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# **North Carolina Department of Transportation**

## **Design-Build Policy & Procedures**



October 6, 2011

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# **DESIGN-BUILD POLICY & PROCEDURES**

## **PURPOSE**

This document establishes the Department's process for selecting, procuring and administering contracts that include preconstruction activities, including design and construction services of transportation facilities within one contract. The purpose of the Design-Build process is to provide an alternate method of delivery for transportation projects through which contractors and designers collaborate in design and other preconstruction activities to expedite construction, enhance innovation and constructability, and/or reduce costs.

## **SCOPE**

This procedure affects all offices associated with the design and construction of major bridges, highways, or other Department of Transportation projects.

## **AUTHORITY**

1998 Session Laws {Senate Bill 1366}

2002 Session Laws {House Bill 1518}

2007 Session Laws {House Bill 610}

2011 Session Laws {House Bill 200} Section 28.4

General Statute §136-28.11

## **BACKGROUND**

In the 1997-98 Legislative Session, the North Carolina Legislature authorized the Department to use the Design-Build process on up to three transportation projects annually. These contracts could be awarded after a determination by the Department of Transportation that delivery of the projects must be expedited and that it is not in the best public interest to comply with normal design and construction contracting procedures.

In the 2002 Legislative Session, this authority was extended to allow up to ten Design-Build projects in fiscal year 2002-03, and up to twenty-five (25) Design-Build projects annually through fiscal year 2008-2009. The sunset was removed in the 2007 Legislative Session. The 2011 Legislative Session removed the annual limit on Design-Build projects. The process may be used to the extent that the delivery of the projects must be expedited and that it is not in the public interest to comply with normal design and construction contracting procedures.

This document replaces, in entirety, the Design-Build Policy and Procedures dated October 4, 2007 as previously adopted by the Board of Transportation. This document is modified to reflect current Department organizational structure and includes refinements made to the process of selecting Design-Build projects and procuring contracts with Design-Build Teams.

## **DEFINITIONS**

Contract:	The assemblage of all contractual documents that include the Request for Proposals, all addenda, the Design-Build Team's Technical Proposal and Price Proposal, NCDOT Standard Specifications and Drawings, and other documents as referenced in the Request for Proposals.
Design-Build:	The project delivery method that combines construction and preconstruction services into one contract. Design-Build may combine into a single contract the preconstruction, construction, construction engineering, inspection requirements and testing requirements for a project. All activities are to be performed in accordance with standard North Carolina Department of Transportation (NCDOT) criteria, specifications and contract administration practices.
Design-Build Team:	Hereinafter referred to as "Team", this phrase refers to any company, partnership, corporation, association, joint venture, or other legal entity permitted by law to practice engineering, architecture, and construction contracting, as appropriate, in the State of North Carolina.
Express Design-Build	Express Design-Build is a procedure in which the Department will not require the submittal of Technical Proposals and subsequent determination of a Technical Score. Design-Build Teams will be required to submit Statements of Qualifications in response to an advertisement. The Department will review the Statements of Qualifications and short-list using a quality based selection process. The short-listed teams will submit only Price Proposals. Projects will be awarded to the Design-Build Team that provides the lowest Price Proposal to perform the work.
Project:	The project to be designed and constructed in accordance with the Contract.
Price Proposal:	The sealed "bid" that constitutes the Design-Build Team's price to complete the preconstruction and construction activities required by the Request for Proposals and the Design-Build Team's Technical Proposal.
Request for Proposals:	Hereinafter referred to as the "RFP", this document describes the procurement process, provides the scope of services for the project, and is used by the Team to submit their Price Proposal. The RFP forms the basis for the Contract.
Statement of Qualifications	The document submitted in response to an Request for Qualifications that outlines the prospective Design-Build Teams' design, construction and management qualifications as well as their understanding of the project. The Statement of Qualifications is the document evaluated for the purpose of short-listing prospective Design-Build Teams.
Technical Proposal:	The proposal as set forth by the Design-Build Team that conveys their design, construction approach, schedule, and other items as required by the RFP. The Technical Proposal is made a part of the Contract. Technical Proposals do not apply to Express Design-Build projects.

Project Manager: The Project Manager is the Transportation Program Management Unit staff member assigned to coordinate the development of a project's RFP and the review of the Team's design submittals. The Project Manager's role is critical to the success of the project. The Project Manager has the primary responsibility for the contract development and design approval. The Project Manager works closely with the Resident Engineer during construction to provide support for contract administration items as deemed necessary by the Resident Engineer. The Project Manager and the State Contract Officer are the liaisons between the Department and prospective Design-Build Teams prior to award of a contract. This role shifts to the Resident Engineer after award of a contract.

## **PROJECT SELECTION**

### **OVERSIGHT**

A Design-Build Executive Committee, which includes Department upper level management, will be maintained to guide the evaluation and selection of Design-Build projects. This committee will also be responsible for general oversight of the Design-Build Program, procedures, and performance measures.

### **APPLICABLE PROJECTS**

The appropriate selection of projects for Design-Build is extremely important. Typically, Design-Build projects may be considered if they fall within at least one of the following broad categories:

1. Projects where design and construction need to be expedited for the public good or to capitalize on advanced or specific funding opportunities.
2. Emergency Projects.
3. Projects with complex constructability or traffic phasing issues.
4. Projects affording opportunities for innovation.
5. Unusual projects that do not lend themselves to normal design-bid-build procedures.

The type of project may also be an integral factor in its selection as a Design-Build Project. The following types of projects are particularly suitable to the Design-Build process:

1. New location projects
2. Large interstate widening or rehabilitation projects
3. Projects with heavy traffic volume
4. Large or unique bridge projects

The project must be identified and included in the TIP. Adequate funds must typically be available before the advertisement of the project.

### **EVALUATION CRITERIA**

A selection matrix should be used to qualitatively compare the relative merits of the Design-Build project delivery method. This matrix may include opportunity for innovation, constructability, safety, environmental permitting, right-of-way acquisition, utilities, traffic management, public/business perception, and risk. This qualitative analysis should then be coupled with a quantitative analysis of cost and schedule.

The examination of a candidate Design-Build project shall include the potential effects of third party constraints such as permitting, utilities, and the number of relocatees. Design-Build projects may contain provisions for the Team to provide right-of-way acquisition services, permit application services, FEMA compliance, railroad coordination, and utility relocation or construction services. The need for permitting and right-of-way acquisition shall be clearly defined in the RFP with appropriate allowances in contract time to acquire permits prior to construction.

To the greatest extent possible, the Department should investigate the presence of existing utility facilities in the project area, provide the location and ownership of these utilities to the prospective Design-Build Teams, and enter into utility agreements where appropriate. For each selected project, a determination will be made as to who shall be responsible for relocation of existing utilities. When utility relocation is the Team's responsibility, the Team, through consultation with utility companies, shall verify utility conflicts and make arrangements for relocation or adjustments as required. Internal procedures will be utilized when the Department is responsible for utility relocation and this information will be provided to each prospective Design-Build Team.

Often it is advantageous to have utility and construction services also included in a Design-Build contract; however, Design-Build is generally not well suited for compact projects with extraordinary utility conflicts.

Mitigation for wetland, stream and other environmental impacts, except as may be required on-site, should be retained as a Department function.

## **DESIGN-BUILD TEAM EVALUATION AND SELECTION**

### **GENERAL**

Design-Build Teams are evaluated and selected through what is commonly referred to as a “two-step” process. This process includes (1) shortlisting that, in essence, pre-qualifies Design-Build Teams on a project specific basis. Typically, the short-listed Design-Build Teams then compete for the project on a best-value basis that accounts for both cost and a technical score (quality). For Express Design-Build projects, the same first step is used for a quality based selection of short-listed Design-Build Teams; however, the second step is made on a competitive low bid basis. The evaluation and selection process will be clearly outlined in the RFP.

### **PROCESS**

The following steps outline the standard process from the selection of a Technical Review Committee to the staff recommendation for action by the NCDOT Board of Transportation.

- (1) Selection of Technical Review Committee
- (2) Advertisement through newspapers, website, Purchase Directory and notification to all prequalified bidders
- (3) Submission of Statements of Qualifications
- (4) Shortlisting of Design-Build Teams
- (5) Issuance of the Request for Proposals
- (6) Submission of Technical Proposals and Price Proposals
- (7) Evaluation of Technical Proposals

- (8) Opening of Price Proposals
- (9) Determination of the “Best-Value” Design-Build Team
- (10) Recommendation for Action by the Secretary of Transportation

For Express Design-Build projects, Technical Proposals will not be solicited or evaluated and the determination of the apparent low bidder will be made on a low bid basis.

#### **(1) SELECTION OF TECHNICAL REVIEW COMMITTEE**

The Technical Review Committee (TRC) is a critical element of the Design-Build Team evaluation and selection process. The TRC will be composed of at least five Department employees. These employees shall be nominated by the Director of Transportation Program Management on a project specific basis to represent the primary technical expertise required of the project. The Director of Transportation Program Management shall consult with the Design-Build Executive Committee for concurrence regarding the membership of the TRC.

To the greatest extent possible, the TRC members should have significant NCDOT experience and a thorough understanding of Department procedures. These members will represent major areas of the project design, construction, and/or operation. The TRC will serve as a selection committee and is responsible for the evaluation of both (1) the Statements of Qualifications for the purpose of shortlisting and, as applicable, (2) the Technical Proposals for the purpose of determining a committee consensus Technical Score for the Technical Proposals submitted by the short-listed Teams. A confidentiality agreement will be signed by all members of the TRC that limits their discussion on the Technical Proposals to only those Department personnel that they deem necessary to assist in the evaluation.

The TRC members will also be involved in the development and review of the Request for Proposals.

#### **(2) ADVERTISEMENT**

Generally, the advertisement for a Design-Build project includes the following five documents:

- (a) **Advertisement for Professional Services:** The Department will follow its standard advertisement process for acquiring professional services. In addition, a copy of the advertisement will be made available to all pre-qualified contractors.

The advertisement shall include instructions for obtaining a Request for Qualifications package as well as a deadline for the submittal of Statements of Qualifications.

- (b) **Request for Qualifications (RFQ):** The RFQ will provide a general description of the work and will include the prequalification requirements, additional technical qualifications desired, and the time frame for Statements of Qualification to be submitted to the State Contract Officer. Requirements in the RFQ shall be general and not require prospective Teams to do technical evaluation or detailed scheduling of project specifics. In order to take full advantage of the process, each project’s RFQ should be modified to fit the unique needs of that project.

Unless specialized services are otherwise stipulated in the RFQ, the Department's standard pre-qualification requirements apply to each entity providing professional engineering services. Likewise, the standard contractor pre-qualification requirements apply to each contractor entity within or utilized by the Team. Unless otherwise stated in the RFQ or approved by the State Contract Officer, each entity must be pre-qualified prior to the deadline for the submittal of the

Statements of Qualification. In addition a decision will be made on each project as to whether any additional pre-qualification will be required for the Team.

Any consultant engineers under contract, or previously under contract, with the North Carolina Department of Transportation to prepare preliminary plans, planning reports or other project development products for a project will not be allowed to participate in any capacity with the Team selected to construct that project. Exceptions to this policy may be granted by the Technical Services Administrator or State Contract Officer, upon written request from the firm, if it is determined that the firm's involvement does not constitute an unfair advantage.

- (c) **Project Synopsis:** A synopsis of the preconstruction and construction activities projected to be a part of the Contract shall be made available to all prospective Teams. This document is not contractually binding, but rather serves as a guide for the formation of prospective Teams.
- (d) **Timeline:** A timeline of events beginning with the advertisement date and concluding with the projected date for opening the Price Proposals will be made available to all prospective Teams. This timeline will include all dates for RFP distributions, meetings with prospective Teams, and the date for the opening of Price Proposals. The timeline shall be stated in specific calendar dates and shall clearly identify the time allotted for the preparation of Statements of Qualifications and Technical Proposals.
- (e) **Stipend:** If applicable, the notice of a stipend and the amount of the stipend will be made available to all prospective Teams. This stipend will be made as partial compensation for each unsuccessful short-listed Team that submits a responsive Technical Proposal. The stipend will be determined on a project specific basis and will be based on both the project size and complexity and endorsed by the Design-Build Executive Committee. A stipend may also be made available for Express Design-Build projects.

### **(3) SUBMISSION OF STATEMENTS OF QUALIFICATIONS**

Each prospective Team shall submit a Statement of Qualifications in strict compliance with the requirements and timeline contained in the Request for Qualifications.

### **(4) SHORT-LISTING OF DESIGN-BUILD TEAMS**

After the Statements of Qualifications are received, a "short-list" of firms will be determined by the Technical Review Committee. The short-list consideration factors in this determination will be as outlined in the Request for Qualifications and will typically include consideration of the Design-Build Team's capabilities, composition, past performance (particularly on comparable projects), project understanding and approach, quality program, and safety program.

The Technical Review Committee evaluates and determines a consensus determination of those Design-Build Teams to be short-listed based on the evaluation criteria outlined in the Request for Qualifications. This short-listing process is used for Design-Build, Express Design-Build, and Modified Design-Build projects.

A minimum of two prospective Teams will be short-listed. In addition, at the Department's discretion, one additional Team may be designated by the Technical Review Committee as the short-list alternate. In the event of a short-listed Team withdrawing from further consideration on the project, the Department may invite the short-list alternate to submit a Technical Proposal and/or Price Proposal for the project. In this event, all previously short-listed Teams will be made aware of this invitation.

All prospective Teams, regardless of short-list status will be afforded the opportunity for a debriefing with the Department regarding the relative merits of their Statements of Qualifications.

**(5) ISSUANCE OF THE REQUEST FOR PROPOSALS**

Upon announcement of the short-listed Teams, the Draft Request for Proposals will be distributed to the short-listed Teams. At least one meeting will be afforded to each short-listed Team to address any questions they may have about the project, the RFP requirements, or the selection process. The meetings will be conducted individually with each Team. Unless a short-list alternate Team is invited to participate as outlined above, and such invitation occurs after meetings with the other short-listed teams have already occurred, each Team will be afforded the same number of meetings with the Department.

As a result of these meetings, the RFP will be modified and a Final RFP will be issued to all short-listed Teams. Addenda to this Final RFP may be issued as needed to further refine the requirements of the Contract.

**(6) SUBMISSION OF TECHNICAL PROPOSALS AND PRICE PROPOSALS**

In response to the Final RFP and all addenda, the shortlisted Teams will typically submit a Technical Proposal and Price Proposal for the project. The Technical Proposal shall be submitted concurrently with the Price Proposal. The Technical Proposal shall be submitted in a sealed package. The Price Proposal shall be submitted in a separate sealed package. The Technical Proposal and Price Proposal shall be submitted to the State Contract Officer in strict accordance with the requirements and timeline contained in the Final RFP and as amended by addendum. The Price Proposals will remain sealed in a secure location with the State Contract Officer. The Technical Proposals will be transmitted to the Transportation Program Management Unit and the Project Manager will distribute the Technical Proposals to the Technical Review Committee for evaluation.

Technical Proposals will not be required for Express Design-Build or Nested Design-Build projects.

**(7) EVALUATION OF TECHNICAL PROPOSALS**

This section does not apply to Express Design-Build or Nested Design-Build projects.

Technical Proposals will address the technical elements of the design and construction of the project. In general, the evaluation process will also consider the Team's composition, understanding of the project, anticipated problems and solutions, schedule, and project design. Evaluation will be made in regards to the evaluation criteria as set forth in the Final RFP and as amended by addendum. Evaluation criteria will typically vary on a project specific basis and may include, but may not be limited to, the Team's demonstrated capabilities, design features, schedule, innovation, long term maintenance considerations, traffic control, safety, quality control, utilization of disadvantaged business enterprises or minority/women businesses, natural environment responsibility, oral interview, and/or project guarantees.

The Technical Review Committee shall first determine whether or not the Technical Proposals are responsive to the requirements of the RFP. If any of the Technical Proposals are considered non-responsive, the facilitator will notify the State Contract Officer accordingly, who in turn will notify the Team of that fact.

Each Technical Proposal found to be responsive will be evaluated by the Technical Review Committee. The Technical Review Committee may be provided tools to assist in the evaluation of the Technical Proposals. The Technical Review Committee may solicit input from other Department employees



regarding specific information that may be needed outside their experience or expertise. The Department reserves the right to ask for clarification on any item in the Technical Proposals.

Following a period of preliminary evaluation of the Technical Proposals, each short-listed Team will address the Technical Review Committee with a presentation based on their Technical Proposal. To the greatest extent possible, all Teams will make these presentations on the same day. The Team will field any questions generated by the Technical Review Committee during their preliminary evaluation period or the Teams' technical presentations. All Teams will be afforded equal time for these presentations.

Following the technical presentations, the Technical Review Committee will convene with at least one facilitator to determine the Committee's consensus score in each of the major evaluation categories outlined in the RFP. For each Team, the sum of the consensus score in each of the major evaluation categories will represent the Committee's consensus Technical Score.

The facilitator(s) will generally be either the Director of Transportation Program Management and/or the Design-Build Project Engineer. The facilitator serves in an ex officio capacity and facilitates the Technical Review Committee's discussion necessary for their determination of a consensus Technical Score for each Team. The facilitator may answer questions regarding the evaluation criteria and process as well as specific questions about Technical Proposal contents. The role of the facilitator is to ensure that (1) the evaluation process occurs in a systematic and consistent manner, (2) false or irrelevant data is not used in the evaluation process, (3) to the greatest extent possible, the overall evaluations are properly valued as relates to the anticipated cost of the project and (4) the Technical Review Committee understands the confidential nature of their work and the resulting Technical Scores.

Upon determination of a consensus Technical Score for each Team, the evaluation results are transmitted in confidence to the State Contract Officer. These scores remain in the possession of the State Contract Officer until such time that the Price Proposals are unsealed and read publicly.

All short-listed Teams will be afforded the opportunity for a debriefing with the Department regarding the relative merits of their Technical Proposal and Presentation.

#### **(8) OPENING OF PRICE PROPOSALS**

At the time and date specified in the Final RFP and as amended, the State Contract Officer will open the Price Proposals and calculate the percentage difference between the Price Proposals submitted and the Engineer's Estimate. Prior to opening the Price Proposals, the State Contract Officer will provide each team, if present at the opening, a sealed envelope containing that Team's consensus Technical Score. No Technical Score will be generated or provided for Express Design Build projects.

Should all of the Price Proposals be within an acceptable range of, or below, the Engineer's Estimate, the State Contract Officer will proceed to calculate the Quality Value for each Team and publicly read the Price Proposals, consensus Technical Scores, and Adjusted Prices as outlined in the selection procedure contained herein.

Should any one or more of the Price Proposals be within an acceptable range, or below, the Engineer's Estimate, and the remaining Price Proposals exceed an acceptable range of the Engineer's Estimate, the State Contract Officer will go to a separate location to calculate the Quality Value and determine if the Team with the lowest Adjusted Price is within an acceptable range of the Engineer's Estimate. Should the Price Proposal of the Team with the lowest Adjusted Price be below, or within an acceptable range of the Engineer's Estimate, the State Contract Officer will proceed to publicly read the Price Proposals, consensus Technical Scores, and Adjusted Prices. Should the Price Proposal of the Team with the lowest

Adjusted Price exceed an acceptable range of the Engineer's Estimate, the State Contract Officer will publicly read the Price Proposals only and the Department will then determine whether to proceed to request a Best and Final Offer as outlined below.

Should all Price Proposals submitted exceed an acceptable range of the Engineer's Estimate, the State Contract Officer will publicly read the Price Proposals only. The Department will then determine whether to proceed to request a Best and Final Offer as outlined below.

A request for Best and Final Offer may be made by the Department for any reason. In the event that a Best and Final Offer is requested, the Department will issue a Best and Final RFP that may or may not include changes in the Final RFP scope or contract requirements.

After receipt of the Best and Final Offer RFP, the Teams may have the option of changing their Technical Proposal details. Such an allowance will be clearly stated in the Best and Final Offer RFP. If the Team changes any component of the original Technical Proposal, the TRC will review those amended components of the Technical Proposal and may re-evaluate the scores accordingly. A revised total Technical Score may be calculated for one or more Teams based on the Teams' amendments to the original Technical Proposal. Technical Scores, whether revised or not, will be transmitted confidentially to the State Contract Officer. Technical Presentations based on changes made in the Best and Final Offer will typically not occur. The Teams will submit a revised sealed Price Proposal and revisions to their Technical Proposal at the time, place, and date specified in the Best and Final Offer RFP. The sealed Best and Final Offer Price Proposals will remain sealed in a secure location by the State Contract Officer.

Alternatively, the Department may elect to solicit a Best and Final Offer from all Teams without any change to the Final RFP scope or contract requirements. In this case, only a new sealed Price Proposal will be solicited from each Team and Technical Scores will not be revised. This directive will be clearly stated in the Best and Final Offer RFP.

In the event the Department elects to request a Best and Final Offer, the State Contract Officer will open the Best and Final Offer Price Proposals and publicly read all Price Proposals, total Technical Scores and Adjusted Prices. A revised Quality Value and Adjusted Price will be determined based on the Price Proposals and the total Technical Scores. This will constitute the Team's Best and Final Offer.

#### **(9) DETERMINATION OF THE "BEST-VALUE" DESIGN-BUILD TEAM**

This Section does not apply to Express Design-Build or Nested Design-Build projects.

The determination of best-value will be made based on a pre-determined algorithm that combines the total Technical Score with the Price Proposal. This combination balances the quality of a Technical Proposal with a bid price to create a best-value solution for a project.

A maximum Quality Credit percentage will be assigned for each project as determined by the Director of Transportation Program Management and endorsed by the Design-Build Executive Committee. This percentage will typically range from 15% to 30% depending on the complexity and size of the project. A maximum Quality Credit percentage below 15% is also possible for Modified Design-Build projects or projects with little opportunity for innovation or flexibility. In extraordinary situations, such as technically specialized projects or emergency projects, the maximum Quality Credit may be as high as 50%.

The State Contract Officer will use the table in the Request for Proposals that is based on the maximum Quality Credit percentage to assign a Quality Credit to each Technical Proposal based on the total

Technical Score for that Technical Proposal. The example below shows the table to be used for a maximum Quality Credit percentage of 25%.

**Quality Credit for Technical Proposals**

Total Technical Score	Quality Credit (%)	Consensus Technical Score	Quality Credit (%)
100	25.00	84	11.67
99	24.17	83	10.83
98	23.33	82	10.00
97	22.50	81	9.17
96	21.67	80	8.33
95	20.83	79	7.50
94	20.00	78	6.67
93	19.17	77	5.83
92	18.33	76	5.00
91	17.50	75	4.17
90	16.67	74	3.33
89	15.83	73	2.50
88	15.00	72	1.67
87	14.17	71	0.83
86	13.33	70 or below	0.00
85	12.50		

The State Contract Officer will publicly open the sealed Price Proposals as outlined above. The State Contract Officer will then determine the Quality Value for each Team. The Quality Value is obtained by multiplying the Team’s Price Proposal by the Quality Credit percentage corresponding to the total Technical Score for that Team’s Technical Proposal. The Quality Value will then be subtracted from that Team’s Price Proposal to obtain an Adjusted Price for that Team. The following table shows an example of the calculations involved in the process.

**An Example of Calculating Adjusted Price**

Team	Consensus Technical Score	Quality Credit (%)	Price Proposal (\$)	Quality Value (\$)	Adjusted Price (\$)
A	95	20.83	3,000,000	624,900	2,375,100
B	90	16.67	2,900,000	483,430	2,416,570
C	90	16.67	2,800,000	466,760	2,333,240*
D	80	8.33	2,700,000	244,910	2,475,090
E	70	0.00	2,600,000	0	2,600,000

\*Successful Team - Contract Cost \$2,800,000

## **(10) RECOMMENDATION FOR ACTION BY THE SECRETARY OF TRANSPORTATION**

Unless the Department elects to proceed with the Best and Final Offer process, or all Price Proposals are recommended for rejection, the Department will recommend to the Secretary of Transportation that the Team having the lowest Adjusted Price (lowest Price Proposal for Express Design-Build projects) be awarded the contract. The cost of the contract will be the amount received as the Price Proposal for that Team.

## **REQUEST FOR PROPOSALS**

### **GENERAL**

The Request for Proposals will be compiled by the Project Manager within the Transportation Program Management Unit in close coordination with the Division, Construction Unit, Contracts and Standards Development Unit and other Department representatives as necessary.

The Request for Proposals (RFP) document contains the directives and scope description for any given project. One copy of the Final RFP with all addenda, or the Best and Final RFP, as applicable, is signed by the Team and submitted as their Price Proposal. This document is then executed by the Department to form the primary part of the Contract. Any desired project elements, design and construction requirements, guiding documents, responsibilities of the Team, responsibilities of the Department, and the procurement process to be used for Team selection are stipulated within this document.

The RFP shall furnish sufficient information upon which Teams may prepare Technical Proposals and/or Price Proposals. Project requirements shall be described completely and in a manner that will be easily interpreted and understood. The Department shall conduct adequate research and investigations to determine the facility requirements and to document them in an unambiguous manner.

The Team to whom the Contract is awarded will be responsible for developing the project design based on the criteria and information contained in the RFP and other referenced documents and for the construction of the facility in compliance with the Plans and Special Provisions developed by the Team.

### **TYPICAL RFP CONTENTS**

The contents of the RFP vary on a project specific basis. However, the RFP, as a minimum should always address the items outlined below:

- (1) Date and Time of Price Proposal Opening
- (2) Payment Details
- (3) Evaluation Criteria
- (4) Team Selection Process
- (5) Technical Proposal Submittal Requirements
- (6) Price Proposal Submittal Requirements
- (7) DBE or MB/WB Goals and Reporting Requirements
- (8) Design and Other Preconstruction Services Required
- (9) Design References

- (10) Submittal Requirements
- (11) Permits (as applicable)
- (12) Construction Services Required
- (13) Construction Engineering and Inspection Services Required
- (14) Third Party Involvement or Restrictions
- (15) Information or Services to be Provided by the Department
- (16) Professional Insurance and Bonding
- (17) Supplemental Special Provisions
- (18) Itemized Proposal Form and Signature Sheets

**(1) DATE AND TIME OF PRICE PROPOSAL OPENING**

The RFP shall clearly denote the date and time of the opening of the Price Proposals on the cover sheet as well as within the body of the RFP.

**(2) PAYMENT DETAILS**

Typically, Design-Build projects will be paid for on a lump sum basis for the entire project. In this case, partial payments are made based on the progress of the work. The RFP will typically require that the Team submit a Schedule of Values for all major elements of the Contract to assist in determining a proper payment schedule. The RFP may also include provisions that require the Team to maintain and submit a Critical Path Model or other such project schedule. The RFP should include an estimated schedule of progress to set a pre-determined maximum payout schedule.

In the event that the Contract is not paid on a lump sum basis, the items of work to be paid for in a different manner shall be clearly defined, including provisions for measurement and payment, as applicable.

The RFP shall also clearly define any alternate bid items for which the Department requests supplemental pricing. Incentives, disincentives, and liquidated damages may be used and shall be clearly defined in the RFP.

**(3) EVALUATION CRITERIA**

This Section does not apply to Express Design-Build or Nested Design-Build projects.

The evaluation criteria to be used to compile the consensus Technical Score for each Team shall be clearly delineated in the RFP. The evaluation criteria should be concise and clear. The evaluation criteria may vary on a project specific basis based on the demands of that project.

**(4) TEAM SELECTION PROCESS**

The procurement process should be clearly defined in the RFP. The RFP shall include the maximum Quality Credit percentage assigned for that project. The maximum Quality Credit should not be revised after the release of the RFP to the Teams, unless to correct a typographical error. The RFP shall also include provisions for opening of the Price Proposals, the Best and Final Offer process, correlation between total Technical Score and Quality Credit percentage, and the process for determining the Quality

Value and Adjusted Price for each Team. The RFP shall include an example demonstrating the calculations of Adjusted Price, if applicable.

**(5) TECHNICAL PROPOSAL SUBMITTAL REQUIREMENTS**

This Section does not apply to Express Design-Build or Nested Design-Build projects.

The RFP should include well-defined Technical Proposal Requirements, including detailed instructions regarding the content, format and limitations. The RFP shall also provide instructions as to the Technical Proposal and submittal deadline and submittal location.

**(6) PRICE PROPOSAL SUBMITTAL REQUIREMENTS**

The RFP should include well-defined Price Proposal requirements. The RFP may also require that each Team submit a projected payout curve, or submit bid documentation prior to the execution of the Contract. The RFP shall also provide instructions as to the Price Proposal submittal deadline and submittal location.

**(7) DBE OR MB/WB GOALS AND REPORTING REQUIREMENTS**

Utilization of Disadvantaged Business Enterprises, Women Businesses, and Minority Businesses are encouraged in two ways in Design-Build projects. Traditional contract goals are typically established for Design-Build projects in accordance with standard Department goal-setting procedures. In addition, the consensus Technical Score may be affected by a Team's use or non-use of DBE/MB/WB firms as part of their non-construction related services.

The RFP shall state the Department's goals for DBE/MB/WB utilization for each project.

**(8) DESIGN AND OTHER PRECONSTRUCTION SERVICES REQUIRED**

The RFP must clearly define all preconstruction services that will be the responsibility of the Team. Preconstruction services may include, but may not be limited to, design across a variety of disciplines, right-of-way acquisition services, utility relocation coordination services, geotechnical investigations, surveys, permitting, and on-site mitigation.

Regardless of the extent of the preconstruction services required of the Team, the design requirements, specifications, and expectations should be clearly defined in the RFP. The major design disciplines and preconstruction activities shall be presented in individual scopes of work within the RFP.

Preconstruction activities to be performed by the Department to supplement the Team's responsibilities should also be clearly specified by discipline.

The Department will generally prepare the Environmental Documents and clearly define any special environmental considerations to be addressed by the Team. The Department will closely cooperate with the Team in this area. The RFP should reiterate directly or by reference to other documents, all commitments made during the NEPA process.

The Department will decide who will be responsible for right-of-way acquisition and clearly document this decision in the RFP. The procurement of right-of-way may be shared by the Department and the Team. In this case, the RFP shall clearly differentiate which parcels are the responsibility of the Team and which parcels are the responsibility of the Department.

The Department will typically provide any known information regarding utilities in the vicinity of the project. The RFP shall define the roles and responsibilities of the Team in regards to coordinating the relocation of utilities.

The RFP shall indicate geotechnical information or reports required by the Department. The Department may perform some preliminary geotechnical work before or during the preparation of the RFP. The Department may conduct the geotechnical investigations in order to save the short-listed Teams time and expense. The Department will provide copies of any known existing geotechnical information to all short-listed Teams.

The scope shall specify any survey information required by the Department and notify the Teams of existing survey information that is available.

Information provided by the Department to short-listed teams will generally be distributed by letter and designated as 'for informational purpose only'. The verification of accuracy and the determination to use any of the information distributed as such will be the sole responsibility of the Design-Build Team. In contrast, other distributed information that is contractually binding to the Department will be clearly denoted in the RFP.

#### **(9) DESIGN REFERENCES**

The RFP should reference pertinent design manuals, procedure manuals, national codes, etc. that must be used in the development of the project design.

#### **(10) SUBMITTAL REQUIREMENTS**

The RFP shall clearly define or reference any documentation, including, but not limited to, design plans, shop drawings, and engineering calculations that are to be submitted to the Department. These submittals are for verification of compliance with the Contract and documents referenced therein. Phased construction plans shall require sealed drawings and special provisions prior to beginning construction on that phase.

The Transportation Program Management Unit will maintain guidelines for the submission of individual design plans, special provisions, and shop drawings.

The RFP should outline the Department's time allowance for review of all submittals.

The RFP should clearly define the final documents and their format required by the Department from the Team upon completion of the project. These typically may include: as-built plans, engineering reports, shop drawings, test results, documentation, daily reports, and item quantities.

#### **(11) PERMITS (AS APPLICABLE)**

If the project requires a permit, the Department will decide whether the Department or the Team will acquire any or all of the permits required for construction. In the event the Department has acquired permits for the project prior to the award of the Contract, these permits will be included in the RFP along with expectations regarding any permit modifications thereto.

## **(12) CONSTRUCTION SERVICES REQUIRED**

The RFP shall reference any applicable Department construction specifications including standard specifications, supplemental specifications or special provisions. The RFP should address any particular processes, traffic control requirements, construction phasing, or techniques that need to be specified in order to construct the project satisfactorily.

The RFP should include or reference pertinent Quality Assurance specifications as defined by a variety of documents including:

- Glossary of Highway Quality Assurance Terms, April 1996, Transportation Research circular #457 which covers specifications, materials and workmanship;
- Implementation Manual for Quality Assurance, February 1996 by the AASHTO Highway Subcommittee on Construction which primarily covers materials;
- Quality Assurance Procedures for Highway Construction, June 29, 1995, DOT/FHWA 23 CFR Part 637 that covers materials and workmanship; and
- NCDOT Construction Manual

Each Design-Build project will have three quality management roles, including (1) quality control by the Team; (2) acceptance or verification by the Department Division staff; and (3) independent assurance by the Department's central staff. The responsibilities for all three roles and minimum sampling, testing and inspection frequencies shall be defined in the RFP or referenced documents.

The RFP shall address any Quality Control responsibilities of the Team beyond those already contained in the referenced specifications, policies and procedures. The RFP should also note any standard Quality Control practices that do not apply to the project.

In all cases, the Department will continue with its independent assurance and field review program. In addition, the Resident Engineer has the right to review records and conduct tests at anytime in order to ensure quality products and services are being provided.

## **(13) CONSTRUCTION ENGINEERING AND INSPECTION SERVICES REQUIRED**

Typically, construction engineering and inspection services for Design-Build projects will be conducted by Department staff. However, the Department may also consider utilizing a third party private engineering firm or include these services in the Design-Build contract.

In the event that these services are made a part of the Contract, the RFP must clearly define the construction engineering services to be provided by the Team. Services may include off-site fabrication, sampling and testing, surveying and other services as necessary for the particular project. Requirements may include the type and frequency of reports, the level of detail and type of documentation for materials used in the construction of the project, and other such requirements necessary for the particular project.

## **(14) THIRD PARTY INVOLVEMENT OR RESTRICTIONS**

The RFP should effectively manage risk conveyed to the Team by outlining expectations related to third party constraints. As an example, the RFP should specify the amount of time that the Team shall anticipate in order to acquire environmental permits.

Provisions in the RFP shall also aim to mitigate unnecessary risk to the Team in the areas of geoenvironmental remediation, utility relocation, railroad coordination, and FEMA compliance.



**(15) INFORMATION OR SERVICES TO BE PROVIDED BY THE DEPARTMENT**

The RFP should include details of any items or services to be furnished by the Department such as data, reports, support functions (computer services, etc.), testing devices, or other items that would affect the Price Proposal or technical approach. Such information might also include survey data, geotechnical information, bridge hydraulic reports, existing plans, and traffic projections.

The Transportation Program Management Unit will maintain and publish a list of all materials made available to the short-listed Teams prior to award of the Contract.

**(16) PROFESSIONAL INSURANCE AND BONDING**

The RFP shall clearly define, either directly or by reference, all professional liability insurance requirements, as well as all bid, performance, and payment bond requirements. For all construction projects, the successful Team shall provide a performance and payment bond that complies with the requirements of Chapter 44A, Article 3 of the North Carolina General Statutes.

**(17) SUPPLEMENTAL SPECIAL PROVISIONS**

The RFP will include project special provisions and standard special provisions that govern certain aspects of the project. Discipline-specific special provisions that are dependent on the Team’s design and construction methods will be required to be submitted by the Team for Department review and acceptance prior to construction of the applicable item.

**(18) ITEMIZED PROPOSAL FORM AND SIGNATURE SHEETS**

The RFP will become the primary portion of the Contract. As such, the RFP will include gift ban and debarment certification forms, an itemized proposal sheet on which Price Proposal information is entered by the Teams, DBE/MB/WB listing forms, and contract execution sheets.

**VARIATIONS OF DESIGN-BUILD**

Design-Build may also be used in the form of an Express Design Build Contract, a Modified Design-Build Contract or a Nested Design-Build Contract.

Express Design-Build would be used on a limited basis and only on projects that meet both of the following requirements:

- Projects with limited opportunity for innovation
- Projects with a narrow scope of work (e.g. small bridge replacements or spot safety improvements)

A Modified Design-Build Contract utilizes the best-value procurement approach typical to Design-Build but is based on a design that is in part completed and sealed by the Department or a third-party agent. Typically, the RFP will state that the Department will be responsible for any errors and omissions in the sealed plans provide to the short-listed Teams by the Department. In a Modified Design-Build Contract, payment may be made on a project lump sum basis or may be based on a more traditional method of payment based on materials incorporated into the project.

A Nested Design-Build Contract allows a Contractor to complete a portion of the design of the project utilizing a subcontracted design firm. The award of the Nested Design-Build project is typically made on

a low bid basis but may also take into account schedule (A + B considerations). Technical Proposals are not required in Nested Design-Build Contracts and therefore no technical evaluation is considered in the determination of the low bidder.