

DESIGN-BUILD

Building South Carolina's Transportation Infrastructure

(Developing a Design Build Contract)

By

Machael M. Peterson

Assistant Program Manager

South Carolina Department of Transportation

April 2006

S. C. STATE LIBRARY

MAY 11 2006

STATE DOCUMENTS

DESIGN-BUILD
Building South Carolina's Transportation Infrastructure
(Developing a Design-Build Contract)

Table of Contents

I.	INTRODUCTION	1
II.	HISTORY	2
III.	DEVELOPING THE DESIGN BUILD PACKAGE.....	3
	A. The Players.....	4
	B. The Current Design Build Process.....	6
	C. Identifying the Problems.....	8
IV.	THE PROCESS IMPROVEMENT	10
	A. The Proposed Design Build Process.....	11
	B. Measuring Success.....	12
V.	CONCLUSION.....	13
VI.	BIBLIOGRAPHY.....	14
VII.	ACKNOWLEDGEMENTS.....	14
	APPENDIX A.....	1
	APPENDIX B.....	1
	APPENDIX C	1
	APPENDIX D.....	1
	APPENDIX E	1

DESIGN-BUILD
Building South Carolina's Transportation Infrastructure
(Developing a Design-Build Contract)

I. INTRODUCTION

The South Carolina Department of Transportation (SCDOT) is committed to providing transportation services for the citizens of South Carolina through building and maintaining roads and bridges, providing mass transit services, implementing highway safety initiatives, and educating citizens about safety on the roadways. SCDOT's goal is to perform these tasks with its number one priority being safety and with a strong emphasis on efficiency.

With the alarming number of highway fatalities in the state, SCDOT has implemented programs geared to reduce the state's fatality rate to within 10% of the national average. This initiative has involved an in-depth look at areas such as highway maintenance, construction, design, and drivability of SCDOT's existing highway system. In addition, citizens, and business and political leaders are counting on SCDOT to make wise and efficient use of the resources and funding used to construct and maintain the state's highway system.

SCDOT has made great strides toward accomplishing its mission particularly in the construction area utilizing innovative financial strategies, public private partnering, and design-build procurement to construct roads and bridges. These strategies have made it possible to construct roadway and bridge projects utilizing today's prices as opposed to future cost that could have been realized if traditional methods were used.

As with all new innovative ideas and approaches to project delivery, processes are implemented and revised in order to produce better results. With the onset of new state

legislation concerning the procurement of design-build construction contracts in South Carolina, further study of the process by which design-build projects are developed may be necessary.

II. HISTORY

Design-build procurement is a project delivery method under which a project owner, having defined its initial expectations to a certain extent, executes a single contract for both design and construction of the project, i.e., one entity assumes primary responsibility for design and construction of the project (See definition of terms listed in Appendix A). The South Carolina Department of Transportation's first design build project was the Enoree and Reedy River Bridges Project completed around 1997. The reconstruction of these bridges was critical as they had been washed out during one of the major tropical storms that impacted the state. SCDOT's drive to use design build as a procurement method was fueled by a need to move projects from inception to completed project as expeditiously as possible. The design build procurement vehicle also opened the door to innovations in project delivery. For major projects where traditional funding did not exist, design build procurement opened avenues by which innovative financing options could be utilized. Over time, SCDOT has limited its use of design build procurement to projects with special needs such as critical schedules or very large projects where funds were available to begin immediately.

Prior to 2005, there was no state law that addressed the use of design build procurement; however, SCDOT was able to utilize the design build procurement process under state law that allowed for innovative project delivery. On June 14, 2005 Section 13, Chapter 5, Title 57 of the 1976 Code was amended by adding Section 57-5-1625

which states, “(A) the department may award highway construction contracts using a design build procedure. A design build contract means an agreement that provides for the design, right-of-way acquisition, and construction of a project by a single entity. The design build contract may also provide for the maintenance, operation, or financing of the project. The agreement may be in the form of a design build contract, a franchise agreement, or any other form of contract approved by the department. (B) Selection criteria shall include the cost of the project and may include contractor qualifications, time of completion, innovation, design and construction quality, design innovation, or other technical or quality related criteria.”

III. DEVELOPING THE DESIGN BUILD PACKAGE

SCDOT has completed some significant design build projects including bridge replacements, interchange construction, highway widening and new location highways. Project costs have ranged from \$3 million to \$600+ million. Engineers and staff whose experience was primarily with the design-bid-build process developed most of the projects. There is little difference in the planning and environmental requirements of the two processes as it is preferred to begin the design build process after securing the necessary environmental document approval. The development of roadway projects requires the involvement of many departments within the Preconstruction Division. Each department is responsible for its small part to create a finished project for delivery to the Construction Division for construction. The mission of each department is efficient and timely delivery of their component thus carrying out the SCDOT’s overall mission. Therefore, in order to identify a process improvement that would enhance the delivery of projects to the construction phase, I am focusing on the design build process.

A. The Players

The Preconstruction Division (Preconstruction) of the South Carolina Department of Transportation is responsible for the planning and development of roadway and bridge projects from inception to completed construction plans. The Preconstruction Division is centralized at the headquarters' building in Columbia, South Carolina and is responsible for developing projects for each of the seven construction districts within the state. This division is headed by a Director of Preconstruction and is divided into eight sections with varying functions. An Organizational Chart illustrating the structure of the Preconstruction Division is included as Appendix B. The sections and some of the areas of responsibility are:

1. Preconstruction Management – manage and tract the use of Federal Funds through coordinating with other sections to ensure that the department's obligations are met.
2. Program Development East – comprised of Program Managers (PM) who administer the Federal-Aid Construction Program by managing the development of roadway and bridge projects from conception to construction insuring adherence to state and federal design specifications within the allotted budget for the eastern region of the state. The PM works with representatives of engineering and non-engineering sections within SCDOT, consulting firms, lead project production meetings, prepare and negotiate contracts and most importantly, work with local government agencies, civic groups, and citizens to insure that their transportation needs are met.

3. Program Development West – provides the same services as Program Development East for the western region of the state.
4. Surveys and Utilities – provide all necessary route surveys for the planning, development, and completion of construction plans. The utility section identifies utilities and railroads affected by the project and provides coordination for those utilities and railroads for relocation during roadway construction.
5. Road Design – designs roadways (primary, secondary, freeway, and interstate) that are on the state highway system for each of the seven construction districts.
6. Bridge Design – designs and prepares construction plans for bridges that are on the state highway system for the entire state.
7. Hydrology - performs various studies to design and analyze structures for new and existing roads and bridges including storm sewers, culverts, setting bridge lengths and elevations, floodway analyses, NPDES, two-dimensional applications, and other studies as required.
8. Right of Way – acquires all necessary land, easements, and permissions within the limits of a project for construction. This section is also responsible for relocating citizens displaced by land acquisition and identifying demolition items and removal and disposal items are included as a part of construction contracts.

The PM takes the lead for the development of construction projects and uses the Project Development Process a guide (See Program Development Guide attached as

Appendix C). Typically, the Design-Bid-Build procurement procedure is followed to acquire a construction contract. The project is developed including planning, environmental studies and approval of required environmental documents and permits, right of way acquisition, completion of construction plans, advertisement requesting bids for construction, receipt and opening of bids, and award to the low bidder. This procurement style involves design and construction by two separate entities.

The determination to develop a project using the design build approach is made by the executive staff. The process is very similar to design-bid-build through the environmental phase. In most cases, the project is developed through completion of right of way plans and SCDOT or its representative acquires right of way. It is at this time that efforts to procure a design-build contractor begin.

B. The Current Design Build Process

The current design build process is primarily based on a lessons learned procedure. A survey was distributed to individuals who participated on design-build teams (Sample survey is attached as Appendix D). Per survey responses, most of the participants had only been involved with one design build project and two individuals had been involved with seven or more projects. These individuals were sought after for their expertise in the development process; however, the main source of guidance used to assist in the development of the Request for Qualifications/Request For Proposal (RFP/RFQ) documents was the use of documents from previous contracts. These documents were revised to accommodate the project being developed as well as federal guidelines.

As stated earlier, the PM spearheads the process. The state is divided into ten Metropolitan Planning Organizations (MPO) and ten Councils of Governments (COG).

Each PM's area of responsibility includes at least one MPO and COG lending itself to a type of territorialized management. To date, SCDOT has completed fewer than ten design build projects. Those projects were located in various MPO/COG areas, thus requiring a different PM for most projects. Consequently, the PM's had no prior experience in the development of design build projects and no process guide. For the first projects, development was based on federal guidelines, assistance from the Federal Highway Administration (FHWA), and research of other states procedures. PM's developing more recent projects rely on lessons learned from past design build projects, guidance from FHWA, and prepare RFP by revising documents used in past projects. Examples of design build documents are attached as Appendix E. The current design-build process is as follows:

1. Determine if the project is a candidate for design-build. This determination is made by the executive staff and is typically based on answers to the following question:
 - i. Is the completion of project time sensitive? Are there safety or other significant concerns that drive the completion of the project?
 - ii. Is there substantial cost savings by completing the project in an accelerated time frame?
 - iii. Is there funding available during the planning and environmental phase that allows SCDOT to take advantage of current prices resulting in cost savings to the project?
2. Select team members to prepare (RFQ) and (RFP). Teams can be comprised of representatives from each of the preconstruction sections

including a representative from the Legal Division, the Construction Office, and the District Construction office. The makeup of the team depends upon the specific features of the project.

3. Determine the process to be used, i.e. one-step or two-step process.
4. Determine how qualifications and proposals will be evaluated.
5. Prepare RFQ
6. Advertise RFQ
7. Evaluate Proposer Qualifications for short list.
8. Prepare RFP (This function can begin as soon as RFQ is complete and approved.)
9. Schedule Pre-proposal meeting
10. Review proposals and select design-build team

C. Identifying the Problems

The preparation of a design build package requires a great deal of manpower. In most cases, the PM and several of the team members had little or no experience in the design build development process, particularly determining the components of the contract documents, assessing risk, and having a thorough understanding of the bridge between the development of a project and construction. This is particularly important when preparing project scope and criteria. The documents need to be written such that the contractor's interpretation of the RFP is considered. This awareness can significantly reduce the risk of the contractor delivering a product that is less than desired.

Although PM's gain experience in developing design build projects, a tremendous amount of time is required to develop the RFP. Team members reported working 10

hours per week to as many as 30 to 40 hours per week on project. This commitment of time extended for a duration of 4 months on some project to as many as 18 months with the average duration being seven months. During that time, the PM has to manage his/her other projects as well. Does the time required affect the progression of other projects?

As with all processes, lessons learned play a key role in process improvement. Most PM's have managed only one design build project. The chances of benefiting from lessons learned are greatly reduced because the PM does not have a prescribed way of documenting or sharing that information. The information is sometimes shared by inquiry of the next PM or verbally from the FHWA representative who is typically involved with all design build projects.

Completed project documents that are used as a beginning point for the documents to be developed are not kept in a centralized location for sharing. Once the team determines the type of contract to be written, the PM ~~most~~ inquire of others until that type is located. The FHWA representative is familiar with the majority of design build projects and usually provides this information. No SCDOT project manager or team leader has as much familiarity with the projects prepared by SCDOT.

The questions raised by some of the apparent problems with the current design build process are:

1. Should the PM lead the design build team or should there be a Design Build Development manager who develops the project with close coordination with the PM. Without the existence of a checklist, chances are increased that something could be omitted. This could create backtracking.

2. Should an electronic database be created to document lessons learned for each design build project? The amount of time spent on discussions and investigations can be lengthy and has significant impacts on development time.
3. Should there be a web site that houses electronic “boiler plate” documents of various types for the design build team to access? The search for current documents takes time and impedes the process.
4. Should a specialized office be created to develop design build packages? SCDOT is limited in its expertise in the design build process. This affects progression and innovation as well as time and possible cost savings to the development of the project.

IV. THE PROCESS IMPROVEMENT

After completing a design build project, several problems were identified. What new processes or tools could be implemented to have an affect on the existing process? Consideration of the four questions above led to several ideas that could have a significant effect on the design build team’s productivity.

The ultimate process improvement would be the creation of a design build unit including a Design/Build Project Coordinator and support personnel with experience in project development, construction and law. Due to funding staffing constraints, the process improvement plan may need to be more conservative, yet producing some desired results. Should design build become a standard in project delivery, a design build unit may be more feasible.

A. The Proposed Design Build Process

In order for SCDOT to maximize on design build experience and lessons learned, a Design Build Project Coordinator should be appointed. The Coordinator will be responsible for the development of all design build packages, leading team meetings, keeping abreast of latest developments in the design build community and legislature, and coordinating with the PM for pertinent project information for the development of project scope and criteria. The PM will take an active roll in assisting with the development of documents and completing duties as assigned by the Design Build Coordinator. A design build committee comprised of executive staff, engineering personnel and FHWA can determine more specifically the roles and responsibility of the coordinator should it be determined that SCDOT desires to move forward with the process improvement.

A web page should be developed on the SCDOT Intranet to include a lessons learned database. The web page should also include electronic examples of "boiler plate" documents. Once the method of contract selection is determined, i.e. one step, two step, adjusted low bid, best value/fixed price, etc., the team could select those forms and enter the specific project information. In addition, a table of contents listing the exhibits and attachments should be standardized to assist the team in assuring the necessary information is provided. Lastly, a checklist of the necessary task/items that need to be done in order for the RFQ and RFP documents to be released should be included. Inclusion of links to various design build resources such as the Design Build Institute of America, the Transportation Research Board, and other State Transportation Agencies.

Completion of the Bridge Design Manual and new Standard Specifications will make development of the exhibits much easier. The team could concentrate it efforts on

the Special Provision which detail the specific and desired characteristics of the project. Currently, bridge criteria have to be written for each project including bridge design specifications. The new manual should eliminate the need to rewrite specifications allowing the team to concentrate its efforts on desired bridge characteristics.

The proposed process would be similar to the existing process but the implementation of these tools would remove much of the guesswork, thus rendering the team more productive.

B. Measuring Success

Success of the process improvement can be measured as a function of time, proposer questions, number of contract addendums, construction change orders. With the development of the web site, electronic document, checklist and more experienced leadership, the development time should be reduced. The coordinator's time will be spent exclusively on the development of the project. The overall project development time including intermediate milestones should be documented. Specific items can be defined should SCDOT move forward with the process improvement.

With increased experience, the coordinator will be able to analyze questions raised by proposers and lessons learned from each project to determine ways to revise RFP documents and reduce risk for SCDOT. A more thorough application of these lessons could also result in a decreased number of contract addendums and construction change orders which could lead significant cost savings. The coordinator should track proposer questions by topic and track the number of addendums to contract documents as well as change orders. These reports will indicate success of development as well as areas for further improvement.

V. CONCLUSION

In conclusion, there is definitely a need to be more efficient in the development of design build procurement contracts. The key to accomplishing this is establishing clear guidance and accessible tools. An experienced Design Build Project Coordinator along with tools such as checklists and an RFP index will remove the guesswork from the development process thus possibly reducing development time and fostering increased confidence for the PM who is developing his/her first RFP. The web site will also provide the necessary documents to begin preparation of the RFP as well as resources and lessons learned from other states and research entities. Although development of the web site and creation of the sample documents may require a great deal of effort, I am confident that this move toward creating a guide and appointing an SCDOT coordinator versed in the area of design build will greatly enhance the development process. This will benefit the citizens of South Carolina as quality projects are completed saving time and money.

VI. BIBLIOGRAPHY

Design Build Institute of America “Design Build Definitions” Retrieved 6 January 2006
<http://www.dbia.org/pubs/pd def.htm>

designbuild.transportation.org “AASHTO – Joint Technical Committee on Design-Build
– Current Design-Build Practices” Retrieved March 2003 and 3 March 2006
<http://cms.transprotation.org/?siteid=63&pageid+1226>

Department of Transportation Federal Highway Administration. Federal Register 23
CFR Parts 627, et al. Design-Build Contracting; Final Rule. Washington, DC: FHWA,
2002

South Carolina General Assembly “H 3296 General Bill” Retrieved 3 August 2005
<http://www.scstatehouse.net>

Design Build Effectiveness Study “Executive Summary” Retrieved 11 April 2006
<http://www.fhwa.dot.gov/reports/designbuild/designbuild.htm>

FHWA “2002 Survey by SAIC for Illinois DOT on the Current Use of Design-Build”
Retrieved 3 August 2005
<http://www.fhwa.dot.gov/programadmin/contracts/survwy02.htm>

Molenaar, Keith PhD, “DBIA Recommended AASHTO Design-Build Procurement
Guide Final Report Project No. 20-7/Task 172” August 2005

VII. ACKNOWLEDGEMENTS

Survey participants

Representative of the South Carolina Division of the Federal Highway Administration

Representatives of the Virginia Department of Transportation

APPENDIX A

Design Build Definitions

Adjusted Low Bid: A form of best value selection in which qualitative aspects are scored on a 0 to 100 scale expressed as a decimal; bid price is then divided by qualitative score to yield an "adjusted bid" or "cost per quality point". Award is made to offeror with the lowest "adjusted bid".

Best Value: Also known as "Greatest Value", a selection process in which proposals contain both price and qualitative components, and award is based upon a combination of price and qualitative considerations. "Qualitative" can be further subdivided as to "technical design" and/or "Management plan".

Deliverables: The sum of the drawings, specifications commentary, models, etc., prepared by the offeror in response to a Request for Proposal. Deliverables are sometimes referred to as "submittal requirements" in some RFPs.

Design-Bid-Build: The project delivery approach where the Owner commissions an architect or engineer to prepare drawings and specifications under a design services contract, and separately contracts for at-risk construction, by engaging a contractor through competitive bidding or negotiation.

Design-Build: Also known as "design-construct" or "single responsibility", Design-Build is a system of contracting under which one entity performs both architecture/engineering and construction under one single contract.

Design-Builder: The entity contractually responsible for delivering the project design and construction. The Design-Builder can assume several organizational structures. Most common would be a firm possessing both design and construction resources in-house, a joint venture between designer and contractor, a contractor led team with the designer in a subcontract role, or a designer-led team with the constructor in a subcontractor role.

Design Criteria Professional: An individual (typically a registered professional Architect or Engineer) who develops the facility program, design criteria, outline performance specification and other project specific material to provide to potential design-build offerors. The design criteria professional may be in-house or may be an outside consultant (see Owner's Consultant).

Design Proposal: That portion of a Design-Build proposal which contains design factors, usually including function, layout, materials, aesthetics and specifications. The Design Proposal falls under the general category of qualitative evaluation factors.

Direct Selection: Also known as "Qualifications-Based Selection", a form of selection based upon qualifications of the offeror for the project; followed by negotiation to determine contract cost.

Equivalent Design/Low Bid: A form of best value selection in which qualitative proposals are followed by a critique rather than scoring. Price envelopes remain sealed. Each offeror receives the critique of its proposal and responds with design changes and corresponding price amendment. Revised designs are evaluated for compliance and price envelopes, both base and amendment, are opened. Award is made on basis of lowest price because the proposal critique creates relative equivalency of designs.

Fast Track Construction: A scheduling process in which design and construction activities overlap. Design documents and equipment and trade subcontracts are released incrementally or in phases.

Fixed Price/Best Design: A form of best value selection in which contract price is established by the Owner and stated in the RFP. Design proposals and management plan are evaluated and scored, with award going to the firm offering the best qualitative proposal for the established price.

Management Proposal: That portion of a Design-Build proposal which contains the management plan including project approach, personnel, organization, schedule, affirmative action plan, etc. The Management Proposal falls under the general category of qualitative evaluation factors.

Owner: The entity for which the project is being built and with whom the Design-Builder will be in privity of contract.

Owner's Consultant: A consultant or consulting firm that may be employed by an Owner (e.g. an Owner who may not have sufficient in-house expertise to acquire design-builder services) to assist in organizing and administering the design-build selection process, and for other consulting services such as review of submissions for compliance with the RFP. Is often the "design criteria professional" who develops the facility program, performance specifications and other RFP components.

Performance Specification: A specification expressed in terms of an expected outcome or acceptable performance standard. Often used in Design-Build criteria to articulate the Owner requirements.

Prequalification: Similar to "shortlisting", the process in which an Owner requests preliminary technical proposals and/or qualification submissions, from which it selects a certain number as the most qualified; these offerors then compete for the final selection.

Prescriptive Specification: The traditional method of specifying materials or techniques found in design-bid-build projects. The range of acceptable products, manufacturers, and techniques, etc., is stipulated in detail to be followed by the builder.

Qualifications Statement: A written submission by interested Design-Build offerors, more generic and limited than a proposal, used by an Owner for prequalification or shortlisting, i.e., selecting the firms that are most qualified.

Qualitative: The subjective and non-cost factors that characterize and qualify an offeror. Such factors would include both factors that characterize the Design-Build entity and the proposal they submit. Examples include the experience and management plan of the Design-Builder and the aesthetic, functional and other aspects of a design that are not directly convertible to cost.

Request for Proposals (RFP): The document that totally describes the procurement process, forms the basis for proposals, and ultimately becomes as potential element in the contract.

Request for Qualifications (RFQ): The document issued by the Owner prior to an RFP that typically: describes the project in enough detail to let potential proposers determine if they wish to compete; and forms the basis for requesting Qualifications Submissions in a "two phase" or prequalification process.

Shortlisting: Narrowing the field through the use of a Request for Qualification (RFQ) process. The number of shortlisted design-build proposers invited to submit final proposals is frequently between three to five firms.

Stipend (or Honorarium): A stated amount sometimes paid to offerors in consideration for the cost of preparing a Design-Build proposal. The stipend or honorarium would be paid to unsuccessful offerors.

Turnkey: A variation of design-build project delivery in which one entity is responsible to the Owner for architecture/engineering and construction plus designated real estate services which may include project financing and site selection/purchase.

Two-Phase Selection Process: A procurement process in which the first phase consists of prequalification or shortlisting, and the second phase consists of preparation and submission of complete Design-Build proposals from the prequalified or shortlisted offerors. Also known as Two State procurement.

Two-Step Proposal/Bid Evaluation: Also referred to as "two envelope", any selection process in which qualitative proposals are submitted separately from price proposals with price proposal remaining sealed until qualitative proposals are evaluated.

Weighted Criteria Process: A form of best value selection in which maximum point values are pre-established for qualitative criteria and price components, and award is based upon high total points earned by the proposers from both components.

Definitions compiled from resources provided by the Design Build Institute of America.

APPENDIX B

DIRECTOR OF PRECONSTRUCTION

ADMINISTRATIVE COORDINATOR

DIRECTOR OF PROGRAM MANAGEMENT

ASSISTANT TO DIR OF PROGRAM MANAGEMENT

FINANCIAL ASSISTANTS

PRECONSTRUCTION MANAGEMENT

FINANCIAL AID

PROGRAM DEVELOPMENT EAST

PROGRAM DEVELOPMENT WEST

RIGHT-OF-WAY

HYDROLOGY

ROAD DESIGN

BRIDGE DESIGN

SURVEYS & UTILITIES

"C" PROJECT DEVELOPMENT

VALUE ENGINEERING

RIGHT-OF-WAY AGENTS & APPRAISERS

PRELIMINARY DESIGN

PROGRAM MANAGERS

PROGRAM MANAGERS



South Carolina Department of Transportation

PRECONSTRUCTION DIVISION
ORGANIZATIONAL CHART

2003

APPENDIX C

Project Development Process Guide

PROJECT DEVELOPMENT PROCESS

Table of Content

July 6, 2005

<u>Percent Complete</u>	<u>Activity</u>	<u>Page</u>
1	Multidisciplinary Team Initial Project Review	2
2	Initial Cost Estimates	3
3	Program Action Request (PAR) Completed	3
5	Project Authorization Received – Preliminary Engineering Funding Approved	3
10	Surveys/Digital Mapping/Geotechnical Data Requested	3
15	Preliminary Design Plans Developed	4
18	Utility and Railroad Coordination	5
20	Design Review Meeting Conducted, Project Design Finalized	5
25	Preliminary Design Revised, As Necessary	5
30	Project Planning Report Submitted – Environmental Studies & Document Initiated	6
35	Environmental Document Submitted for Approval	6
40	Environmental Document Approval Received	6
45	Design Public Hearing Completed	7
48	Environmental Permit(s) Submitted	8
50	Preliminary Right of Way Plans Completed	8
55	Design Field Review	8
56	Geotechnical Investigations & Reports	9
57	Structures Designed-	9
60	FONSI Submitted for Approval	9
65	FONSI Approval Received	9
70	Right of Way Plans Completed & Signed	10
75	Right of Way Funding Obligated & Acquisition Process Initiated	10
77	Project Assessment	11
80	Construction Plans Completed & Signed	11
82	Finalize Utility Coordination/Relocation	12
85	Contract Proposal Preparation	12
90	PS&E Submittal and Environmental Permit(s) Approved	12
95	Construction Bids Received	12
100	Award Project – Monitor Project Expenditures & Report Periodically to MPO, COG	13

Project Development Process

Showing Sub-Tasks & Responsible Party Including major milestones with an associated approximate percent complete of the project development process

Note: The Program Manager is the project leader and will lead the Project Development Team (PDT) throughout this process in order to move the project to completion. Changes should be conveyed to the Project Development Team as soon as possible. Bridge projects should involve Bridge Design on the Project Development Team. The Bridge Construction Office should be used as a resource by the Project Development Team on bridge projects as necessary. To be in compliance with Engineering Directive Memorandum (EDM) PC-33, the project scoping and cost estimating tasks shown below should typically occur prior to including a project in the STIP. Candidate projects (or groups of projects) would normally be identified through coordination with the Planning Office and the MPO or COG. The attached chart "Dates for Assembling Information on Construction Obligations" should be followed where applicable.

1 Multidisciplinary Team Initial Project Review

- Coordinate establishment of Multidisciplinary Team – Program Manager
[Road Design, Bridge Design, Surveys, Hydraulic Engineering, Environmental, Utilities, Right of Way, Traffic Engineering, Cost Estimating, Geotechnical Design, and Value Engineering Section and District Engineering Offices, FHWA and MPO/COG representative]

Office	Items to Gather for Initial Scope Meeting
Program Manager	Estimated project schedule.
Preliminary Design	Gather available plans, aerials, etc.
Traffic Engineering	Gather available traffic and accident information currently on file.
Road Design/Bridge Design	Provide all information currently being held in design groups' files.
Utilities Office	Determine if corridor has major utility distribution/collector lines (Exact location not required at this time).
Geotechnical Design	Gather existing soil information, etc.

[For all Federal aid projects, the FHWA environmental representative needs to be part of the review. At this early stage of development, the FHWA Operations Engineer needs to also be part of the review of all federal aid projects in order to assist in developing the Statewide Transportation Improvement Program (STIP)]

- Gather available Environmental Information –Environmental Office
- Gather available Planning Information – Planning Office

- Schedule and conduct office/field review, allowing a minimum of two weeks advance notice and insuring local participation by MPO/COG representative. Define Termini, Purpose of Project, and Conceptual Design - Program Manager
- Conceptual Design reviewed by Bicycle/Pedestrian Coordinator – Program Manager
- Prepare/distribute “minutes” from initial project review – Program Manager
[Note: Charge time spent on project during this phase to statewide PE charge code]
- Beautification Office included in initial project review if project is identified in SCDOT’s Beautification Plan or if landscaping is an early requirement of the project or likely to be an element of the project – Program Manager

2 Initial Cost Estimates

- Initiate cost-estimating process. Coordinate the gathering of cost estimates from all affected sections, such as Bridge Design, Right of Way, Utilities, Traffic Engineer, etc.– VE/Cost Estimating
- Compile and distribute cost estimate for review & comments – VE/Cost Estimating
- Distribute cost estimate to the appropriate funding authority – Program Manager
- Forward information to FHWA on all projects – Program Manager
- With Program Manager, coordinate with MPO/COG, etc., and include project in STIP, as appropriate – Planning Office

3 Program Action Request (PAR) Completed

- Prepare and submit PAR, with necessary project characteristics [including establishing bridge pins, as appropriate] – Program Manager
- Determine use of outside resources – Set-up funding for Consultant and In-House Services as needed – Program Manager

5 Project Authorization Received – Preliminary Engineering Funding Approved

- Immediately notify Program Manager once charge code is established – Preconst. Management
- Coordinate the establishment of the Project Development Team. Notify team members of project information - Program Manager
[Note: Offer the opportunity to all offices noted in the 1% phase to be included on team, as appropriate including the FHWA and the Office of Beautification as needed]

10 Surveys/Digital Mapping/Geotechnical Data Requested

- Coordinate and conduct a comprehensive Project Development Team field review, including a thorough review of the project survey, subsurface utility engineering, and preliminary geotechnical requirements with a representative of the survey crew and utility office – Program Manager
- Identify areas that may need geotechnical data to facilitate design – Geotechnical Design
- Prepare project-specific portion of eminent domain ad and submit along with PIN & charge code to Environmental Office – Program Manager

- Complete preparation of eminent domain ad and submit for advertisement – Environmental Office
- Prepare and submit request for accident summary and reports – Program Manager
- Send press release/notification to Communications and Creative Services and to District Offices of possible road closures due to bridge construction – Bridge Program Manager
- Prepare the survey and SUE request, allowing a brief review period for the Project Production Team and then submit the survey and SUE request to the Surveys/Utilities Engineer – Preliminary Design
- Once survey data check is complete, submit survey information to Road Design and notify the Program Manager & Preliminary Design (via E-mail) – Surveys Office
- Request preliminary soil borings from Office of Materials and Research in areas needing geotechnical study including areas identified by the Beautification Office where landscaping is planned - Geotechnical Design
- Submit preliminary geotechnical letter to Project/Program Management – Geotechnical Design
- Coordinate with local governmental entities, as needed, to determine desired scope of landscaping and maintenance responsibilities – Office of Beautification
- Select and contract with SUE Consultant, when requested by Project Development Team and provide SUE data, upon completion, to Road Design – Survey/Utilities Offices
[Note: If follow-up survey requests become necessary, for instance, to extend a side road or ditch survey, the request will be prepared and submitted by Road Design]
- Prepare and submit requests for traffic data and analysis to the Director of Traffic Engineering, including pavement loading - Road Design
[Note: Receipt of Project Authorization Form 10 will trigger Road Design to initiate the above task]
- Prepare and submit requests for pavement design to Pavement Design Engineer – Road Design
- Perform intersection analysis on major intersections on request of Program Manager – Traffic Engineer

15 Preliminary Design Plans Developed

- Plot existing topography and determine plan sheet layout – Road Design
- Coordinate the development of a detailed project schedule – Program Manager
- Prepare preliminary design – Preliminary Design
- Distribute to Bicycle/Pedestrian Coordinator for review and recommendation of Bicycle and Pedestrian access and design criteria – Preliminary Design
- Distribute to Traffic Engineering for review and recommendation of Traffic Design Review Section – Preliminary Design
- Distribute to Beautification Office for review and recommendation of possible areas needed for beautification or landscaping – Preliminary Design
- For projects requiring alternative preliminary designs, prepare comparative cost estimates – VE/Cost Estimating
- Distribute the preliminary design for review/comments including a constructability review to all members of the Project Development Team including Geotechnical Design; any potential design exceptions will be noted – Preliminary Design
- Distribute the preliminary design to the Director of Construction Office for preliminary

construction review – Preliminary Design

- Send a copy of the preliminary design to MPO/COG and any other local non-SCDOT team members for review and comments, as appropriate – Program Manager
- Request MPO/COG to have the Municipal Agreement signed, as applicable – Right of Way Section
- For projects programmed for federal National Highway funds with an estimated total cost in excess of \$25 million, initiate and coordinate value engineering review (Ref: EDM PC-4) – VE/Cost Estimating

18 Utility and Railroad Coordination

- For Railroad involvement, contact Utilities Office to review project and determine what needs to be provided in Preliminary Design Plans submittal to the Railroad company – Preliminary Design Engineer
- Conduct Utilities Coordination Meeting, when applicable – Utilities Office

20 Design Review Meeting Conducted, Project Design Finalized

- Analyze written comments received from preliminary design review process – Preliminary Design
- Schedule/conduct office and, if necessary, field review with the Project Production Team to review comments and team members sign-off on revision/addition to preliminary design then resolve all design issues before finalizing the preliminary design – Preliminary Design
[Note: Provide one week minimum advance notice]
- On construction slopes, determine whether to require Fee Simple right of way or Slope Permission- Program Manager
[Note: Obtain input from the right of way staff. See memorandum dated September 12, 2001, from the Director of Preconstruction]
- Identify possible structures to be built or modified including culverts, nonstandard drainage items, sound walls, and retaining walls – Program Manager
- With the assistance of Program Manager and Geotechnical Engineer, create a cost estimate for possible retaining walls – Structural Engineer, Road/Bridge Design
- Evaluate alternatives to retaining walls, e.g. purchasing additional right of way, changing alignment, etc., to determine most appropriate design – Program Manager
- Establish proposed boring locations & request Right of Way to obtain drilling access permission – Geotechnical Design
- Add proposed boring locations to plans – Road Design

25 Preliminary Design Revised, As Necessary

- Update cost estimates to relate to revised preliminary design (Optional, if needed) – VE/Cost Estimating
- Complete and distribute copies of the final preliminary design to all members of the Project Development Team – Preliminary Design
- Coordinate review of cost estimate and resolve the differences, if necessary – Program Manager

- Place preliminary design onto existing topography and develop preliminary plans –Road Design
- With the help of section 17.2 of the SCDOT Highway Design Manual and the Structural Engineer, create list of facing options for visible structures to be presented at the Public Hearing – Program Manager

30 Project Planning Report Submitted – Environmental Studies & Document Initiated

- Prepare and submit project planning report to the Environmental Office with a copy circulated through the appropriate offices – Program Manager
[Note: PPR's shall be shared with the Bridge Design Engineer for projects involving a bridge]
- Submit a copy of the project planning report to the State Energy Office and FHWA, as appropriate – Environmental Office
- On all consultant projects involving multilaning or new location construction where the consultant is responsible for preparing the environmental document, complete Section V of the project planning report concerning transportation efficiency and forward it to the Environmental Office for transmittal to the State Energy Office – Program Manager
- Review project schedule with Project Development Team and determine appropriate estimated completion date for approved environmental document and public hearing displays – Program Manager
- Prepare environmental document – Environmental Office
- Coordinate with the Construction Office and establish the Constructibility Review Team and date of their review – Program Manager
Ref: (EDM C-22, PC-11)
- Perform constructibility review – Constructibility Review Team
Ref: (EDM C-22, PC-11)
- Coordinate design exceptions and interchange modification request – Program Manager
- Provide conceptual landscaping information as related to right of way acquisition, as necessary – Office of Beautification
- Prepare the Interchange Modification Report and all other traffic studies that may be necessary – Traffic Design Engineer

35 Environmental Document Submitted for Approval

- Distribute environmental document to the Program Manager and FHWA for review and comment – Environmental Office
[Note: Program Manager may request input from Project Development Team concerning the environmental document]
- Revise Environmental document, as necessary, and submit document for FHWA's approval
[Also, notify Program Manager via e-mail that document has been submitted] – Environmental Office

40 Environmental Document Approval Received

- Distribute copy of the approved document to the Program Manager - Environmental Office
- Coordinate with Program Manager and prepare the public hearing booklet – Environmental

Office

- Determine if visualization techniques are needed. Coordinate with Right of Way, Environmental, and Program Development – Road Design
- Review information with Environmental Office to be placed on public hearing display and contact Road Design to prepare display – Program Manager
- Complete the preparation of the public hearing displays – Road Design
- Arrange appropriate location/date for public hearing – Program Manager
[Note: Program Manager to coordinate with Environmental Office and Communications & Creative Services to insure that all appropriate SCDOT, FHWA, MPO/COG and other personnel are notified of the hearing]
- Request public hearing sign panels and coordinate the installation of the public hearing signs with District staff – Program Manager
- Prepare project-specific portion of public hearing advertisement and submit to Environmental Office – Program Manager
- Complete the preparation of the public hearing advertisement and submit appropriately – Environmental Office
- Review public hearing displays with appropriate staff and FHWA, a minimum of three weeks prior to the public hearing – Program Manager
- Review Public Hearing display with the City or Town Leaders, if located within the municipal limits, request execution of Municipal State Highway Project Agreement. Submit executed Agreement to the Right of Way Office – Program Manager
- Send copies of public hearing plans, environmental document, etc., at least two weeks prior to the public hearing, to the District Office and to the local contact person as identified on the public hearing signs – Program Manager

45 **Design Public Hearing Completed**

- Coordinate/conduct public hearing – Program Manager
[Note: Encouraging MPO/COG staff to actively participate]
- Respond to public hearing comments – Program Manager
- Prepare public hearing certification package and submit to FHWA – Environmental Office
- Revise preliminary design plans, as necessary, and distribute to all Project Production Team members – Preliminary Design
- Develop right of way plans with final input from the PPT – Road Design
- Request updated cost estimates [route request through the Program Development Engineer] – Program Manager
- Estimate the cost of utility relocation particularly those that have prior rights-Utilities Office
- Estimate cost of any wetland mitigation effort – Environmental Office
- Update cost estimates – VE/Cost Estimating
- Distribute updated cost estimate to the Project Development Team including the FHWA - Program Manager
- Coordinate the resolution of any substantial changes in the cost estimate and initiate any necessary STIP adjustment – Program Manager
- When retaining walls have been selected as the most appropriate alternative for the site, notify Structural Engineer of required facing to be used (selected from the list of options created during preliminary design) – Program Manager

48 Environmental Permit(s) Submitted

- Prepare necessary permit application(s), review with program manager, and submit appropriately – Environmental Office
[Note: Permit applications should include impacts caused by relocation of utilities]
- Coordinate the resolution of any issues raised by permitting agencies – Environ. Office

50 Preliminary Right of Way Plans Completed

- Review and update project schedule with Project Development Team – Program Manager
- Prepare preliminary right of way plans, cross sections, etc., necessary for a Design Field Review (DFR) coordinated with Project Development Team and schedule a DFR - Road Design
[Note: Program Manager will send plans to MPO, COG team members]
- Provide conceptual signing and traffic signal/ITS information as related to right of way acquisition, as necessary – Traffic Engineering
- Send Typical Section Sheets to Pavement Design Engineer to verify pavement design – Road Design
- Contact Utilities Office to review preliminary right of way plans to ensure all needed information is included on plans - Road Design
- Identify proposed structures that may require geotechnical investigation and submit to Geotechnical Design – Structural Engineer, Road/Bridge Design

55 Design Field Review

- Coordinate and conduct a Design Field Review (DFR) providing a thorough field review of the preliminary plans by the Project Development Team, to include the District Utility Coordinator, beginning with an office review followed by an on-site inspection – Road Design
- Revise plans in accordance with comments from the DFR and provide revised plans, cross sections, etc., to the Project Development Team – Road Design
- Provide revised plans to Hydraulic Engineer to initiate drainage design and then notify Program Manager (via email) that this task has been completed – Road Design
- Provide road plans, including plan and profile, cross-sections, pavement designs, and typical sections to Work Zone Traffic Control Coordinator in Traffic Engineering to begin preparation of work zone traffic control staging plans – Road Design
- Provide revised plans (1 full & 1 half size) including cross sections to Geotechnical Design – Road Design
- Provide proposed structure design criteria to Geotechnical Design – Structural Engineer, Road/Bridge Design
- Notify Signing & Marking Plans Preparation Engineer in Traffic Engineering upon completion of plan and profile sheets to permit scheduling of signing and pavement marking plans preparation – Road Design
- Notify Signal Systems Engineer of new signals and/or signal upgrades – Road Design
- Submit Final Interchange Modification Request to FHWA – Program Manager
- Meet with Utility Companies to begin early coordination – District Office

56 Geotechnical Investigations & Reports

- Coordinate with Environmental Design to determine if site is historically significant or if there is soil, surface water, or subsurface water contamination – Geotechnical Design
- Request subsurface investigations for proposed structures – Geotechnical Design
- Provide structure plan and profile to Geotechnical Design – Structural Engineer, Road/Bridge Design
- Provide final geotechnical report including final structure recommendations to Structural Engineer – Geotechnical Design
- Provide final geotechnical report including all relevant hydraulic parameters to Hydraulic Design – Geotechnical Design

57 Structures Designed-

- Establish structure alignment and stationing, provide to Road Design Squad a sketch showing additional right of way needed due to structure footprint or construction requirements – Structural Engineer, Road/Bridge Design
- Design structure based on information provided in the final geotechnical report – Structural Engineer, Road/Bridge Design
- Prepare plan, profile, and cross section drawings to include in the Construction Plans Structural Engineer, Road/Bridge Design

60 FONSI Submitted for Approval

- Review with the Program Manager any project changes that may have occurred since document approval, prepare the FONSI request, and allow Program Manager to review, and then submit to FHWA – Environmental Office
[Note: Program Manager may share the FONSI request with the Project Development Team for comments]

65 FONSI Approval Received

- Provide copy of approved FONSI to Program Manager – Environmental Office
- Coordinate with Environmental Office and prepare project-specific portion of advertisement – Program Manager
[Note: If the project involves a Categorical Exclusion and a public hearing is held, the Program Manager will coordinate with the Environmental Office and insure that the appropriate Study Report and advertisement is prepared and submitted]
- Complete the preparation of the advertisement and submit appropriately – Environmental Office
- Prepare a summary memorandum and notify the Project Development Team of the Highlights of the Environmental Document and commitments SCDOT have made – Environmental Office

70 Right of Way Plans Completed & Signed

- Complete the drainage design and review with the Project Development Team, including a drainage field review, if necessary – Hydraulic Engineering
- Submit work zone traffic control staging plans—Traffic Engineering
- Review project schedule with Project Development Team and update as necessary – Program Manager
- Complete the right of way plans, including QA/QC review and routing for review/initials, submit the plans to R/W and FHWA, as requested; notifying the Program Manager – Road Design
- Verify execution of Municipal State Highway Project Agreement, if required. If Agreement has not been executed, re-submit for execution by the City or Town. - Right of Way
- Provide completed right of way plans to Office of Beautification to initiate detailed landscaping plans – Road Design
- Review and prepare Design Exceptions and forward through Program Manager to the Director of Preconstruction for approval – Road Design
- Notify VE/Cost Estimating [thru Program Dev. Eng.] to initiate updated cost estimates include updated cost on utility and wetland mitigation – Program Manager
- Prepare updated cost estimates, utilizing input from R/W, Utilities, Traffic Engineering, Environmental, etc., as appropriate – VE/Cost Est.
- Include right of way requirements around new or modified structures as provided by Structural Engineer – Road/Bridge Design
- Coordinate the resolution of any substantial changes in estimated costs and share the information appropriately – Program Manager
- Provide completed right of way plans to the Utilities Office to initiate utility coordination and also railroad coordination, if railroad involvement – Road Design
- Send right of way plans to the District Office to initiate District utility coordination - Utilities Office
- Begin coordination necessary to secure Utility Agreements and No-cost relocation sketches – District Office
- Send right of way plans to the railroad with detailed letter explaining the project as it effects the Railroad to initiate their review – Utilities Office

75 Right of Way Funding Obligated & Acquisition Process Initiated

- Submit Right of Way cost estimate to Preconstruction Management– Right of Way Section
- Coordinate the obligation of right of way funds and notify the Program Manager and Director of R/W immediately upon approval of funds – Preconstruction Management
- Initiate R/W acquisition process – Right of Way Section

77 **Project Assessment**

[Note: Project Development Team meets to ensure project commitments are being met. FHWA, MPO/COG representatives, and Utility companies discuss with Project Development Team any project specific requirements that need to be included in the contract documents]

- All project requirements as a result of field reviews, design exceptions, constructability reviews, and maintenance of traffic concerns are addressed – Program Manager
- Right of way special provisions, as a result of negotiations, provided to Road Design to be reflected in the plans or contract special provisions – Right of Way Section
- All relocations will be completed prior to award, or the appropriate special provisions are provide to Road Design to be included in the contract special provisions as concurred by the FHWA – Right of Way Section
- Utility relocations, special requirements, funding, and other items as needed are in place and included in the contract as appropriate – Program Manager
- Local municipality needs are identified and included in the special provisions where appropriate. This could vary from lane closure restrictions for special events, to landscaping coordination, to coordination of preferred detour routing and signing – Program Manager
- Environmental commitments and constraints are provided to Road Design in order to be clearly indicated in the proposal and/or plans – Environmental Office
- Contract durations are appropriate for the size and complexity of the project – Road Design
- Cash flow requirements are discussed with the Finance Office and the overall status of the Program area will allow the project to proceed to completion – Program Manager
- Other items as dictated by the individual project – Program Manager

80 **Construction Plans Completed & Signed**

- Request right of way revisions to plans subject to approval by Program Manager – Right of Way Section
- Finalize box culverts, retaining wall and shoring designs; provide details for plans – Road Design
- Provide pavement marking, signing, traffic signal/ITS plans and update staging plans as necessary to Road Design –Traffic Engineering
- Provide final landscaping plans, special provisions and estimate on projects involving landscaping – Office of Beautification
- Determine need for a Pavement Design Review. Resubmit forms for traffic information and pavement design, as needed – Road Design
- Complete road construction plans – Road Design
- Complete bridge construction plans, special provisions and estimates – Bridge Design
- Complete QA/QC review of Construction Plans and route for review/initials. Final review for design exceptions – Road Design
- Include structure plan, profile, and cross section sheets as provided by Structural Engineer - Road/Bridge Design

82 Finalize Utility Coordination/Relocation

- All Utility Agreements and No-cost relocation sketches received from the District are Review, approved, and utilities are authorized to begin work – Utilities Office
- Contract Documents Office begins writing and researching special provisions and/or supplemental specifications as indicated by Design Group – Road Design

85 Contract Proposal Preparation

- Complete engineers' estimate in PES for use by Program Manager, Contracts Administration and Preconstruction Management – Road Design
- Complete cost estimate updates including review of PE and R/W expenditures and remaining budgets – VE/Cost Estimating
- Complete special provisions and prepare proposal for printing – Road Design
- Coordinate the resolution of any substantial changes in the estimated costs and share the information appropriately – Program Manager
- On large projects, prepare a CPM schedule to establish reasonable construction schedule - Construction Office
- Conclude participation agreement with governmental entities concerning maintenance of landscaping – Office of Beautification

90 PS&E Submittal and Environmental Permit(s) Approved

- Upon receipt of approved permits, notify Program Manager and then distribute copies appropriately – Environmental Office
[Notify FHWA of permit approval dates or problems encountered]
- Right of Way (R/W) acquisition process completed, with all tracts either acquired or condemned – Right of Way Section
[FHWA needs Right of Way certificate on all Interstate projects and projects greater than \$50 million on the National Highway System]
- Submit PS&E package to FHWA, as appropriate – Preconstruction Management
- Receive and distribute FHWA Project Authorization Approval – Preconst. Mgmt.
- Distribute Utility Agreements and/or relocation sketches – Utilities Office
- Prepare and publish ad for highway letting for project – Contracts Administration
- Conduct Pre-Bid Meetings on large and multi-phased projects, address utility conflict issues and if necessary prepare addenda to disseminate the minutes and Q&A from the Pre-Bid meeting – Director of Construction Office

95 Construction Bids Received

- As soon as possible after bid opening, submit bid information to appropriate Program Manager – Contracts Administration
- Coordinate the resolution of any substantial differences between bid and STIP amounts – Program Manager
- Coordinate contract award with the FHWA on all oversight projects, provide necessary bid information – Contracts Administration

- As soon after bid opening as possible, load bid information into TrnsPort Program in order to analyze the bid and to expand the bid history – Contracts Administration

100 Award Project – Monitor Project Expenditures & Report Periodically to MPO, COG

- Notify Program Manager upon approval of award – Contracts Administration
- Schedule/conduct preconstruction conference – Resident Construction Engineer
- Provide information periodically to Program Manager on status of construction and construction expenditures, upon request – Construction Office
- Provide information periodically to Program Manager on status of condemnation cases, R/W hold offs, and remaining anticipated R/W expenditures, upon request – Right of Way Section
- Distribute Railroad Agreements to the appropriate railroad company – Utilities Office

1st Revision January 13, 1999

2nd Revision February 3, 1999

3rd Revision April 11, 2000: Included information concerning design exceptions to page 3

4th Revision August 6, 2001

5th Revision August 31, 2001

6th Revision November 30, 2001

7th Revision April 15, 2002

8th Revision June 24, 2002

9th Revision January 17, 2003

10th Revision February 12, 2003

11th Revision April 22, 2003

12th Revision January 25, 2005 – Revisions highlighted

13th Revision March 15, 2005 – Revisions highlighted

14th Revision May 9, 2005 – Revisions highlighted

15th Revision July 6, 2005 – Revisions highlighted

APPENDIX D

Survey

Design-Build / Building South Carolina's Roads

Directions

The following questions have been compiled to assist in gathering information relating to the development of design / build projects. Based on your experience with design/build projects, please complete the following questions. Completed surveys should be submitted no later than **12:00 pm on Friday, March 17, 2006.**

1. Have you been involved in the development of a design/build procurement contract?
Yes _____ No _____ If yes, how many? _____

2. What was the source of guidance used to assist you in the development of the contract documents?

3. What were the departments/disciplines represented on the design/build team?

4. What was your role on the design/build team, i.e. leadership, team member, resource, etc.

5. Please describe (in list form) the process used to develop the design/build package:

6. How long did it take to complete the design/build package from the time the team was appointed to the distribution of the Request for Proposals to the Proposers.
_____ months

7. What was the estimated number of hours spent on the development the design/build contract?

0 to 10 hours per week

10 to 20 hours per week

20 to 30 hours per week

30 to 40 hours per week

8. At what stage in development was the project prior to beginning the design/build process?

9. Were environmental permits issued prior to the design/build development process? If not, how was the project affected?

10. Describe some of the lessons learned during the development process.

11. Reflecting on your experience with the development of design/build contracts, would a development guide been helpful to you? Explain.

12. In your opinion, could the development of design/build packages be simplified? Explain.

13. Could centralization of the development of design/build packages be effective? Explain.

Survey

Design-Build / Building South Carolina's Roads

Directions

The following questions have been compiled to assist in gathering information relating to the development of design / build projects. Based on your experience with design/build projects, please complete the following questions. Completed surveys should be submitted no later than **12:00 pm on Friday, March 17, 2006.**

1. Have you been involved in the development of a design/build procurement contract?

Yes

No

If yes, how many?

XX

About Eight

2. What was the source of guidance used to assist you in the development of the contract documents?

Prior experience – Past D/B contracts were used as a starting point.

3. What were the departments/disciplines represented on the design/build team?

SCDOT Program Management, Roadway Design, Bridge Design, Legal, Construction Office, District Representative, and FHWA

4. What was your role on the design/build team, i.e. leadership, team member, resource, etc.

Team Member and Resource

5. Please describe (in list form) the process used to develop the design/build package:

In short, we used our lessons learned from past D/B projects and generated the RFP document, Contract Agreement and all associated exhibits.

6. How long did it take to complete the design/build package from the time the team was appointed to the distribution of the Request for Proposals to the Proposers.

Varies (several months months)

7. What was the estimated number of hours spent on the development the design/build contract?

0 to 10 hours per week

10 to 20 hours per week

20 to 30 hours per week

30 to 40 hours per week

8. At what stage in development was the project prior to beginning the design/build process?

In most cases, plans were developed to the ROW stage

9. Were environmental permits issued prior to the design/build development process? If not, how was the project affected?

NO. Status of permits were addressed in the RFP documents

10. Describe some of the lessons learned during the development process.

Risk allocation is always an issue that the team needs to discuss. It can vary on each project (ROW, utilities, hazardous waste, differing site conditions).

In my opinion, the amount of information that is provided is often too much and may assign more risk to SCDOT. More discussion should be done on this topic.

Necessary deliverables and SCDOT approval stages need to be clearly identified in the contract documents. If not, the risk of additional time and cost may go back on SCDOT.

Criteria MUST be clear and concise. If we allow the criteria to be interrupted in more than one way, we may not get what we want. For example, do not specify the structure types that are prohibited because you may miss one. This has happened. Instead, list only the allowable structure types that will be permitted.

11. Reflecting on your experience with the development of design/build contracts, would a development guide been helpful to you? Explain.

I don't know if a guide would help. However, I think the development of electronic "boiler plate" documents would help. Somebody needs to prepare the various RFQ and RFP documents in boiler plate form. Once the type of method is determined (two step, adjusted low bid, best value/fixed price...) the team should only have to pull those specific forms and fill in the specific project information.

A table of contents of the necessary exhibits and attachments should also be standardized to assist the team in making sure the necessary information is provided.

Develop a checklist of the necessary tasks/items that need to be done in order for the RFQ and RFP documents to be released.

12. In your opinion, could the development of design/build packages be simplified? Explain. **This is not a yes or no answer. Once SCDOT completes its Bridge Design Manual and new Standard Specifications, development of the exhibits should be easier. Of course, each D/B contract will have its own Special Provisions. Development of "boiler plate" documents will also help the development of future design/build contracts as discussed in the previous question.**
-
-
-
-

13. Could centralization of the development of design/build packages be effective? Explain. **Yes, I think SCDOT should have a Design/Build Project Coordinator located in Columbia. Individuals can be put on the team to assist and gain experience with the development of D/B contracts, however, the coordinator would lead the team using his/her knowledge and experience.**
-
-
-
-

Survey

Design-Build / Building South Carolina's Roads

Directions

The following questions have been compiled to assist in gathering information relating to the development of design / build projects. Based on your experience with design/build projects, please complete the following questions. Completed surveys should be submitted no later than **12:00 pm on Friday, March 17, 2006.**

1. Have you been involved in the development of a design/build procurement contract?

Yes x No _____ If yes, how many? 2

2. What was the source of guidance used to assist you in the development of the contract documents?

Federal guidelines and peer assistance

3. What were the departments/disciplines represented on the design/build team?

Construction, FHWA, Legal, District Construction

Traffic

R/W

Hydrology

Road Design

Bridge Design

4. What was your role on the design/build team, i.e. leadership, team member, resource, etc.

Leadership and team member

5. Please describe (in list form) the process used to develop the design/build package:

Assemble design/build team

Determine which process to use (ie. One-step, 2-step)

Prepare RFQ

Determine selection criteria

Prepare RFP and contract

6. How long did it take to complete the design/build package from the time the team was appointed to the distribution of the Request for Proposals to the Proposers.

7 months

7. What was the estimated number of hours spent on the development the design/build contract?
- 0 to 10 hours per week
- 10 to 20 hours per week
- 20 to 30 hours per week
- 30 to 40 hours per week

8. At what stage in development was the project prior to beginning the design/build process?
- R/W acquisition
-
-

9. Were environmental permits issued prior to the design/build development process? If not, how was the project affected?
- No. After selection, the contract was modified to address a delay in obtaining the permit.
-
-
-

10. Describe some of the lessons learned during the development process.

Be thorough.

Assemble a dedicated and qualified team.

Don't allow changes to the Project manager identified in the RFQ/RFP

Have permit in hand if at all possible.

11. Reflecting on your experience with the development of design/build contracts, would a development guide been helpful to you? Explain.

Yes. Not necessarily a detailed guide but certainly examples and some lessons learned.

12. In your opinion, could the development of design/build packages be simplified? Explain.

Probably not a lot. It takes a lot of manpower to put one together but I think that is what is required to ensure that we have a good product.

13. Could centralization of the development of design/build packages be effective? Explain.

Centralization would help but traditionally our design/build projects have been rather random.

Survey

Design-Build / Building South Carolina's Roads

Directions

The following questions have been compiled to assist in gathering information relating to the development of design / build projects. Based on your experience with design/build projects, please complete the following questions. Completed surveys should be submitted no later than **12:00 pm on Friday, March 17, 2006.**

1. Have you been involved in the development of a design/build procurement contract?

Yes X No _____ If yes, how many? 1

2. What was the source of guidance used to assist you in the development of the contract documents?

Contract documents from former design/build projects

3. What were the departments/disciplines represented on the design/build team?

Bridge Design, Geotechnical, Legal, District 1 Construction, FHWA, Project Development West, EarthTech Consulting Engineers

4. What was your role on the design/build team, i.e. leadership, team member, resource, etc.

Team member

5. Please describe (in list form) the process used to develop the design/build package:

Kick-off meeting

Prepared Request for Qualifications

Design/build teams shortlisted

Consultant supplied plans to team members for team review

Consultant provided draft specifications for team review

Team members reviewed information supplied

Prepared Request for Proposals

Pre-bid meeting was held

Selection of design/build team

6. How long did it take to complete the design/build package from the time the team was appointed to the distribution of the Request for Proposals to the Proposers.

Approx. 6 months

7. What was the estimated number of hours spent on the development the design/build contract?
- 0 to 10 hours per week
 10 to 20 hours per week
 20 to 30 hours per week
 30 to 40 hours per week

8. At what stage in development was the project prior to beginning the design/build process?
Right of way plans were prepared, preliminary bridge plans were prepared, right of way acquisition was underway

9. Were environmental permits issued prior to the design/build development process? If not, how was the project affected?
No, proceeding with selection of design/build team will be dependent on permit acquisition

10. Describe some of the lessons learned during the development process.
The deign/build process for this project was refined based on experiences from previous design/build projects.

11. Reflecting on your experience with the development of design/build contracts, would a development guide been helpful to you? Explain.
Yes, it would be very helpful to for a development team to have a guide, so that more consistent design/build packages are assembled.

12. In your opinion, could the development of design/build packages be simplified? Explain.
I really do not have an opinion of this at this time.

13. Could centralization of the development of design/build packages be effective? Explain.
Yes, having participation and oversight in the development of design/build packages by a central group would ensure that packages are prepared consistently and more effeciently

7. What was the estimated number of hours spent on the development the design/build contract?

0 to 10 hours per week

10 to 20 hours per week

20 to 30 hours per week

30 to 40 hours per week

8. At what stage in development was the project prior to beginning the design/build process?

0 to 10%

9. Were environmental permits issued prior to the design/build development process? If not, how was the project affected?

No. Permits were obtained during the contract development process.

10. Describe some of the lessons learned during the development process.

Something as simple as creating a table of contents for the contract package and numbering all of the pages is helpful in making sure that everyone gets a complete set of contract documents.

11. Reflecting on your experience with the development of design/build contracts, would a development guide been helpful to you? Explain.

Yes.

An explanation of the difference between the RFP package and the contract package might be helpful. In the RFP, the contract is known as "Attachment A", but it becomes the highest priority document in the D/B package and "Attachment A" disappears.

12. In your opinion, could the development of design/build packages be simplified? Explain.

No. It is and always will be unique for each project. To ensure a complete contract package, a team must be assembled to become intimate with the details of a project and set forth the goals of the design-build contract.

13. Could centralization of the development of design/build packages be effective? Explain.

Yes. This was being done in that Rocque Kneece worked on almost all of our Design-build contract packages.

Survey

Design-Build / Building South Carolina's Roads

Directions

The following questions have been compiled to assist in gathering information relating to the development of design / build projects. Based on your experience with design/build projects, please complete the following questions. Completed surveys should be submitted no later than **12:00 pm on Friday, March 17, 2006.**

1. Have you been involved in the development of a design/build procurement contract?

Yes X No _____ If yes, how many? _____

2. What was the source of guidance used to assist you in the development of the contract documents?

Previous DB contracts, input from legal section and other department personnel

3. What were the departments/disciplines represented on the design/build team?

Bridge Design, Road Design, Geotech, Legal

4. What was your role on the design/build team, i.e. leadership, team member, resource, etc.

resource

5. Please describe (in list form) the process used to develop the design/build package:

Strip language out of old RFP and RFQ's

Modify as needed

6. How long did it take to complete the design/build package from the time the team was appointed to the distribution of the Request for Proposals to the Proposers.

? months

7. What was the estimated number of hours spent on the development the design/build contract?

- It depends on the week 0 to 10 hours per week
- 10 to 20 hours per week
- 20 to 30 hours per week
- 30 to 40 hours per week

8. At what stage in development was the project prior to beginning the design/build process?

9. Were environmental permits issued prior to the design/build development process? If not, how was the project affected?

No and we are still waiting. Hopefully, it won't have a negative impact.

10. Describe some of the lessons learned during the development process.

Don't sign agreements with property owners without consulting the team.

Ensure requested changes are made the first time. Valuable time is wasted searching to see if the changes were made, then discovering that they weren't, then requesting the changes again.

Tie milestones to number of days from NTP, not a specific date.

The focus should be on writing a quality document rather than getting it out the door.

11. Reflecting on your experience with the development of design/build contracts, would a development guide been helpful to you? Explain.

The guide will only be useful if you are given time to develop the RFP and RFQ properly.

12. In your opinion, could the development of design/build packages be simplified? Explain.

Hopefully we are moving in the direction of having a standard format that would include appropriate legal, financial, design, and construction language.

13. Could centralization of the development of design/build packages be effective? Explain.

I don't understand what this question is asking.

Survey

Design-Build / Building South Carolina's Roads

Directions

The following questions have been compiled to assist in gathering information relating to the development of design / build projects. Based on your experience with design/build projects, please complete the following questions. Completed surveys should be submitted no later than **12:00 pm on Friday, March 17, 2006.**

1. Have you been involved in the development of a design/build procurement contract?
Yes No If yes, how many? 3

2. What was the source of guidance used to assist you in the development of the contract documents?

Previous projects' documents

3. What were the departments/disciplines represented on the design/build team?

Bridge design, maintenance, project management, legal, FHWA, preconstruction

4. What was your role on the design/build team, i.e. leadership, team member, resource, etc.
I was a voting member on the qualifications and proposals submitted. Also, I was legal counsel to the group.

5. Please describe (in list form) the process used to develop the design/build package:

Determine scope of project

Draft RFQ, RFP, and contract

Determine what information, if any, SCDOT possessed concerning the project

Distribute project materials to bidding contractors

Select contractor from submitted proposals

Execute contract

6. How long did it take to complete the design/build package from the time the team was appointed to the distribution of the Request for Proposals to the Proposers.

6 months

7. What was the estimated number of hours spent on the development the design/build contract?

- 0 to 10 hours per week
- 10 to 20 hours per week
- 20 to 30 hours per week
- 30 to 40 hours per week

8. At what stage in development was the project prior to beginning the design/build process?

Planning

9. Were environmental permits issued prior to the design/build development process? If not, how was the project affected?

Yes

10. Describe some of the lessons learned during the development process.

Exactly how much planning is put into each of SCDOT's projects

11. Reflecting on your experience with the development of design/build contracts, would a development guide been helpful to you? Explain.

I'm not sure. The project we worked on was very unique -- SCDOT had never done anything like it before. Also, the committee I was a part of was very experienced in design/build and pretty much knew the process.

12. In your opinion, could the development of design/build packages be simplified? Explain.

I don't think so. It's in our best interest to give the bidders all the information we have in order to cut down on costs. Also, we have to give out enough information so that the bidders will know exactly what we want.

13. Could centralization of the development of design/build packages be effective? Explain.
If you are asking if one team or group should always be involved in developing design/build packages, I think that is a very good idea. When people are very familiar with a process and get lots of practice, they are more effective and efficient. The only problem would be the specialized knowledge representatives of certain disciplines can contribute.

Survey

Design-Build / Building South Carolina's Roads

Directions

The following questions have been compiled to assist in gathering information relating to the development of design / build projects. Based on your experience with design/build projects, please complete the following questions. Completed surveys should be submitted no later than **12:00 pm on Friday, March 17, 2006.**

1. Have you been involved in the development of a design/build procurement contract?
Yes Yes No _____ If yes, how many? 1

2. What was the source of guidance used to assist you in the development of the contract documents?
To look for an economical way to replace the backlog of bridge replacements.

3. What were the departments/disciplines represented on the design/build team?
Program Development, Bridge Design, Legal, Maintenance, FHWA

4. What was your role on the design/build team, i.e. leadership, team member, resource, etc.
Team member

5. Please describe (in list form) the process used to develop the design/build package:
Establish a list of bridges and work desired.
Develop and advertise an RFQ
Develop and advertise an RFP

6. How long did it take to complete the design/build package from the time the team was appointed to the distribution of the Request for Proposals to the Proposers.
18 months

7. What was the estimated number of hours spent on the development the design/build contract?

- 0 to 10 hours per week
- 10 to 20 hours per week
- 20 to 30 hours per week
- 30 to 40 hours per week

8. At what stage in development was the project prior to beginning the design/build process?
Minimal development had occurred.

9. Were environmental permits issued prior to the design/build development process? If not, how was the project affected?
No they were incorporated into the contract

10. Describe some of the lessons learned during the development process.

11. Reflecting on your experience with the development of design/build contracts, would a development guide been helpful to you? Explain.

Yes. This was the first time I was on a team such as this.

12. In your opinion, could the development of design/build packages be simplified? Explain.

13. Could centralization of the development of design/build packages be effective? Explain.

I'm not sure.

Survey

Design-Build / Building South Carolina's Roads

Directions

The following questions have been compiled to assist in gathering information relating to the development of design / build projects. Based on your experience with design/build projects, please complete the following questions. Completed surveys should be submitted no later than **12:00 pm on Friday, March 17, 2006.**

1. Have you been involved in the development of a design/build procurement contract?

Yes √ No _____ If yes, how many? 2

2. What was the source of guidance used to assist you in the development of the contract documents?

On the first instance, we modified standard and supplemental specifications to cover the differences between traditional and design-build contracts. On the second instance, started with a previous design-build contract, and modified for specifics of proposed work.

3. What were the departments/disciplines represented on the design/build team?

Construction Engineering and Management, Design, Program Management, Geotechnical, Federal Highway Administration

4. What was your role on the design/build team, i.e. leadership, team member, resource, etc.

Team Member

5. Please describe (in list form) the process used to develop the design/build package:

Develop Request for Qualifications Package (RFQ)

Advertise RFQ

Evaluate Qualifications of firms – Rank and Short List

Utilize prior RFP and modify to fit specifics of planned Design Build project

Develop special provisions and attachments for RFP package

Team Reviews of proposed RFP package

Finalize RFP package for advertisement

6. How long did it take to complete the design/build package from the time the team was appointed to the distribution of the Request for Proposals to the Proposers.

9 months

7. What was the estimated number of hours spent on the development the design/build contract?

- 0 to 10 hours per week
 10 to 20 hours per week
 20 to 30 hours per week
 30 to 40 hours per week

8. At what stage in development was the project prior to beginning the design/build process?
Design was approximately 80% complete; some detailing of plans was needed; much of this detailing was accomplished during the RFP development to curb D-B contractor's propensity to cut corners.

9. Were environmental permits issued prior to the design/build development process? If not, how was the project affected?

To my knowledge, some permits are still pending to this date. These permits may substantially impact early milestones on this project.

10. Describe some of the lessons learned during the development process.

There may be benefits to D-B for very large projects when project development is still in early stages. However, creating a D-B project from a project that is nearly finished with the development stage clearly has the potential to multiply the departments' development cost. The RFP package is developed to guide the D-B contractor to design and construct a project consistent with SCDOT standards. As such, it is a substantial document and requires a significant undertaking to prepare. In the case of a project with nearly complete plans, its clear that the investment in manpower to complete and process the RFQ and RFP exceeded the investment needed to complete the plans and proceed with a normal design-bid-build sequence. The decision to create a D-B project should also have some clearly defined warrants and should not be undertaken for reasons of political expediency.

11. Reflecting on your experience with the development of design/build contracts, would a development guide been helpful to you? Explain.

A guide to help in determining what components are necessary in the D-B package may have been helpful. However, the development usually takes a focus on the technical requirements of the work, and I'm not convinced a generic guidance document would be very helpful with this portion of the RFP preparation.

12. In your opinion, could the development of design/build packages be simplified? Explain.

The department could create a "boilerplate" RFP where the contractual elements are fairly standard, while a RFP development team could focus on developing the technical portions of the RFP. However, even the contractual elements of a contract are fairly fluid (as we experience issues on contracts and revise requirements/specifications to cover these issues), so the "boilerplate" would need to be maintained on a regular basis.

13. Could centralization of the development of design/build packages be effective? Explain. If someone were assigned to analyze the construction and management of the project to determine what elements of the RFP were helpful and which elements were deficient, that expertise could improve the "boilerplate" subsequent RFP development efforts.
-

Survey

Design-Build / Building South Carolina's Roads

Directions

The following questions have been compiled to assist in gathering information relating to the development of design / build projects. Based on your experience with design/build projects, please complete the following questions. Completed surveys should be submitted no later than **12:00 pm on Friday, March 17, 2006.**

1. Have you been involved in the development of a design/build procurement contract?
Yes No If yes, how many? one
2. What was the source of guidance used to assist you in the development of the contract documents?
- previous documents as examples
~~-~~
3. What were the departments/disciplines represented on the design/build team?
Construction, ROW, Road Design, Bridges, Geotech, Legal, Environ.
FHWA etc.
4. What was your role on the design/build team, i.e. leadership, team member, resource, etc.
Committee Chairman
5. Please describe (in list form) the process used to develop the design/build package:
start with a more recent group of docs
incorporate new features
provide draft to committee
Review + incorporate changes
Develop attachments
submit for review to agent
6. How long did it take to complete the design/build package from the time the team was appointed to the distribution of the Request for Proposals to the Proposers.
still ongoing months
↳ but several months. (Although there were outside factors that contributed to the delay → RFP could not be issued even if completed - i.e. no money, no FOWSI, etc)

7. What was the estimated number of hours spent on the development the design/build contract?

0 to 10 hours per week (plus other folks time)

10 to 20 hours per week

20 to 30 hours per week

30 to 40 hours per week

8. At what stage in development was the project prior to beginning the design/build process?

Plans were being developed for row acquisition

9. Were environmental permits issued prior to the design/build development process? If not, how was the project affected?

No. Permits have not been affected yet.

10. Describe some of the lessons learned during the development process.

Some projects are not ^{well} suited for design build

11. Reflecting on your experience with the development of design/build contracts, would a development guide been helpful to you? Explain.

Anything would be better than nothing, but I doubt that a guide would work. Each project is unique, and the guide would only be generic at best.

12. In your opinion, could the development of design/build packages be simplified? Explain.

Maybe by developing a standard review policy, and having some of the same key personnel in several sections review the package at certain stages.

13. Could centralization of the development of design/build packages be effective? Explain.

Again, I doubt it. Probably only a review process that would ~~allow~~ ensure key components made it into the package.

Survey

Design-Build / Building South Carolina's Roads

Directions

The following questions have been compiled to assist in gathering information relating to the development of design / build projects. Based on your experience with design/build projects, please complete the following questions. Completed surveys should be submitted no later than 12:00 pm on Friday, March 17, 2006.

1. Have you been involved in the development of a design/build procurement contract?
Yes No If yes, how many? one
2. What was the source of guidance used to assist you in the development of the contract documents?
Followed the format of a previous D/B contract plus had people with FHWA who are familiar with other SCDOT D/B projects serve on my team.
3. What were the departments/disciplines represented on the design/build team?
FHWA
SCDOT district personnel (construction, traffic)
SCDOT design disciplines - road, bridge, traffic, hydro, etc.
SCDOT program manager
consultants (design)
SCDOT ROW
SCDOT Legal
4. What was your role on the design/build team, i.e. leadership, team member, resource, etc.
leadership and key person for assembling the info/packet.
5. Please describe (in list form) the process used to develop the design/build package:
Management decides to use D/B
D/B package prep assigned to PM
PM assembles team (w/ management approval) to prepare RFP
RFP issued
RFP package prepared & issued
pre proposal meeting held
Responses to RFP received
Review panel recommends a D/B team to SCDOT Management
SCDOT Management concurs.
NTP given to successful firm(s).
6. How long did it take to complete the design/build package from the time the team was appointed to the distribution of the Request for Proposals to the Proposers.
3 months

7. What was the estimated number of hours spent on the development the design/build contract?

- 0 to 10 hours per week
 10 to 20 hours per week
 20 to 30 hours per week
 30 to 40 hours per week

8. At what stage in development was the project prior to beginning the design/build process?

public hearing stage

9. Were environmental permits issued prior to the design/build development process? If not, how was the project affected?

No. The permit was received after the NTP was issued.

10. Describe some of the lessons learned during the development process.

D/B packages are very time consuming for the PM
Using a task assigned-to and due-date system is essential.
Contractor's look for loop holes.
Sometimes various sections w/in SCDDI become territorial
and try to force a desired outcome using tight criteria.

11. Reflecting on your experience with the development of design/build contracts, would a development guide been helpful to you? Explain.

Of course. Just assembling all of the necessary electronic
files from the various offices is a huge challenge.

Again, the biggest challenge was tracking who on my team
was working on what component and when they were supposed
to submit their info.

12. In your opinion, could the development of design/build packages be simplified? Explain.

The team assigned to preparing the package has got to
be small (4-5 people) and willing to work long
hours.

An electronic filing system or organizing system needs to
be in place for the PM to utilize/refer to when these
type of projects arise.

13. Could centralization of the development of design/build packages be effective? Explain.

A core team could be established for D/B projects.
Kinda of like a standing committee that could
develop these RFQ/RFI's as needed. They must
follow the project thru (or at least the PM) to learn
lessons on the project once NTP has been given

Survey

Design-Build / Building South Carolina's Roads

Directions

The following questions have been compiled to assist in gathering information relating to the development of design / build projects. Based on your experience with design/build projects, please complete the following questions. Completed surveys should be submitted no later than **12:00 pm on Friday, March 17, 2006.**

1. Have you been involved in the development of a design/build procurement contract?

Yes x No _____ If yes, how many? 7-9

2. What was the source of guidance used to assist you in the development of the contract documents?

Past experience

3. What were the departments/disciplines represented on the design/build team?

Program Development, Bridge Design, Construction, Legal, Road Design

4. What was your role on the design/build team, i.e. leadership, team member, resource, etc.

Team member and resource

5. Please describe (in list form) the process used to develop the design/build package:

Not sure

6. How long did it take to complete the design/build package from the time the team was appointed to the distribution of the Request for Proposals to the Proposers.

12 months

7. What was the estimated number of hours spent on the development the design/build contract?

0 to 10 hours per week

10 to 20 hours per week

20 to 30 hours per week

30 to 40 hours per week

8. At what stage in development was the project prior to beginning the design/build process?

Preliminary plans, ROW plans

9. Were environmental permits issued prior to the design/build development process? If not, how was the project affected?

yes

10. Describe some of the lessons learned during the development process.

Each project is unique and may require different design/build techniques.

Based on contractor changes and requests, we have modified criteria.

11. Reflecting on your experience with the development of design/build contracts, would a development guide been helpful to you? Explain.

Yes, we seem to reinvent the wheel each time.

12. In your opinion, could the development of design/build packages be simplified? Explain.

Yes, by assigning a designated group to handle.

13. Could centralization of the development of design/build packages be effective? Explain.

Yes, each time we do one we start over with new leadership.

APPENDIX E

Sample Design Build Documents

- Advertisement
- Request for Qualifications
- Request for Proposals Index
- Request for Proposals
- Agreement

DRAFT

NOTICE TO PARTIES INTERESTED IN DESIGN/BUILD PROJECTS

The South Carolina Department of Transportation (SCDOT) requests qualifications from all interested parties experienced in all phases of highway design & construction for the purpose of designing & constructing the Palmetto Parkway, Phase II (I-520). The Palmetto Parkway is an interstate facility extending from US Route 1 to I-20 along new location for approximately 6.5 miles including its connection to I-20. The 6.5 mile project is a controlled access four lane divided interstate facility including three interchanges and incorporating 13 bridges. This project also includes roadway improvements to US Route 25, SC Route 126 (Clearwater Road), Road S-33 (Ascauga Lake Road), and various secondary and local roads (as shown on the right-of-way plans) to accommodate the I-520 alignment. A connector road will be constructed from US Route 25 to I-520 to link the two facilities. A multipurpose lane will be constructed from Atomic Road to Ascauga Lake Road. SCDOT & the Federal Highway Administration will be utilizing the Design-Build method of contracting for this project.

The scope of work for this project will include design, construction & construction engineering & management of the project. The design work will include, but not be limited to, additional surveys, geotechnical work, hydraulic analysis, scour analysis & substructure & superstructure design including seismic analysis. Construction will include, but not be limited to, all necessary roadway & bridge work, drainage, utility coordination, erosion & sediment control work items, necessary foundation work, substructure work, superstructure work & traffic control. Construction engineering & management, including quality control will be the responsibility of the contractor.

In evaluating qualifications, the SCDOT will consider:

- Management experience & approach (35%)
- Experience of key individuals (30%)
- Past performance (25%)
- Quality control plan approach (10%)

Based upon scoring, the selection committee will look for a discernable break in scores to assist in determining who will be invited to respond to the RFP.

Interested parties may obtain a copy of the RFQ at no charge. In addition, interested parties may obtain an information package which includes the current right-of-way plans & environmental documents for a non-refundable fee of \$1,000. Expressions of interest should be made to Michael S. Meetze, P.E., Program Manager, SCDOT, 955 Park Street (Room 424), Columbia, SC 29202-0191, (803)737-1295 & fax number (803) 737-9939. Interested parties shall submit ten (10) copies of the qualifications to Michael S. Meetze at the above address by July 26, 2005.

DRAFT

South Carolina Department of Transportation

REQUEST FOR QUALIFICATIONS

A DESIGN-BUILD PROJECT

I-520 (Palmetto Parkway, Phase II)
From US Route 1 to Interstate 20
Aiken County, South Carolina

May 24, 2005

SCDOT File #2.140B
PIN 27912

PURPOSE OF REQUEST

The purpose of this Request For Qualifications (RFQ) is to solicit letters of interest and qualifications from firms interested in providing roadway and bridge design services and construction services necessary for the construction of I-520 (Palmetto Parkway Phase II) from US Route 1 to I-20. South Carolina Department of Transportation (SCDOT) and the Federal Highway Administration (FHWA) will be utilizing the Design-Build method of contracting for this project. The I-520 (Palmetto Parkway Phase II) from US Route 1 to I-20 are herein after referred to as the "Project". The term "Proposer" as used herein includes a firm or firms, consortia, partnerships, joint ventures and others.

SCDOT will use a two-step process to select a proposer with which to execute a contract for this project. This RFQ represents the first step in the process. After evaluation and scoring of responses to the RFQ, the SCDOT will look for a discernable break in the scores to assist in determining who will be invited to respond to the Request for Proposals (RFP).

The selected proposers will be asked to submit a more detailed proposal in response to the RFP. Information about the format, contents and evaluation criteria for the responses to the RFP will be provided to the selected proposers. Upon evaluation of the proposals, the selection committee will recommend to the SCDOT Executive Director a proposer for contract award and execution.

It is not the intention of the SCDOT to receive project specific design or engineering recommendations as part of this RFQ. Proposers should limit their submittals to the information required by this RFQ and other information regarding qualifications and experience.

OVERVIEW

The Palmetto Parkway, Phase II (I-520) is an interstate facility extending from US Route 1 to I-20 along new location for approximately 6.5 miles. Due to its functional class and its connection to I-20, a multidirectional interchange is to link the two interstate facilities. The 6.5 mile project is a controlled access four lane divided interstate facility including three interchanges and incorporating 13 bridges. This project also includes roadway improvements to US Route 25, SC Route 126 (Clearwater Road), Road S-33 (Ascauga Lake Road), and various secondary and local roads (as shown on the right-of-way plans) to accommodate the I-520 alignment. A connector road will be constructed from US Route 25 to I-520 to link the two facilities. A multipurpose lane will be constructed from Atomic Road to Ascauga Lake Road.

Project services shall include but are not limited to:

- Design Services – completion of construction plans
- Utility Coordination and Relocation Services
- Construction Services – necessary to build and ensure high quality workmanship of the designed facility.

Currently, the project has been advanced through the environmental phase with the approval of a Final Environmental Impact Statement, Environmental Re-Evaluation and Record to Decision (ROD). The roadway design has been completed through the preparation of right-of-way plans. The Department will be responsible for obtaining environmental permits and right-of-way necessary for the construction of the project as depicted in the most recent right-of-way plans.

An information package which includes the current right-of-way plans and environmental document is available to interested parties for a fee of \$1,000.00 (non-refundable). Interested parties may purchase the package by contacting:

Mr. Michael S. Meetze, P.E.
Program Development West Engineer
South Carolina Department of Transportation
955 Park Street, Room 424
Post Office Box 191
Columbia, South Carolina 29202-0191
Phone (803) 737-1295
Fax (803) 737-9939

REQUEST FOR QUALIFICATIONS
DESIGN-BUILD (SEP 14) CONTRACT
I-520 (Palmetto Parkway Phase II)
From US Route 1 to I-20
Aiken County, South Carolina

SCOPE

The scope of work for this project will include design, construction and construction engineering and management of the project. The design work will include but is not limited to additional surveys, geotechnical work, hydraulic analysis, scour analysis and substructure and superstructure design including seismic analysis and design. The designs shall meet all appropriate AASHTO Policy on Geometric Design of Highways and Streets (latest edition), AASHTO Policy on Design Standards – Interstate System (latest edition), AASHTO Standard Specifications for the Design of Highway Bridges (latest edition), Seismic Design Specifications for Highway Bridges (latest edition), and SCDOT design criteria.

Construction will include but is not limited to all necessary roadway and bridge work, drainage, utility coordination and relocation services, erosion and sediment control work items, necessary foundation work, substructure work, superstructure work and traffic control. Construction engineering and management, including quality control will be the responsibility of the contractor. Construction will comply with SCDOT Standard Specifications and Supplemental Specifications for Highway Construction Edition of 2000, Manual of Uniform Traffic Control Devices (latest edition), SCDOT Standard Drawings and any special provisions.

Areas of work required for this project will include, but are not limited to the following items:

1. Final Roadway Plan Preparation
2. Preliminary and Final Bridge Design
3. Drainage Design
4. Geotechnical Design
5. Construction
6. Project Management
7. Construction Management
8. QC including inspection and testing
9. Utility Coordination and Relocation Services
10. Public/Media Relations and Information

SUBMITTAL FORMAT

The RFQ response must be submitted by 4:00 PM on July 26, 2005. The response shall contain no more than twenty-five (25) double spaced pages, typed on one side only, excluding appendices. Responses should address each of the following four categories in the same order as listed below. The responder may wish to include additional information.

I. MANAGEMENT EXPERIENCE AND APPROACH

Provide the qualifications and experience of the firm or firms on the Proposer's team as follows:

1. Identify the lead organization and primary members of the team. Name the entity with whom SCDOT will be contracting and identify if this will be a partnership, corporation, joint venture, etc
2. Provide an organizational chart of each member of the Proposer's team. Describe the role and responsibilities of each team member, including the major subcontractors and consultants. Identify all team members that are DBE firms. *After initial submittal, changes to team members including subcontractors and consultants cannot be changed without SCDOT approval.*
3. The team must include at a minimum the following in order for the response to this RFQ to be deemed acceptable:
 - a. Project Manager – The Project Manager shall be the primary person in charge of and responsible for delivery of the Project in accordance with the Contract requirements. The Project Manager must be present on site as the Project progresses, have full authority to make the final decisions on behalf of the Proposer and have responsibility for communicating these decisions directly to SCDOT. The individual assigned to this position must be dedicated to the duties of the Project Manager and no additional assignments can be placed on this person.
 - b. Lead Design Engineer – The Lead Design Engineer shall be in charge of and responsible for all aspects of the design of the Project (road, bridge, hydrology and geotechnical).
 - c. Utility Coordinator – The Utility Coordinator shall be responsible for coordinating the relocation of all utilities affected by the Project.
 - d. Construction Manager – The Construction Manager shall be responsible for coordination between the design and construction teams and resolution of problems arising between the design and construction during the project, subject to oversight by the Project Manager.
 - e. Environmental Manager – The Environmental Manager shall be responsible for adherence to all environmental requirements and commitments, including erosion control inspections as required by NPDES and other environmental rules and regulations.

- f. Quality Control Manager – The Quality Control Manager shall be responsible for ensuring that all workmanship and materials and inspections and testing are in compliance with the Contract requirements. The Quality Control Manager shall not report directly to the Project Manager or other project personnel on the project but shall report to a responsible officer of the entity with whom SCDOT has contracted. Quality Control shall be the sole responsibility of this person and no other additional assignments can be placed on this person.
 - g. Public Relations Manager – The Public Relations Manager shall be responsible for ensuring good public relations during the construction of the Project.
 - h. Safety Manager – The Safety Manager shall be responsible for compliance with all applicable safety regulations. Project wide safety shall be the sole responsibility of this person and no other additional assignments can be placed on this person.
- 4. Identify any firms on the team who have previously worked together on similar projects.
 - 5. Indicate the team's ability to comply with Disadvantaged Business Enterprise (DBE) requirements.
 - 6. Describe the approach to accomplish the various items of work required by the project as identified in the Scope.
 - 7. Indicate the approach the team will have with regard to public and media relations.
 - 8. Demonstrate the team's ability to commit necessary resources to successfully complete the project.
 - 9. Identify the Project Manager and the firm by which he/she is employed. Give a clear definition of the role and responsibility of the Project Manager relative to the member firms.
 - 10. Provide a financial statement for each major firm on the Proposer's Team and any major partners. Provide information on Proposer's insurance and bonding capacity.

II. EXPERIENCE OF KEY INDIVIDUALS

Provide information demonstrating that key individuals possess the required minimum qualifications listed below:

1. All team members shall hold or obtain licenses required for performing work on the project under state and local laws.
2. Any design reports or plans shall be signed and sealed by a Registered Professional Engineer registered in the State of South Carolina.
3. The Proposer's design team shall meet the following minimum qualifications:
 - a. The lead design engineer shall have a minimum of five (5) years experience and expertise in the design of projects of similar scope and magnitude.
 - b. The design team shall have personnel with experience and expertise in all phases of roadway and bridge structure design as required for this project.
 - c. The design team shall have the necessary equipment and personnel to provide the designs and plans in a timely manner.
4. The proposer shall provide for a Geotechnical Engineer to conduct a geotechnical investigation and provide specific recommendations for the design and construction of the foundations. The Geotechnical Staff shall contain at least one Registered Professional Engineer with a minimum of five (5) years experience in the design of bridge foundations.
5. The Proposer's Project Manager must have at least five years experience managing projects of similar scope and magnitude. Describe the Project Manager's experience leading this type and magnitude of project. Provide a list of the projects that the Project Manager has managed in the past. For each project listed, provide:
 - a. A brief description of each project managed, including the year(s) of construction, size and type of project, including any unusual features.
 - b. Name of owner the work was performed for and the name and phone numbers of owner's representatives who can verify and discuss the Project Manager's participation in the project.

6. Provide information that the Proposer's construction team meets the following minimum qualifications:
 - a. The construction manager shall have a minimum of five (5) years experience in the management of projects of similar scope and magnitude.
 - b. All key members of the construction team shall be prequalified as a General or Bridge Contractor by the SCDOT prior to execution of a contract.
 - c. Each construction superintendent shall have a minimum of five (5) years experience in supervising projects of similar scope and magnitude.
 - d. The project surveyor of the construction team shall be a Registered Land Surveyor (RLS) in the State of South Carolina, shall have a minimum of five (5) years experience and demonstrate experience in roadway and bridge construction work.
 - e. The Proposer's Quality Control team (QC) shall meet the following minimum qualifications.
 - i. The QC Manager shall have a minimum of five (5) years experience on projects of similar scope and magnitude.
 - ii. The QC team shall have an AASHTO accredited lab for testing purposes.
 - iii. The inspection personnel must obtain appropriate certification as required by SCDOT for each specific test to be performed. All certifications must be reviewed and approved.

7. Provide resumes of key individuals that you consider critical to the success of this project, including team members discussed above. This information may be included in the appendices and will not be counted against the 25-page maximum requirement.

Key individuals and team members are to remain for the duration of the project and changes cannot be made without SCDOT approval.

III. PAST PERFORMANCE

1. For each firm included in the Proposers Team, provide information demonstrating the firm's qualifications for performing work included in this Proposal. The information is to include a list of project experience in the past five (5) years, including year(s) of construction.
2. For each project listed, provide:
 - a. A brief description of the project.
 - b. Name of owner for whom the work was performed.
 - c. Name and phone numbers of owner's representatives who can verify and discuss the firm's participation in these projects.
3. Include SF 254/255 for all engineering firms and similar profiles for construction firms.

4. Provide brief answers and explanations to the following questions.
- a. Has any member of the Proposer's team been declared delinquent and/or in default on any project within the last 5 years?
 - b. In the past 5 years, has any member of the Proposer's team been suspended, debarred, disqualified from bidding, or declared ineligible for work by any entity or are any such actions pending against them?
 - c. In the past 5 years, has any member of the Proposer's team submitted a claim on a project that was not resolved without litigation and if litigated was not resolved in favor of the member of Proposer's team?
 - d. Has any member of the Proposer's Team been assessed liquidated damages on any projects within the past 5 years?
 - e. Does any member of the Proposer's team have active projects that are behind schedule?
 - f. In the past 5 years, has any member of the Proposer's team been found in violation of any Local, State, or Federal laws or regulations or is currently under investigation for violation of any such laws or regulations. This includes but is not limited to safety, environmental, and erosion/sediment control issues.
 - g. Within the last 5 years, has any member of the Proposer's team received incentives for early project completion?
 - h. In the past 5 years, has any member of the Proposer's team been involved in design and construction related litigation.

IV. QUALITY CONTROL (QC) PLAN APPROACH

Provide information on how the QC responsibilities, including inspection and testing, will be performed on this project.

Proposers who respond to this Request for Qualifications may be asked to provide additional information.

QUALIFICATIONS EVALUATION

A Selection Committee has been established by the SCDOT to review the RFQ responses.

The criteria shown below will be considered in determining the firm's qualification score. The maximum points for each evaluation category will be as follows:

Management Experience and Approach	35
Experience of Key Individuals	30
Past Performance	25
Quality Control Plan Approach	10
Maximum Score	100

SELECTION

Based upon the scoring, the selection committee will look for a discernable break in the scores to assist in determining who will be invited to respond to the RFP.

GENERAL INFORMATION

The SCDOT reserves the right, at its sole discretion, to either proceed no further with the Project RFQ process, or to re-advertise in another public solicitation.

The SCDOT reserves the right to accept or reject any and all responses and/or discontinue the selection process at any time prior to contract execution.

The SCDOT assumes no liability and will not reimburse costs incurred by firms (whether selected or not) in developing responses to this RFQ.

The SCDOT reserves the right to request or obtain additional information about any and all responses to the RFQ. SCDOT may also issue addenda to the RFQ which will be mailed to all RFQ holders.

After initial submittal, key members of the Proposer's team can not be changed without SCDOT approval.

All responders must visibly mark as "CONFIDENTIAL" each part of their submission which they consider to contain proprietary information the release of which would constitute an unreasonable invasion of personal privacy. All unmarked pages will be subject to release in accordance with law. Proposer should be prepared, upon request, to provide justification of why such materials should not be disclosed under the South Carolina Freedom of Information Act, S.C. Code Section 30-4-10, et seq.

MILESTONES

Advertise RFQ	June 16, 2005
Deadline for Submittal of ten (10) copies of Qualifications	July 26, 2005 4:00 PM
Submit to:	
<p>Mr. Michael S. Meetze, P.E. Program Development West Engineer South Carolina Department of Transportation 955 Park Street, Room 424 Post Office Box 191 Columbia, South Carolina 29202-0191</p>	
Evaluation of Qualifications	July 26, 2005 to August 16, 2005
Recommendation of Ranking to SCDOT Executive Director	August 18, 2005
Letter to Selected & Non-selected Proposers	August 23, 2005 (Approximate Date)
Provide RFP to Selected Proposers	August 30, 2005 (Approximate Date)
SCDOT Right-of-Way and Permit Status	October 11, 2005
Submittal of RFP Proposals	November 22, 2005 (Approximate Date)
Award/Contract Execution	December 20, 2005 (Approximate Date)
Project Completion	Summer 2008 (Approximate Date)

DRAFT

I-520 Palmetto Parkway, Phase II Design-Build Project Contract

INDEX

Request for Proposals

Attachment A – Agreement

Exhibit 1. Scope of Work

Exhibit 2. Project Criteria

2a. Road

2b. Structures

2c. Pavement

2d. Traffic

Part 1 – Signing & Pavement Markings

Part 2 – Work Zone Traffic Control

Part 3 – Traffic Control Devices

2e. Surveys

2f. Hydraulic

2g. Multi-use Path

Exhibit 3. Special Provisions

Exhibit 4. Supplemental Specs

Exhibit 5. Federal Aid Projects Supplemental Specifications

5a. Required Contract Provisions Federal-Aid Construction Contracts

5b. Disadvantaged Business Enterprises (DBE) – Federal Projects

5c. Standard Federal Equal Employment Opportunity Construction Contract

5d. Specific Equal Employment Opportunity Responsibilities

Part 1 – Pre-Employment Training

Part 2 – Specific Equal Employment Opportunity Responsibilities

Training Special Provisions

Exhibit 6. Dispute Resolution Procedure

Exhibit 7. Schedule of Values

Exhibit 8. Environmental Information

8a. Environmental Permit Application

8b. Summary of Environmental Commitments

Exhibit 9. Escrow Documents

9a. Escrow Release

9b. Escrow Agreement

Attachment B – Instructions to Proposers (DBE)

Attachment C – Project Information Package – Table of Contents

1. Palmetto Parkway (I-520) ROW Plans with Hard Copy and CD

2. Preliminary Bridge Plans and CD

3. Preliminary Signal Plans and CD

4. Preliminary Signage Plans and CD

5. Preliminary Traffic Control Plans and CD

6. Preliminary Pavement Marking Plans and CD



7. Traffic Signal Design Guidelines (CD)
8. Preliminary Geotechnical Reports and data
9. Drainage Notebook and other calculations
10. Preliminary Utility Report
11. Hydro Design Requirements & Geopak Drainage
12. Specifications for Signing Expressways & Freeways
13. Preliminary Quantities – **For Information Only**

NOTE: Items 1 through Item 4 are included on Preliminary Plans Disk 1. Items 5 and 6 are included on Preliminary Plans Disk 2.

Attachment D – Project Layout

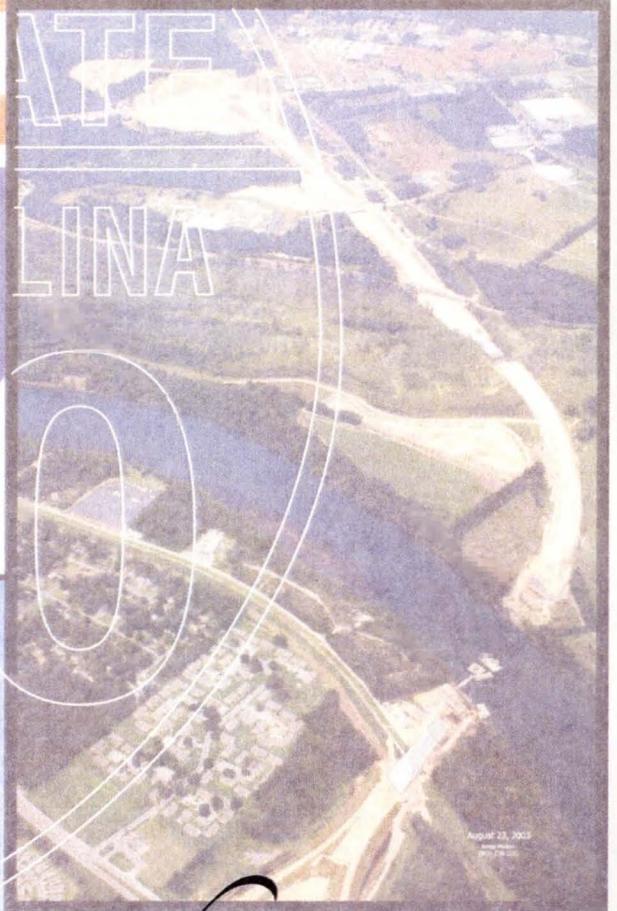
1. Project Map
2. Right of Way Exhibit

DRAFT

INTERSTATE

SOUTH CAROLINA

520



*Palmetto
Parkway Phase II*
design/build project

From US Route 1 to Interstate 20
Aiken County, South Carolina

REQUEST FOR PROPOSALS

SCDOT File Number 2.140B
PIN 27912

DRAFT

TABLE OF CONTENTS

I.	PURPOSE OF REQUEST FOR PROPOSALS	4
II.	OVERVIEW	4
	Project Description	4
	Project Information	5
	Environmental Documentation	5
	Right of Way	6
	Permits	6
	Utilities	6
	Maintenance of Traffic	6
	Public Relations	7
	Partnering	7
	RFP Committal	7
	Disadvantage Business Enterprises	7
	On-The-Job Training Requirement	8
III.	GENERAL INSTRUCTIONS	8
	Pre-Proposal Meeting	8
	Questions	8
	Proposal Submittal	9
IV.	PROJECT SCOPE	9
V.	PROPOSAL DEVELOPMENT	10
	Technical Proposal	10
	Cost Proposal	11
	Confidentiality of Proposals	12
VI.	EVALUATION OF PROPOSAL	12
	Proposal Review Committee	12
	Proposal Review	12
	Technical Evaluation	13
	Presentations	13
	Proposal Evaluation	13
VII.	SELECTION OF CONTRACTOR	13
VIII.	GENERAL INFORMATION	13
IX.	MILESTONES	15
X.	COST PROPOSAL BID FORM	16



Attachment A – Agreement

Attachment B – Instructions to Proposers – DBE Requirements

Attachment C – Project Information Package, Table of Contents

Attachment D – Project Layout

DRAFT

I. PURPOSE OF REQUEST FOR PROPOSALS

The South Carolina Department of Transportation (SCDOT) in cooperation with the Federal Highway Administration (FHWA) seeks to construct a four-lane divided interstate system including a number of bridges using the Design-Build Procurement method. The purpose of this Request for Proposals (“RFP”) is to select a Proposer to perform the project services described in this RFP. SCDOT desires that this interstate system and bridges be constructed in a very efficient and timely manner. This work will include all services necessary to design and construct the interstate system and associated bridges complete and open to traffic. “Proposer,” as used here, includes a firm or firms, consortia, partnerships, joint ventures, and other legal entity, which has been requested by SCDOT to submit a Proposal in response to this RFP.

It is not the intention of the SCDOT to receive complete detailed project analysis and design prior to the selection of a Proposal and the later execution of an agreement. Rather, the response of this RFP shall provide sufficient information to be evaluated to determine if the proposal is in accordance with the specified process and criteria. The Proposal shall be specific enough on assumptions used in its preparation so as to provide the basis for determining a final agreement.

The information obtained under this RFP will become the property of SCDOT without restriction or limitation on their use. SCDOT shall have unrestricted authority to publish, disclose, distribute, or otherwise use in whole or in part any reports, data, or other materials prepared under this RFP. SCDOT shall retain ownership of all plans, specifications, and related documents.

II. OVERVIEW

Project Description

The Project consists of the completion I-520 from US Route 1 to I-20 along new location for approximately 6.5 miles. Due to its functional class and its connection to I-20, a multidirectional interchange is to link the two interstate facilities. The project is a controlled access four lane divided interstate facility including three interchanges and incorporating 13 bridges. This project also includes roadway improvements to US Route 25, SC Route 126 (Clearwater Road), Road S-33 (Ascauga Lake Road), and various secondary and local roads (as shown on the right-of-way plans) to accommodate the I-520 alignment. A connector road will be constructed from US Route 25 to I-520 to link the two facilities. A multipurpose lane will be constructed from Atomic Road to Ascauga Lake Road.

SCDOT intends to enter into a contract, which shall include but is not limited to:

- Project Services – completion of construction plans as detailed in the Project Scope and shall include but are not limited to Design and Project Management.
- Utility Coordination and Utility Relocation Services

DRAFT

- Construction Services – necessary to build and ensure high quality workmanship of the designed facility.
- Public Involvement and Community Relations.

The selected Proposer shall be responsible for all engineering, design, and plan preparation services (including but not limited to community relations, utility coordination and relocation services, construction services, inspection and testing services, project layout, and any and all other services that may be necessary for completion of the Project.

The Proposer shall be responsible for meeting all project requirements, specifications, and other applicable criteria. If modifications to the plans are required by the Proposer, the Proposer shall be responsible for these modifications, any associated permit modifications, additional right-of-way, additional utility impacts, and cost thereof. All modifications must meet or exceed the project requirements.

Project Information

A Project Information Package, containing information applicable to the Project, will be supplied to Proposers at no cost. Proposers should contact:

Mr. Michael S. Meetze, P.E.
Program Manager, Program Development West
955 Park Street, Room 424
P.O. Box 191
Columbia, SC 29202-0191
Phone: 803-737-1295
Fax: 803-737-9939

The Project Information Package will include information describing the work, which has been performed, or will be performed, by SCDOT prior to entering into the contract for the Project. A Table of Contents for the Package is attached to this RFP as “Attachment C”.

Environmental Documentation

SCDOT has prepared the necessary environmental documents consistent with the NEPA process including any necessary studies. The environmental documentation was included in the Project Information Package made available during the Request for Qualifications Phase. Currently, the project has been advanced through the environmental phase with the approval of a Final Environmental Impact Statement, Environmental Re-Evaluation and Record of Decision (ROD).

In preparing the environmental documentation, SCDOT has made certain assumptions regarding project construction. If the Proposer elects to construct the project in a manner that is not consistent with the assumptions in the SCDOT prepared environmental documents, the Proposer

DRAFT

will be responsible for preparing any necessary environmental re-evaluation and providing any additional studies that may be required. All necessary re-evaluations will require SCDOT and FHWA approval prior to any construction activity. It is the Proposer's responsibility to comply with all commitments listed in the commitment section of the document.

Right of Way

SCDOT will be responsible for obtaining right of way necessary for the construction of the Project as depicted in the most recent Right of Way plans provided in the Project Information Package attached hereto as "Attachment C, Item 1". SCDOT intends to make the right of way available by the Notice to Proceed, with the exception of those parcels listed in the Right of Way Special Provision, included in "Attachment A, Exhibit 3". No additional compensation will be considered (time or money) until 30 days beyond the availability dates stated in the Special Provision and documentation is provided showing that the critical path has been affected.

Permits

SCDOT will be responsible for obtaining environmental permits necessary for the construction of the Project as depicted in the most recent right-of-way plans. A copy of the environmental permit application submitted to the United States Army Corp of Engineers on August 22, 2005 is included as "Exhibit 8a". A summary of environmental commitments and responsibilities is shown as "Exhibit 8b". All work associated with any permit modifications as a result of changes proposed by the Proposer shall be the Proposer's responsibility.

Utilities

The Proposer shall provide utility coordination services for the construction of the project. The Proposer shall include in his bid, coordination services for all utilities and shall identify prior rights. The cost of relocation of utilities with prior rights shall be the responsibility of SCDOT. For those utilities having prior rights, the Proposer shall be responsible for developing the utility agreement for SCDOT approval. For those utilities where SCDOT has prior rights, the Proposer may exercise SCDOT's prior rights and require the utility company to bear the costs of relocation.

Maintenance of Traffic

Traffic control shall comply with SCDOT Standard Specifications, Standard Drawings, and any Special Provisions included in the contract.

DRAFT

Public Relations

The Proposer shall include a Community Relations Plan in the Proposal. The community relations plan shall describe how the Proposer will actively promote good relationships with local elected officials, the news media, and the community at large. All cost of community relations will be included in the Total Project Cost.

In addition, intergovernmental communication is vital as the project is funded through a mixture of federal, state, county, and South Carolina Transportation Infrastructure Bank (SCTIB) dollars. SCDOT will expect the Proposer to have professional personnel available to proactively assist with this communication. Included in this intergovernmental communication will be at least bi-monthly updates to the City of North Augusta and Aiken County Councils, the County Legislative Delegation, the Congressional delegation, the SCTIB, and the SCDOT Commission, as well as periodic news releases (10 minimum) on the status of the project, publications and websites. The website shall be functioning within 60 days from the date of the Notice to Proceed. SCDOT will forward all media inquires regarding the Project to the Proposer and expect the Proposer to be responsive to those requests.

SCDOT will expect the Proposer to maintain positive communications with the local community (including public meetings when necessary), the adjacent property owners, and local businesses.

Partnering

SCDOT values a partnering approach on projects and as such this project will require regular Partnering Sessions. The objectives are effective and efficient contract performance and completion within budget, on schedule, and in accordance with the contract requirements. The cost of the partnering activities will be shared between the Proposer and SCDOT.

RFP Committal

The submittal of a Proposal in response to this RFP shall constitute the Proposer's agreement to enter into a contract with SCDOT for the completion of the Project under the terms set forth in the Agreement attached hereto as "Attachment A".

Disadvantage Business Enterprises

SCDOT strongly encourages the use of Disadvantaged Business Enterprises (DBE) in all phases of the work required by this project. The contract for this Project contains a DBE goal of eight percent (8%) of the contract price. Proposers shall submit a DBE committal sheet with their response to this RFP in the separate sealed cost proposal packet. The Proposer shall comply with the requirements of the Instructions to Proposers-DBE Requirements as detailed in "Attachment B".

DRAFT

Pre-Employment / On-The-Job Training Requirement

The contract for this Project also contains a Pre-Employment / On-The-Job Training Requirement. The Proposer shall train at least 15 individuals in the Pre-Employment Program. The number of persons to be trained during this Project is 10 Road and 15 Bridge. The Proposer shall comply with the requirements of "Attachment A, Exhibit 5d". In response to the RFP, the Proposer shall submit a detailed description to implement the Pre-Employment Training Program. The Proposer shall submit its plan for On-the-Job Training to SCDOT for approval prior to commencing construction activities.

III. GENERAL INSTRUCTIONS

Pre-Proposal Meeting

A mandatory pre-Proposal meeting will be held in the Auditorium at SCDOT's Columbia Headquarters. See the Milestone Schedule on page 14 of this document for the date and time. Proposers are required to have a representative at the pre-Proposal meeting in order for their proposal to be considered. The meeting will be recorded. Please confirm your attendance at the pre-Proposal meeting by contacting:

Ms. Denise Sease
Administrative Assistant – SCDOT
Post Office Box 191, Room 424
Columbia, SC 29202-0191
Phone: (803) 737-1363 Fax: (803) 737-9939

Questions

Proposers may ask questions or request clarifications relating to the RFP. These inquiries must be in writing and must be received by SCDOT in accordance with the Milestone Schedule. Questions shall be directed to:

Mr. Michael S. Meetze, P.E.
Program Manager, Program Development West
955 Park Street, Room 424
P.O. Box 191
Columbia, SC 29202-0191
Phone: 803-737-1295
Fax: 803-737-9939

The list of questions and SCDOT's written responses to these questions will be mailed to all RFP holders. Proposers may not rely on any responses about the RFP except written responses to questions submitted in writing in accordance with the RFP.

DRAFT

Proposal Submittal

Proposals must be received by the time and date given in the Milestone Schedule. Deliver TEN copies of the Proposal to:

Mr. Michael S. Meetze, P.E.
Program Manager, Program Development West
955 Park Street, Room 424
P.O. Box 191
Columbia, SC 29202-0191
Phone: 803-737-1295
Fax: 803-737-9939

IV. PROJECT SCOPE

The scope of work for this project will include design, construction and construction engineering and management of the project. The design work will include but is not limited to additional surveys, geotechnical work, hydraulic analysis, scour analysis and structural design including seismic analysis and design. The designs shall meet all appropriate SCDOT design guidelines set forth in the SCDOT Highway Design Manual 2003 (including the 2004 and 2005 Annual Updates) and supplemented with appropriate FHWA and AASHTO guidelines and policies included, but not limited to AASHTO Policy on Geometric Design of Highways and Streets (2001 – 4th Edition), AASHTO Policy on Design Standards – Interstate System (July 1991), AASHTO Standard Specifications for the Design of Highway Bridges (latest edition), SCDOT Seismic Design Specifications for Highway Bridges (latest edition), AASHTO Guide for the Development of Bicycle Facilities (Latest Edition), Manual of Uniform Traffic Control Devices (2003) and SCDOT Project Criteria attached hereto as “Attachment A, Exhibit 2”.

Construction will include but is not limited to all necessary roadway and bridge work, drainage, utility coordination, erosion and sediment control work items, necessary foundation work, substructure work, superstructure work and traffic control. Construction engineering and management, including quality control will be the responsibility of the Proposer. Construction will comply with SCDOT Standard Specifications for Highway Construction Edition of 2000, SCDOT Construction Manual (May 2004), Manual of Uniform Traffic Control Devices (2003), SCDOT Supplemental Specifications, SCDOT Standard Drawings for Road Construction and any special provisions.

Areas of work required for this project will include, but are not limited to the following items:

1. Final Roadway Plan Preparation
2. Preliminary and Final Bridge Design
3. Drainage Design including sediment and erosion control
4. Geotechnical Design
5. Construction

6. Project Management
7. Construction Management
8. Quality Control (QC) including inspection and testing
9. Utility Coordination
10. Community/Media Relations and Information
11. Traffic Control

V. PROPOSAL DEVELOPMENT

Proposals must be submitted concurrently in two parts, a Technical Proposal and a Cost Proposal. The Technical Proposal shall contain no more than twenty (20) pages, excluding any plans and appendices. The Technical Proposal shall be single sided, with no smaller than twelve-point font and double line spacing for text. The Cost Proposal shall be bound and sealed separate from the Technical Proposal.

Technical Proposal

In order that evaluation may be accomplished efficiently, the Technical Proposal shall be prepared in the following sequence:

1. Executive Summary
2. Project Delivery
3. Project Approach
4. Innovation and Other Qualitative Considerations

Under **Project Delivery**, the Proposal at a minimum shall:

- Describe the Proposal in sufficient detail that SCDOT may determine its scope and intent.
- Describe the assumptions used in developing the Proposal.
- Identify the proposed schedule for implementing the Project. Include the sequence of construction of the Project to minimize disruption to the community(ies), motoring public, and the environment.
- Identify construction methods for the project.
- Identify the proposed schedule for completing the Project, including the total number of calendar days from Notice to Proceed necessary to complete the Project. **The Project shall be completed no later than 912 Calendar Days from Notice to Proceed.**
- Describe assurances and ability to complete the project within the proposed time for the Project.
- Identify the anticipated schedule by which funds will be required.
- Describe the project risks and indicate whether the risk is assumed by the Proposer, shared (to what extent), or assumed entirely by SCDOT. The responsibility of risk as assigned in this RFP and the Agreement shall not be changed.
- Describe the proposed plan for meeting or exceeding the design standards.

DRAFT

- Demonstrate how the team will meet the interim completion dates for US Route 25 Connector. The Connector must be constructed March 1, 2007. For purposes of the intermediate completion time, the US 25 Connector is defined as construction of the bridge and roadway in its entirety as shown on the plans from the intersection of US 25 to the end of construction at Station 38 + 88.69. All elements of the US 25 Connector are to be substantially complete including all traffic lanes, bridges, and ramp connections. The ramp connections shall be constructed to a point off of the US 25 Connector, and barrels installed, such that completion of ramps will not interfere with traffic on the US 25 Connector. Traffic signals and cable are to be installed and signal heads covered until the ramps are opened to traffic. Traffic signals are to be installed at the intersection of US 25 / US 25 Connector and fully operational at opening of the US 25 Connector.

Under **Project Approach**, the Proposal at a minimum shall:

- Describe the management structure to assure success.
- Describe how Partnering will be incorporated into the Project.
- Describe the Proposer's safety plan to be implemented during the construction phase.
- Describe the proposed quality control plan for the Project that ensures independent inspection and testing as well as providing a sufficient number of inspectors.
- Describe the Community Relations Plan to ensure good relations with public officials and the community. Describe how the plan will provide for timely and accurate dissemination of information to the public.
- Describe how the DBE goal will be accomplished. Identify DBE firms that will be utilized, types of work, and percent of committal. To avoid disclosing any project cost information during the technical review, do not provide cost information in the technical proposal. However, a DBE committal sheet shall be included in the separate sealed cost proposal.

Under **Innovation and Other Qualitative Considerations**, the Proposal at a minimum shall:

- Describe any proposed warranties that are above and beyond what is required for this project.
- Describe the plan to ensure all permit requirements will be met.
- Describe any innovative construction methods that will be used that will be particularly environmentally friendly.
- Describe any additional enhancements that will be included in the Project.

Cost Proposal

All proposals shall identify the proposed cost of the Project by items of work as listed below and identify the Total Project Cost. The bid form provided at the end of this RFP must be used. A detailed description of each item of work is provided in the Scope of Work.

- Interstate 520 and associated Interstate 20 and secondary road improvements
- Interstate 520 / SC Route 126 (Belvedere-Clearwater Road) Interchange and SC Route 126 improvements.
- US 25 Roadway Widening and US 25 / I-20 Interchange

DRAFT

- US 25 Connector Roadway and Interchange
- Completion of Multi-Use Path

Confidentiality of Proposals

Proposals shall specifically identify any elements that are deemed confidential, or proprietary. Proposers shall be prepared upon request to provide justification of why such materials shall not be disclosed under the South Carolina Freedom of Information Act, Section 30-4-10, et seq., South Carolina Code of Laws (1976) as amended. Proposals will be kept confidential and will not be disclosed, except as may be required by law.

VI. EVALUATION OF PROPOSALS

Proposal Review Committee

A Proposal Review Committee (“Committee”) will be appointed by SCDOT to review the Proposals. The voting members will be comprised of SCDOT employees. In addition, SCDOT will assemble a group of non-voting resource members having expertise in the various disciplines required by the project including the Federal Highway Administration.

Proposal Review

SCDOT has developed review procedures in order to provide a balanced assessment of the Proposals. Proposals shall be submitted in two separate covers, one containing the Technical Proposal and one containing the sealed Cost Proposal. All Technical Proposals will be evaluated prior to opening the Cost Proposals.

The Committee will review the Proposals and determine whether each Proposal is responsive. Responsive Proposals will be accepted by the Committee for evaluation. Any non-responsive Proposal will be returned to the Proposer with a detailed explanation as to reasons for determining non-responsiveness. Reasons for determining a proposal to be non-responsive may result from, but is not limited to, the following: failure to provide all information requested in the Technical proposal, failure to complete the Cost Proposal Bid Form, and failure to provide a DBE committal sheet in the Cost Proposal Packet.

DRAFT

Technical Evaluation

All Proposals will be evaluated for technical merit. A Technical Score will be developed for each Proposer. Technical Scores will be based on a scale of 0 to 100. The following criteria will be used in determining the Technical Score:

Project Delivery -----	<u>40 points</u>
Project Approach -----	<u>40 points</u>
Innovation and Other Qualitative Considerations -----	<u>20 points</u>

Presentations

Proposers who have submitted acceptable Proposals may be invited by the Committee to make a presentation. The presentation, if required, will allow the Proposers an opportunity to further explain any aspect of their Proposals. The Committee may address questions to the Proposer after the presentation.

Proposal Evaluation

After all Technical Proposals are evaluated and scored, cost envelopes will be opened. Each Proposer's total project cost will be divided by their Technical Score (expressed as a decimal – i.e., a technical score of 92 would be expressed as 0.92) to determine an “adjusted bid”. The top ranked proposal will be determined by the lowest adjusted bid. The adjustment of the total project cost by the Technical Score is for ranking of the proposals only and does not affect the actual total project costs submitted.

VII. SELECTION OF CONTRACTOR

The Committee will present a report regarding their review of the proposals to SCDOT Executive Director and recommend selection of the top ranked Proposer. Upon approval of SCDOT Executive Director, SCDOT will offer a contract to the selected Proposer.

VIII. GENERAL INFORMATION

SCDOT reserves the right to terminate evaluation of one or more of the proposals if it is determined to be in the best interest of the state to do so.

SCDOT reserves the right, at its sole discretion, to either proceed no further with the RFP process, or to re-advertise in another public solicitation.

DRAFT

SCDOT reserves the right to reject any and all proposals and/or to discontinue contract execution with any party at any time prior to final contract execution.

SCDOT assumes no liability and will not reimburse costs incurred by firms, whether selected or not, in developing proposals or in contract execution.

SCDOT reserves the right to request or obtain additional information about any and all proposals. SCDOT may also issue addenda to the RFP, which will be mailed to all RFP holders.

DRAFT

IX. MILESTONES

Provide RFP to Selected Proposers	January 3, 2006 (Approximate Date)
Mandatory pre-Proposal Meeting/ SCDOT Right-of-Way and Permit Status	January 17, 2006
Deadline for Proposers to submit written questions	January 27, 2006
Deadline for SCDOT to mail responses to written questions	February 6, 2006
Submittal of RFP Proposals (10 Copies)	March 10, 2006 at 2:00 pm (Approximate Date)
Presentation to Evaluation Committee	(To Be Determined)
Notification of Selection	March 31, 2006 (Approximate Date)
Award/Contract Execution	April 24, 2006 (Approximate Date)
Notice to Proceed	April 28, 2006 (Approximate Date)
Project Completion	Fall 2008 (Approximate Date)

DRAFT

Cost Proposal Bid Form State File Number 2.140B

<u>Items of Work (see Scope of Work for description of activities)</u>	<u>Bid Price</u>
1. Interstate 520 and associated Interstate 20 and secondary road improvements	\$ _____
2. Interstate 520 / SC Route 126 (Belvedere-Clearwater Road) Interchange and SC Route 126 improvements.	\$ _____
3. US 25 Roadway Widening and US 25 / I-20 Interchange	\$ _____
4. US 25 Connector Roadway and Interchange	\$ _____
5. Completion of Multi-Use Path	\$ _____
 TOTAL PROJECT COST =	 \$ _____

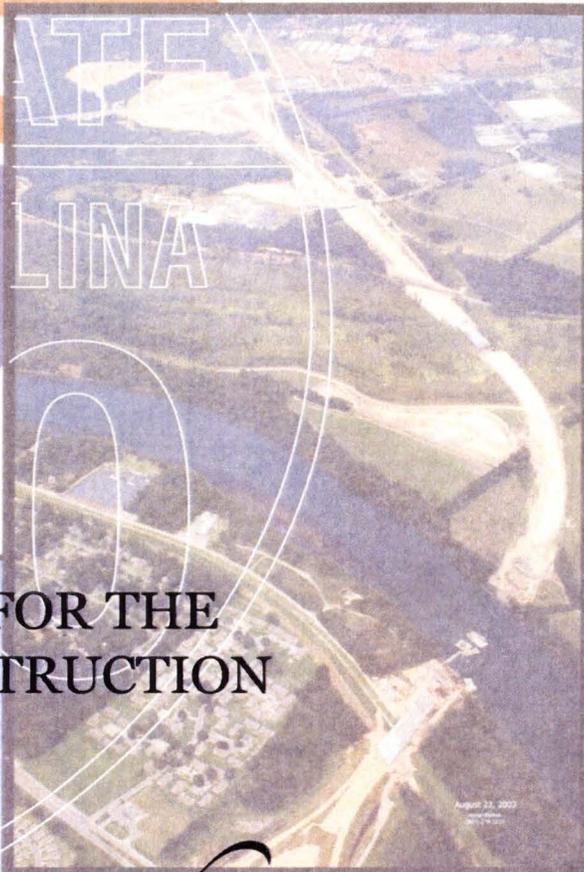
Note: The Total Project Cost shall include all items of work #1 through 5 and will be used during the cost evaluation process to determine the top ranked proposal.

DRAFT

INTERSTATE

SOUTH CAROLINA

520



AGREEMENT FOR THE
DESIGN & CONSTRUCTION
OF

*Palmetto
Parkway Phase II*
design/build project

BETWEEN
THE SOUTH CAROLINA
DEPARTMENT OF TRANSPORTATION
AND

SCDOT File Number 2.140B

_____ day of _____, 2006

DRAFT
Attachment A - Agreement

TABLE OF CONTENTS

	Page Number
LIST OF EXHIBITS.....	5
I. CONTRACT DOCUMENTS.....	7
II. PROJECT SCOPE.....	7
A. Scope of Work.....	7
B. Design and Construction Responsibilities.....	7
C. Design Criteria.....	8
D. Design Review.....	8
E. Ownership of Documents.....	9
F. Construction Criteria.....	10
G. Project Management.....	10
H. Control of the Work.....	11
III. CONTRACT PRICE/CONTRACT PAYMENTS.....	11
A. Contract Price.....	11
B. Contract Price Adjustments.....	12
C. Contract Payments.....	13
D. Retainage.....	15
IV. CONTRACT TIME.....	16
A. Project Schedule.....	16
B. Contract Time Adjustments.....	19
C. Owner's Right to Stop Work.....	19
D. Liquidated Damages.....	20
CONTRACTOR shall pay SCDOT Three Thousand (\$3,000) dollars per day in liquidated damages for each calendar day by which the period of work at the US Route 25 Connector Roadway exceeds the Interim Completion Date.....	20
V. QUALITY CONTROL/QUALITY ASSURANCE.....	20
A. CONTRACTOR's Responsibilities.....	20
B. SCDOT Responsibilities.....	21
C. CONTRACTOR's Obligation.....	22
VI. INSURANCE AND BONDING.....	22
A. Insurance.....	22
B. Bonding.....	24

DRAFT

Attachment A - Agreement

VII.	UTILITIES.....	24
	A. Scope of Work	24
VIII.	RIGHT OF WAY ACQUISITION.....	25
IX.	PERMITS.....	26
X.	ENVIRONMENTAL COMPLIANCE.....	26
	A. Compliance with Environmental Commitments.....	26
	B. Preconstruction / Partnering Conference(s).....	27
	C. Protection of Archeological and Paleontological Remains and Materials.....	27
XI.	HAZARDOUS MATERIALS.....	28
XII.	DEMOLITION, REMOVAL & DISPOSAL OF STRUCTURES.....	29
XIII.	DIFFERING SITE CONDITIONS.....	29
XIV.	FORCE MAJEURE	29
XV.	WARRANTY	30
XVI.	INDEMNITY	30
XVII.	TERMINATION AND CANCELLATION	30
	A. Termination for Default	30
	B. Termination for Convenience	32
XVIII.	DISADVANTAGED BUSINESS ENTERPRISES	32
XIX.	RECORD RETENTION.....	33
XX.	AS-BUILTS	33
XXI.	ESCROW PROPOSAL DOCUMENTS.....	34
	A. Scope and Purpose	34
	B. Proposal Documentation.....	34
	C. Submittal of Proposal Documentation.....	35
	D. Affidavit.....	35
	E. Verification	35
	F. Duration and Use	36
	G. Refusal or Failure to Provide Proposal Documentation	36
	H. Confidentiality of Bid Documentation.....	36
	I. Cost And Escrow Instructions	36
	J. Escrow Agreement.....	36

DRAFT

Attachment A - Agreement

K.	Payment.....	37
XXII.	DISPUTE RESOLUTION.....	37
XXIII.	SCDOT'S AGENT	37
XXIV.	ASSIGNABILITY	37
XXV.	GENERAL PROVISIONS	37
	CERTIFICATION OF CONTRACTOR.....	40
	CERTIFICATION OF DEPARTMENT	41

DRAFT

Attachment A - Agreement

LIST OF EXHIBITS

1. Scope of Work
2. Project Criteria
 - 2a. Roadway
 - 2b. Structures
 - 2c. Pavement
 - 2d. Traffic
 - Part 1 – Signing and Pavement Marking
 - Part 2 – Work Zone Traffic Control
 - Part 3 – Traffic Control Devices
 - 2e. Surveys
 - 2f. Hydraulic
 - 2g. Multi-use Path
3. SCDOT Special Provisions
4. SCDOT Supplemental Specifications
5. Federal Aid Projects Supplemental Specifications
 - 5a. Required Contract Provisions Federal-Aid Construction Contracts
 - 5b. Disadvantaged Business Enterprises (DBE) - Federal Projects
 - 5c. Standard Federal Equal Employment Opportunity Construction Contract Specifications
 - 5d. Specific Equal Employment Opportunity Responsibilities
 - Part 1 – Pre-Employment Training
 - Part 2 – Specific Equal Employment Opportunity Responsibilities Training Special Provisions
6. Dispute Resolution Procedure
7. Schedule of Values
8. Environmental Information
 - 8a. Environmental Permit Application
 - 8b. Summary of Environmental Commitments
9. Escrow Documents
 - 9a. Escrow Release
 - 9b. Escrow Agreement

Attachment A - Agreement

WHEREAS, the people of the State of South Carolina in general, stand to benefit from the construction of Interstate 520 (Palmetto Parkway, Phase II) and associated construction activities (hereinafter referred to as "the Project"); and

WHEREAS, the South Carolina Department of Transportation, as a servant of the people of the State of South Carolina, wishes to see this strategic project completed; and

WHEREAS, limitations imposed by traditional methods of financing, designing, and constructing highways would mean that the Project could be completed only after an unacceptable delay, if at all; and

WHEREAS, the South Carolina Department of Transportation, working with the people, the federal government, and other agencies of the State of South Carolina, has devised an innovative plan to allow the commencement and completion of the Project in a timely and cost-effective manner; and

WHEREAS, pursuant to Section 57-5-1625 SC Code of Law, the South Carolina Department of Transportation desires to award a highway construction contract using a Design / Build procedure; and

WHEREAS, after a competitive process, CONTRACTOR has been selected to participate in this venture by completing the Project; and

WHEREAS, the South Carolina Department of Transportation wishes to avail itself of and rely on CONTRACTOR's expertise and proven track record in completing such projects, on time and under budget; and

WHEREAS, CONTRACTOR wishes to provide that expertise and to participate in this venture for the good of the people of the State of South Carolina;

NOW THEREFORE, this Agreement is executed and made, effective as of the Effective Date as defined herein, between the SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION ("SCDOT") and _____ ("CONTRACTOR"). In consideration of the covenants hereinafter set forth, the parties hereto mutually agree as follows:

DRAFT

Attachment A - Agreement

I. CONTRACT DOCUMENTS

The Contract shall be composed of this Agreement and all exhibits, SCDOT's Request for Qualifications, SCDOT's Request for Proposals and all attachments, and CONTRACTOR's Proposal and all attachments. In case of conflict, the order of precedence of the Contract documents shall be: (1) this Agreement; (2) Agreement Exhibits; (3) SCDOT Request for Proposals (RFP) document and remaining attachments; (4) CONTRACTOR's Proposal and attachments; (5) SCDOT Request for Qualifications and CONTRACTOR's response.

II. PROJECT SCOPE

A. Scope of Work

CONTRACTOR shall furnish all services, labor, materials, equipment, supplies, tools, transportation, and coordination required to perform all design, preliminary engineering, surveying, geotechnical services, scheduling, permitting, procurement, construction, utility coordination, demolition, material disposal and any other services necessary to perform the Project as defined in the Project Scope of Work made a part hereof as Exhibit 1.

B. Design and Construction Responsibilities

1. CONTRACTOR, consistent with applicable state licensing laws, shall provide, through qualified South Carolina licensed design professionals employed by CONTRACTOR or procured from qualified, independent South Carolina licensed design consultants, the necessary design work, including, but not limited to, surveys, roadway design, traffic control, geotechnical work, hydraulic analyses, storm water management, erosion control, structure design including seismic analyses for the preparation of the required drawings, specifications and other design submittals to permit CONTRACTOR to complete the work in accordance with the Contract.

2. CONTRACTOR shall provide through itself or subcontractors the necessary supervision, labor, inspection, testing, material, equipment, machinery, temporary utilities and other temporary facilities to permit performance of all demolition, earthwork, drainage, foundation work, all traffic control, roadway work, structural work, excavation, erosion and sediment control work, field layout work, construction management and inspection, and all other work necessary to complete construction of the Project in accordance with the Contract. CONTRACTOR shall perform all design and construction activities efficiently and with the requisite expertise, skill and competence to satisfy the requirements of the Contract. CONTRACTOR at all times shall exercise control over the means, methods, sequences and techniques of construction. CONTRACTOR's operations and construction methods shall comply with all applicable federal, state and local regulations with regard to worker safety, protection and health and protection of the environment and applicable permit requirements.

3. CONTRACTOR shall design and construct the Project in such a manner that the construction limits are contained within the Right Of Way (ROW) shown in the ROW plans. Acquisition of any additional area desired by CONTRACTOR for design modifications, construction staging, access or borrow pits, shall be the responsibility of CONTRACTOR.

Attachment A - Agreement

CONTRACTOR shall provide SCDOT the location and documentation for these additional areas. CONTRACTOR shall furnish SCDOT a copy of any agreements for the use of additional properties in conjunction with the construction of the Project. CONTRACTOR shall abide by the provisions of all applicable environmental permits, any conditions of individual right of way agreements, and all environmental commitments. The CONTRACTOR shall sign the NPDES co-permittee agreement and will be made part of the contract.

4. It shall be the responsibility of CONTRACTOR to determine and comply with all applicable federal, state, and local laws in connection with the services set forth in this Contract. This obligation shall include but not be limited to procurement of all permits and licenses not obtained by SCDOT provided, however, that with respect to any permit or licenses that must be obtained in the name of SCDOT, CONTRACTOR shall perform all functions within its power to obtain the permit, and SCDOT will fully cooperate in this effort and perform any functions that must be performed by SCDOT. CONTRACTOR shall be responsible for payment of all charges, fees, and taxes, and providing all notices necessary and incident to the performance of the Project as of the Effective Date of this Agreement. The Contract Price shall include fees related to the above obligations and if any fees are waived by the regulatory or governmental entity, then the amount of the fee waived shall be deducted from the Contract Price.

C. Design Criteria

It shall be the responsibility of CONTRACTOR to design all aspects of the Project in accordance with the contract documents. CONTRACTOR shall review the documents contained in the Project Information Package, provided in the RFP, for compliance with the specifications and standards cited in the contract documents. CONTRACTOR shall be responsible for making any changes necessary to ensure that the final construction plans are in compliance with the specifications and standards cited in the contract documents. CONTRACTOR shall provide a completed set of construction plans signed and sealed by a licensed professional engineer in South Carolina. CONTRACTOR shall be fully responsible for the accuracy of the design and compliance with specifications, standards and Project Criteria.

D. Design Review

1. CONTRACTOR shall provide to SCDOT twenty-one (21) days prior to commencement of the next phase of work, in formats designated by SCDOT, six (6) sets of all conceptual, preliminary, and final design plans, related documents and one electronic copy (in MicroStation, "PDF", and CALS format), so that SCDOT will have an opportunity to review the plans prior to commencement of each activity (including but not limited to final design, construction, demolition, and material disposal). Project plans shall be submitted at a minimum as conceptual, preliminary and final plans. If more than one package is submitted within a seven-day period, an additional 7 days per submittal package will be allowed for the reviews. All submittals to SCDOT shall be signed and sealed by the licensed professional engineer of record. CONTRACTOR shall also provide any design calculations requested in writing by SCDOT. SCDOT will have the right, but not the obligation, to review and comment upon the plans. SCDOT review comments shall be addressed in written form prior to commencement of the next work activity. This review and comment is fully discretionary, however no review or

DRAFT

Attachment A - Agreement

comment nor any failure to review or comment shall operate to absolve CONTRACTOR of its responsibility to design and build the Project in accordance with the contract or to shift responsibility to SCDOT.

2. CONTRACTOR shall submit deliverables including, but not limited to, the following as set forth in the CONTRACT.

- (a) Schedule of Values
- (b) Plans (Article II (D) (1))
- (c) Erosion Control Plan (for entire project, in order to submit Notice of Intent (NOI))
- (d) Storm Water Pollutant Prevention Plan and Spill Prevention Plan
- (e) Traffic Control Plan
- (f) QC Plan
- (g) Public Relations Plan
- (h) Drainage Notebooks for the Project in accordance with SCDOT's Requirements for Hydraulic Design
- (i) CPM Schedule
- (j) EEO, DBE, and OJT Requirements (as specified in Exhibit 5)
- (k) Shop drawings
- (l) Preliminary & Final Geotechnical Reports (as specified in Exhibit 2)
- (m) All final electronic design files for the Project
- (n) Escrow Proposal Documents
- (o) CONTRACTOR's Materials Certification

E. Ownership of Documents

Drawings, specifications, test data, inspection reports, QC documents, daily diaries and any other documents, including those in electronic form, prepared by CONTRACTOR or CONTRACTOR's consultants are "Project Documents". CONTRACTOR and CONTRACTOR's consultants shall be the owner of the Project Documents. Upon the Effective Date of this Agreement, CONTRACTOR grants SCDOT a nonexclusive license to reproduce the Project Documents for the purposes of, but not limited to, promoting, using, maintaining, upgrading, or adding to the Project. Upon completion of the Project or upon default by CONTRACTOR, CONTRACTOR shall provide copies of all Project Documents to SCDOT in the format designated by SCDOT.

Attachment A - Agreement

F. Construction Criteria

CONTRACTOR shall construct the Project in accordance with all applicable Federal, State, and local statutes and regulations. All construction shall be performed in accordance with the following requirements, which are incorporated herein by reference and made a part hereof; provided that, where the following requirements conflict with this Agreement, this Agreement will control:

1. Exhibit 2 – Project Criteria
2. SCDOT's Standard Specifications for Highway Construction (Edition of 2000)
3. Exhibit 3 – SCDOT Special Provisions
4. Exhibit 4 – SCDOT Supplemental Specifications
5. SCDOT Standard Drawings for Road Construction, effective as of November 2005 Letting Date
6. SCDOT Construction Manual, effective as of May 2004
7. SCDOT Approval Sheets, Material Acceptance Policies and New Products Evaluation Summary (available on SCDOT internet)
8. SCDOT Highway Design Manual 2003 (including the 2004 and 2005 Annual Updates)
9. Current SCDOT Design Memorandums; effective as of December 22, 2005 (available on SCDOT internet).
10. Manual of Uniform Traffic Control Devices (2003)

G. Project Management

CONTRACTOR shall be responsible for ensuring that the Project is constructed in conformance with the Contract, all referenced documents and specifications, and applicable laws and regulations.

CONTRACTOR shall provide project management services sufficient to supervise the activities of its own personnel and subcontractors. CONTRACTOR shall provide a sufficient number of persons on site, to the satisfaction of SCDOT, to provide for the construction management of the Project.

SCDOT will provide representatives assigned to the Project to monitor the construction and provide necessary coordination between SCDOT and CONTRACTOR. All costs for salary and equipment to maintain SCDOT employees will be provided by SCDOT at no

DRAFT

Attachment A - Agreement

expense to CONTRACTOR. SCDOT and Federal Highway Administration (FHWA) representatives will have full and complete access to the Project, the work in progress, the "Daily Diaries", and to other technical documents and project records associated with design, construction, demolition, material disposal, materials, quality control, materials installation, and testing. SCDOT representatives will receive reasonable notice of and have the opportunity to participate in any meetings that may be held concerning the Project or the relationship between CONTRACTOR and their consultants and subcontractors when such meetings are associated with technical matters, progress, or quality of the Project. As used in this paragraph, "notice" shall require actual written notice to SCDOT's Agent.

H. Control of the Work

1. CONTRACTOR shall determine the appropriate means, methods and scheduling necessary to complete the work timely and in accordance with all construction requirements. SCDOT and FHWA will have the right to review and inspect the work at any time.

2. If, at any time, SCDOT observes or has actual notice of any fault or defect in CONTRACTOR's performance of this Agreement, SCDOT will give CONTRACTOR prompt written notice reasonably detailing the nature of the fault or defect. SCDOT is not required to discover or to accept defective or faulty work. SCDOT's right to have defective or faulty work promptly corrected shall not be waived by any action of SCDOT.

3. SCDOT will have the authority to suspend the work, wholly or in part, for such periods, as SCDOT may deem necessary, due to CONTRACTOR's failure to meet the requirements of the Contract in the performance of the work.

4. No inspection, acceptance, payment, partial waiver, or any other action on the part of SCDOT will operate as a waiver of any portion of this Agreement or of any power reserved herein or any right to damages or other relief, including any warranty rights, except insofar as expressly waived by SCDOT in writing. SCDOT will not be precluded or estopped by anything contained herein from recovering from CONTRACTOR any overpayment as may be made to CONTRACTOR.

III. CONTRACT PRICE/CONTRACT PAYMENTS

A. Contract Price

The "Contract Price" shall be \$_____. In consideration for the Contract Price, CONTRACTOR shall perform all of its responsibilities under the Contract. The Contract Price shall include all work identified in the Project Scope of Work (Exhibit 1).

DRAFT

Attachment A - Agreement

B. Contract Price Adjustments

1. Allowable adjustments

The Contract Price may be adjusted to reflect the direct costs, plus an additional amount not to exceed 10% of the direct costs for the combined total of reasonable overhead* and profit, associated with any of the following:

- (a) Amount added or deducted as the result of a “Change” or “Construction Change Directive”.
- (b) Differing site condition as defined in Article XIII.
- (c) Intentional or bad faith acts or omissions by SCDOT that unreasonably interfere with CONTRACTOR’s performance and cause delay of work on the critical path of the Project.
- (d) Changes in legal requirements or regulation that are effective subsequent to the date of this Agreement.
- (e) Discovery of hazardous materials as set forth in Article XI.
- (f) Discovery of archeological or paleontological sites not previously identified as noted in Article X.

* Overhead: The operating expense of a business exclusive of direct cost labor and material.

Other than as provided above, the Contract Price shall not be increased for contract time adjustments or delay damages. Contract Price adjustments shall be documented by Supplemental Agreement signed by both parties and shall be reflected immediately in the Schedule of Values.

2. Changes

- (a) A “Change” shall be any deviation or variation from the Project Scope or the Project Criteria of the Project. No Change shall be implemented without the express written approval of SCDOT. A “Change” may be an “Additive Change” or a “Deductive Change”.
- (b) SCDOT may initiate a change by advising CONTRACTOR in writing of the change. As soon thereafter as practicable, CONTRACTOR shall prepare and forward to SCDOT an estimate of cost or savings, and the impact to the schedule resulting from the change. SCDOT will advise CONTRACTOR in writing of its

DRAFT

Attachment A - Agreement

approval or disapproval of the change. If SCDOT approves the change, CONTRACTOR shall perform the Services as changed.

3. Construction Change Directive

A Construction Change Directive is a written order from SCDOT directing a change prior to agreement with CONTRACTOR on adjustment, if any, to the Contract Price or Contract Time. If a price for the work cannot be agreed upon, CONTRACTOR shall perform the work under Force Account Procedures as outlined in Section 109.04 of SCDOT's Standard Specifications.

4. Direct Costs

For the purpose of a Contract Price Adjustment, "Direct Costs" shall be defined as:

- (a) Costs of labor, including social security, old age and unemployment insurance, fringe benefits required by agreement or custom, and workers' compensation insurance;
- (b) Costs of materials, supplies, and equipment, including cost of transportation, whether incorporated or consumed;
- (c) Actual costs of machinery and equipment owned by CONTRACTOR or any affiliated or related entity exclusive of hand tools;
- (d) Actual costs paid for rental of machinery and equipment exclusive of hand tools;
- (e) Costs of premiums for all bonds and insurance, permit fees, and sales, use or similar taxes;
- (f) Additional costs of supervision and field office personnel directly attributable to the change or event; and
- (g) Costs incurred or fees paid for design work related to the change or event.

C. **Contract Payments**

1. Schedule of Values

Prior to execution of this Agreement, CONTRACTOR shall provide a Schedule of Values acceptable to SCDOT and work may not start until the Schedule of Values is approved by SCDOT. The Schedule of Values will serve as the basis for cost loading of the CPM Schedule. Updates to the cost-loaded CPM schedule will serve as the basis for progress payments requested by and made to CONTRACTOR. If the Contract Price is adjusted, CONTRACTOR shall revise its Schedule of Values and the CPM Schedule to reflect the adjustment in the Contract Price. The revised Schedule of Values must be approved by SCDOT prior to the time for the subsequent request for a progress payment otherwise no progress payments will be made. The Schedule of Values shall be incorporated herein as Exhibit 7. The

Attachment A - Agreement

Schedule of Values should include Lump Sum items that will serve as measurement and payment for any item referred to in this publication as a "contract unit bid price" item.

2. Mobilization

Mobilization shall not exceed 5% of the Contract Price.

3. Periodic Progress Payment Applications

No application for payment of the Contract Price shall be submitted until SCDOT gives a notice to proceed unless SCDOT otherwise provides in writing. Applications for payment of the Contract Price may be submitted once a month. Each application for payment of the Contract Price shall set forth, in accordance with the Schedule of Values and the cost-loaded CPM schedule, the percentage of all items comprising the work completed since CONTRACTOR's immediately prior request for payment. The application for payment of the Contract Price may also request payment for equipment and materials not yet incorporated into the Project, provided that (i) SCDOT is satisfied that the equipment and materials are suitably stored at either the Project or another acceptable location, (ii) the equipment and materials are protected by suitable insurance and (iii) upon payment, SCDOT will receive title to the equipment and materials free and clear of all liens and encumbrances.

4. Periodic Progress Payments

SCDOT will review each application for payment. Upon approval by SCDOT of an application for payment, SCDOT will pay CONTRACTOR the undisputed percentage for the Project completed during the period covered by the application for payment. SCDOT will make each payment within twenty-one (21) days of the receipt of the corresponding Application for Payment. In the event of a dispute over the quality of work or percentage of the Project completed, SCDOT's decision is controlling and final. Payment by SCDOT will not preclude or estop SCDOT from correcting any measurement, estimate, or certificate regarding the percentage completion of the Project, and future payments may be adjusted accordingly.

5. Prompt Payment of Subcontractors

(a) Subject to the provisions on retainage provided in Paragraph (b) below, when a subcontractor has satisfactorily performed a work item of the subcontract, CONTRACTOR must pay the subcontractor for the work item within seven (7) calendar days of CONTRACTOR's receipt of payment from SCDOT. A subcontractor shall be considered to have "satisfactorily performed a work item of the subcontract" when SCDOT pays CONTRACTOR for that work item.

(b) CONTRACTOR may withhold as retainage up to five (5%) percent of a subcontractor's payment until satisfactory completion of all work items of the subcontract. "Satisfactory completion of all work items of the subcontract" shall mean when SCDOT pays CONTRACTOR for the last work item of the subcontract. CONTRACTOR must release to the subcontractor any retainage withheld within seven (7) calendar days from the date CONTRACTOR receives payment from SCDOT for the last work item of the subcontract. For further information regarding Retainage, see Section III, paragraph D.

DRAFT

Attachment A - Agreement

(c) With each progress payment application, CONTRACTOR shall certify to SCDOT that the payment application is complete and that all subcontractors have been paid for work covered by previous applications.

(d) Failure to comply with any of the above provisions shall result in one or more of the following sanctions: (1) no further payments to CONTRACTOR unless and until compliance is achieved; (2) CONTRACTOR being placed in default; and/or (3) CONTRACTOR being declared delinquent, such delinquency being subject to procedures and penalties provided in 108.08 of the Standard Specifications.

6. Withholding of Payment

SCDOT may withhold all or part of any payment under the Contract because for any of the reasons listed below. Any funds withheld will be released upon CONTRACTOR satisfactorily remedying the defect, fault, or failure and will be included in the next regularly schedule pay estimate. Payment will be subject to retainage if applicable.

(a) Defective work not remedied. Any such withholding, however, shall not exceed two times the reasonable cost of remedying the defective work. Defective work shall be defined as work or material not conforming with the requirements of the Contract.

(b) Reasonable evidence that the Work will not be Substantially Complete within the Contract Time as adjusted and that the unpaid balance of the Contract Price will not be adequate to cover Liquidated Damages for the actual unexcused delay;

(c) Failure to comply with the prompt payment provision of this Contract;

(d) Any fines or other charges to SCDOT due to CONTRACTOR's failure to comply with permit requirements or other regulations;

(e) Notice of cancellation of insurance;

(f) Failure to submit updated and approved CPM or Schedule of Values;

(g) Violation of QC plan requirements;

(h) Failure to follow specifications or procedures required by the Contract;

(i) Failure to comply with DBE, On-the-job, and Pre-Employment Training provisions;

(j) Failure to provide adequate work zone traffic control;

(k) Failure to provide adequate sediment and erosion control; or,

(l) Violation of any contract provisions.

D. Retainage

Provided the Project is proceeding satisfactorily, SCDOT will not withhold retainage. However, if at any time SCDOT determines that CONTRACTOR fails to meet contract terms or the Project is not proceeding satisfactorily, SCDOT may retain up to 10% of the Contract Price as retainage. If the reason for SCDOT's withholding of retainage is

Attachment A - Agreement

attributable to a subcontractor's failure to perform, CONTRACTOR may withhold up to 10% of the subcontractor's payment until all work of the subcontract work is satisfactorily performed. If it decides to withhold retainage, SCDOT will not withhold more than 20% of any single payment application. SCDOT will have sole authority to determine the amount (not exceeding 10%) and necessity of retainage.

IV. CONTRACT TIME

A. Project Schedule

1. Time for Completion of Project. The Project shall be substantially completed within _____ calendar days from full notice to proceed ("Contract Time"). Time is of the essence.

2. Interim Completion Date of Project. The Project shall also include an interim completion date of the US Route 25 Connector Roadway, which shall be completed by March 1, 2007 ("Interim Contract Date"). The US Route 25 Connector shall be substantially complete as defined below.

3. Substantial Completion. The Project shall be considered substantially complete when it is serviceable to the public, all traffic lanes and ramp are open, and all work is completed except for "Project Close-out Activities". "Project Close-out Activities" are defined as punch list items, site clean up, demobilization, and final project documentation. The engineer may declare the work substantially complete before the permanent pavement markings are installed, provided all temporary pavement markings and safety related items are in place. The Engineer's decision concerning this date will be final.

The Contractor will have 30 days from the Contract Completion Date, or until applicable seasonal restrictions take effect (whichever is sooner), to complete placement of permanent pavement markings without penalty. After this time period, any days of work necessary to place permanent pavement markings will result in the assessment of liquidated damages at the rate established in the contract. Furthermore, if this time period elapses without placement of the permanent pavement markings, the contractor may be declared in delinquency in accordance with Section 108.08 of the Standard Specifications.

4. Critical Path Method Schedule. CONTRACTOR shall prepare and maintain a schedule for the Project using the Critical Path Method of scheduling (hereinafter called "CPM Schedule"). The schedule shall be in accordance with this agreement and the SCDOT Special Provisions (Exhibit 3). The initial CPM schedule for the Project shall be delivered to SCDOT within 30 days from the Effective Date of this Agreement. No contract payment shall be made to CONTRACTOR until a CPM schedule is submitted and accepted by SCDOT.

The schedule must show work activities in sufficient detail to demonstrate a reasonable and workable plan to complete the Project within the Contract Time. CONTRACTOR shall show the order and interdependence of activities and the sequence in which the work will be accomplished. CONTRACTOR shall describe all activities so that the

DRAFT

Attachment A - Agreement

work is readily identifiable and the progress on each activity can be readily measured. The schedule shall be resource loaded to include equipment and manpower. The CPM Schedule shall be cost-loaded per the schedule of values. Submittal activities including SCDOT review periods shall be included.

Failure to include any element of work or any activity including but not limited to utility relocation will not relieve CONTRACTOR from completing all work within the Contract Time at no additional time or cost to SCDOT, notwithstanding the acceptance of the schedule by SCDOT.

The schedule submittal shall consist of network diagrams, a bar-chart, and accompanying mathematical analyses. A network diagram shall show the order and interdependence of activities and the sequence in which the work is to be accomplished. The mathematical analysis of the network diagram shall include a tabulation of each activity shown on the detailed network diagrams. A bar-graph and analysis shall together, show the following information for each activity, as a minimum:

- (a) Activity ID Number
- (b) Activity description
- (c) Early start date
- (d) Late start date
- (e) Original duration - in working days
- (f) Total Float

The CPM shall include time for utility coordination and relocation.

The CPM schedule must satisfactorily identify work items, dates and durations in conformance with Contract Time and show all non-work days on the calendar. The CPM shall be updated monthly or as requested by SCDOT. Updates shall reflect actual start dates, actual finish dates, activity progress and adjustments in Contract Price and Time. The Schedule of Values shall be revised as needed and incorporated in the CPM Schedule to establish a cost-loaded schedule. If SCDOT determines any schedule submission is deficient, it will be returned to CONTRACTOR. A corrected schedule shall be provided within 15 calendar days from SCDOT's transmittal date.

All schedule revisions will be approved by SCDOT. The addition of activities, the deletion of activities, changes to durations or calendars and changes to logic are examples of schedule revisions. Minor revisions to the schedule presented and approved during the monthly CPM Progress Meetings will be allowed during an update. A narrative of the changes to the schedule during a revision or an update is required. The activity ID number of any activity deleted during a schedule revision shall not be reused in a subsequent version of the schedule when activities are added.

The schedule may indicate an early completion date. However, SCDOT will not be liable in any way for CONTRACTOR's failure to complete the Project prior to the

DRAFT

Attachment A - Agreement

specified Contract Time. Any additional costs, including extended overhead incurred between CONTRACTOR's scheduled completion date and the Contract Time, shall be the responsibility of CONTRACTOR.

The schedule may include constraints to indicate the early completion of portions of the work. However, SCDOT will not be liable in any way for CONTRACTOR's failure to complete that portion of the work prior to the Contract completion date. Any additional costs, including extended overhead incurred between CONTRACTOR's scheduled completion date and the Contract Time, shall be the responsibility of CONTRACTOR. SCDOT will remove these constraints when determining the critical path of the schedule.

5. Progress Review Meetings. Review Meetings shall be held between CONTRACTOR and SCDOT at least every 2 weeks. Periodic construction meetings shall be held by CONTRACTOR with its consultants and subcontractors to coordinate the work, update the schedule, provide information and resolve potential conflicts.

SCDOT and CONTRACTOR will hold a regular CPM Progress Meeting at which all principal parties are expected to attend. These meetings will be held the week before the application for payment is due so that job progress will coincide with the payment application. At this meeting, CONTRACTOR shall provide the most recent schedule with notations showing actual start dates, actual finish dates, and activity progress. If the schedule provided indicates an actual or potential delay to the completion of the Contract, CONTRACTOR shall provide a narrative identifying the problems, causes, the activities affected and describing the means and methods available to complete the Project by the Contract Time.

6. Final Completion. When CONTRACTOR believes that all elements of its work on the Project, including all of the requirements of the Contract, have been completed, it shall notify SCDOT in writing. Within thirty (30) days thereafter, SCDOT will acknowledge project completion or will advise CONTRACTOR in writing of any aspect of the Contract or the Project Scope that is incomplete or unsatisfactory. CONTRACTOR shall complete all corrective action within thirty (30) days after written notification of incomplete or unsatisfactory items. CONTRACTOR will notify SCDOT in writing upon completion of necessary corrective action. SCDOT will verify satisfactory completion of the corrective action in writing to CONTRACTOR. Upon verification, the Project shall be deemed to have achieved Final Completion.

7. Inspection/Acceptance; No Waiver. No inspection, acceptance, payment, partial waiver, or any other action on the part of SCDOT will operate as a waiver of any portion of this Agreement or of any power reserved herein or any right to damages or other relief, including any warranty rights, except insofar as expressly waived by SCDOT in writing. SCDOT will not be precluded or estopped by anything contained herein from recovering from CONTRACTOR any overpayment as may be made to CONTRACTOR.

DRAFT

Attachment A - Agreement

B. Contract Time Adjustments

The Contract Time may be extended if there is a delay to the critical path of the Project caused by an event listed below. All requests for time extensions shall be made in writing to SCDOT within 20 days of the event causing the delay. All time extensions must be approved in writing by SCDOT. Time extensions may be allowed for the following events that affect the critical path:

1. Force Majeure as that term is defined in this Agreement in Article XIV;
2. Changes or construction change directives;
3. Differing site conditions as defined under Article XIII;
4. Injunctions, lawsuits, or other efforts by individuals or groups that hinder, delay, or halt the progress of the Project, provided that such efforts are not premised on alleged wrongs or violations by CONTRACTOR or its subcontractors;
5. Right of way delays (purchased by SCDOT) in excess of 30 days beyond the indicated availability date that affect the critical path on the CPM Schedule in accordance with Article VIII.
6. Interference with or delay of work on the critical path of the Project by SCDOT; however, CONTRACTOR shall not be entitled to a time extension if SCDOT's actions are necessitated by CONTRACTOR's actions, omissions, failure to perform quality work, or failure to comply with contract requirements;
7. Changes in the legal requirements or regulations which are effective subsequent to the date of this Agreement; or,
8. Discovery of hazardous materials as set forth in Article XI;
9. Discovery of archeological or paleontological remains not previously identified as set forth in Article X.

C. Owner's Right to Stop Work

SCDOT will have the authority to suspend the work, wholly or in part, for such periods, as SCDOT may deem necessary, due to CONTRACTOR's failure to meet the requirements of the Contract in the performance of the work. Such suspension of the work shall not constitute grounds for claims for damages, time extensions, or extra compensation.

Attachment A - Agreement

D. Liquidated Damages

CONTRACTOR shall pay SCDOT Ten Thousand (\$10,000) Dollars per day in liquidated damages for each calendar day by which the period from the Notice to Proceed to Substantial Completion of entire project exceeds the Contract Time.

CONTRACTOR shall pay SCDOT Three Thousand (\$3,000) dollars per day in liquidated damages for each calendar day by which the period of work at the US Route 25 Connector Roadway exceeds the Interim Completion Date.

V. QUALITY CONTROL/QUALITY ASSURANCE

A. CONTRACTOR's Responsibilities

CONTRACTOR shall be responsible for the items listed below. Work shall not commence until CONTRACTOR has met these requirements.

1. Quality Control Plan: CONTRACTOR shall submit a Quality Control Plan that outlines how CONTRACTOR shall assure that the materials and work are in compliance with the drawings, plans, standard specifications, contract special provisions, SCDOT Construction Manual, Inspection Training Manuals, RFP and all attachments. The initial plan shall be submitted to SCDOT for review and approval at least 30 days prior to any design or plan submittal or the beginning of any construction activity. The plan shall be updated as necessary prior to the start of any specific construction operation. The plan shall include a list of personnel responsible for management and quality control of the Project, and define the authority of each individual. The plan shall also include how CONTRACTOR will monitor quality and deal with failing materials.

2. Personnel: CONTRACTOR shall provide a sufficient number of qualified personnel to adequately control the work of the Project. All personnel responsible for obtaining samples or conducting material testing shall be certified or adequately trained and qualified as determined by SCDOT. Training, qualification, and/or certification shall include classroom training, written testing, documented demonstration of proper inspection, sampling and testing procedures, pre-employment training and an on-the-job training period. CONTRACTOR shall provide SCDOT with copies of each individual's training, qualifications, and/or certifications, in resume form, for review and approval by SCDOT.

3. CONTRACTOR Testing: CONTRACTOR is required to conduct asphalt and earthwork sampling and testing in accordance with QC/QA special provisions and supplemental specifications for earthwork compaction and asphalt included in Exhibits 3 & 4. CONTRACTOR may elect to conduct other sampling and testing for his own benefit. The cost of these activities will be borne by CONTRACTOR.

DRAFT

Attachment A - Agreement

4. Testing Laboratories: All testing laboratories used on the Project must be approved by SCDOT thirty (30) days prior to beginning the portion of work for which the laboratory will be performing the testing.

5. Mix Designs: Copies of all initial hot-mix asphalt mix designs and Portland Cement Concrete mix designs, along with supporting data, shall be submitted to SCDOT for review at least 30 days prior to use. All hot-mix asphalt mix designs will be prepared by personnel certified in Mix Design Methods. Portland Cement Concrete mix designs will be prepared by a certified concrete technician or a Professional Engineer. The Portland Cement Concrete mix proportions given in the specifications are to be followed. CONTRACTOR shall design the mix to obtain the strength and water/cement ratios given in the specifications, and shall provide workability, air content, gradation and suitable set times as set forth in the standard specifications. The SCDOT will be notified of any revisions to CONTRACTOR's mix design. Copies of such revisions will be sent to SCDOT for review at least 14 days prior to use.

6. Materials Certifications: CONTRACTOR shall submit all material certifications for approval by SCDOT prior to the CONTRACTOR incorporating the material and applying for payment for work in which the material was incorporated. Upon Completion of the project, CONTRACTOR shall submit to SCDOT a letter of certification stating that, based upon an analysis of all materials test results, all materials incorporated into the Project were found to be in substantial conformance with the requirements of the plans and specifications. A list of any exceptions and all failing test results will be provided, along with a record of disposition of the material represented by these tests.

B. SCDOT Responsibilities

SCDOT will be responsible for conducting inspections, acceptance testing, independent assurance testing and final project material certification.

1. Acceptance Testing: SCDOT personnel assigned to the Project, or qualified personnel retained by SCDOT, will conduct sampling and testing, separate from CONTRACTOR's testing, at the frequencies set forth in SCDOT's construction manual. This testing will be used by SCDOT to determine the acceptability of the materials. All sampling and testing will be in accordance with existing AASHTO, ASTM, or SC test methods used by SCDOT. The cost of these activities will be borne by SCDOT. CONTRACTOR is required to coordinate his activities closely with SCDOT to allow the necessary acceptance testing to be conducted prior to proceeding to the next operation. The disposition of failing materials must be approved by SCDOT.

2. Independent Assurance Testing: SCDOT will be responsible for conducting Independent Assurance Testing. Personnel performing these tests will be SCDOT employees or qualified persons retained by SCDOT. Persons performing these tests will not be involved in Acceptance Testing. This testing will be used to ensure that proper sampling and testing procedures are being followed, and that testing equipment is functioning properly. This testing will consist of observing sampling and testing by both SCDOT personnel performing Acceptance Testing and CONTRACTOR personnel performing Quality Control Testing, as well

Attachment A - Agreement

as taking split samples for the purposes of comparison testing. Independent Assurance Testing will be at an approximate frequency of one-tenth of the Acceptance Testing frequency. Independent Assurance test results will not be used for acceptance. The cost of these activities will be borne by SCDOT.

3. Materials Certification: SCDOT will be responsible for preparing the Materials Certification as required by the FHWA on federally funded projects.

C. CONTRACTOR's Obligation

SCDOT's testing in no way relieves CONTRACTOR of its obligation to comply with the Contract requirements. All materials incorporated into the Project must meet or exceed contract requirements and specifications. Further, any testing by SCDOT will not relieve CONTRACTOR of any of its warranty obligations.

VI. INSURANCE AND BONDING

A. Insurance

1. CONTRACTOR shall purchase and maintain in a company or companies acceptable to SCDOT, such insurance as will protect CONTRACTOR from claims set forth below which may arise out of or result from CONTRACTOR's operations under the Contract, whether such operations be performed by CONTRACTOR or by any subcontractor or by anyone directly or indirectly employed by any of them or by anyone for whose acts any of them may be liable:

(a) Claims under workers' or workmen's compensation, disability benefit and other similar employee benefit acts;

(b) Claims for damages because of bodily injury, occupational sickness or disease, or death of CONTRACTOR's employees;

(c) Claims for damages because of bodily injury, sickness or disease, or death of any person other than CONTRACTOR's employees;

(d) Claims for damages insured by usual personal injury liability coverage which are sustained (1) by any person as a result of an offense directly or indirectly related to the employment of such person by CONTRACTOR, or (2) by any other person;

(e) Claims for damages, other than to the work itself, because of injury to or destruction of tangible property, including loss of use resulting therefrom;

(f) Claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.

(g) Claims involving contractual liability insurance applicable to the Contractor's obligations under the indemnity provisions of this contract.

DRAFT

Attachment A - Agreement

2. The minimum limits of liability for the following types of insurance are required, except where greater limits are required by statute:

(a) Workers' Compensation, including: Worker's Compensation Insurance/Employer's Liability

State	Statutory limits
Employer's Liability	\$100,000 per accident
	\$500,000 per disease
	\$100,000 each employee

(b) Comprehensive General Liability \$1,000,000 per occurrence
\$5,000,000 aggregate

This policy shall include coverage for Premises and Operations Liability, CONTRACTOR's Protective Liability, and Products/Completed Operations Coverage. The policy shall contain the per project endorsement.

(c) Business Automobile Liability \$1,000,000 per occurrence

This policy shall cover All Owned, Hired and Non-owned Automobiles.

(d) Umbrella Liability Coverage \$10,000,000 per occurrence
\$20,000,000 aggregate

Certificates of Insurance acceptable to SCDOT will be provided to SCDOT prior to commencement of the work. These certificates shall name SCDOT as an additional insured under the Comprehensive General, Business Automobile and Umbrella policies and reference the Project to which the certificate applies. The policies must contain a provision that coverage afforded will not be canceled until at least 30 days prior written notice has been given to SCDOT.

3. CONTRACTOR shall at the time of execution of this Agreement, obtain Errors and Omissions insurance for their Professional Liability, for all claims arising from the performance of professional services on the Project. The insurance coverage shall be for not less than Three Million Dollars (\$3,000,000) per claim and in the aggregate. The coverage shall be continued for three (3) years after the date of Final Completion. Evidence of such insurance shall be provided to SCDOT at the time of the execution of the Agreement.

Attachment A - Agreement

B. Bonding

1. CONTRACTOR shall at the time of the execution of this Agreement, provide SCDOT the following bonds:

a. A Performance and Indemnity Bond from a surety or sureties satisfactory to SCDOT. The amount of bond shall be equal to the Contract Price.

b. A Payment Bond from a surety or sureties satisfactory to SCDOT. The amount of bond shall be equal to the Contract Price.

These bonds shall be in accordance with the requirements of S.C. Code Ann. §57-5-1660, (1976 as amended) and S.C. Code Ann. §29-6-250 (2000).

2. CONTRACTOR shall also provide a warranty bond, acceptable to SCDOT, in the amount of \$3 Million to cover the warranty obligations of the contract.

VII. UTILITIES

A. Scope of Work

1. As part of the Project Scope, CONTRACTOR shall have the responsibility of coordinating the Project construction and demolition activities with all utilities that may be affected. CONTRACTOR shall be responsible for the cost of utility coordination as defined herein. For those utilities that have prior rights, SCDOT will be responsible for relocation costs as defined by the Federal code. For those utilities where the CONTRACTOR determines that the SCDOT has prior rights, CONTRACTOR may exercise these rights and require the utility company to bear the costs of relocation. If there is a dispute over prior rights, CONTRACTOR shall be responsible for resolving the dispute. SCDOT shall have final determination of the utility's prior rights.

2. For those utilities requiring relocation, CONTRACTOR shall conform with SCDOT's "A Policy for Accommodating Utilities on Highway Rights of Way", the applicable State laws, and the Code of Federal Regulations, Title 23, Chapter 1, Subchapter G, part 645, subparts A and B.

3. The resolution of any conflicts between utility companies and the construction of the Project shall be the responsibility of CONTRACTOR. No additional compensation (time or dollars) will be allowed for any delays, inconveniences, damage or relocation costs sustained by CONTRACTOR or its subcontractors due to interference from utilities or the operation of relocating utilities.

4. CONTRACTOR shall meet with SCDOT's Utilities Office to gain a full understanding of what is required with each utility submittal.

DRAFT

Attachment A - Agreement

5. CONTRACTOR shall design the Project to avoid conflicts with utilities where possible, and minimize impacts where conflicts cannot be avoided.

6. CONTRACTOR shall initiate early coordination with all utilities and provide the utility companies with design plans for their use in developing Relocation Sketches as soon as the plans have reached a level of completeness adequate to allow the companies to fully understand the Project impacts. If a party other than the utility company prepares Relocation Sketches, there shall be a concurrence box on the plans where the utility company signs and accepts the Relocation Sketches as shown.

7. CONTRACTOR shall be responsible for collecting and submitting to SCDOT the following from each utility company that is located within the project limits:

(a) **Relocation Sketches** including letter of “no cost” where the company does not have a prior right;

(b) **Utility Agreements** including cost estimate and relocation plans where the company has a prior right; and/or

(c) **Letters of “no conflict”** where the company’s facilities will not be impacted by the Project.

The CONTRACTOR shall assemble the information included in the Utility Agreements and Relocation Sketches in a final and complete form and in such a manner that SCDOT may approve the submittals with minimal review. CONTRACTOR shall ensure that there are no conflicts with the proposed highway improvements, or between each of the utility companies’ relocation plans. The utility companies shall not begin their relocation work until authorized in writing by SCDOT.

8. At the time CONTRACTOR notifies SCDOT that the Project has reached Final Completion, CONTRACTOR shall certify to SCDOT that all utilities have been identified and that those utilities with prior rights or other claims related to relocation or coordination with the Project have been relocated or their claims otherwise satisfied or will be satisfied by CONTRACTOR.

9. CONTRACTOR shall accurately show the final location of all utilities on the as-built drawings for the Project.

VIII. RIGHT OF WAY ACQUISITION

SCDOT will be responsible for the acquisition of all necessary right of way for the construction of the Project as depicted in the most recent right of way plans. SCDOT intends to make the right of way available to CONTRACTOR by the Notice to Proceed, with the exception of those parcels listed in the Right of Way Special Provision, included in Exhibit 3. No additional compensation will be considered (time or money) until 30 days beyond the availability dates stated in the Special Provision and documentation is provided showing that the critical path has been affected.

DRAFT

Attachment A - Agreement

CONTRACTOR shall design and construct the project in such a manner that the construction limits are contained within the right of way set forth in the most recent right of way plans.

Acquisition of any additional area desired by CONTRACTOR for, but not limited to, design modifications, construction staging, demolition activities, access or borrow pits shall be the responsibility of CONTRACTOR. CONTRACTOR shall provide SCDOT the location and documentation for these additional areas. CONTRACTOR shall furnish SCDOT a copy of any agreements for the use of additional properties in conjunction with the construction of the Project. CONTRACTOR shall abide by the provisions of all applicable environmental permits, any conditions of individual right of way agreements, and all environmental commitments.

IX. PERMITS

SCDOT expects to receive, prior to Full Notice to Proceed, a US Army Corps of Engineers 404 and SC Department of Health and Environmental Control 401 permit for the Project. All work associated with any permit modifications as a result of changes proposed by CONTRACTOR shall be CONTRACTOR's responsibility.

CONTRACTOR shall procure all other permits necessary for completion of the Project. CONTRACTOR shall comply with all local, state and federal permitting requirements. Regarding any permit or license that must be obtained in the name of SCDOT, CONTRACTOR shall perform all functions within its power to obtain the permit, and SCDOT will fully cooperate in this effort and perform any functions that must be performed by SCDOT. All work associated with any permit modifications as a result of changes proposed by CONTRACTOR shall be CONTRACTOR's responsibility. See Article II (B)(4) regarding deductions for waived fees.

X. ENVIRONMENTAL COMPLIANCE

A. Compliance with Environmental Commitments

CONTRACTOR shall comply with all Environmental commitments and requirements including, but not limited to, the following:

1. Compliance with the provisions of all environmental permits applicable to the Project, including any restrictions and agreements specifically agreed to or entered into by SCDOT in obtaining permits for the Project.
2. Compliance with those stipulations and conditions under which SCDOT received approval of the Environmental Document(s) and any modifications resulting from the re-evaluation of that document(s). A copy of the Re-evaluation of the Environmental Impact Statement was made available during the RFQ process. Additional copies are available upon request. Included in Exhibit 8b – Summary of Environmental Commitments is the list of commitments from the Re-evaluation of the Environmental Impact Statement.

DRAFT

Attachment A - Agreement

3. Compliance with applicable laws and regulations relating to potential or actual hazardous materials that may be encountered in the course of carrying out this Agreement;
4. Carrying out all necessary social, economic, and environmental studies required by regulatory authorities in the course of construction; and
5. Updating or extension of approved permits.
6. The resolution of any deviations from the contract documents, drawings or other information included in the permits that would violate the intent or spirit of the permits. Any proposed changes within the permitted areas would need to be coordinated with SCDOT's Environmental Management Office.

B. Preconstruction / Partnering Conference(s)

CONTRACTOR shall conduct one (or more, if appropriate) pre-construction / partnering conference(s) prior to any construction activity to discuss environmental and permitting issues, which conference shall include all subcontractors, and, to the extent feasible, representatives from the U.S. Army Corps of Engineers, the S.C. Department of Health and Environmental Control Water Quality Division, the Federal Highway Administration, CONTRACTOR, and SCDOT.

C. Protection of Archeological and Paleontological Remains and Materials

1. When archeological or paleontological remains are uncovered, CONTRACTOR shall immediately halt operations in the area of the discovery and notify SCDOT.

2. Archeological remains consist of any materials made or altered by man which remains from past historic or prehistoric times (i.e. older than 50 years) Examples include old pottery fragments, metal, wood, arrowheads, stone implements or tools, human burials, historic docks, structures or not recent (i.e. older than 100 years) vessel ruins. Paleontological remains consist of old animal remains, original or fossilized, such as teeth, tusks, bone, or entire skeletons.

3. SCDOT will have the authority to suspend the work for the purpose of preserving, documenting, and recovering the remains and materials of archeological and paleontological importance for the State. CONTRACTOR shall carry out all instructions of SCDOT for the protection of archeological or paleontological remains, including steps to protect the site from vandalism and unauthorized investigations, from accidental damage and from dangers such as heavy rainfall or runoff.

4. CONTRACTOR's Contract Time and or Contract Price shall be adjusted to the extent CONTRACTOR's cost and /or time of performance have been adversely impacted by the presence of archeological or paleontological remains.

Attachment A - Agreement

XI. HAZARDOUS MATERIALS

A. CONTRACTOR is responsible for obtaining any necessary survey(s) to determine the extent of and develop a remedial strategy of hazardous materials and a cost estimate for such remediation including but not limited to lead paint and asbestos, wastes, substances or chemicals on the Project. The Environmental Reevaluation listed eight properties impacted by the project that may contain hazardous materials as listed in Potential Hazardous Material Sites Special Provisions. Surveys to determine the applicability of remediation and or remedial strategy for these sites shall be the responsibility of CONTRACTOR. Any remediation necessary to rectify these sites shall be included as a part of the Project.

B. CONTRACTOR is not responsible for handling, storage, remediation, or disposal of any materials, wastes, substances and chemicals deemed to be hazardous under applicable state or federal law, (hereinafter "Hazardous Conditions") encountered at the Site which were not introduced to the site by CONTRACTOR or any of their agents. Upon encountering any Hazardous Conditions, CONTRACTOR shall stop Work immediately in the affected area and duly notify SCDOT and, if required by state or federal law, all government or quasi-government entities with jurisdiction over the Project or site.

C. Upon receiving notice of the presence of Hazardous Conditions, SCDOT will take necessary measures required to ensure that the Hazardous Conditions are remediated or rendered harmless. Such necessary measures will include SCDOT either (i) retaining qualified independent firm or (ii) negotiating a construction change directive with CONTRACTOR.

D. CONTRACTOR shall resume Work at the affected area of the Project only after written notice from SCDOT that the (i) Hazardous Conditions have been removed or rendered harmless and (ii) all necessary approvals have been obtained from all government and quasi-government entities having jurisdiction over the Project.

E. CONTRACTOR's Contract Price and/or Contract Time shall be adjusted to the extent CONTRACTOR's cost and/or time of performance has been adversely impacted by the presence of Hazardous Conditions.

F. SCDOT is not responsible for Hazardous Conditions actually brought to the Project by CONTRACTOR, CONTRACTOR's design consultants, subcontractors and suppliers or anyone for whose acts they may be or are liable. SCDOT is not responsible for negligent or willful acts by CONTRACTOR, CONTRACTOR's design consultants, subcontractors and suppliers or anyone for whose acts they may be or are liable relating to Hazardous Conditions found at the site. CONTRACTOR shall indemnify, defend and hold harmless SCDOT and SCDOT's officers, directors, employees and agents from and against all claims, losses, damages, liabilities and expenses, including attorney's fees and expenses arising out of or resulting solely from those Hazardous Conditions actually brought to the Project or negligent or willful acts relating to Hazardous Conditions, or both by CONTRACTOR, CONTRACTOR's design consultants, subcontractors and suppliers or anyone for whose acts they may be or are liable.

DRAFT

Attachment A - Agreement

XII. DEMOLITION, REMOVAL & DISPOSAL OF STRUCTURES

CONTRACTOR shall be responsible for the demolition, removal and disposal of all structures and their appurtenances within SCDOT Right of Way for the Project. Structures shall include all existing bridges identified in the scope of work and all buildings acquired by SCDOT for the Project. All necessary permitting shall comply with Articles II (B)(4) and IX of the Contract. Handling and disposal of Hazardous Material shall be in accordance Article XI of the Contract.

XIII. DIFFERING SITE CONDITIONS

A. "Differing Site Conditions" are defined as concealed or latent physical conditions or subsurface conditions at the Site that (i) materially differ from the conditions reasonably assumed to exist based on the information contained in the RFP, this Agreement and its Exhibits; or (ii) are of an unusual nature, differing materially from the conditions ordinarily encountered and generally recognized as inherent in the work.

B. Upon encountering a Differing Site Condition, CONTRACTOR shall provide prompt written notice to SCDOT of such condition, which notice shall not be later than twenty (20) days after such condition has been encountered. CONTRACTOR shall provide such notice before the Differing Site Condition has been substantially disturbed or altered and before any work is performed.

C. Upon written notification, SCDOT will investigate the conditions and if it is determined that the conditions are materially differ and cause an increase or decrease in the cost or time required for performance of the work, the Contract will be adjusted. No contract adjustment that results in a benefit to CONTRACTOR will be allowed unless CONTRACTOR has provided the required written notice.

XIV. FORCE MAJEURE

Delays or failures of performance shall not constitute breach of the Agreement if and to the extent such delays or failures of performance are caused by severe and not reasonably foreseeable occurrences beyond the control of SCDOT or CONTRACTOR, including, but not limited to: Acts of God or the public enemy; expropriation or confiscation of facilities; compliance with any order or request of any governmental authority other than SCDOT or a party in privity with it; a change in law directly and substantially affecting performance of the Project; Acts of War; rebellion or sabotage or damages resulting there from; fires, floods, explosions, or extraordinary accidents; riots or strikes or other concerted acts of workman, whether direct or indirect, or any similar causes, which are not within the control of SCDOT or CONTRACTOR respectively, and which by the exercise of reasonable diligence, SCDOT or CONTRACTOR are unable to prevent. Any expense attributable to such occurrence shall not entitle CONTRACTOR to an adjustment in the Contract Price. Any critical path delay attributable to such an occurrence shall be added to the Contract Time.

DRAFT

Attachment A - Agreement

XV. WARRANTY

A. CONTRACTOR warrants that it will perform all services in accordance with the standards of care and diligence normally practiced by recognized engineering and construction firms in performing services and obligations of a similar nature. CONTRACTOR warrants that all materials and equipment furnished shall be of good quality and new unless otherwise authorized by SCDOT and that the construction shall conform to the Contract requirements. CONTRACTOR agrees to promptly correct, at its own expense, defects or deficiencies in materials and workmanship that appear prior to and during a period of three (3) years after Final Completion of the Project. This shall include all plant-produced materials (i.e. asphalt, concrete, etc.). CONTRACTOR shall not be responsible for damages caused by SCDOT's failure to provide timely notification of potentially damaged or defective work of which SCDOT had actual knowledge. CONTRACTOR shall properly perform, at the written request of SCDOT made at any time within the three (3) year period after Final Completion of the Project as defined in Article IV.A.5, all steps necessary to satisfy the foregoing warranty and correct any element of the Project or the services that is defective or does not reflect such standards of care and diligence. The cost of such corrective services shall be CONTRACTOR's responsibility.

The warranty periods begin at Final Completion. With respect to any component that is repaired or replaced pursuant to this warranty, the warranty period of that component shall be the longer of one year from repair or replacement of the component or the remainder of the original warranty period.

B. CONTRACTOR shall take all steps necessary to transfer to SCDOT any manufacturer's or other third-party's warranties of any materials or other services used in the construction of the Project.

XVI. INDEMNITY

CONTRACTOR shall indemnify, defend and hold SCDOT harmless from any and all claims, liabilities and causes of action for any fines or penalties imposed on SCDOT by any state or federal agency because of violation by CONTRACTOR or any of its subcontractors of any state or federal law or regulation.

CONTRACTOR shall indemnify, defend and hold SCDOT harmless from any and all claims, liabilities and causes of action arising out of or resulting from, in whole or in part, the negligence or recklessness of CONTRACTOR or its agents, consultants and/or subcontractors.

XVII. TERMINATION AND CANCELLATION

A. Termination for Default

1. CONTRACTOR shall be in default of the Contract if it:

(a) Fails to supply a sufficient number of properly skilled workmen, tools, materials and equipment to assure the prompt completion of the work;

DRAFT

Attachment A - Agreement

- (b) Fails to perform work in accordance with contract requirements and/or refuses to remove or replace rejected materials or unacceptable work;
- (c) Discontinues the prosecution of the work;
- (d) Fails to resume work that has been discontinued within a reasonable time after notice to do so;
- (e) Becomes insolvent or is declared bankrupt or commits any act of bankruptcy or insolvency;
- (f) Allows any final judgment to remain unsatisfied for a period of 15 days;
- (g) Makes an assignment for the benefit of creditors;
- (h) Fails to maintain the Project schedule;
- (i) Commits a substantial breach of the Contract; or
- (j) For any other cause whatsoever, fails to carry on the work in an acceptable manner.

2. If CONTRACTOR does not commence work to cure the default within 15 days after receipt of written notice from SCDOT and thereafter diligently prosecute work to completion within a reasonable time as determined by SCDOT, then SCDOT will have full power and authority to terminate CONTRACTOR for default and shall provide written notification of the termination to CONTRACTOR and Surety.

3. Upon termination for default, Surety will have the right to complete the contract and shall be given 30 days, or longer in SCDOT's discretion, in which to resume the work. This procedure shall not in any way serve to extend the contract time. All charges incident to negotiation with the Surety and arranging for work to be resumed, including attorney's fees, shall be charged against CONTRACTOR or Surety as part of the cost of the work.

4. If Surety refuses to complete the work or fails to take over the work promptly as provided by this Agreement, then SCDOT may appropriate or use any or all materials and equipment on the job site as may be suitable and acceptable and may enter into an agreement for the completion of the Contract. All costs and charges incurred by SCDOT together with the cost of completing the work under the Contract will be deducted from any monies due or which may become due CONTRACTOR. If such expense exceeds the sum which would have been payable under the Contract, CONTRACTOR and Surety shall be liable and shall pay to SCDOT the amount of such excess.

5. Upon termination for default, all Project Documents, as defined in Article II (E), shall be surrendered forthwith by CONTRACTOR to SCDOT. SCDOT will be authorized to use the Project documents for the sole purpose of promoting, completing, using, maintaining, upgrading or adding to the Project. This authorization includes allowing design professionals to make changes, corrections, or additions to the Project documents for these purposes.

DRAFT

Attachment A - Agreement

B. Termination for Convenience

1. SCDOT reserves the right to cancel the Work upon ten (10) days written notice to CONTRACTOR. Should the Work be so canceled by SCDOT for convenience, CONTRACTOR shall be paid for the value of the Work, based upon the Schedule of Values, performed to the date of cancellation and demobilization together with any cancellation charges by vendors and subcontractors. CONTRACTOR shall also be entitled to the cost of securing the work, provided such cost is approved by SCDOT. In no event, however, shall the total payment to CONTRACTOR pursuant to such a cancellation exceed the Contract Price.

2. Termination of all or a portion of the Contract shall not relieve CONTRACTOR of any responsibility it would otherwise have for the work completed, or for any claims arising from that work.

3. Upon such termination, all Project Documents, as defined in Article II (E), shall be surrendered forthwith by CONTRACTOR to SCDOT. SCDOT will be authorized to use the Project documents for the sole purpose of promoting, completing, using, maintaining, upgrading or adding to the Project. This authorization includes allowing design professionals to make changes, corrections, or additions to the Project documents for these purposes.

XVIII. DISADVANTAGED BUSINESS ENTERPRISES

A. DBE Goal. The DBE goal on this Project is eight percent (8%) of the Contract Price. CONTRACTOR shall comply with the requirements of the Instructions to Proposers - DBE Requirements included in the RFP as Attachment B and the Supplemental Specifications entitled "Disadvantaged Business Enterprises (DBE) – Federal Projects" attached hereto as Exhibit 5 (b). CONTRACTOR shall be responsible for ensuring that the DBE's listed on the committal sheet perform the items of work for which they are listed in accordance with the requirements of 49 CFR part 26.

B. Copies of DBE Contracts. CONTRACTOR shall provide SCDOT with copies of executed DBE contracts, including the name of the DBE firm, the name of the subcontractor, if any, for whom the DBE will work, the amount of the contract, the type of work to be performed, and an estimated schedule of DBE performance.

C. Monthly Subcontractor Expenditure Records. CONTRACTOR shall provide SCDOT a monthly report showing amounts paid to subcontractors on the Project. The report shall provide a running total of amounts paid to subcontractors on the Project, including the name of each subcontractor paid, the amount paid to each in that month, and the cumulative amount paid to each as of the date of the report. The report shall also indicate whether the subcontractor is a DBE or non-DBE firm.

D. SCDOT'S Right to Audit. SCDOT will have the right to audit all documentation regarding DBE participation in the Project.

E. Nondiscrimination. CONTRACTOR, or subcontractor, shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. CONTRACTOR

DRAFT

Attachment A - Agreement

shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of SCDOT assisted contracts. Failure by CONTRACTOR to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy, as SCDOT deems appropriate.

XIX. RECORD RETENTION

CONTRACTOR shall maintain the following documents for a period of three (3) years after Final Completion:

- A. All CONTRACTOR samples and test reports;
- B. Daily Diaries (substantially in the form of SCDOT's form 647, as revised 7/95);
- C. Any other documents required to be retained in accordance with the Quality Control Plan.

During the three (3) year retention period, SCDOT will be granted access to those documents upon reasonable notice. At any time during the three (3) year period, SCDOT will have the option of taking custody of the documents. CONTRACTOR shall obtain a written release from SCDOT prior to destroying the records after the three (3) year retention period.

XX. AS-BUILTS

A. In addition to those documents set forth elsewhere in this Agreement, CONTRACTOR shall provide to SCDOT prior to Final Completion a complete set of as-built drawings. As-built plans consist of the final version of the design plan CADD drawings that incorporate all changes, including any adjustments, relocations, additions and deletions that occurred during construction. CONTRACTOR shall certify that the as-built plans are a true and correct representation of the work as constructed.

B. Information regarding major revisions to the plans shall be noted in a revision box on the plans. The information listed in the revision box shall include: the initiator of the revision, a brief explanation of the nature of the revision, and acceptance and approval from CONTRACTOR, along with associated dates.

C. In addition to the revisions that incorporated changes during construction, the as-built plans shall include the following information gathered during construction:

1. The location and elevation of foundations remaining below grade.
2. The final profile of each bridge constructed. The profile shall include the elevation along the centerline (or as specified by SCDOT) and a line three feet inboard of each

DRAFT

Attachment A - Agreement

gutter line. Points on the profile shall be taken at no greater than 25-foot intervals and shall include the beginning and end of each span.

3. If any structure has pile foundations, information concerning the pile driving operation shall be listed to include pile and driving equipment data, final pile bearing, elevation of pile tip when plan bearing was obtained, final pile tip elevation, penetration into the ground, and PDA or WEAP analysis data. This information shall be entered on each footing or bent sheet, or be included as a new sheet inserted immediately following the pertinent footing or bent sheet.

4. If any structure has drilled shaft foundations, information concerning the installation of the shaft shall be listed to include the drilled shaft report. This information shall be entered on each footing or bent sheet, or be included as a new sheet inserted immediately following the pertinent footing or bent sheet.

5. The final location of all existing and relocated utility lines and structures that are within the right-of-way.

6. The final location of all pipes, culverts, and drainage structures.

D. As-built plans shall be submitted as two full size (36 inch x 22 inch) bond paper copies and one copy on compact disc in a format acceptable to SCDOT. The levels and symbology of the as-built CADD drawings shall conform to SCDOT standard levels and symbology used to develop the design drawings for the Project.

XXI. ESCROW PROPOSAL DOCUMENTS

A. Scope and Purpose

The purpose of this article is to preserve the proposal documents of the successful proposer (CONTRACTOR) for use by the parties in any claims or litigation between SCDOT and CONTRACTOR arising out of this contract.

CONTRACTOR shall submit a legible copy of proposal documentation used to prepare the Technical and Cost Proposal for this contract to SCDOT. Such documentation shall be placed in escrow with a banking institution or other bonded document storage facility and preserved by that institution/facility as specified in the following sections of this specification.

B. Proposal Documentation

The term "proposal documentation" as used in this specification means all writings, working papers, computer print outs, charts, and all other data compilations which contain or reflect information, data, and calculations used by CONTRACTOR to prepare the technical and cost proposal in proposing for the Project. The term "proposal documentation" includes, but is not limited to, equipment rates, overhead rates, labor rates, efficiency or

DRAFT Attachment A - Agreement

productivity factors, arithmetic extensions, and quotations from subcontractors and material suppliers to the extent that such rates and quotations were used by CONTRACTOR in preparing, formulating and determining the technical and cost proposal. The term "proposal documentation" also includes any manuals that are standard to the industry used by CONTRACTOR in determining the proposal for the Project. Such manuals may be included in the proposal documentation by reference. Such reference shall include the name and date of the Publication and the Publisher. The term does not include proposal documents provided by SCDOT for use by CONTRACTOR in proposing on the Project.

C. Submittal of Proposal Documentation

CONTRACTOR shall submit the proposal documentation to SCDOT, in a container suitable for sealing, no later than ten calendar days following award of the Contract by SCDOT. CONTRACTOR will not be allowed to begin work until the acceptable documentation has been received. The container shall be clearly marked "Proposal Documentation" and shall also show on the face of the container CONTRACTOR's name, the date of submittal, the File Number, the Project Number, and the County.

D. Affidavit

In addition to the proposal documentation, an affidavit, signed under oath by an individual authorized by CONTRACTOR to execute contracts shall be included. The affidavit shall list each proposal document with sufficient specificity so a comparison may be made between the list and the proposal documentation to ensure that all of the proposal documentation listed in the affidavit has been enclosed. The affidavit shall attest the following:

1. The affiant has personally examined the proposal documentation,
2. The affidavit lists all of the documents used by CONTRACTOR to determine the proposal for the Project, and
3. All such proposal documentation has been included.

E. Verification

Upon receipt of the proposal documentation, authorized representatives of SCDOT and CONTRACTOR will verify the accuracy and completeness of the proposal documentation compared to the affidavit. Should a discrepancy exist, CONTRACTOR shall immediately furnish SCDOT with any other needed proposal documentation. SCDOT, upon determining that the proposal documentation is complete, will, in the presence of CONTRACTOR's representative, immediately place the complete documentation and affidavit in the container and seal it. Both parties will deliver the sealed container to a banking institution or other bonded document storage facility selected by SCDOT for placement in a safety deposit box, vault or other secure accommodation.

Attachment A - Agreement

F. Duration and Use

The proposal documentation and affidavit shall remain in escrow during the life of the Contract or until such time as CONTRACTOR files a claim or initiates litigation against SCDOT related to the contract. Receipt of CONTRACTOR's claim, or litigation against SCDOT, shall be sufficient evidence for SCDOT to obtain the release and custody of the proposal documentation. If no such claim is received or litigation initiated, the Final Estimate has been paid and the warranty period for the Contract has expired, SCDOT shall instruct the banking institution or other bonded document storage facility to release the sealed container to CONTRACTOR using the form provided in Exhibit 9a.

CONTRACTOR agrees that the sealed container placed in escrow contains all of the proposal documentation used to determine the proposal and that no other proposal documentation shall be utilized by CONTRACTOR in litigation over claims brought by CONTRACTOR arising out of this contract.

G. Refusal or Failure to Provide Proposal Documentation

Refusal of CONTRACTOR to provide adequate documentation will be considered material breach of the Contract and CONTRACTOR will be declared in default of the Contract. SCDOT may, at its option, terminate the contract for default. These remedies are not exclusive and SCDOT may take such other action as is available to it under the law.

H. Confidentiality of Bid Documentation

The proposal documentation and affidavit in escrow are, and will remain, the property of CONTRACTOR. SCDOT has no interest in, or right to, the proposal documentation and affidavit other than to verify the contents and legibility of the proposal documentation unless a claim is received or litigation ensues between SCDOT and CONTRACTOR. In the event of such claim or litigation, the proposal documentation and affidavit shall become the property of SCDOT.

I. Cost And Escrow Instructions

The cost of escrow will be borne by SCDOT. SCDOT will provide escrow instructions to the banking institution or other bonded document storage facility consistent with this article.

J. Escrow Agreement

CONTRACTOR agrees that it will sign an Escrow Agreement with SCDOT and the escrow agent consistent with this article. Should CONTRACTOR fail to sign the Escrow Agreement, when presented, CONTRACTOR may be declared in default of the Contract. The Escrow Agreement is attached in Exhibit 9b.

DRAFT
Attachment A - Agreement

K. Payment

There will be no separate payment for compilation of the data, container or cost of verification of the proposal documentation. All cost shall be included in the overall Contract Price.

XXII. DISPUTE RESOLUTION

A. Each party hereby waives a trial by jury regarding any dispute between them arising out of this Contract and any such trial will be a non-jury trial before the South Carolina Circuit Court.

B. In the event of a dispute between the parties, it shall be a condition precedent to litigation that the parties submit the dispute to the SCDOT Dispute Review Board pursuant to the Dispute Resolution Procedure set forth in Exhibit 6 attached hereto.

XXIII. SCDOT'S AGENT

SCDOT will appoint an individual who will be authorized to act on behalf of SCDOT, with whom CONTRACTOR may consult at all reasonable times, and whose instructions and decisions will be binding upon SCDOT as to all matters pertaining to this Agreement and the performance of the parties hereunder.

XXIV. ASSIGNABILITY

The Contract shall not be assignable by CONTRACTOR without the prior written consent of SCDOT. SCDOT may assign the Contract without the consent of CONTRACTOR.

XXV. GENERAL PROVISIONS

A. This Agreement shall be governed by and interpreted in accordance with the substantive laws of the State of South Carolina.

B. Headings and titles of the various parts of this Agreement are for convenience of reference only and shall not be considered in interpreting the text of this Agreement. Modifications or amendments to this Agreement must be in writing and executed by duly authorized representatives of each party.

C. In the event that any portion or all of this Agreement is held to be void or unenforceable, the parties agree to negotiate in good faith to reach an equitable agreement which shall effect the intent of the parties as set forth in this Agreement.

D. All notices pertaining to this Agreement shall be in writing and, if to SCDOT, will be sufficient when sent registered or certified mail to SCDOT addressed as follows:

Attachment A - Agreement

State Highway Engineer
South Carolina Department of Transportation
Post Office Box 191
Columbia, South Carolina 29202-0191

All notices to CONTRACTOR shall be sufficient when sent registered or certified mail to CONTRACTOR addressed as follows:

Selected Contractor Representative
Company Name
Address
Address
Address

E. The Contract Documents set forth the full and complete understanding of the parties as of the Effective Date defined herein, and supersedes any and all agreements and representations made or dated prior thereto.

F. The parties make no representations, covenants, warranties or guarantees, express or implied, other than those expressly set forth herein. The parties' rights, liabilities, responsibilities and remedies within respect to the work shall be exclusively those expressly set forth in this Agreement.

G. In no event shall any failure by either party hereto to fully enforce any provision to this Agreement be construed as a waiver by such party of its right to subsequently enforce, assert or rely upon such provision.

H. Nothing in this Agreement is intended to create any contract rights for any party other than SCDOT and CONTRACTOR, nor are any third-party beneficiary rights intended to be created hereby.

DRAFT
Attachment A - Agreement

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the Effective Date defined herein. The Effective Date is defined as the date signed by the Executive Director on behalf of South Carolina Department of Transportation.

Witnesses:

Date: _____

SOUTH CAROLINA DEPARTMENT
OF TRANSPORTATION

By: _____
Elizabeth S. Mabry
Executive Director

Recommended by:

Tony L. Chapman
State Highway Engineer

CONTRACTOR

By:
Its:

DRAFT
Attachment A - Agreement

CERTIFICATION OF CONTRACTOR

I hereby certify that I am the duly authorized representative of CONTRACTOR and that neither I nor the above CONTRACTOR I here represent has:

(a) employed or retained for a commission, percentage, brokerage, contingent fee, or other consideration, any firm or person (other than a bona fide employee working solely for me or the above CONTRACTOR) to solicit or secure this contract;

(b) agreed, as an express or implied condition for obtaining this contract, to employ or retain the services of any firm or person in connection with carrying out the contract, or

(c) paid, or agreed to pay, to any firm, organization or person (other than a bona fide employee working solely for me or the above CONTRACTOR) any fee, contribution, donation, or consideration of any kind for, or in connection with, procuring or carrying out the contract except as here expressly stated (if any);

(d) either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action, in restraint of free competitive bidding in connection with the submitted proposal.

I acknowledge that this certificate is to be furnished to the Department, the Federal Highway Administration, and the U. S. Department of Transportation, and is subject to applicable State and Federal laws, both criminal and civil.

CONTRACTOR

By: _____

Date: _____



Attachment A - Agreement

CERTIFICATION OF DEPARTMENT

I hereby certify that I am the State Highway Engineer of the South Carolina Department of Transportation (SCDOT) of the State of South Carolina and that the above CONTRACTOR or its representative has not been required, directly or indirectly, as an express or implied condition in connection with obtaining or carrying out this agreement to:

- (a) employ or retain, or agree to employ or retain, any firm or person, or
- (b) pay, or agree to pay, to any firm, person, or organization, any fee, contributions, donations, or consideration of any kind, except as here expressly stated (if any).

I acknowledge that this certificate is to be furnished to the Federal Highway Administration, and U. S. Department of Transportation, and is subject to applicable State and Federal laws, both criminal and civil.

SOUTH CAROLINA DEPARTMENT OF
TRANSPORTATION

BY: _____

TITLE: STATE HIGHWAY ENGINEER

Date: _____