction of overall quantities
- Materials fabrication/sourcing
- Improved constructability
- Construction sequencing
- Reduced construction time
- Other (Describe):

9. Potential TxDOT Maintenance Cost increase is due to (check all that apply):

- Improved safety
- Improved operational capacity
- Reduced Development costs
- Greater compatibility with future improvements
- Other (Describe):

10. Potential schedule decrease is due to (check all that apply):

- Design modification(s)
- Reduction of overall quantities
- Materials fabrication/sourcing
- Improved constructability
- Construction sequencing
- Other (Describe):

11. Potential schedule increase is due to (check all that apply):

- Improved safety
- Improved operational capacity
- Reduced lifecycle costs
- Greater compatibility with future improvements
- Other (Describe):

12. Identify whether any other proposed STCs may be impacted by the implementation of this STC and, if so, identify the STCs that may be impacted and describe any such impacts.

- Potential impacts to other STCs
- No potential impacts to other STCs

Part B: For each STC, provide the information requested below as part of your STC analysis and attach it to the corresponding Part A of this Exhibit 1. Include conceptual drawings of the configuration. Bidder’s analysis must use the numbering below and address the following:

1. **Purpose.** Describe the proposed STC in detail, including its purpose; and where and how it would be used on the Project.
2. **Required Deviation(s).** Specify which requirements of the ITP and Contract Documents are inconsistent with the proposed STC. Explain the nature of the inconsistencies, and why a deviation from the provisions is required and should be granted. **Explain how the STC provides both quality and performance that is equal to or better than currently provided for by the Contract Documents absent such STC.**
3. **Overall Analysis.** Provide an analysis of the proposed STC. How would this STC change the operation and maintenance of the Project? Include the table below, mark the box as appropriate and include a quantitative discussion of potential changes to the following items:

Assessment of Potential Changes Related to Proposed STC

Functional requirements (including ease of operations)	<input type="checkbox"/> No change	<input type="checkbox"/> Change
Environmental and Other Permitting	<input type="checkbox"/> No change	<input type="checkbox"/> Change
Community Impacts	<input type="checkbox"/> No change	<input type="checkbox"/> Change
Vehicular Traffic and Safety (during and after construction)	<input type="checkbox"/> No change	<input type="checkbox"/> Change
Life-cycle of item/project (including impacts on cost of repair, maintenance and operation)	<input type="checkbox"/> No change	<input type="checkbox"/> Change
Routine maintenance	<input type="checkbox"/> No change	<input type="checkbox"/> Change

4. **Cost Differences.** Provide a detailed statement of the cost differences associated with the STC implementation. Include an itemized list of impacted bid items and quantities supporting the cost differences for the STC. Delineate the costs to TxDOT, the DB Contractor and third parties (including utility owners), if any.
5. **Schedule Impact.** Discuss the impact on the Project completion time including design, construction, right of way, utility relocation, Access Justification Report and/or permitting issues. Describe proposed methods and commitments to minimize or eliminate any related impacts.
6. **Utilities.** Discuss the utility (public and private) impacts.
7. **Inspections.** Describe and discuss any additional testing and construction inspection requirements.
8. **Risks.** Describe and discuss any added risks to TxDOT and other parties associated with implementing the STC.

9. **Right of way.** Describe any additional right-of-way (temporary or permanent) required and discuss intended acquisition method and schedule. *(Bidders shall (i) be solely responsible for the acquisition of any such right of way and necessary Environmental Approvals, including related costs; (ii) not be entitled to any Change Order for time or money as a result of related Site conditions (i.e., Hazardous Materials, Differing Site Conditions, geotechnical issues, Utilities, etc.) on such additional right-of-way; and (iii) not be entitled to any Change Order for time or money as a result of any delays, inabilities or costs associated with the proposed right of way acquisition.)*

10. **Traffic.** If an STC proposes a change that affects traffic operations, or points of access provide a detailed traffic operations analysis.

11. **Safety.** Describe the impacts to safety, if warranted.

12. **Other benefits.** Besides any potential cost and time savings, what other benefits does this STC provide? Describe and substantiate how the STC provides both quality and performance that is equal to or better than currently provided by the Contract Documents absent such STC.

13. **Previous Application(s).** Provide, in the format shown below, a detailed description of any previous use of the proposed STC or similar technical concept and the degree of success or failure of such usage. Include relevant site conditions, basis for and results of its use, schedule and cost impacts, if any, and relative conditions contributing to the success or challenges and limitations of its implementation. Also provide the project name and contact information (name, title, phone number and email) for project owners that can confirm STC implementation.

Project Name:		STC Implementation Year:
Project Owner:		Location:
Contact Name and Title:	Phone:	E-mail Address:

Description: