



Vermont Agency of Transportation

# Alternative Technical Concepts

Alternative Technical Concepts (ATCs) have successfully been used on Design-Build projects to generate innovative ideas and cost savings. This document outlines the VTrans ATC process.

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## Key Terms

See Design Build Definitions Document, which can be found here:

<http://vtranscontracts.vermont.gov/alternative-delivery/design-build/documentation/contract-docs>

## Alternative Technical Concepts (ATCs)

Alternative Technical Concepts (ATCs) are any deviation(s) from the BTC which may either result in improved value or a shorter Project duration which will not reduce but may increase the quality or functionality of the facility. ATC Options may be premised on deviations from the technical RFP requirements, but must be shown to be consistent with the requirements set forth in the RFP. All ATCs shall comply with Environmental Approvals and permit requirements including time-of-year restrictions. The Bidder may propose multiple deviations from the BTC.

VTrans has chosen to use the ATC process to promote innovation and flexibility into the Technical Proposals, to avoid delays and potential conflicts associated with deferment of in-depth technical concept reviews to the post-award period, and to ultimately obtain the best value for the public.

The ATC process allows Bidders to propose alternatives to the BTC for VTrans review and acceptance. VTrans will not approve any ATC that includes a deviation from the requirements of the as-issued BTC unless VTrans determines, in its sole discretion, that the proposed end product, based on the ATC, is equal to or better than the end product absent the ATC.

Bidders shall evaluate and list how their proposed ATCs will affect the other ATCs and remaining BTC and include all relevant interdependencies. Interdependent concepts may be combined into one (1) ATC and the Bidder will need to describe/list all interdependent ATCs in the Conceptual ATC Submittal. Failure to properly describe the interdependent components may result in rejection of the entire ATC. Should it be determined that a component of the interdependent ATC is not allowable, the entire ATC, or a portion thereof, may be rejected.

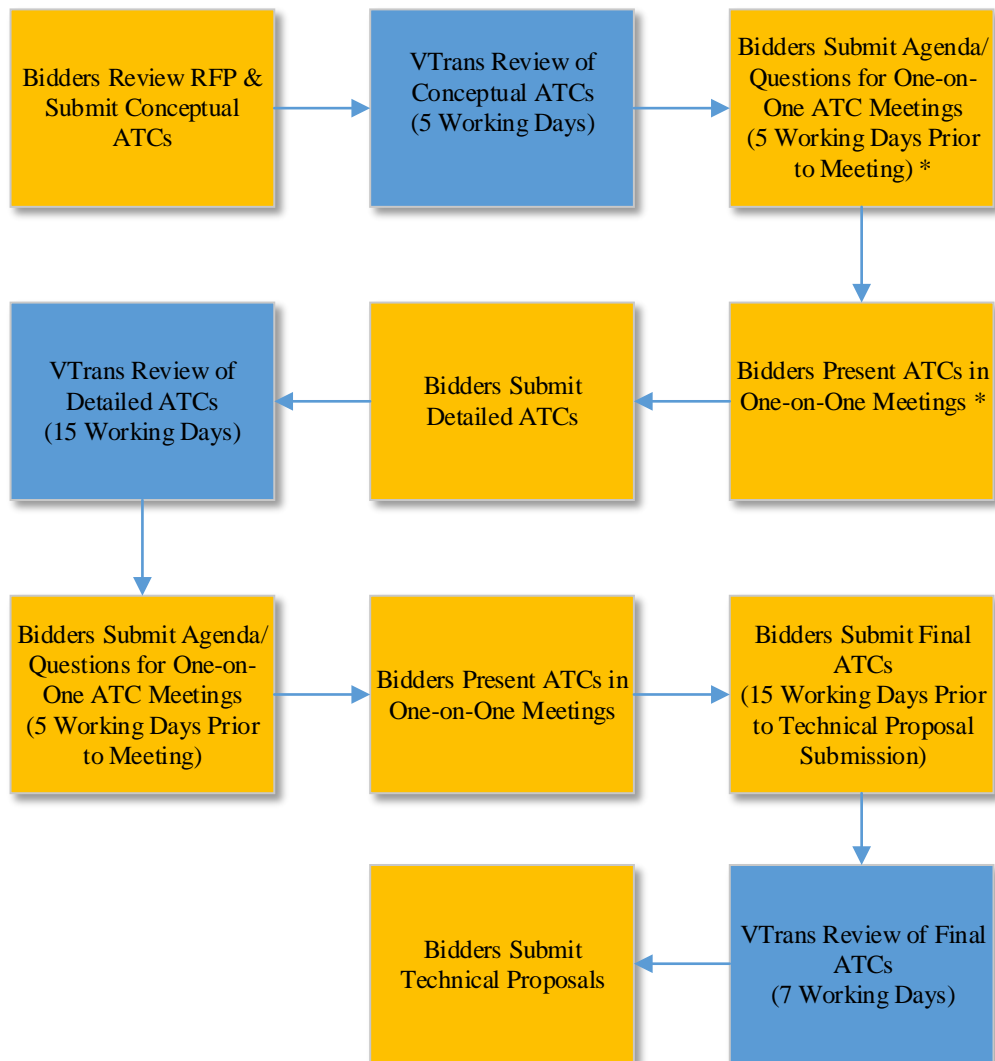
The Design-Builder is responsible for all permit acquisitions, modifications, environmental studies, right-of-way transactions, and NEPA document re-evaluations associated with any of the ATCs. The Bidder shall note that they are solely responsible for Resource Clearances, the consequences of permit violations, mitigation requirements, environmental commitments, and any schedule delays and costs due to permit acquisition, permit violation modifications, environmental

studies, right-of-way transactions, and NEPA document re-evaluations associated with any of the ATCs, and no time extensions will be granted.

Neither acceptance nor rejection of an ATC by VTrans will entitle any Bidder to an extension of the Technical Proposal Due Date or the date the ATCs are due. Each Bidder, by submittal of its Technical Proposal, acknowledges that the opportunity to submit ATCs was offered to all Bidders and waives any right to object to VTrans determinations regarding acceptability.

As illustrated in the flowchart below, the ATC process includes submission of Conceptual ATCs and Detailed ATCs, preparation and attendance of one-on-one meetings, preparation and submission of final questions, submission of Final ATCs, and incorporation of approved ATCs into the proposal. All correspondence related to ATCs shall be through the POC.

### **ATC Process**



\*Conceptual ATC One-on-One Meetings are optional

Because of the confidential nature of the ATCs, the information will not be subject to disclosure until after the Proposal Payments have been issued. VTrans may not respond if the Conceptual ATC Submittal is not provided by the aforementioned date. VTrans will not accept Conceptual ATC Submittals that are not provided in accordance with this section.

#### Conceptual ATC Submittal

The first step in the ATC process is the Conceptual ATC Submittal. Bidders shall submit each Conceptual ATC in writing to VTrans by the Conceptual ATC Submittal date set forth in the RFP. Each Conceptual ATC Submittal shall contain the following information, which shall be no more than two total pages of

information, and shall be submitted to the VTrans POC electronically on the Alternative Technical Concept Submittal Form in MS Word or PDF format with the following information:

- General Description: A narrative that describes the proposed ATC in concept and includes the basic differences between the BTC and the ATC, the location where the ATC will be used on the project, and any design exceptions required by the ATC.
- Advantages and Disadvantages: A listing and brief description of the comparative advantages and disadvantages of the Conceptual ATC including: Effects on the service life, safety, durability, reliability, economy of operation, ease of maintenance; other factors significantly altered by the Conceptual ATC; and rationale for the proposed deviation(s) from the BTC.
- Impacts to Permits and/or Third-Party Agreements: A description of steps necessary to address existing permits, new permits, or third-party agreements that may be impacted or required in order to initiate the proposed Conceptual ATC. In addition, the Bidder shall describe its expectation of securing or modifying these documents; and the responsible party(s) and time frames required to implement such requirements.
- Identification of Prior Similar ATCs: If the Conceptual ATC has been used under comparable circumstances, provide details of other projects where it has been used under comparable circumstances, and the action taken by the relevant agency.
- Known Use or Testing: A description of any previous use or testing of the Conceptual ATC that is known to the Bidder, including the tester, the conditions, and the results.
- Identification of Interdependencies: A brief description of interdependent components of each ATC.

VTrans will review the Conceptual ATC Submittal within five (5) working days of receipt. As a response to each Conceptual ATC Submittal, VTrans may, at its sole discretion:

- Indicate that the submission is not considered an ATC
- Invite the Bidder to present the ATC at a One-on-One ATC Meeting (additional information may be requested)
- Invite the Bidder to furnish a Detailed ATC submittal
- Reject the Conceptual ATC

## Detailed ATC Submittal

The second step in the ATC process is the Detailed ATC Submittal. If invited by the Agency as provided below, the Bidder may submit up to three (3) total Detailed ATC Submittals for VTrans review by the Detailed ATC Submittal date as set forth in the RFP. Due to the limited number of Detailed ATC Submittals, Bidders are encouraged to condense multiple interdependent ATCs as outlined below. Each Detailed ATC Submittal shall be submitted to the VTrans POC electronically in PDF format and shall contain, at a minimum, the information included in the Conceptual ATC Submittal, and the following information:

- ATC Narrative: Which shall be no more than two-and-a-half (2.5) double sided sheets (five (5) pages) of information prepared on 8.5" x 11" white paper with all pages sequentially numbered, with the following information:
  - Description: A description of what is being changed, altered or deleted, and why, and what is being proposed to improve upon the BTC.
  - Itemization: An itemization of the requirements of the RFP that must be changed (BTC, BTC Plans, specifications, etc.) and a recommendation of how to make each change, including: A description of the advantages and disadvantages; where the ATC has been previously used on projects or tested; the success of such usage; and contact information for any referenced usage. Itemizations shall also include: A description and management of additional risks associated with implementing the ATC; analysis and description of potential issues with current or required Environmental Approvals; a description of the long-term durability of implementing the ATC; and estimated design life of the ATC.
  - Additional Impacts: Discussion of potential impacts on vehicular traffic, environmental impacts (favorable or unfavorable), community impacts, safety and life-cycle Project and infrastructure costs (specifically impacts on the cost of future operation, repair, and maintenance).
  - Design-Build Contract Completion: A statement as to the effect the ATC would have on the duration of traffic impacts and the impact on the time for the completion of the Design-Build Contract.
- Plans and Specifications: A configuration of the ATC, including, but not limited to, schematic drawings, product details, specifications, construction

tolerances, special provisions, and/or a traffic operational analysis. Drawings shall, at a minimum, detail the proposed revisions relative to the BTC.

VTrans will review the Detailed ATC Submittal within fifteen (15) working days of receipt. As a response to each Detailed ATC Submittal, VTrans may, at its sole discretion:

- Invite the Bidder to present the ATC at a One-on-One ATC Meeting (additional information may be requested)
- Approve or Conditionally Approve the ATC without a One-on-One ATC Meeting presentation
- Reject the ATC for reasons that will be described briefly

VTrans may not respond if the Detailed ATC Submittal is not provided by the aforementioned date. VTrans will not accept Detailed ATC Submittals that are not provided in accordance with this section.

#### One-on-One ATC Meetings

VTrans may conduct confidential One-on-One ATC Meetings with each Bidder to discuss proposed ATCs as determined during the Conceptual and Detailed ATC Submittal. The purpose of the One-on-One ATC Meetings are to provide each Bidder with an opportunity to informally discuss potential ATCs and obtain preliminary feedback from VTrans.

At least five (5) working days before the scheduled One-on-One ATC Meeting the Bidder shall submit the following information to the VTrans POC in electronic format:

- A list of personnel that will be attending the One-on-One ATC Meeting and their function on the Design-Build Team (No more than 5 members may attend the meeting).
- A specific meeting agenda presented in outline format. The meeting agenda must be specific in identifying all topics of the meeting which are intended to be presented and/or discussed.
- A list of specific questions pertaining to the ATCs. Bidders must submit a list of specific questions which will be discussed at the One-on-One ATC Meeting.



If Bidders are presenting a PowerPoint, one (1) CD copy shall be left with VTrans. Bidders shall use their own equipment for the presentation.

Each team will be contacted in advance by the VTrans POC to schedule their One-on-One ATC Meeting on the date set forth in the RFP.

Meeting Schedule (Conceptual ATCs):

The One-on-One Conceptual ATC Meeting for each Bidder will be 1 hour and 45 minutes in length.

- 45 minutes for presentation of submitted conceptual ATCs and questions/discussion.
- 30 minutes Break for VTrans internal discussion.
- 30 minutes for VTrans feedback and general ATC discussion.

Meeting Schedule (Detailed ATCs):

The One-on-One Detailed ATC Meeting for each Bidder will be 2 hours in length.

- 1 hour for presentation of submitted conceptual ATCs and questions/discussion.
- 30 minutes Break for VTrans internal discussion.
- 30 minutes for VTrans feedback and general ATC discussion.

*Meeting Guidelines*

VTrans will not discuss with any Bidder the contents of any ATCs other than its own. Bidders shall not seek to obtain approval from VTrans in the meetings or otherwise seek to obtain an unfair competitive advantage over any other Bidder. Bidders are prohibited from discussing any ATCs with VTrans personnel or VTrans consultants outside of the confines of the One-on-One ATC Meetings.

Discussions during the One-on-One ATC Meeting will solely focus on ATCs presented and the manner in which they may affect the BTC. Any general clarifying RFP questions should be submitted to the POC as described in the RFP.

VTrans reserves the right to change or clarify the RFP based on information or issues raised during the One-on-One ATC Meetings.

No electronic recording of any kind will be allowed during the One-on-One ATC Meetings.

### *One-on-One ATC Meeting Attendees*

Bidders attending the meetings shall have the proper expertise and authority to present ATCs and answer VTrans' ATC questions. Persons attending the One-on-One ATC Meetings will be required to sign an acknowledgment of the foregoing rules and identify all participants. The Bidder shall bring the signed form to their meeting. All participants must attend in person – conference calls will not be permitted.

VTrans meeting attendees may include Technical Evaluation Committee (TEC) members, representatives from VTrans Attorney General's Office, Federal Highway Administration, as well as any appropriate technical experts.

### *Final Submission of ATCs*

Any Bidder seeking approval regarding the viability of an ATC, which has not been approved prior to the One-on-One ATC Meeting, must submit Final ATCs to the POC no later than fifteen (15) working days prior to the submission of the Technical Proposal. Submissions received after that time or submissions with additional changes will not be accepted. If VTrans requires clarification of a Final ATC Submission, Bidders are expected to respond within two (2) working days. Written request for final approval of ATC may be waived, at the sole discretion of VTrans, if ATCs have been approved subsequent to the Detailed ATC Submittal.

The submissions must contain sufficient information for VTrans to render an opinion. An electronic submission including a narrative, technical information, and drawings are required and shall be made to the POC in PDF format. This submission shall include all applicable material provided in the Detailed ATC Submittal as well as pertinent information presented during the One-on-One ATC Meetings.

VTrans will respond to the Bidder within seven (7) working days with a final determination. If the Bidder does not receive a return response from VTrans within seven (7) working days of VTrans' receipt of the Final ATC, the Bidder shall presume that VTrans has rejected the ATC.

## Final Determination by VTrans

VTrans will make one of the following determinations with respect to each properly submitted ATC:

- The ATC is approved/conditionally approved
- The ATC is not approved with appropriate explanation

## Incorporation of ATCs into Technical Proposal and Contract

Written approval of an ATC will constitute a change in the specific requirements of the Contract Documents associated with the approved ATC for that specific Bidder. During design development, if the ATC otherwise proves to be infeasible, the Bidder shall be required to conform to the original BTC requirements with no additional time to complete the project regardless of when it is determined to be infeasible. VTrans will not make any adjustments to the Contract value in the event that an ATC which was approved during the proposal phase cannot be implemented.

Each Bidder may incorporate only approved ATCs into its Technical Proposal. Copies of VTrans ATC approval letters for each incorporated ATC shall be included in Tab 5.1.3 of the Technical Proposal. Technical Proposals with or without ATCs will be evaluated against the same technical evaluation factors as set forth in the RFP.

Except for incorporating approved ATCs, the Technical Proposal may not otherwise contain exceptions to or deviations from the requirements of the RFP.

The evaluation of proposals will not distinguish between a proposal that does not include any ATCs and proposals that include ATCs. Both types of proposals are evaluated against the same technical evaluation factors and a best value determination is made in the same manner.

Following award of the Design-Build Contract, the requirements of the RFP, as modified to incorporate ATCs accepted by VTrans and other Technical Proposal concepts and commitments made by the Bidder in the Technical Proposal will collectively be considered requirements of the Design-Build Contract.

## ATC Format

For Detailed ATC Submittals and Final ATC Submittals, each Bidder shall deliver one (1) paper copy of their ATCs, and one (1) CD-ROM containing all ATCs, each ATC in a single cohesive PDF file. All proposed ATCs for the project shall be bound and contained in a single volume.

The ATC Submittal shall be prepared in accordance with the following criteria and as described in this document:

- Electronic submittals shall be in PDF format. One PDF file shall contain all of the information for each ATC.
- All ATCs from each Bidder must be combined into one bound document, clearly tabbed for each ATC.
- All printing, except for Tabs, and any appendices, must:
  - Be Times New Roman, with a font of 12-point, a minimum of single line spacing, and minimum margins of  $\frac{3}{4}$ ".
  - Include a page number in the lower right hand corner of each sheet.
- Except for Charts, Schedules, Exhibits, Concept Plans, and other illustrative and graphical information, all information shall be prepared on 8.5" x 11" white paper.
- Charts, Schedules, Exhibits, Concept Plans, and other illustrative and graphical information:
  - May be on 11" x 17" paper, but must be folded to 8.5" x 11".
  - Concept Plan sheets and drawings are to be drawn to an identifiable scale and submitted on 11" x 17" paper.

## ATC Confidentiality

Any and all ATCs properly submitted for VTrans consideration (including those not included in the Technical Proposal) by a Bidder and all subsequent communications regarding its ATCs will be considered confidential until such time as the Proposal Payment has been issued, unless the Proposal Payment has been waived by the Bidder. If a Bidder wishes to make any announcement of disclosure to third parties concerning any ATC during procurement, it shall first notify VTrans in writing of its intent to take such action, including details such as participants and disclosure dates, and obtain VTrans' approval in advance. Following Proposal Payment, ATCs and all subsequent communications regarding its ATCs will no longer be considered confidential.

Conceptual Alternative Technical Concept Submittal Form	
Design-Build Project	
Proposer	
ATC Number	
<p><u>General Description:</u> A narrative that describes the proposed ATC in concept and includes the basic differences between the BTC and the ATC, the location where the ATC will be used on the project, and any design exceptions required by the ATC.</p>	
<p><u>Advantages and Disadvantages:</u> A listing and brief description of the comparative advantages and disadvantages of the Conceptual ATC including: Effects on the service life, safety, durability, reliability, economy of operation, ease of maintenance; other factors significantly altered by the Conceptual ATC; and rationale for the proposed deviation(s) from the BTC.</p>	
<p><u>Impacts to Permits and/or Third-Party Agreements:</u> A description of steps necessary to address existing permits, new permits, or third-party agreements that may be impacted or required in order to initiate the proposed Conceptual ATC. In addition, the Bidder shall describe its expectation of securing or modifying these documents; and the responsible party(s) and time frames required to implement such requirements.</p>	
<p><u>Identification of Prior Similar ATCs:</u> If the Conceptual ATC has been used under comparable circumstances, provide details of other projects where it has been used under comparable circumstances, and the action taken by the relevant agency.</p>	
<p><u>Known Use or Testing:</u> A description of any previous use or testing of the Conceptual ATC that is known to the Bidder, including the tester, the conditions, and the results.</p>	
<p><u>Identification of Interdependencies:</u> A brief description of interdependent components of each ATC</p>	



Conceptual Alternative Technical Concept Response  
Form

Project Name:	Date Received:
Project Number:	
Design-Build Team:	Date Responded:

Subject:
<p><u>Reviewer Comments:</u></p> <p>Deviation: By providing <b>XX</b> there <b>(is or is not)</b> a deviation from standards.</p> <p>Analysis: This solution <b>(is or is not)</b> equal or better than the RFP.</p> <p>Disposition: Choose one of the responses A. thru C.</p> <ul style="list-style-type: none"><li>A. Invite the Bidder to present the ATC at a One-on-One ATC Meeting (additional information may be requested)</li><li>B. Invite the Bidder to furnish a Detailed ATC submittal</li><li>C. Reject the Conceptual ATC</li></ul>



## Detailed Alternative Technical Concept Response Form

Project Name:	Date Received:
Project Number:	
Design-Build Team:	Date Responded:

Subject:

Reviewer Comments:  
Deviation: By providing XX there (is or is not) a deviation from standards.

Analysis: This solution (is or is not) equal or better than the RFP.

Disposition: Choose one of the responses A. thru C.

- A. Invite the Bidder to present the ATC at a One-on-One ATC Meeting (additional information may be requested)
- B. Approve or Conditionally Approve the ATC without a One-on-One ATC Meeting presentation
- C. Reject the ATC for reasons that will be described briefly





## Final Alternative Technical Concept Response Form

Project Name:	Date Received:
Project Number:	
Design-Build Team:	Date Responded:

Subject:

Reviewer Comments:  
Deviation: By providing **XX** there **(is or is not)** a deviation from standards.

Analysis: This solution **(is or is not)** equal or better than the RFP.

Disposition: Choose one of the responses A. thru B.

- A. The ATC is approved/conditionally approved
- B. The ATC is not approved with appropriate explanation