STATE OF DELAWARE

DEPARTMENT OF TRANSPORTATION

DESIGN-BUILD PROJECT

for

INDIAN RIVER INLET BRIDGE

Replacement of Bridge 3-156,
SR1 over Indian River Inlet
State Contract # 26-073-03 Readvertised
Federal Contract # BRN-S050(14)

SCOPE OF SERVICES PACKAGE

CONTRACT DOCUMENTS

PART 2 – SECTION 100

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PART 2

DB SECTION 101
ACRONYMS AND ABBREVIATIONS
AND DEFINITIONS

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DB SECTION 101

ACRONYMS AND ABBREVIATIONS AND DEFINITIONS

DB 101-1 REFERENCES

Section, subsection, and subpart titles and heading provide reference only, not interpretation.

Cited publications refer to the most recent issue, including interim publications, in effect on the Proposal due date, unless otherwise specified.

Wherever in these Plans, Specifications, or other Contract Documents the following terms, abbreviations, or symbols are used, the intent and meaning shall be interpreted as follows in this Section 101.

DB 101-2 ACRONYMS AND ABBREVIATIONS

Wherever the following abbreviations or acronyms are used in these Contract Documents, they are to be interpreted as follows.

AA	Aluminum Association
AAN	American Association of Nurserymen
AAR	Association of American Railroads
AASHTO	American Association of State Highway and Transportation Officials
ACI	American Concrete Institute
AED	Associated Equipment Distributors
ACOE	Army Corps of Engineers
AED	Associated Equipment Distributors
AGC	Associated General Contractors of America
AGMA	American Gear Manufacturers Association
AIA	American Institute of Architects
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
ANSI	American National Standards Institute, Inc.
API	American Petroleum Institute
ARA	American Railway Association
AREA	American Railway Engineering Association
ARML	AASHTO Reference Materials Laboratory
ARTBA	American Road and Transportation Builders Association
ASCE	American Society of Civil Engineers
ASLA	American Society of Landscape Architects
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
AWG	American Wire Gauge
AWPA	American Wood-Preservers Association
AWS	American Welding Society
AWWA	American Water Works Association
BDM	Delaware Department of Transportation Bridge Design Manual
CCRL	Cement and Concrete Reference Laboratory
CD-ROM	Compact Disc – Read Only Memory
CE	Construction Engineering

CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CPM	Critical Path Method
CRSI	Concrete Reinforcing Steel institute
CSL	Contract Submittal List
CFR	Code of Federal Regulations
DB	Design-Build
DU	Design Unit
DelDOT	Delaware Department of Transportation
DNREC	Division of Natural Resources and Environmental Control (State of Delaware)
DVD-ROM	Digital Video (or "Versatile") Disc – Read Only Memory
EOR	Engineer of Record
EASA	Electrical Apparatus Service Association
EPA	Environmental Protection Agency of the United States Government
FAA	Federal Aviation Administration, United States Department of Transportation
FHWA	Federal Highway Administration, United States Department of Transportation
FONSI	Finding Of No Significant Impact
FSS	Federal Specifications and Standards, General Services Administration
IA	Independent Assurance
IEEE	Institute of Electrical and Electronics Engineers
IES	Illuminating Engineering Society
IPCEA	Insulated Power Cable Engineers Association
ISO	International Standards Organization
ITE	Institute of Transportation Engineers
ITMS	Intelligent Transportation Management System
ITP	Instructions to Proposers
JV	Joint Venture
LLC	Limited Liability Company
LPI	Lightning Protection Institute
LOI	Letter of Interest
MIL	Military Specifications
MS	Milestones
MUTCD	Manual of Uniform Traffic Control Devices
N/A	Not Applicable
NAAMM	National Association of Architectural Metal Manufacturers
NCHRP	National Cooperative Highway Research Program
NCR	Non-Conformance Report
NEC	National Electrical Code
NEMA	National Electrical Manufacturers Association
NEPA	National Environmental Policy Act
NIST	National Institute of Standards and Technology
NFPA	National Fire Protection Association
NOAA	National Oceanic and Atmospheric Administration
NTP	Notice to Proceed
OSHA	Occupational Safety and Health Administration, United State Department of Labor
PC	Project Component
PCA	Portland Cement Association
PCD	Project Component Description
PCI	Prestressed Concrete Institute
PCP	Progress Check Point
PCV	Project Component Value
PE	Preliminary Engineering

PPS-C	Contract Periodic Payment Schedule
PPS-P	Proposed Periodic Payment Schedule
PTI	Post Tensioning Institute
QA	Quality Assurance
QC	Quality Control
RFI	Request For Information
RFQ	Request for Qualifications
RFP	Request for Proposals
RMA	Rubber Manufacturers Association
ROW	Right Of Way
SAE	Society of Automotive Engineers
SHPO	State Historic Preservation Office
SHA	State Highway Administration
SI	Systeme Internationale - International System of Units
SV	Schedule of Values
SOQ	Statement of Qualifications
SSPC	Steel Structures Painting Council
TBD	To Be Determined
UL	Underwriters Laboratories, Inc.
US	United States
USACE	United States Army Corps of Engineers
USC	United States Code
USDOL	United States Department Of Labor
US DOT	United States Department Of Transportation
VE	Value Engineering
WBS	Work Breakdown Structure

DB 101-3 DEFINITIONS

When the following words or expressions are used in the Plans, Specifications, other Contract Documents, they are to be defined as follows:

Acceptance Program - All factors that comprise the Delaware Department of Transportation's (DelDOT) determination of the quality of the product as specified in the Contract Documents. These factors include Verification Sampling and Testing and Department Oversight and auditing of the Design-Builder's activities and may include the Design-Builder's Quality Control (QC).

Act of God - An unusual, sudden, and unexpected manifestation of the forces of nature (force Majeure), the effect of which could not have been prevented by reasonable human foresight, plans, and care.

Addenda - Additions, deletions, and modifications to the provisions of the Scope of Services Package after the Advertisement date and prior to the Proposal acceptance date.

Administrative Plans - Those Plans that contain general Project or Plan information such as cover sheets, index sheets, and similar non-technical information.

Advertisement - A public announcement stating the Department's Notice of Intent (NOI) for the procurement of a particular project and inviting prospective Proposers to obtain a Request for Qualifications (RFQ) or Scope of Services Package and submit a Statement of Qualifications (SOQ) or a Proposal, as applicable.

Affiliate - Any Person, directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with the following:

A) The Design-Builder; or

B) Any Principal Participant.

An Affiliate may also be any Person for which ten percent or more of the equity interest in such Person is held directly or indirectly, beneficially or of record, by the following:

1) The Design-Builder;

2) Any Principal Participant; or

3) Any Affiliate of the Design-Builder under part (A) of this definition.

For purposes of this definition, the term "control" means the possession, directly or indirectly, of the power to cause the direction of the management of a Person, whether through voting securities, by contract, by family relationship, or otherwise.

Amendment - A formal alteration by addition, deletion, or modification of the terms of the executed Contract. Amendment is an umbrella term and includes Change Orders or supplemental agreements.

Approval - The Department's written statement indicating that the subject Work complies with Contract requirements. Approvals will only be given for those submittals, activities, or Work specifically identified for "Approval" or "approval" in the Contract Documents. *See also* DB Section 105-11.

As-Built Conditions - The Work as actually performed under the Contract and as recorded on the Record Drawings.

Award - The decision of the Department to accept a responsive Proposal from a responsible Proposer for the Work identified in the Scope of Services Package, subject to the execution and approval of a satisfactory Contract, provision of Payment and Performance Bonds to secure the payment and performance thereof, provision of such insurance as is required under the Contract, and the satisfaction of such other conditions as may be specified or otherwise required by law.

Baseline Progress Schedule - The time-scaled, cost-loaded, and resource-loaded Critical Path network depicting the Project Components (PC) and subordinate activities and their respective prices (distributed over time), durations, sequences, and interrelationships that represent the Design-Builder's Work plans; the Design-Builder's Work Breakdown Structure (WBS) for designing, constructing, and completing the Project; and the total Lump Sum Contract Price, distributed over the period of the Contract**.**

Basic Project Configuration - The salient characteristics of the Project as defined and/or illustrated in the Scope of Services Package, including any permitted deviations thereto contained in the Design-Builder's Proposal. Basic Project Configuration elements may include the following:

A) The horizontal and vertical alignments;

B) Number and size of lanes, shoulders, and sidewalks;

C) The general location of the limits of the Project;

D) The minimum horizontal and vertical underclearances; and

E) The Right-of-Way limits.

Basic Project Configuration Plan - The Plan designated as such in the Contract Documents that depicts the Basic Project Configuration within the limits specified in the Contract. In general, the Basic Project

Configuration Plan describes fundamental elements of the Project that must be included as part of the final design and construction to be furnished by the Design-Builder.

Bridge – A structure, including supports, erected over a depression or an obstruction, such as, water, highway, or railway, which has a track or passageway for carrying traffic or other moving loads and having an opening measured along the center of the roadway of more than 20 feet between undercopings of abutments, spring lines of arches, or extreme ends of openings for multiple boxes. A Bridge may include multiple pipes where the clear distance between openings is less than ½ the smaller contiguous opening.

Bridge Length – The greater dimension of a structure measured along the center of the roadway between backs of abutment backwalls or between ends of Bridge floor.

Bridge Roadway Width – The clear width of structure measured at right angles to the center of the roadway between the bottom of curbs or, if curbs are not used, between the inner faces of parapet or railing.

Calendar Day – Every Day on the calendar, beginning and ending at midnight, local time.

Change Order – A written order issued by the Project Manager to the Design-Builder for a change to the Contract. Changes to the Contract are extra work, increases or decreases in Contract item quantities, or alterations to the Contract, and are within the scope of the Contract. A change order also establishes the basis and amount of payment for the change to the Contract and provides for any time extension necessitated by the change to the Contract.

Conditional Notice to Proceed – Written notice to the Design-Builder to proceed with portions of the Contract Work, including, but not limited to, preparatory Work for Material fabrications, such as, test piles or other activities which hinder progress in the beginning stages of construction.

Construction Subcontractor - A Subcontractor (or Affiliate) retained by the Design-Builder that is involved in the actual construction of the Project.

Constructor - A Principal Participant, Subcontractor or Affiliate retained by the Design-Builder and licensed by the State of Delaware, that is involved in the actual construction of the Project. (Del. Code Title 30 §§ 2501.)

Consultation and Written Comment - The Department's reviews, observations, and/or inspections based solely on information submitted by the Design-Builder (not based on any independent investigation or inquiry by the Department) and the Department's written responses resulting from such Department actions. *See also* DB Section 105-11.

Consultant – The Professional Engineer or Engineering Firm, registered in the State of Delaware and under contract or subcontract to the Department to perform professional services.

Contract - The written agreement between the Department and the Design-Builder setting forth the obligations of the parties thereunder, including, but not limited to, for the performance of the prescribed Work. The Contract includes the Advertisement; Contract Documents identified in the Scope of Services Package; the Design-Builder's Proposal Information; the Design-Builder's lump sum Price Proposal (with the exception of the Proposal Bond); the Notice to Proceed (NTP); Payment, Performance, and Retainage Bonds; Specifications; Supplemental Specifications; Special Provisions; Plans; and any Supplemental Agreements, Amendments, and Change Orders that are required to complete the Work in an acceptable manner and Contract time, including authorized extensions thereof, all of which constitute one

instrument. The Contract shall not be modified, altered, or otherwise changed by any oral promise, statement, or representation made either by the Department or Design-Builder, unless such modification, alteration, or change is reduced to writing in accordance with the Contract.

Contractor – *See* Design-Builder.

Contract Bond – The security furnished by the Design-Builder and the surety as a guaranty that the Design-Builder shall fulfill the terms of the Contract and pay all legal debts pertaining to the design and construction of the project.

Contract Claim (Claim) – A written demand submitted to the Department by the Design-Builder in compliance with the Contract seeking additional monetary compensation, time, or other adjustments to the Contract, the entitlement or impact of which is disputed by the Department.

Contract Documents – The Contract Documents shall include the Agreement, DB Section 100, Design Requirements and Performance Specifications, DB Special Provisions, the Utility Requirements, the Scope of Services Package Plans, the Engineering Data, the Design-Builder's Proposal, and all provisions required by law to be inserted in the Contract whether actually inserted or not. Whenever separate publications and the Department's Standard Specifications are referenced in the Contract Documents, it is understood to mean the publications and Specifications, as amended, current as of the Proposal due date, unless otherwise noted.

Contract Item – A specific portion of Work for which a price is provided in the Contract.

Contract Payment and Performance Bond. The security furnished by the Design-Builder and the Design-Builder's surety or sureties to guarantee payment and performance of all obligations incurred by the Design-Builder on any Contract.

Contract Price – *See* Lump Sum Contract Price.

Contract Time – The number of Calendar Days allowed for completion of the Contract, including authorized time extensions. Calendar day contracts shall be completed on or before the day indicated even when that date is Saturday, Sunday, or holiday.

Control of Access – The condition where the right of owners or occupants of abutting land or other persons to access, light, air, or view in connection with a highway is controlled by public authority.

Controlled Access Highway – Any highway to or from which access is denied or controlled from or to abutting land or intersecting streets, roads, highways, alleys, or other public or private ways.

Critical Path - Each path shown on the Baseline Progress Schedule for which there is zero total float.

Cultural Resource - Any prehistoric or historic period artifact, site, building, structure, material remain, or traditional use area resulting from, or associated with, human cultural activity. Historically important cultural resources are those eligible for inclusion on the National Register of Historic Places.

Culvert – Any structure that provides an opening under any roadway, but is not classified as a Bridge.

Day - A Calendar Day, unless otherwise defined or modified.

Dedicated Stockpile – A stockpile assembled for a specific project.

Definitive Design - The point in the design process at which the design concepts are defined and the Basic Project Configuration is finalized.

Delaware Department of Transportation Plans - Those Scope of Services Package Plans included in the Contract Documents that were created by the Department.

Delay – Any unanticipated event, action, force or factor, which extends the Design-Builder's time of performance of any critical work item under the Contract. The term "delay" is intended to cover all such event, action, force or factor, whether styled "delay", "disruption", "interference", "impedance", "hindrance", or otherwise, which are beyond the control of and not caused by the Design-Builder, or the Design-Builder's consultants, subcontractors, materialsmen, suppliers or other agents. This term does not include "extra work".

Department – The Delaware Department of Transportation .

Department-Directed Changes - Any changes in the Work as described in the Contract (including changes in the standards applicable to the Work) that the Department has directed the Design-Builder to perform as described in the Contract.

Department's Project Manager - The engineer representing the Department and having direct supervision of the administration and execution of the Contract.

Design Acceptance - Written confirmation by the Department after submittal and review of the Record Drawings that the design conforms to the Contract Documents and reflects the As-Built Conditions. Design Acceptance is required as part of Final Acceptance.

Design-Build - The Project's delivery methodology under which the Department contracts with a single legal entity that has responsibility for the design and construction of the Project under a single contract with the Department.

Design-Build Team - *See* Design-Builder.

Design-Builder - The single legal entity selected pursuant to the Scope of Services package that enters into the Contract with the Department to design and construct the Project (also referred to as the "Design-Build Team").

Design-Builder's Project Manager - The Design-Builder's on-site designated competent representative and single point of contact capable of reading and understanding the Contract and experienced in all aspects the type of Work being performed.

Design Plan - The Plan prepared by the Designer during the design development to represent the Project.

Design Review - A comprehensive and systematic examination of the design as specified in the Contract to verify that it is in conformance with the requirements of the Contract, as performed by the Design-Builder for all stages of the design including Record Drawings. During all stages of the design, the Department will contribute to the review through Oversight, including, participation, auditing, and spot-checking.

Design Unit - A distinct portion of the Project of which the design is performed as a contiguous, integrated unit. *See* DB Section 111-3.

Designer - A Principal Participant, specialized Subcontractor, or in-house Design-Build designer

authorized to perform work in the State of Delaware that leads the team furnishing or performing the design of the Project. (Del Code Title 24, §§2801.)

Differing Site Condition - Subsurface or latent physical conditions that are encountered at the Site and differ materially from the conditions indicated in the Contract. Also, unknown physical conditions of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in the type of Work provided for in the Contract, provided in all cases that the Design-Builder had no actual or constructive knowledge of such conditions as of the Proposal due date.

Directive Plans - Those Plans that depict required elements and components of the Project within specifically defined parameters. The Design-Builder has limited or no latitude to adjust components or details shown on Directive Plans. Examples of Directive Plans include the following:

A) Basic Project Configuration Plans that depict the Basic Project Configuration within the limits defined in the Contract;

B) Delaware Department of Transportation Plans; and

C) Right-of-Way Plans.

Dispute - A matter of Contract performance or Contract compensation, including granting of extensions of time, in which there is or may be disagreement between the Design-Builder and the Department and which may involve adjustment of Contract Items or the addition of new items to the Contract, extension of time for performance, and/or adjustments in compensation necessitated by the resolution of such disagreement.

Engineer – The Chief Engineer of the Department, acting directly or through an assistant or other authorized representative, such as the Department's Project Manager, responsible for engineering and administration supervision of the Contract.

Engineer of Record (EOR) – Designer who is in responsible charge of and seals the plans and specifications.

Equipment - All machinery, equipment, tools, and apparatus necessary for acceptable completion of the Work.

Escrow of Proposal Documentation - Pricing data assembled by the Design-Builder, placed in escrow, which supports and explains the basis of the lump sum Price Proposal. The Escrowed Proposal Documents are used during Project execution for negotiation of Change Orders and resolution of contract disputes and claims and other purposes set forth in the Contract.

Extra Work – Work not provided for in the Contract as awarded but found essential by the Department for satisfactory completion of the Contract within its intended scope.

Falsework – Temporary construction Work on which main Work is wholly or partly built and supported until it is strong enough to support itself; a temporary framework used to support part or all of a structure during demolition.

Formwork – A temporary structure or mold used to retain the plastic or fluid concrete in its designated shape until it hardens. Formwork must have enough strength to resist the fluid pressure exerted by plastic concrete and any additional fluid pressure effects generated by vibration.

Final Acceptance - The acceptance of the Work by the Department upon the completion of the Work as defined in the Contract and through Oversight of that Work by the Department.

Force Account - Payment for the directed performance of design and/or construction Work based on the actual cost of labor, Equipment, and Materials furnished, overhead, and profit.

Free Float – Float time in a CPM schedule which, if used, will not delay the early start of any succeeding activity.

Full Control – Preference is given to through traffic by providing access connections with selected public roads only and by prohibiting crossings at grade or direct private driveway connections.

General Notices – Federal and State regulations contained in the Contract Documents that govern Contract operations.

Hazardous Materials - The term Hazardous Materials shall mean any substance, product, waste, or other material of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 United States Code (USC) 9601, et seq.; the Hazardous Materials Transportation Act, 49 USC 5101, et seq.; the Resource Conservation and Recovery Act, 42 USC 6901, et seq.; the Toxic Substances Control Act, 15 USC 2601, et seq.; the Clean Water Act of 1977, 33 USC 1251, et seq.; the Clean Air Act, 42 USC 7401, et seq.; or any other federal, state, or local statute, law, ordinance, resolution, code, rule, regulation, order, or decree regulating, relating to, or imposing liability or standards of conduct concerning any hazardous, toxic, or dangerous waste, substance, or material.

Headings – The Titles or Headings of Parts, Sections, and subsections herein are intended for convenience of reference and shall not be considered as having any bearing on their content or interpretation.

Highway, Street, or Road – A general term indicating a public way used by vehicles and pedestrians, including the entire area within the Right-of-Way.

Holidays – The following days shall be considered legal holidays in the State of Delaware.

A. New Years Day
B. Martin Luther King's Birthday
C. President's Day
D. Good Friday
E. Memorial Day
F. Independence Day
G. Labor Day
H. Columbus Day
I. General Election Day (biennial)
J. Return Day (Sussex County only after 12:00 Noon)
K. Veteran's Day
L. Thanksgiving Day
M. Friday after Thanksgiving
N. Christmas Day

If additional days are designated as legal holidays for State employees by Executive Order of the Governor, and the Design-Builder chooses to honor the days by not working, the State will extend the Contract time accordingly.

If any holiday falls on Sunday, the Monday following shall be the holiday. If any holiday falls on a Saturday, the Friday preceding shall be the holiday.

Independent Assurance - Review, analysis, checking, and/or testing performed by an independent firm or firms as contracted by the Department.

Independent Checker– Engineer under Designer-Builder's team to perform independent calculations and check of Designer's plans and specifications.

Independent Check Certificate – Issued by Independent Checker certifying that calculations, plans and specifications have been prepared in accordance with Contract requirements.

Indicative Plans - Plans that represent the nature and type of Work to be designed and constructed as part of the Project and reflect items for which the Department has no particular view on the specific configuration or Material used in the final product, such as the following:

A) Structure type;

B) Pavement type (concrete or asphalt);

C) Drainage Material or size; or

D) Pile type.

Indicative Plans do not necessarily reflect the final locations, quantities, or all elements required to complete the design.

Inspector - A Department and/or Design-Builder representative authorized to inspect methods and Materials, Equipment, and Work both on and off the Site of the Project.

Instructions to Proposers - Those documents contained within the Scope of Services Package that provide directions for the preparation and submittal of information by the Proposers in response to the Scope of Services Package.

Key Personnel – Members of the Design-Build Team meeting minimum requirements as set forth in Part 4 – Special Provisions, Special Provision 108B.

Laboratory – The Department's testing laboratory or any other testing laboratory approved by the Department.

Lead Principal Participant - The Principal Participant that is designated by the Proposer as having the lead responsibility for managing the Design-Builder's organization.

Liquidated Damages – An amount due and payable to the Department by the Design-Builder for additional costs incurred by the Department resulting from the Design-Builder's failure to complete the work within the Contract time.

Local Road – A street or road not in the state maintained system.

Local Traffic – That traffic which has either its origin or destination, or both, within the limits of the Project.

Lump Sum Contract Price - The total lump sum amount paid for the Work to be performed under the

Contract, including adjustments to account for Change Orders. The Lump Sum Contract Price may also be known as the Contract Price.

Lump Sum Price Proposal - The portion of the Proposal that addresses the Project's cost, PCs, PCPs, payment schedule, and Proposal Bond. With the exception of the Proposal Bond, the Price Proposal is included in the Contract Documents at Award. The Lump Sum Price Proposal may also be known as the Price Proposal.

Lump Sum Price Proposal Form - The approved form on which the Department requires a Lump Sum Price Proposal to be prepared and submitted as part of the Proposal for the Work. The Lump Sum Price Proposal Form may also be known as the Price Proposal Form.

Material - Any substances used in the Work.

Materials and Research Manual – The manual used to establish and standardize construction and maintenance sampling and Material acceptance requirements for the Department.

Median – The portion of a Highway separating traveled ways for traffic in opposite directions.

Necessary Basic Project Configuration Change - Material changes in the Basic Project Configuration by either party that are necessary to correct an error, omission, or defect in the Basic Project Configuration Plans as shown or described in the Contract (with the understanding that a change shall be deemed "necessary" only if the error, omission, or defect creates a problem which cannot reasonably be corrected without a material change in the Basic Project Configuration).

Notice to Proceed - Written notice to the Design-Builder to proceed with Contract Work, including the date of beginning of Contract Time.

Oversight - Actions by the Department to satisfy itself that the Design-Builder is designing, constructing, and managing the Work in accordance with the Contract Documents. It includes actions identified in the Contract Documents by the terms Quality Assurance (QA), accept/acceptance, inspect/inspection, audit, ensure, certify, confirm, review, verify, or terms of similar import. Delaware Department of Transportation comments as a result of Oversight are conveyed to the Design-Builder through Consultation and Written Comment. Neither the activity of Oversight nor the lack of Consultation and Written Comment on the part of the Department shall be construed to relieve the Design-Builder and its organization from the responsibility and costs for meeting all Contract and regulatory requirements.

Part - A major subdivision of the Contract Documents.

Partnering - Those actions taken to include all parties with an appropriate and vested interest in the Project in the management of the Project, such that the Project is completed in the most efficient, timely, safe, and cost effective manner for the mutual benefit of all concerned. These actions include, but are not limited to, communication, organization, establishing goals, continuous improvement, problem identification, conflict resolution, and managing change. Interested parties may include, but are not limited to, the Department; the Design-Builder; Subcontractors; Suppliers of goods and services to the Project; the community within which the Project is constructed; the community served by the Project; federal, state, and local governments or other public agencies; and utilities.

Pavement Structure – The combination of base course and surface course placed on a subgrade across the roadbed.

Payment/Performance Bond - The approved form of security, executed by the Design-Builder and

Surety, guaranteeing complete execution of the Contract and supplemental agreements thereto, and payment of all legal debts, including liens and monies due the Department, pertaining to the Contract.

Performance Specification - A specification that establishes Contract requirements in terms of design parameters and performance parameters to be met. Performance Specifications also may include parameters for determining performance and corrective action to be taken.

Periodic Payment Schedule - The schedule submitted with the Design-Builder's Proposal (which schedule may be amended by Change Order) that will be the basis for the assessment of periodic payments for each PC.

Person - Any individual, firm, corporation, company, Limited Liability Company (LLC), Joint Venture (JV), voluntary association, partnership, trust, or unincorporated organization, or combination thereof.

Plans - The Contract drawings that show location, type, dimensions, and other details of the prescribed Work.

Price Proposal – *See* Lump Sum Price Proposal.

Price Proposal Form – *See* Lump Sum Price Proposal Form.

Principal Participant - Any of the following entities:

A) The Design-Builder (or Proposer);

B) An individual firm, all general partners, or LLC or JV members of the Design-Builder (or Proposer); and/or

C) All Persons and legal entities holding (directly or indirectly) a 15% or greater interest in the Design-Builder (or Proposer).

Profile Grade – The trace of a vertical plane intersecting the top surface of the proposed wearing surface or other designed course usually along the longitudinal centerline of the roadbed. Profile grade means either elevation or gradient of such trace according to the context.

Progress Check Point - A defined step towards the completion of Work within a PC identified in the Schedule of Progress Check Points.

Project - The improvements to be designed and constructed by the Design-Builder and all other Work product to be provided by the Design-Builder in accordance with the Contract Documents.

Project Component - A component of the Project for which the Design-Builder provides a Project Component Value (PCV) for all Work included in that component. A PC may be a major contract item or series of interrelated items as identified in the Pricing Information.

Project Component Value - That value allocated by the Design-Builder to a Project Component (PC) as set out in the Pricing Information.

Project Number – A number used to identify the Project.

Project Specifications - Those Specifications developed by the Design-Builder to define and control the specific requirements, conditions, means, and methods to be used on the Project. Project Specifications will be based on the Contract requirements and shall provide finished products that meet or exceed the

quality requirements of the Contract. Project Specifications are subject to the review and Consultation and Written Comment of the Department's Project Manager during Design Reviews.

Proposal - The offer of the Proposer for the Work when executed and submitted in response to the Scope of Services Package in the prescribed format and on the prescribed forms. The Proposal includes the Technical Proposal and the Price Proposal.

Proposal Documentation - All writings, working papers, computer printouts, charts, and data compilations that contain or reflect information, data, or calculations used by the proposer to prepare the Proposal submitted, including but not limited to material relating to the determination and application of:

A. Equipment rates
B. Overhead rates and related time schedules
C. Labor rates
D. Efficiency or productivity factors
E. Arithmetic extensions
F. Subcontractor and material supplier quotations

Any manuals standard to the industry used by the Proposer in determining the Proposal are also considered Proposal Documentation. These manuals may be included in the Proposal Documentation by reference and shall show the name and date of the publication and the publisher.

The term "Proposal Documentation" does not include documents provided by the Department for the Proposer's use in the preparation of the Proposal.

Proposal Information - The documents so designated in the ITP and submitted to the Department by the Proposer/Design-Builder in accordance with the ITP that will be included in the Contract Documents at Award.

Proposer - A Person submitting an SOQ for the Project in response to an RFQ, and if selected for the Short-List, an entity submitting a Proposal.

Quality Assurance - All planned and systematic Oversight actions by the Department necessary to provide confidence that the Design-Builder is performing QC in accordance with the Quality Plan; that all Work complies with the Contract; and that all Materials incorporated in the Work, all Equipment, and all elements of the Work will perform satisfactorily for the purpose intended. Oversight actions include, but are not limited to, monitoring and verification of design through auditing; spot-checking and participation in the review of the design; and monitoring and verification of construction through auditing, spot inspections, and Verification Sampling and testing at production sites and the Project Site. Quality Assurance also includes IA, the Department's Consultation and Written Comment, documentation of QA activities, final inspection, and Final Acceptance.

Quality Assurance Inspector - Inspector representing the Department to perform IA and QA inspection at the site.

Quality Assurance Program - The overall quality program and associated activities including Department QA, Design-Builder QC, the Contract's quality requirements, and the Design-Builder's Quality Plan.

Quality Control - The total of all activities performed by the Design-Builder, Designer, Subcontractor, producer, or Manufacture to ensure that the Work meets Contract requirements. For design this includes, but is not limited to, procedures for design quality; checking; design review, including reviews for constructability; and review and approval of Working Drawings. For construction this includes, but is not

limited to, procedures for Materials handling and construction quality. Inspection, sampling, and testing of Materials, plants, production, and construction; Material certifications; calibration and maintenance of Equipment; production process control; and monitoring of environmental compliance. Quality Control also includes documentation of all QC design and construction efforts.

Quality Control Engineer – *See* Quality Control Engineering Firm.

Quality Control Engineering Firm - An independent engineering/testing firm responsible for administering, managing, and conducting the construction QC inspection, sampling, and testing specified in the Contract Documents and the Design-Builder's Quality Plan. The QC Engineering Firm shall not be owned in any part or controlled by any Principal Participant or by any Construction Subcontractor, but shall contractually be part of the Design-Builder. The Designer or a firm associated with or subsidiary to the Designer may serve as the QC Engineering Firm except any Designer who is a Principal Participant or any Designer (or subsidiary of a Designer) that is an Affiliate of any Principal Participant or Construction Subcontractor shall not serve in the capacity of QC Engineering Firm. The QC Engineering Firm may also be known as the QC Engineer.

Quality Control Manager - The individual employed by the Design-Builder who is responsible for the overall QC program of the Design-Builder, including the quality of management, design, and construction.

Quality Plan - The plan that sets out the Design-Builder's means of complying with its obligations in relation to QC, which plan shall be provided and maintained in accordance with the Contract following Consultation and Written Comment thereof by the Department's Project Manager.

Record Drawings – Final plan documents reflecting the Work as actually performed under the Contract. Record Drawings are to be prepared by the Design-Builder and submitted to the Department for final review and Approval.

Reference Documents - The documents provided with and so designated in the Scope of Services Package. The Reference Documents, including Plans contained therein and/or so designated, are not Contract Documents and were provided to Design-Builder for informational purposes only and are relied upon at the Design-Builder's own risk.

Request for Information - The written request from Design-Builder to Designer for clarification on plans and specifications during construction. If the response by Designer requires changes to plans and/or specifications, the revised plans and/or specifications shall be subjected to the same Design Review process required for design.

Request for Proposals – *See* Scope of Services Package.

Request for Qualifications - The written solicitation issued by the Department seeking SOQs to be used to identify and Short-List the Proposers to receive the Scope of Services Package for the Project.

Resident Engineer - Engineer representing the Department at the project site.

Right-of-Way – Land, property, or interest therein, acquired for or devoted to transportation purposes.

Right-of-Way Acquisition Schedule - The schedule for acquisition of Right-of-Way (ROW) permits or easements by the Department set forth in the Contract and/or ITP.

Roadbed - The graded portions of a Highway within top and side slopes, prepared as a foundation for the pavement structure including the shoulders.

Roadside – The areas between the outside edges of the shoulders and the right-of-way boundaries. Unpaved median areas between inside shoulders of divided highways and infield areas of interchange are included.

Roadside Development – Those items necessary to the complete Highway which provide for preservation of landscape materials and features; rehabilitation and protection against erosion of areas disturbed by construction through seeding, sodding, mulching, and placing of other ground covers; and suitable planting or other improvements to increase the effectiveness and enhance the appearance of the Highway.

Roadway - The portion of a highway, including shoulders, for vehicular use. A divided highway has two or more roadways.

Safety Plan - The plan that sets out the Design-Builder's means of complying with its obligations in relation to Project safety. The plan shall be provided and maintained in accordance with DB Section 107-5 following Consultation and Written Comment by the Department's Project Manager.

Schedule of Progress Check Points - The schedule describing the PCPs and stipulating dates by which PCPs are to be achieved in order to maintain periodic payments in accordance with the Contract.

Scope of Services Package - The document identifying the Project and its Work to be performed and Materials to be furnished in response to which a Proposal may be submitted by a Proposer/Design-Builder. The Scope of Services Package includes the ITP, Contract Documents, and Reference Documents. The Scope of Services Package is issued only to Persons who are on the Short-List. The Scope of Services Package may also be referred to as the RFP.

Scope of Services Package Plans - Plans prepared by the Department during its PE to the extent they are identified in the Contract Documents.

Scope of the Project - The brief description of the Work to be performed to design and construct the Project as contained in the Contract.

Secretary – The Secretary of Transportation for the State of Delaware.

Secretary of Transportation – As used in DB Section 102, General Notices, Requirements and Conditions, means the Secretary of Transportation for the United States Department of Transportation.

Section - A subdivision of the Project or a subdivision of a Part of the Contract Documents.

Short-List - The list of those Proposers that have submitted SOQs that the Department determines, through evaluation of the SOQs, are eligible to receive a Scope of Services Package and invited to submit Proposals.

Site Security Plan - The plan that sets out the Design-Builder's means of complying with its obligations in relation to Site security, which plan shall be provided and maintained in accordance with the Contract following Consultation and Written Comment thereof by the Department's Project Manager.

Specialty Item - Work not usually performed by highway contractors and so designated in the Contract. Work that requires specialized knowledge, skill, or Equipment not ordinarily available in construction

organizations and in general limited to minor components of the overall Contract. For purposes of this Contract, all engineering and design Work are considered Specialty Items.

Specifications – The compilation of provisions and requirements for the performance of the prescribed Work.

A. *Standard Specifications.* A book of specifications approved for general application and repetitive use.
B. *Supplemental Specifications.* Approved additions and revisions to the Standard Specifications, which is part of the Contract Documents.
C. *Special Provisions.* Special directions, provisions, or requirements particular to the Project not otherwise detailed in the Standard Specifications or Supplemental Specifications.

Specified – Set forth or stipulated in the Plans or Specifications or elsewhere in the Contract, such as, Materials, Equipment, or methods.

Standard Construction Details – Delaware Department of Transportation drawings approved for repetitive use, showing the details to be used where appropriate. The Standard Construction Details are a Reference Document for the purposes of this Project.

Standard Plans – *See* Standard Construction Details.

Standard Specifications – A book of Specifications entitled "Delaware Standard Specifications, for Road and Bridge Construction, 2001" for general application and repetitive use. The Standard Specifications are a Reference Document for the purposes of this Project.

State - The State of Delaware, acting through its authorized representative.

Statement of Qualifications - The information prepared and submitted by a Proposer in response to the RFQ.

Street – *See* Highway.

Structures - Bridges, culverts, catch basins, junction boxes, retaining walls, cribbing, manholes, endwalls, buildings, sewers, service pipes, underdrains, foundation drains, and other similar features encountered in the Work.

Subcontractor – An individual, partnership, corporation, JV, LLC, or any other legal entity or any acceptable combination thereof, to which the Design-Builder sublets part of the Work. Any individual, partnership, corporation, or any other legal entity shall not be considered to be a Subcontractor if it is a subsidiary which is wholly-owned or majority-owned by the Design-Builder or the Principal Participants of the Design-Builder, or an Affiliate of the Design-Builder, or affiliated or otherwise controlled by the Design-Builder or Principal Participants of the Design-Builder such that a true and independent Subcontractor-Design-Builder relationship reached by bidding or arms-length negotiation does not result therefrom.

Subgrade – The surface upon which the pavement structure for on-grade roadways, including shoulders, are constructed.

Substantial Completion - The point at which all Contract items are complete and accepted excluding any warranties or vegetation growth.

Substantial Completion Date - The date on which the Design-Builder achieves Substantial Completion, as per the Contract Documents. The Substantial Completion Date shall be the last chargeable day for the Contract.

Substructure - That part of the structure below the bearings of simple and continuous spans, skewbacks, or arches and tops of footings of rigid frames, including, backwalls, wingwalls, and wing protection railings.

Superstructure – The entire Structure except Substructure.

Supplemental Agreement – A written agreement between the Design-Builder and the Department covering work not otherwise provided for, or revisions in or amendments to terms of the Contract, or conditions specifically prescribed in the Specifications as requiring Supplemental Agreements. Such Supplemental Agreement becomes part of the Contract when approved and properly executed.

Supplemental Selection Information - The Supplemental Selection Information will not be made a part of the Contract Documents at Award. The Supplemental Selection Information is part of the Technical Proposal and includes an executive summary, summary statement, and other requested forms and information.

Surety - The corporation, partnership, or individual, other than the Design-Builder, executing a bond furnished by the Design-Builder.

Surface Course – The top course of the pavement structure.

Technical Proposal - The portion of the Proposal consisting of the Proposal Information and the Supplemental Selection Information.

Through Traffic – That traffic which has neither its origin nor destination within the limits of the Project.

Time Related Dispute - Any dispute arising from any event not within the Design-Builder's control, performance, action, force, or factor which materially and adversely affects the scheduled time of performance depicted in the Design-Builder's most recent Baseline Progress Schedule submitted to the Department.

Titles – *See* Headings.

Total Float – The time differential between any activities late finish and early start, less the activity duration.

Total Lump Sum Proposal Price - The total proposed amount that will be considered to be the correct lump sum of all proposed PCVs. The Total Lump Sum Proposal Price may also be known as the Total Proposal Price.

Total Proposal Price – *See* Total Lump Sum Proposal Price.

Traffic/Travel Lane – The portion of Traveled Way for movement of a single lane of vehicles.

Traffic Control Manual – The manual titled *Delaware Traffic Controls for Streets and Highway Construction, Maintenance, Utility and Emergency Operations* and adopted by the Department for a uniform system of traffic control devices used throughout the state.

Traveled Way - The portion of Roadway for movement of vehicles, exclusive of shoulders and auxiliary lanes.

Unit – A quantity adopted as a standard for measurement of Work.

Utility Relocation Plans - The Design Plans for relocation of a utility impacted by the Project, to be prepared by the Design-Builder or the utility owner, as designated in any applicable utility agreements.

Value Engineering Proposal - A proposal developed and documented by the Design-Builder which (A) produces a net savings to the Department without impairing essential functions or characteristics of the Project (including the meeting of requirements contained in all governmental approvals); and (B) would modify or require a change in any of the requirements of or constraints set forth in the Contract Documents in order to be implemented. A Value Engineering (VE) Proposal cannot be based solely upon a change in quantities.

Verification Sampling and Testing - Sampling and testing performed to validate the quality of the product. The Department, or a firm retained by the Department, will perform Verification Sampling and Testing.

Warranty – Assurance by the Design-Builder that specified elements or components of the Work will be repaired or replaced, as required by the Contract, during the time period(s) stipulated.

Work – The furnishing of labor, Materials, services, Equipment, and incidentals necessary for successful completion of the Project and the carrying out of all obligations imposed by the Contract.

Working Day - Any calendar day, except: 1) Saturdays, Sundays, and holidays; 2) days where conditions identified in the Contract require the Constructor to suspend construction operations; 3) days with inclement weather that prevent prosecution of the scheduled work; 4) days from December 16 to March 15 inclusive. On inclement weather days that result in partial prosecution of the work, partial working days will be charged as determined by the Project Manager. Partial working days will be charged in one-quarter day increments. If the Constructor receives permission from the Project Manager to work on any Sunday or holiday, full working days will be charged, weather permitting. No time charge will be assessed if the Constructor elects to work on Saturdays. Should the Constructor prepare to begin work on any day on which inclement weather prevents the work from beginning at the usual starting time and the crew is dismissed as a result, the Constructor will not be charged for a working day whether or not conditions change during the day and the rest of the day becomes suitable for construction operations.

Working Drawings - Those Plans prepared and reviewed by the Design-Builder to supplement Design Plans provided by the Design-Builder to specify additional details and procedures for construction of the Project, including, but not limited to, the following:

A) Framework plans;

B) Cofferdam plans;

C) Construction details;

D) Erection plans;

E) Fabrication plans;

F) Field design change plans;

G) Stress sheets;

H) Shop drawings;

I) Lift plans;

J) Bending diagrams for reinforcing steel;

K) Falsework plans; and

L) Similar data required for the successful completion of the Work.

STATE OF DELAWARE

DEPARTMENT OF TRANSPORTATION

DESIGN-BUILD PROJECT

for

INDIAN RIVER INLET BRIDGE

Replacement of Bridge 3-156,
SR1 over Indian River Inlet
State Contract # 26-073-03 Readvertised
Federal Contract # BRN-S050(14)

SCOPE OF SERVICES PACKAGE

CONTRACT DOCUMENTS

PART 2

DB SECTION 102

GENERAL NOTICES, REQUIREMENTS AND CONDITIONS

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DB SECTION 102

GENERAL NOTICES, REQUIREMENTS AND CONDITIONS

DB 102-1 NO MISUNDERSTANDING

The Proposer certifies that it has examined the Contract Documents and the Site of the Work and has fully informed itself from its personal examination of the same regarding the quantities, character, location, and other conditions affecting the Work to be performed including the existence of poles, wires, pipes, ducts, conduits, and other facilities and structures of municipal and other public service corporations on, over, or under the Site.

The Proposer agrees that its proposed Lump Sum Contract Price includes all costs arising from existing conditions shown or specified in the Contract Documents and/or readily observable from a Site inspection prior to the Proposal due date and/or generally recognized as inherent in the nature of the Work.

The Department in no way warrants or guarantees that the information made available by the Department or found in the Contract Documents covers all conditions at the Site or that said information and Contract Documents should act as a substitute for personal investigation, interpretation, and judgment by the Proposer.

The intent of the Contract Documents is to include all items/aspects of the Work that are necessary for the proper initiation, execution, and completion of the Work to the sole satisfaction of the Department. A requirement occurring in any component of the Contract Documents is as binding as though occurring in all.

The components of the Contract Documents are intended to be complementary and to describe and provide for a complete Project. The following components of the Contract Documents complement one another in the following order of precedence: the Agreement (Part 1 Appendix A), this DB Section 100 (Part 2), the Design Requirements and Performance Specifications (Part 3), the Special Provisions (Part 4), the Supplemental Specifications to the DelDOT Standard Specifications (Part 4), the DelDOT Standard Specifications, the Utility Requirements (Part 5), the Engineering Data (Part 7), the Request for Proposals (RFP) Plans (Part 6), and the Design-Builder's Proposal (Part 8). However, where the Design-Builder's Proposal presents Work or products of a higher quality than that shown elsewhere in the Contract Documents, and the Department has accepted the proposed change to the Work and products to that of a higher quality, the Design-Builder's Proposal will take precedence for that specific higher quality Work and products, as applicable.

Dimensions given on the Plans or which can be calculated will govern over scale dimensions.

When it appears that there is an apparent error or omission in the Contract or there is an apparent conflict or contradiction between any of the various documents mentioned above, or between the documents and the actual Work Site, the Design-Builder has a duty to immediately notify the Department's Project Manager of the discrepancy. The Department's Project Manager shall resolve the discrepancy in writing before the Design-Builder proceeds further. The Department's Project Manager may require the Design-Builder to modify Plans and other documents to correct the error or omission. The Work shall be paid for by the Department pursuant to DB Section 109-8, except under conditions related to Hazardous Materials, covered by DB Section 104-8.3.

Failure of the Design-Builder to notify the Department's Project Manager of an apparent discrepancy may be deemed a waiver of the Design-Builder's right to claim any adjustment in the Lump Sum Contract Price for Extra Work. In addition, the Design-Builder may be fully liable for damages suffered by the Department resulting from this failure to timely notify the Department's Project Manager of a

discrepancy.

DB 102-2 ATTESTING TO NON-COLLUSION

The Department requires as a condition precedent to acceptance of bids (Price Proposals) a sworn statement executed by, or on behalf of, the person, firm, association, or corporation to whom such contract is to be awarded, certifying that such person, firm, association, or corporation has not, 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 such contract. The form for this sworn statement is included in Appendix C of the ITP and must be properly executed and submitted in order to have the Proposal considered responsive.

DB 102-3 REQUIREMENT BY DEPARTMENT OF LABOR FOR SWORN PAYROLL INFORMATION

Delaware Code, Title 29, Chapter 69, Section 6960, Paragraph (c) states:

"(c) Every contract based upon these specifications shall contain a stipulation that certified sworn payroll reports be maintained by every contractor and subcontractor performing work upon the site of construction. The contractor and subcontractor shall keep and maintain the sworn payroll information for a period of two (2) years from the last day of the work week covered by the payroll. A certified copy of these payroll reports shall be made available:

1. For inspection or furnished upon request to a representative of the Department of Labor;
2. Upon request by the public or for copies thereof. However, a request by the public must be made through the Department of Labor. The requesting party shall, prior to being provided the records, reimburse the costs of preparation by the Department of Labor in accordance with the Department's copying fee policy. The public shall not be given access to the records at the principal office of the contractor or subcontractor; and
3. The certified payroll records shall be on a form provided by the Department of Labor or shall contain the same information as the form provided by the Department and shall be provided within ten (10) days from receipt of notice requesting the records from the Department of Labor."

Contractor may contact:

Department of Labor
Division of Industrial Affairs
4425 No. Market Street
Wilmington, DE 19802
Telephone (302) 761-8200

DB 102-4 PREFERENCE FOR DELAWARE LABOR

Delaware Code, Title 29, Chapter 69, Section 6962, Paragraph (d), Subsection (4)b states:

"In the construction of all public works for the State or any political subdivision thereof, or by firms contracting with the State or any political subdivision thereof, preference in employment of laborers, workmen or mechanics shall be given to bona fide legal citizens of the State who have established citizenship by residence of at least 90 days in the State. Each public works contract for the construction of public works for the State or any political subdivision thereof shall contain a stipulation that any

person, company or corporation who violates this section shall pay a penalty to the Secretary of Finance equal to the amount of compensation paid to any person in violation of this section."

DB 102-5 CONFLICT WITH FEDERAL STATUTES OR REGULATIONS

Delaware Code, Title 29, Chapter 69, Section 6904, Paragraph (a) states:

"If any provision of this subchapter conflicts or is inconsistent with any statute, rule or regulation of the federal government applicable to a project or activity, the cost of which is to be paid or reimbursed in whole or in part by the federal government, and due to such conflict or inconsistency the availability of federal funds may be jeopardized, such provision shall not apply to such project or activity."

For all contracts which are identified as Federal-aid projects by having a Federal-aid number inserted in the appropriate space on the cover sheet of the proposal, if there is a conflict between the above Section 6962 and Federal law and the requirements of the above Section 6962 shall not apply.

DB 102-6 EQUALITY OF EMPLOYMENT OPPORTUNITY ON PUBLIC WORKS

Delaware Code, Title 29, Chapter 69, Section 6962, Paragraph (d), Subsection (7) states:

"a. As a condition of the awarding of any contract for public works financed in whole or in part by State appropriation, such contracts shall include the following provisions:

`During the performance of this contract, the contractor agrees as follows:

i. The contractor will not discriminate against any employee or applicant for employment because of race, creed, color, sex or natural origin. The contractor will take positive steps to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, creed, color, sex or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places available to employees and applicants for employment notices to be provided by the contracting agency setting forth this nondiscrimination clause.

ii. The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, creed, color, sex or national origin.'

DB 102-7 TAX CLEARANCE

As payments to each vendor or contractor aggregate $2,000, the Division of Accounting will report such vendor or contractor to the Division of Revenue, who will then check the vendor or contractor's compliance with tax requirements and take such further action as may be necessary to insure compliance.

DB 102-8 LICENSE

A person desiring to engage in business in this State as a contractor shall obtain a license upon making application to the Division of Revenue. Proof of said license compliance to be made prior to, or in conjunction with, the execution of a contract to which he has been named.

DB 102-9 TO REPORT BID RIGGING ACTIVITIES

To report bid rigging activities CALL 1-800-424-9071.

The U. S. Department of Transportation (DOT) operates the above toll-free "hotline" Monday through Friday, 8:00 a.m. to 5:00 p.m. eastern time. Anyone with knowledge of possible bid rigging, bidder collusion, or other fraudulent activities should use the "hotline" to report such activities.

The "hotline" is part of the DOT's continuing effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of the DOT Inspector General. All information will be treated confidentially and caller anonymity will be respected.

DB 102-10 CONVICT PRODUCED MATERIALS

Convict produced materials are defined as:

(a) Materials produced after July 1, 1991, by convict labor may only be incorporated in a Federal-aid highway construction project if such materials have been:
   (1) Produced by convicts who are on parole, supervised release, or probation from a prison or
   (2) Produced in a qualified prison facility and the cumulative annual production amount of such materials for use in Federal-aid highway construction does not exceed the amount of such materials produced in such facility for use in Federal-aid highway construction during the 12-month period ending July 1, 1987.

(b) Qualified prison facility means any prison facility in which convicts, during the 12-month period ending July 1, 1987, produced materials for use in Federal-aid highway construction projects.

DB 102-11 NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY (EXECUTIVE ORDER 11246)

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Specifications" set forth herein.

2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate work force in each trade on all construction work in the covered area, are as follows:

Goals for Minority Participation In Each Trade	Goals for Female Participation In Each Trade
12.3% (New Castle County) 14.5% (Kent & Sussex Counties)	6.9% (Entire State)

These goals are applicable to all the Contractor's construction work (whether or not it is Federal or federally assisted) performed in the covered area. If the contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its federally involved and non-federally involved construction.

The Contractor's compliance with the Executive Order and the Executive Order and the regulations in CFR Part 60-4 shall be based on its implementation of the Equal Opportunity

Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order, and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within 10 working days of award of any construction subcontract in excess of $10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address, and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.

4. As used in this Notice, and in the contract resulting from this solicitation, the "covered area" is Sussex County.

REV. 11-3-80

DB 102-12 STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY CONSTRUCTION CONTRACT SPECIFICATIONS (EXECUTIVE ORDER 11246)

1. As used in these specifications:

   a. “Covered area" means the geographical area described in the solicitation from which this contract resulted;
   b. “Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;
   c. “Employer identification number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.
   d. “Minority" includes:

      i. Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
      ii. Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
      iii. Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
      iv. American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

2. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of $10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.

3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractors toward a goal in an approved plan does not excuse any covered Contractor's or Subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.

4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7a through 7p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered Construction contractors performing construction work in geographical areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Program Office or from the Federal procurement contracting offices. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.

5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.

6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:

    a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.

    b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community

organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.

c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefore, along with whatever additional actions the Contractor may have taken.

d. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.

e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under 7b above.

f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with on-site supervisory personnel such as Superintendents, General Foreman, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.

i. Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.

j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's work force.

k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.

l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.

m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.

n. Ensure that all facilities and company activities are non-segregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

o. Document and maintain a record of all solicitations of offers for subcontractors from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.

p. Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.

8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7a through p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the Contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through p of these Specifications provided that the Contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female work force participating, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.

9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is under utilized).

10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.

11. The Contractor shall not enter into any Subcontract with any person or firm debarred from

Government contracts pursuant to Executive Order 11246.

12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Order of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.

14. The Contractor shall designate a responsible official to monitor all employment-related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government, and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.

15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

DB 102-13 TRAINING SPECIAL PROVISIONS

This Training Special Provision supersedes subparagraph 7b of the Special Provision entitled "Specific Equal Employment Opportunity Responsibilities", (Attachment 1), and is in implementation of 23 U.S.C. 140(a).

As part of the contractor's equal employment opportunity affirmative action program, training shall be provided as follows:

The contractor shall provide on-the-job training aimed at developing full journeyman in the type of trade or job classification involved. The number of trainees to be trained under the special provision will be __ Three (3) __. In the event the contractor subcontracts a portion of the contract work, he shall determine how many, if any, of the trainees are to be trained by the subcontractor, provided however, that the contractor shall retain the primary responsibility for meeting the training requirements imposed by this special provision. The contractor shall also insure that this Training Special Provision is made applicable to such subcontract. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year apprenticeship or training.

The number of trainees shall be distributed among the work classification on the basis of the contractor's needs and the availability of journeymen in the various classifications within a reasonable area of

recruitment. Prior to commencing construction, the contractor shall submit to the Department of Highways and Transportation for approval the number of trainees to be trained in each selected classification and training program to be used. Furthermore, the contractor shall specify the starting time for training in each of the classifications. The contractor will be credited for each trainee employed by him on the contract work who is currently enrolled or becomes enrolled in an approved program and will be reimbursed for such trainees as provided hereinafter.

Training and upgrading of minorities and women toward journeyman status is a primary objective of this Training Special Provision. Accordingly, the contractor shall make every effort to enroll minority trainees and women (e.g., by conducting systematic and direct recruitment through public and private sources likely to yield minority and women trainees) to the extent that such persons are available within a reasonable area of recruitment. The contractor will be responsible for demonstrating the steps that he has taken in pursuance thereof, prior to a determination as to whether the contractor is in compliance with this Training Special Provision. This training commitment is not intended, and not be used, to discriminate against any applicant for training, whether a member of a minority group or not.

No employee shall be employed as a trainee in any classification in which he has successfully completed a training course leading to journeyman status or in which he has been employed as a journeyman. The contractor should satisfy this requirement by including appropriate questions in the employee application or by other suitable means. Regardless of the method used the contractor's records should document the findings in each case.

The minimum length and type of training for each classification will be as established in the training program selected by the contractor and approved by the Department of Highways and Transportation and the Federal Highway Administration. The Department of Highways and Transportation and the Federal Highway Administration shall approve a program if it is reasonably calculated to meet the equal employment opportunity obligations of the contractor and to qualify the average trainee for journeyman status in the classification concerned by the end of the training period. Furthermore, apprenticeship programs registered with the U.S. Department of Labor, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau and training programs approved but not necessarily sponsored by the U.S. Department of Labor, Manpower Administration, Bureau of Apprenticeship and Training shall also be considered acceptable provided it is being administered in a manner consistent with the equal employment obligations of Federal-aid highway construction contracts. Approval or acceptance of a training program shall be obtained from the State prior to commencing work the classification covered by the program. It is the intention of these provisions that the training is to be provided in the construction crafts rather than clerk-typists or secretarial-type positions. Training is permissible in lower level management positions such as office engineers, estimators, timekeepers, etc., where the training is oriented toward construction applications. Training in the laborer classification may be permitted provided that significant and meaningful training is provided and approved by the division office. Some off-site training is permissible as long as the training is an integral part of an approved training program and does not comprise a significant part of the overall training.

Except as otherwise noted below, the contractor will be reimbursed 80 cents per hour of training given an employee on this contract in accordance with an approved training program. As approved by the engineer, reimbursement will be made for training persons in excess of the number specified herein. This reimbursement will be made even though the contractor receives additional training program funds from other sources, provided such other sources does not specifically prohibit the contractor from receiving other reimbursement. Reimbursement for off-site training indicated above may only be made to the contractor where he does one or more of the following and the trainees are concurrently employed on a Federal-aid project; contributes to the cost of the training; provides the instruction of the trainee; or pays the trainee's wages during the off-site training period.

No payment shall be made to the contractor if either the failure to provide the required training, or the failure to hire the trainees as a journeyman, is caused by the contractor and evidences a lack of good faith on the part of the contractor in meeting the requirements of this Training Special Provision. It is normally expected that a trainee will begin his training on the project as soon as feasible after start of work utilizing the skill involved and remain on the project as long as training opportunities exist in his work classification or until he has completed his training program. It is not required that all trainees be on board for the entire length of the contract. A contractor will have fulfilled his responsibilities under this Training Special Provision if he has provided acceptable training to the number of trainees specified. The number trained shall be determined on the basis of the total number enrolled on the contract for a significant period.

Trainees will be paid a least 60 percent of the appropriate minimum journeymen's rate specified in the contract for the first half of the of the training period, 75 percent for the third quarter of the training period, and 90 percent for the last quarter of the training period, unless apprentices or trainees in an approved existing program are enrolled as trainees on this project. In fact case, the appropriate rates approved by the Department of Labor or Transportation in connection with the existing program shall apply to all trainees being trained for the same classification who are covered by this Training Special Provisions.

The contractor shall furnish the trainee a copy of the program he will follow in providing the training.

The contractor shall provide each trainee with a certification showing the type and length of training satisfactorily completed.
The contractor will provided for the maintenance of records and furnish periodic reports documenting his performance under this Training Special Provision.

DB 102-14 INTERMODAL SURFACE TRANSPORTATION EFFICIENCY ACT & TRANSPORTATION EQUITY ACT

Recipients of Federal-aid highway funds authorized under Titles I (other than Part B) and V of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), or Titles I, III, and V of the Transportation Equity Act for the 21st Century (TEA-21) are required to comply with the regulations of 49 Code of Federal Regulations (CFR) Part 26 - Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs.

DB 102-15 DISADVANTAGED BUSINESS ENTERPRISE (DBE) PROGRAM SPECIFICATION

The U.S. Department of Transportation (DOT) requires that the Delaware Department of Transportation continue the established Disadvantaged Business Enterprise (DBE) Program for participation in U.S. DOT programs and that the program follows the final rules as stated in 49 CFR Part 26 and the Department's approved DBE Program plan.

The following definitions apply to this subpart:

Disadvantaged Business Enterprise or DBE means a for-profit small business concern (1) that is at least 51 percent owned by one or more individuals who are both socially and economically disadvantaged or, in the case of a corporation, in which 51 percent of the stock is owned by one or more such individuals; and, (2) whose management and daily business operations are controlled by one or more of the socially and economically disadvantaged individuals who own it.

DOT-assisted contract means any contract between a recipient and a contractor (at any tier) funded in

whole or in part with DOT financial assistance, including letters of credit or loan guarantees, except a contract solely for the purchase of land.

Good Faith Efforts means efforts to achieve a DBE goal or other requirement of this part which, by their scope, intensity, and appropriateness to the objective, can reasonably be expected to fulfill the program requirement.

Joint Venture means an association of a DBE firm and one or more other firms to carry out a single, for-profit business enterprise, for which the parties combine their property, capital, efforts, skills and knowledge, and in which the DBE is responsible for a distinct, clearly defined portion of the work of the contract and whose share in the capital contribution, control, management, risks, and profits of the joint venture are commensurate with its ownership interest.

Race-conscious measure or program is one that is focused specifically on assisting only DBEs, including women-owned DBEs.

Race-neutral measure or program is one that is, or can be, used to assist all small businesses. For the purposes of this part, race-neutral includes gender neutrality.

Small Business concern means, with respect to firms seeking to participate as DBEs in DOT-assisted contracts, a small business concern as defined pursuant to section 3 of the Small Business Act and Small Business Administration regulations implementing it (13 CFR part 121) that also does not exceed the cap on average annual gross receipts specified in 49 CFR §26.65(b).

Socially and economically disadvantaged individuals means any individual who is a citizen (or lawfully admitted permanent resident) of the United States and who is - (1) any individual who a recipient finds to be a socially and economically disadvantaged individual on a case-by-case basis; (2) any individual in the following groups, members of which are rebuttably presumed to be socially and economically disadvantaged:

(i) Black Americans which includes persons having origins in any of the Black racial groups of Africa;
(ii) Hispanic Americans which includes persons of Mexican, Puerto Rican, Cuban, Dominican, Central or South American, or other Spanish or Portuguese culture or origin, regardless of race;
(iii) Native Americans which includes persons who are American Indians, Eskimos, Aluets, or Native Hawaiians;
(iv) Asian-Pacific Americans which includes persons whose origins are from Japan, China, Taiwan, Korea, Burma (Myanmar), Vietnam, Laos, Cambodia (Kampuchea), Thailand, Malaysia, Indonesia, the Philippines, Brunei, Samoa, Guam, the U.S. Trust Territories of the Pacific Islands (Republic of Palau), the Commonwealth of the Northern Marianas Islands, Macao, Fiji, Tonga, Kirbati, Juvalu, Nauru, Federated States of Micronesia, or Hong Kong;
(v) Subcontinent Asian Americans which includes persons whose origins are from India, Pakistan, Bangladesh, Bhutan, the Maldives Islands, Nepal or Sri Lanka;
(vi) Women;
(vii) Any additional groups whose members are designated as socially and economically disadvantaged by the SBA, at such time as the SBA designation becomes effective.

The Department will establish specific goals for each particular DOT-assisted project that will be expressed as a percentage the respective portion of the total dollar amount of contract bid.

The specific contract goals for this contract are:

Professional Services goal:
Disadvantaged Business Enterprise __Seven (7)__ Percent of professional services costs.

Construction goal:
Disadvantaged Business Enterprise __Six (6)__ Percent of construction costs.

The Department continues to reserve the right to approve DBE subcontractors and all substitutions of DBE subcontractors prior to award and during the time of the contract.

Proposers are required to submit with their Proposals the completed DBE Program Assurance portion of the Certification document which will state the Proposers' intent of meeting the goals established for this Contract; or in the instance where a Design-Builder cannot meet the assigned DBE Goals for this contract, he/she shall at the time of Proposal submission submit documentation required to verify that he/she has made a Good Faith Effort to meet the DBE Goals. Guidance for submitting a Good Faith Effort is identified in the next section and in the DBE Program Plan. Further, the apparent successful Proposer must submit to the Department within ten (10) Calendar Days after the Price opening, executed originals of each and every DBE subcontract to satisfy contract goals consistent with the DBE Program Assurance submitted as part of the bid package.

No contract work shall be performed by a DBE subcontractor until the executed DBE subcontract is approved in writing by the Department and the Department has issued the required Notice to Proceed. Any DBE subcontract relating to work to be performed pursuant to this contract, which is submitted to the Department for approval, must contain all DBE subcontractor information, the requirements contained in this contract, and must be fully executed by the contractor and DBE subcontractor.

Each contract between the prime contractor and each DBE subcontractor shall at the minimum include the following:

1. All pertinent provisions and requirements of the prime contract.
2. Description of the work to be performed by the DBE subcontractor.
3. The dollar value of each item of work to be completed by the DBE subcontractor and the proposed price of each item of work to be completed by the DBE subcontractor.

DB 102-16 CRITICAL DBE REQUIREMENTS

A bid may be held to be non-responsive and not considered if the required DBE information is not provided. In addition, the bidder may lose its bidding capability on Department projects and such other sanctions as the Department may impose. It is critical that the bidder understands:

1. In the event that the bidder cannot meet the DBE goal as set forth in this specification, he/she shall at the time of bid submit to the Department that percentage of the DBE Goal that will be met, if any, on the written and notarized assurance made a part of this contract. The contractor shall also at the time of bid submit all documentation that the contractor wishes to have the Department consider in determining that the contractor made a Good Faith Effort to meet contract DBE Goals. The Department will not accept Good Faith Effort documentation other than on the scheduled date and time of the bid opening. However, the Department may ask for clarification of information submitted should the need arise.

2. A bid which does not contain either a completely executed DBE Program Assurance and/or Good Faith Effort documentation, where appropriate, shall be declared non-responsive and shall not be

considered by the Department.

3. Failure of the apparent low bidder to present originals of all DBE subcontracts to substantiate the volume of work to be performed by DBE's as indicated in the bid within ten (10) calendar days after the bid opening shall create a rebuttable presumption that the bid is not responsive.

4. Bidders are advised that failure to meet DBE Goals during the term of the contract may subject them to Department sanctions as identified in the DBE Program Plan.

5. In the execution of this contract, the successful bidder agrees to comply with the following contract clauses:

   Prompt Payment: The Design-Builder receiving payments shall, within 30 days of receipt of any payment, file a statement with the Department on a form to be determined by the Department that all subcontractors furnishing labor or material have been paid the full sum due them at the stage of the contract, except any funds withheld under the terms of the contract as required by Chapter 8, Title 17 of the Delaware Code, annotated and as amended. Any delay or postponement of payment from the above referenced time frame may occur only for good cause following written approval of the Department. This clause applies to both DBE and non-DBE subcontractors.

   Retainage: If retainage is held, the Design-Builder agrees to return retainage to each subcontractor within 30 calendar days after the subcontractor's work is satisfactorily completed. Any delay or postponement of payment from the above referenced time frame may occur only for good cause following written approval of the Department. This clause covers both DBE and non-DBE subcontractors. As guidance, once a subcontractor has satisfactorily completed the physical work, and has given to the prime contractor a certified statement that all laborers, lower tier contractors, and materialmen who have furnished labor and materials to the subcontractor have been paid all monies due them, the prime contractor shall return retainage to the subcontractor within 30 calendar days.

7. In the execution of this Contract, the successful Proposer agrees to comply with the following Contract assurance and will include this same language in each subcontractor contract:

   "The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such remedy as the recipient deems appropriate." 49 CFR Section 26.13

8. In addition to this specification, bidders must comply with all provisions of the rules and regulations adopted by the U.S. Department of Transportation for DBE participation in U.S. DOT and DelDOT Programs (49 CFR Part 26) and the Delaware Department of Transportation Disadvantaged Business Enterprise Program Plan; each of which is hereby incorporated and made part of this specification. Bidders are also reminded that they must be responsible and responsive bidders in all other aspects aside from the DBE Program in order to be awarded the contract.

DB 102-17 GUIDANCE FOR GOOD FAITH EFFORT

When the DBE Goals established for a contract by DelDOT are not met, the contractor shall demonstrate good faith efforts to meet the DBE contract goals. The contractor shall demonstrate that the efforts made were those that a contractor actively and aggressively seeking to meet the goals established by DelDOT

would make, given all relevant circumstances. Evidence of this good faith effort will be submitted with the bid at the time of the bid opening.

The contractor is expected to demonstrate good faith efforts by actively and aggressively seeking out DBE participation in the project to the maximum extent, given all relevant circumstances. Following are the kinds of efforts that may be taken but are not deemed to be exclusive or exhaustive and DelDOT will consider other factors and types of efforts that may be relevant:

1. Efforts made to select portions of the work proposed to be performed by DBEs in order to increase the likelihood of achieving the stated goal. Selection of portions of work are required to at least equal the goal for DBE utilization specified in this contract.
2. Written notification at least ten (10) calendar days prior to the opening of a bid soliciting DBE interest in participating in the contract as a subcontractor or supplier and for specific items of work.

3. Efforts made to obtain and negotiate with DBE firms for specific items of work:
   a. Description of the means by which firms were solicited (i.e. by telephone, e-mail, written notice, advertisement).
   b. The names, addresses, telephone numbers of DBE's contacted, the dates of initial contact; and whether initial solicitations of interest were followed-up by contacting the DBEs to determine with certainty whether the DBEs were interested.
   c. A description of the information provided to DBE firms regarding the plans, specifications and estimated quantities for portions of the work to be performed.
   d. A statement of why additional agreements with DBE's were not reached in order to meet the projected goal.
   e. Listing of each DBE contacted but not contracted and the reasons for not entering a contract.

4. Efforts made to assist DBEs that need assistance in obtaining bonding, insurance, or lines of credit required by the contractor.

5. Reasons why certified DBEs are not available or not interested.

6. Efforts to effectively use the services of available disadvantaged community organizations; disadvantaged contractor's groups; local, state and federal DBE assistance offices; and other organizations that provide assistance in recruitment and placement of DBEs.

The following are examples of actions that may not be used as justification by the contractor for failure to meet DBE contract goals:

1. Failure to contract with a DBE solely because the DBE was unable to provide performance and/or payment bonds.
2. Rejection of a DBE bid or quotation based on price alone.
3. Rejection of a DBE because of its union or non-union status.
4. Failure to contract with a DBE because the contractor normally would perform all or most of the work in the contract.

Administrative reconsideration:

Within five (5) days of being informed by the Department that it is not responsive because it has not documented sufficient good faith efforts, a bidder may request administrative reconsideration. Bidder should make this request in writing to the following reconsideration official: Delaware Department of Transportation, Director of Technology and Support Services, P. O. Box 778, Dover, Delaware

19903. The reconsideration official will not have played any role in the original determination that the bidder did not document sufficient good faith efforts.

As part of this reconsideration, the bidder will have the opportunity to provide written documentation or argument concerning the issue of whether it met the goal or made adequate good faith efforts to do so. The bidder will have the opportunity to meet in person with the reconsideration official, explaining the basis for finding that the bidder did or did not meet the goal or make adequate good faith efforts to do so. The final decision made by the reconsideration official will be communicated to the bidder in writing. The result of the reconsideration process is not administratively appealable to the U.S. Department of Transportation.

DB 102-18 REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS (EXCLUSIVE OF APPALACHIAN CONTRACTS)

I. GENERAL

1. These contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

2. Except as otherwise provided for in each section, the contractor shall insert in each subcontract all of the stipulations contained in these Required Contract Provisions, and further require their inclusion in any lower tier subcontract or purchase order that may in turn be made. The Required Contract Provisions shall not be incorporated by reference in any case. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with these Required Contract Provisions.

3. A breach of any of the stipulations contained in these Required Contract Provisions shall be sufficient grounds for termination of the contract.

4. A breach of the following clauses of the Required Contract Provisions may also be grounds for debarment as provided in 29 CFR 5.12:

   Section I, paragraph 2;
   Section IV, paragraphs 1, 2, 3, 4, and 7;
   Section V, paragraphs 1 and 2a through 2g.

5. Disputes arising out of the labor standards provisions of Section IV (except paragraph 5) and Section V of these Required Contract Provisions shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the U.S. Department of Labor (DOL) as set forth in 29 CFR 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the DOL, or the contractor's employees or their representatives.

6. Selection of Labor: During the performance of this contract, the contractor shall not:

   a. discriminate against labor from any other State, possession, or territory of the United States (except for employment preference for Appalachian contracts, when applicable, as specified in Attachment A), or

   b. employ convict labor for any purpose within the limits of the project unless it is labor performed by convicts who are on parole, supervised release, or probation.

II. NONDISCRIMINATION

(Applicable to all Federal-aid construction contracts and to all related subcontracts of $10,000 or more.)

1. Equal Employment Opportunity: Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630 and 41 CFR 60) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The Equal Opportunity Construction Contract Specifications set forth under 41 CFR 60-4.3 and the provisions of the American Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

   a. The contractor will work with the State highway agency (SHA) and the Federal Government in carrying out EEO obligations and in their review of his/her activities under the contract.

   b. The contractor will accept as his operating policy the following statement:

      "It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, preapprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the SHA contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active contractor program of EEO and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

   a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

   b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

   c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minority group employees.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minority groups in the area from which the project work force would normally be derived.

   a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minority group applicants. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority group applicants may be referred to the contractor for employment consideration.

   b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, he is expected to observe the provisions of that agreement to the extent that the system permits the contractor's compliance with EEO contract provisions. (The DOL has held that where implementation of such agreements have the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Executive Order 11246, as amended.)

   c. The contractor will encourage his present employees to refer minority group applicants for employment. Information and procedures with regard to referring minority group applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

   a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

   b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

   c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

   d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with his obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each

investigation, the contractor will inform every complainant of all of his avenues of appeal.

6. Training and Promotion:

   a. The contractor will assist in locating, qualifying, and increasing the skills of minority group and women employees, and applicants for employment.

   b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision.

   c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

   d. The contractor will periodically review the training and promotion potential of minority group and women employees and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use his/her best efforts to obtain the cooperation of such unions to increase opportunities for minority groups and women within the unions, and to effect referrals by such unions of minority and female employees. Actions by the contractor either directly or through a contractor's association acting as agent will include the procedures set forth below:

   a. The contractor will use best efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minority group members and women for membership in the unions and increasing the skills of minority group employees and women so that they may qualify for higher paying employment.

   b. The contractor will use best efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

   c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the SHA and shall set forth what efforts have been made to obtain such information.

   d. In the event the union is unable to provide the contractor with a reasonable flow of minority and women referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minority group persons and women. (The DOL has held that it shall be no excuse that the union with which the contractor has a collective bargaining agreement providing for exclusive referral failed to refer minority employees.) In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the SHA.

8. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment.

    a. The contractor shall notify all potential subcontractors and suppliers of his/her EEO obligations under this contract.

    b. Disadvantaged business enterprises (DBE), as defined in 49 CFR 23, shall have equal opportunity to compete for and perform subcontracts which the contractor enters into pursuant to this contract. The contractor will use his best efforts to solicit bids from and to utilize DBE subcontractors or subcontractors with meaningful minority group and female representation among their employees. Contractors shall obtain lists of DBE construction firms from SHA personnel.

    c. The contractor will use his best efforts to ensure subcontractor compliance with their EEO obligations.

9. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following completion of the contract work and shall be available at reasonable times and places for inspection by authorized representatives of the SHA and the FHWA.

    a. The records kept by the contractor shall document the following:

        (1) The number of minority and non-minority group members and women employed in each work classification on the project;

        (2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women;

        (3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minority and female employees; and

        (4) The progress and efforts being made in securing the services of DBE subcontractors or subcontractors with meaningful minority and female representation among their employees.

    b. The contractors will submit an annual report to the SHA each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. If on-the job training is being required by special provision, the contractor will be required to collect and report training data.

III. NONSEGREGATED FACILITIES

(Applicable to all Federal-aid construction contracts and to all related subcontracts of $10,000 or more.)

a. By submission of this bid, the execution of this contract or subcontract, or the consummation

of this material supply agreement or purchase order, as appropriate, the bidder, Federal-aid construction contractor, subcontractor, material supplier, or vendor, as appropriate, certifies that the firm does not maintain or provide for its employees any segregated facilities at any of its establishments, and that the firm does not permit its employees to perform their services at any location, under its control, where segregated facilities are maintained. The firm agrees that a breach of this certification is a violation of the EEO provisions of this contract. The firm further certifies that no employee will be denied access to adequate facilities on the basis of sex or disability.

b. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, restrooms and washrooms, restaurants and other eating areas, timeclocks, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive, or are, in fact, segregated on the basis of race, color, religion, national origin, age or disability, because of habit, local custom, or otherwise. The only exception will be for the disabled when the demands for accessibility override (e.g. disabled parking).

c. The contractor agrees that it has obtained or will obtain identical certification from proposed subcontractors or material suppliers prior to award of subcontracts or consummation of material supply agreements of $10,000 or more and that it will retain such certifications in its files.

IV. PAYMENT OF PREDETERMINED MINIMUM WAGE

(Applicable to all Federal-aid construction contracts exceeding $2,000 and to all related subcontracts, except for projects located on roadways classified as local roads or rural minor collectors, which are exempt.)

1. General:

a. All mechanics and laborers employed or working upon the site of the work will be paid unconditionally and not less often than once a week and without subsequent deduction or rebate on any account [except such payroll deductions as are permitted by regulations (29 CFR 3) issued by the Secretary of Labor under the Copeland Act (40 U.S.C. 276c)] the full amounts of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment. The payment shall be computed at wage rates not less than those contained in the wage determination of the Secretary of Labor (hereinafter "the wage determination") which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor or its subcontractors and such laborers and mechanics. The wage determination (including any additional classifications and wage rates conformed under paragraph 2 of this Section IV and the DOL poster (WH-1321) or Form FHWA-1495) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers. For the purpose of this Section, contributions made or costs reasonably anticipated for bona fide fringe benefits under Section 1(b)(2) of the Davis-Bacon Act (40 U.S.C. 276a) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of Section IV, paragraph 3b, hereof. Also, for the purpose of this Section, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs, which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determina-

tion for the classification of work actually performed, without regard to skill, except as provided in paragraphs 4 and 5 of this Section IV.

b. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein, provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed.

c. All rulings and interpretations of the Davis-Bacon Act and related acts contained in 29 CFR 1, 3, and 5 are herein incorporated by reference in this contract.

2. Classification:

a. The SHA contracting officer shall require that any class of laborers or mechanics employed under the contract, which is not listed in the wage determination, shall be classified in conformance with the wage determination.

b. The contracting officer shall approve an additional classification, wage rate and fringe benefits only when the following criteria have been met:

(1) the work to be performed by the additional classification requested is not performed by a classification in the wage determination;

(2) the additional classification is utilized in the area by the construction industry;

(3) the proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination; and

(4) with respect to helpers, when such a classification prevails in the area in which the work is performed.

c. If the contractor or subcontractors, as appropriate, the laborers and mechanics (if known) to be employed in the additional classification or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the DOL, Administrator of the Wage and Hour Division, Employment Standards Administration, Washington, D.C. 20210. The Wage and Hour Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

d. In the event the contractor or subcontractors, as appropriate, the laborers or mechanics to be employed in the additional classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. Said Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary

e. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 2c or 2d of this Section IV shall be paid to all workers performing work in the additional

classification from the first day on which work is performed in the classification.

3. Payment of Fringe Benefits:

   a. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor or subcontractors, as appropriate, shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly case equivalent thereof.

   b. If the contractor or subcontractor, as appropriate, does not make payments to a trustee or other third person, he/she may consider as a part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, provided, that the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

4. Apprentices and Trainees (Programs of the U.S. DOL) and Helpers:

   a. Apprentices:

      (1) Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the DOL, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau, or if a person is employed in his/her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State apprenticeship agency (where appropriate) to be eligible for probationary employment as an apprentice.

      (2) The allowable ratio of apprentices to journeyman-level employees on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any employee listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate listed in the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor or subcontractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman-level hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

      (3) Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeyman-level hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator for the Wage and Hour Division determines that a different practice prevails for the applicable apprentice classification, fringes shall be

paid in accordance with that determination.

(4) In the event the Bureau of Apprenticeship and Training, or a State apprenticeship agency recognized by the Bureau, withdraws approval of an apprenticeship program, the contractor or subcontractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the comparable work performed by regular employees until an acceptable program is approved.

b. Trainees:

(1) Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the DOL, Employment and Training Administration.

(2) The ratio of trainees to journeyman-level employees on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(3) Every trainee must be paid at not less than the rate specified in the approved program for his/her level of progress, expressed as a percentage of the journeyman-level hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman-level wage rate on the wage determination which provides for less than full fringe benefits for apprentices, in which case such trainees shall receive the same fringe benefits as apprentices.

(4) In the event the Employment and Training Administration withdraws approval of a training program, the contractor or subcontractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Helpers:

Helpers will be permitted to work on a project if the helper classification is specified and defined on the applicable wage determination or is approved pursuant to the conformance procedure set forth in Section IV.2. Any worker listed on a payroll at a helper wage rate, who is not a helper under a approved definition, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed.

5. Apprentices and Trainees (Programs of the U.S. DOT):

Apprentices and trainees working under apprenticeship and skill training programs which have

been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

6. Withholding:

   The SHA shall upon its own action or upon written request of an authorized representative of the DOL withhold, or cause to be withheld, from the contractor or subcontractor under this contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements which is held by the same prime contractor, as much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the SHA contracting officer may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

7. Overtime Requirements:

   No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers, mechanics, watchmen, or guards (including apprentices, trainees, and helpers described in paragraphs 4 and 5 above) shall require or permit any laborer, mechanic, watchman, or guard in any workweek in which he/she is employed on such work, to work in excess of 40 hours in such workweek unless such laborer, mechanic, watchman, or guard receives compensation at a rate not less than one-and-one-half times his/her basic rate of pay for all hours worked in excess of 40 hours in such workweek.

8. Violation:

   Liability for Unpaid Wages; Liquidated Damages: In the event of any violation of the clause set forth in paragraph 7 above, the contractor and any subcontractor responsible thereof shall be liable to the affected employee for his/her unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory) for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer, mechanic, watchman, or guard employed in violation of the clause set forth in paragraph 7, in the sum of $10 for each calendar day on which such employee was required or permitted to work in excess of the standard work week of 40 hours without payment of the overtime wages required by the clause set forth in paragraph 7.

9. Withholding for Unpaid Wages and Liquidated Damages:

   The SHA shall upon its own action or upon written request of any authorized representative of the DOL withhold, or cause to be withheld, from any monies payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for

unpaid wages and liquidated damages as provided in the clause set forth in paragraph 8 above.

V. STATEMENTS AND PAYROLLS

(Applicable to all Federal-aid construction contracts exceeding $2,000 and to all related subcontracts, except for projects located on roadways classified as local roads or rural collectors, which are exempt.)

1. Compliance with Copeland Regulations (29 CFR 3):

   The contractor shall comply with the Copeland Regulations of the Secretary of Labor which are herein incorporated by reference.

2. Payrolls and Payroll Records:

   a. Payrolls and basic records relating thereto shall be maintained by the contractor and each subcontractor during the course of the work and preserved for a period of 3 years from the date of completion of the contract for all laborers, mechanics, apprentices, trainees, watchmen, helpers, and guards working at the site of the work.

   b. The payroll records shall contain the name, social security number, and address of each such employee; his or her correct classification; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalent thereof the types described in Section 1(b)(2)(B) of the Davis Bacon Act); daily and weekly number of hours worked; deductions made; and actual wages paid. In addition, for Appalachian contracts, the payroll records shall contain a notation indicating whether the employee does, or does not, normally reside in the labor area as defined in Attachment A, paragraph 1. Whenever the Secretary of Labor, pursuant to Section IV, paragraph 3b, has found that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in Section 1(b)(2)(B) of the Davis Bacon Act, the contractor and each subcontractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, that the plan or program has been communicated in writing to the laborers or mechanics affected, and show the cost anticipated or the actual cost incurred in providing benefits. Contractors or subcontractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprentices and trainees, and ratios and wage rates prescribed in the applicable programs.

   c. Each contractor and subcontractor shall furnish, each week in which any contract work is performed, to the SHA resident engineer a payroll of wages paid each of its employees (including apprentices, trainees, and helpers, described in Section IV, paragraphs 4 and 5, and watchmen and guards engaged on work during the preceding weekly payroll period). The payroll submitted shall set out accurately and completely all of the information required to be maintained under paragraph 2b of this Section V. This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal stock number 029-005-0014-1), U.S. Government Printing Office, Washington, D.C. 20402. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors.

   d. Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his/her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) that the payroll for the payroll period contains the information required to be maintained under paragraph 2b of this Section V and that such information is correct and complete;

(2) that such laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in the Regulations, 29 CFR 3;

(3) that each laborer or mechanic has been paid not less that the applicable wage rate and fringe benefits or cash equivalent for the classification of worked performed, as specified in the applicable wage determination incorporated into the contract.

e. The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 2d of this Section V.

f. The falsification of any of the above certifications may subject the contractor to civil or criminal prosecution under 18 U.S.C. 1001 and 31 U.S.C. 231.

g. The contractor or subcontractor shall make the records required under paragraph 2b of this Section V available for inspection, copying, or transcription by authorized representatives of the SHA, the FHWA, or the DOL, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the SHA, the FHWA, the DOL, or all may, after written notice to the contractor, sponsor, applicant, or owner, take such actions as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

VI. RECORD OF MATERIALS, SUPPLIES, AND LABOR

1. On all Federal-aid contracts on the National Highway System, except those which provide solely for the installation of protective devices at railroad grade crossings, those which are constructed on a force account or direct labor basis, highway beautification contracts, and contracts for which the total final construction cost for roadway and bridge is less than $1,000,000 (23 CFR 635) the contractor shall:

   a. Become familiar with the list of specific materials and supplies contained in Form FHWA-47, "Statement of Materials and Labor Used by Contractor of Highway Construction Involving Federal Funds," prior to the commencement of work under this contract.

   b. Maintain a record of the total cost of all materials and supplies purchased for and incorporated in the work, and also of the quantities of those specific materials and supplies listed on Form FHWA-47, and in the units shown on Form FHWA-47.

   c. Furnish, upon the completion of the contract, to the SHA resident engineer on Form FHWA-47 together with the data required in paragraph 1b relative to materials and supplies, a final labor summary of all contract work indicating the total hours worked and the total amount earned.

2. At the prime contractor's option, either a single report covering all contract work or separate

reports for the contractor and for each subcontract shall be submitted.

VII. SUBLETTING OR ASSIGNING THE CONTRACT

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the State. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635).

    a. "Its own organization" shall be construed to include only workers employed and paid directly by the prime contractor and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor, assignee, or agent of the prime contractor.

    b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph 1 of Section VII is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the SHA contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the SHA contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the SHA has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

VIII. SAFETY: ACCIDENT PREVENTION

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the SHA contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under

construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 333).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 333).

IX. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, the following notice shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

NOTICE TO ALL PERSONNEL ENGAGED ON FEDERAL-AID HIGHWAY PROJECTS

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined not more that $10,000 or imprisoned not more than 5 years or both."

X. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

(Applicable to all Federal-aid construction contracts and to all related subcontracts of $100,000 or more.)

By submission of this bid or the execution of this contract, or subcontract, as appropriate, the bidder, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any facility that is or will be utilized in the performance of this contract, unless such contract is exempt under the Clean Air Act, as amended (42 U.S.C. 1857 et seq., as amended by Pub.L. 91-604), and under the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq., as amended by Pub.L. 92-500), Executive Order 11738, and regulations in implementation thereof (40 CFR 15) is not listed, on the date of contract award, on the U.S. Environmental Protection Agency (EPA) List of Violating Facilities pursuant to 40 CFR 15.20.

2. That the firm agrees to comply and remain in compliance with all the requirements of Section 114 of the Clean Air Act and Section 308 of the Federal Water Pollution Control Act and all regulations and guidelines listed thereunder.

3. That the firm shall promptly notify the SHA of the receipt of any communication from the Director, Office of Federal Activities, EPA, indicating that a facility that is or will be utilized for the contract is under consideration to be listed on the EPA List of Violating Facilities.

4. That the firm agrees to include or cause to be included the requirements of paragraph 1 through 4 of this Section X in every nonexempt subcontract, and further agrees to take such action as the government may direct as a means of enforcing such requirements.

XI. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

1. `Instructions for Certification - Primary Covered Transactions:

   (Applicable to all Federal-aid contracts - 49 CFR 29)

   a. By signing and submitting this proposal, the prospective primary participant is providing the certification set out below.

   b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective primary participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.

   c. The certification in this clause is a material representation of fact upon which reliance was placed when the department or agency determined to enter into this transaction. If it is later determined that the prospective primary participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause of default.

   d. The prospective primary participant shall provide immediate written notice to the department or agency to whom this proposal is submitted if any time the prospective primary participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

   e. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may

contact the department or agency to which this proposal is submitted for assistance in obtaining a copy of those regulations.

f. The prospective primary participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

g. The prospective primary participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," provided by the department or agency entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the nonprocurement portion of the "Lists of Parties Excluded From Federal Procurement or Nonprocurement Programs" (Nonprocurement List) which is compiled by the General Services Administration.

i. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph f of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

* * * * *

2. Instructions for Certification - Lower Tier Covered Transactions:

(Applicable to all subcontracts, purchase orders and other lower tier transactions of $25,000 or more - 49 CFR 29)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "primary covered transaction," "participant," "person," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

* * * * *

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Covered Transactions:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

* * * * *

XII. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

(Applicable to all Federal-aid construction contracts and to all related subcontracts which exceed $100,000 - 49 CFR 20)

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

   a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

   b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

3. The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such recipients shall certify and disclose accordingly.

Form FHWA-1273 (Rev. 3-94)

DB 102-19 DIFFERING SITE CONDITIONS

SUSPENSIONS OF WORK and SIGNIFICANT CHANGES IN THE CHARACTER OF WORK:

Differing site conditions: During the progress of the work, if subsurface or latent physical conditions are encountered at the site differing materially from those indicated in the Contract or if unknown physical conditions of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in the work provided for in the Contract are encountered at the site, the party discovering such conditions shall promptly notify the other party in writing of the specific differing conditions before they are disturbed and before the affected Work is performed.

Upon written notification, the Department's Project Manager will investigate the conditions, and if he/she

determines that the conditions materially differ and cause an increase or decrease in the cost or time required for the performance of any work under the contract, an adjustment, excluding loss of anticipated profits, will be made and the contract modified in writing accordingly. The Project Manager will notify the Design-Builder of his/her determination whether or not an adjustment of the Contract is warranted.

No Contract adjustment which results in a benefit to the contractor will be allowed unless the contractor has provided the required written notice.

No contract adjustment will be allowed under their clause for any effects caused on unchanged work.

Suspensions of Work ordered by the Department: If the performance of all or any portion of the work is suspended or delayed by the Department in writing for an unreasonable period of time (not originally anticipated, customary or inherent to the construction industry) and the Design-Builder believes that additional compensation and/or Contract Time is due as a result of such suspension or delay, the Design-Builder shall submit to the Department's Project Manager in writing a request for adjustment within 7 Calendar Days of receipt of the notice to resume work. The request shall set fourth the reasons and support for such adjustment.

Upon receipt, the Project Manager will evaluate the Design-Builder's request. If the Project Manager agrees that the cost and/or time required for the performance of the Contract has increased as a result of such suspension and the suspension was caused by conditions beyond the control of and not the fault of the Design-Builder, its suppliers, or subcontractors at any approved tier, and not caused by weather, the Project Manager will make an adjustment (excluding profit) and modify the Contract in writing accordingly. The Project Manager will notify the Design-Builder of his/her determination whether or not an adjustment of the Contract is warranted.

No Contract adjustment will be allowed unless the Design-Builder has submitted the request for adjustment within the time prescribed.

No Contract adjustment will be allowed under this clause to the extent that performance would have been suspended or delayed by any other cause, or for which an adjustment is provided for or excluded under any other term or condition of this Contract.

Significant changes in the character of work: The Project Manager reserves the right to make, in writing, at any time during the work, such changes in quantities and such alterations in the work as are necessary to satisfactorily complete the project. Such changes in quantities and alterations shall not invalidate the Contract nor release the surety, and the Design-Builder agrees to perform the Work as altered.

If the alterations or changes in quantities significantly change the character of the Work under the Contract, whether or not changed by any such different quantities or alterations, an adjustment, excluding loss of anticipated profits, will be made to the Contract. The basis for the adjustment shall be agreed upon prior to the performance of the Work. If a basis cannot be agreed upon, then an adjustment will be made either for or against the Design-Builder in such amount as the Project Manager may determine to be fair and equitable.

DB 102-20 PREVAILING WAGES

Included in Appendix 102A of this Scope of Services Package are the minimum wages to be paid various classes of laborers and mechanics as determined by the Department of Labor of the State of Delaware in accordance with Title 29 Del.C. §6960, relating to wages and the regulations implementing that Section.

Title 29 Del.C. §6960 relating to wages further stipulates "that the employer shall pay all mechanics and

laborers employed directly upon the site of the work, unconditionally and not less often than once a week and without subsequent deduction or rebate on any account, the full amounts accrued at time of payment, computed at wage rates not less than those stated in the specifications, regardless of any contractual relationship which may be alleged to exist between the employer and such laborers and mechanics", and ... "that the scale of wages to be paid shall be posted by the employer in a prominent and easily accessible place at the site of the work, and that there may be withheld from the employer so much of accrued payments as may be considered necessary by the Department of Labor to pay to laborers and mechanics employed by the employer the difference between the rates of wages required by the contract to be paid laborers and mechanics on the work and rates of wages received by such laborers and mechanics to be remitted to the Department of Labor for distribution upon resolution of any claims."

Proposers (bidders) are specifically directed to note the Department of Labor's regulations implementing §6960 relating to the effective date of the wage rates, at Part VI., Section C., which in relevant part states:

"Public agencies (covered by the provisions of 29 Del.C. §6960) are required to use the rates which are in effect on the date of the publication of specifications for a given project. In the event that a contract is not executed within one hundred twenty (120) days from the date the specifications were published, the rates in effect at the time of the execution of the contract shall be the applicable rates for the project."

DB 102-21 PREVAILING WAGE REQUIREMENTS

It is the Department understands that the Davis-Bacon Act is not a preemptive statute in the broad sense, and does not preempt or displace State of Delaware prevailing wage requirements.

When a contract for a project contains both Federal Davis-Bacon and State of Delaware prevailing wage standards because of concurrent Federal and State coverage, the employer's minimum wage obligations are determined by whichever standards are higher.

STATE OF DELAWARE

DEPARTMENT OF TRANSPORTATION

DESIGN-BUILD PROJECT

for

INDIAN RIVER INLET BRIDGE

Replacement of Bridge 3-156,
SR1 over Indian River Inlet
State Contract # 26-073-03 Readvertised
Federal Contract # BRN-S050(14)

SCOPE OF SERVICES PACKAGE

CONTRACT DOCUMENTS

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DB SECTION 103

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DB SECTION 103

PARTNERING, BONDS, AND NOTICE TO PROCEED

DB 103-1 PARTNERING

It is the Department's intent to use the principles of partnering to guide the management of this Contract within the parameters covered by the laws, regulations, and other policies that govern work in the public sector.

These partnering principles are intended to promote quality through continuous improvement at all stages of design and construction. The goal of the Department is to complete this Project in the most efficient, timely, safe, and cost effective manner to the mutual benefit of the Design-Builder and the Department, meaning a quality Project delivered on time, within budget, and without significant disputes.

None of the actions identified as part of, or taken in the course of, partnering shall be construed to alter, modify, delete, or waive any of the provisions or requirements of the Contract Documents or any applicable laws or regulations.

The Department and the Design-Builder will manage the Contract in a cooperative manner utilizing the following principles of Project partnering:

A) Establish communications with all involved parties early in the partnering process;
B) Establish a relationship of shared trust, equity, and commitment;
C) Develop strategies for identifying mutual goals;
D) Develop strategies for timely communications and decision making;
E) Establish a process for timely response to changes or variations in field conditions;
F) Solve potential problems at the lowest level before they negatively impact the Project;
G) Encourage the use of products, technology, and processes that provide a demonstrated level of improved quality; and
H) Develop a plan for periodic joint evaluation based on mutually agreed goals.

This Contract is to be implemented in an equitable fashion that recognizes the problems that are inherent in design and construction, addresses the different-than-expected field conditions, resolves disputes in an open communications manner, and makes Contract adjustments in a timely and fair manner consistent with the terms of the Contract. This Contract is intended to fairly allocate risk, resulting in a balanced contractual approach to risk-sharing.

The Design-Builder shall be responsible for creating and implementing, with input and comment from the Department, a partnering program for use during this Project. The costs of such partnering program shall be borne by the Design-Builder. The Department and Design-Builder shall consider the incorporation of partnering into the coordination and cooperation required with third parties such as Subcontractors, suppliers, utility owners, and park representatives.

The Design-Builder's partnering program shall include periodic partnering meetings at least once every 3 months. The partnering meetings should be held in a convenient location away from the site office and should be attended by Department, Project Stakeholders, and the Design-Builder team. The Design-Builder shall coordinate the meeting schedule and prepare the meeting agenda prior to the meetings.

DB 103-2 PAYMENT, PERFORMANCE, AND MAINTENANCE BONDS

At the time of execution of the Contract, the Design-Builder shall furnish the following bonds on the form provided by the Department:

A) A Payment/Performance Bond in a sum equal to 100% of the Contract Price;
B) The bonds shall be written by a Surety or insurance company that is in good standing and currently licensed to write surety bonds in the State of Delaware by the Delaware Department of Insurance and:
C) Is currently on the United States (US) Department of Treasury's Financial Management list of approved bonding companies which is published annually in the Federal Register and the bond amount will be within the underwriting limits as listed for that Surety; or
D) All signatures on the Bond Form shall be original signatures, in ink, and shall not be mechanical reproductions or facsimiles of any kind.

Upon Final Acceptance of the Work, the Design-Builder shall furnish to the Department a Maintenance Bond in a sum equal to 50% of the value of the guaranteed items included in the Design-Builder's Proposal and Part 8 of the Contract Documents. The Maintenance Bond shall meet the requirements of (B) through (D) of this DB Section 103-2.

DB 103-3 NOTICE TO PROCEED

The Department will issue the Design-Builder Notice to Proceed (NTP) or a Conditional NTP as soon as possible after Contract execution. If the Department has not issued the Design-Builder an NTP or a Conditional NTP within 60 Calendar Days of Contract execution, and written consent of the Design-Builder to extend this time period has not been obtained prior to its expiration, the Design-Builder may request to withdraw from the Contract.

STATE OF DELAWARE

DEPARTMENT OF TRANSPORTATION

DESIGN-BUILD PROJECT

for

INDIAN RIVER INLET BRIDGE

Replacement of Bridge 3-156,
SR1 over Indian River Inlet
State Contract # 26-073-03
Federal Contract # BRN-S050(14)

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DB SECTION 104

SCOPE OF WORK

DB 104-1 WORK REQUIRED

The Design-Builder shall be required to perform all Work included in Part 1, Project Scope as well as any other Work outlined in the Contract. The Design-Builder shall be required to protect all properties, utilities, and existing Highway facilities within or adjacent to the Right of Way (ROW) and to repair or replace any such properties, utilities and facilities damaged or destroyed by construction operations by him or any employee or Subcontractor.

The Design-Builder shall be responsible for the Work of its various Subcontractors and for the coordination of all construction activities. Their respective operations shall be arranged and conducted so as to avoid delays. The Design-Builder shall closely coordinate Subcontractor Work, Material deliveries and construction operations when the Work of the Design-Builder overlaps or ties into Work of another Contractor.

Any modification, removal, and/or replacement of Work already in place due to delays or oversights by the Design-Builder or its Subcontractors shall be performed at the Design-Builder's expense. Such modification, replacement or repair work shall not be the basis for a claim for extra compensation.

The Design-Builder shall provide preventive and corrective maintenance of all Work until Final Acceptance by the Department.

DB 104-2 INTENT OF CONTRACT

The intent of the Contract is to provide for performance and completion of the Work described. The Design-Builder shall furnish all labor, Materials, Equipment, tools, transportation, and supplies required to complete the Work in accordance with the Plans, Project Specifications, and terms of the Contract.

When an item in the Contract requires the Design-Builder to make a choice between more than one Material, standard, procedure, etc., the Design-Builder shall indicate the choice to the Department's Project Manager in writing.

When the Project Specifications reference or require the use of "manufacturer's recommendations or specifications," the Design-Builder shall provide the Department's Project Manager with a current copy of these recommendations or Specifications prior to initiating Work that incorporates such information.

DB 104-3 ALTERATION OF THE CONTRACT

The Department reserves the right to order Work not provided for in the Contract whenever such Work is found essential or desirable to satisfactorily complete the Contract within its intended scope. Such Work shall be performed in accordance with the Specifications and as directed. Payment for such Work will be made as provided in DB Section 109.

The Department reserves the right to order changes in details, including changes in Materials, processes, and sequences, whenever such changes are in the best interests of the public or are necessary or desirable to satisfactorily complete the Work. Such changes in details shall be performed in accordance with the Specifications and as directed. Payment will be made as provided in DB Section 109.

Alterations to the Contract as provided for by this DB Section 104-3 shall not invalidate the Contract nor

release the Surety. The Design-Builder agrees to accept the Work as altered as if it had been part of the original Contract. The Design-Builder shall notify the Surety of any alterations to the Contract.

Alterations of the Contract shall not involve Work beyond the physical limits of the proposed Work, as shown on the Scope of Services Package Plans, except as necessary to satisfactorily complete the Project or as addressed by DB Section 104-7.

DB 104-4 MAINTAINING TRAFFIC

The Design-Builder shall keep all roads open to all traffic during the construction. Where provided in the Contract or approved by the Project Manager, traffic may be bypassed over an approved detour route. The Design-Builder shall keep the section of the Project being used by public traffic in a condition that safely and adequately accommodates traffic. The Design-Builder shall furnish, erect, and maintain barricades, suitable lights, drums, warning signs, delineators, striping, and flaggers, in accordance the Department's Traffic Control Manual. The Traffic Control Manual may be obtained from the Contract Administration Office.

The Design-Builder shall bear all expense of maintaining the section of road undergoing improvement including all temporary approaches or crossings and intersections with trails, roads, streets, businesses, parking lots, residences, garages, farms, and other features as may be necessary. Snow removal along routes open to traffic will not be required of the Design-Builder.

If the Design-Builder does not complete the Work within the Contract completion time (including approved extension time), the cost of all traffic control items to maintain traffic as required in accordance with the Traffic Control Manual (including all subsequent revisions up to the date of the advertisement of the Project), the Plans, and Specifications shall be borne by the Design-Builder to complete the remaining work beyond the Contract time. Traffic control items shall include but not be limited to warning lights, warning signs, barricades, plastic drums, portland cement concrete safety barrier, flaggers, police officers, arrow panel, message board, and portable impact attenuator.

See Part 4 – Special Provisions, Special Provisions 104A, 104B, and 104C for additional requirements.

DB 104-5 FINAL CLEANING OF PROJECT SITE

Before final inspection of the Project, the Project, publicly owned borrow sources, and all areas occupied or affected by the Design-Builder in connection with the Work within the right-or-way shall be cleaned of all rubbish, excess materials, temporary structures, and equipment. All surfaces and slopes, whether old or new, shall be trimmed to the cross-section, all grass and weeds, which are taller than 6" shall be cut and all parts of the work shall be left in an acceptable condition. The acceptability of the final cleanup shall be at the sole determination of the Department. The cost of the final cleanup shall be incidental to the Contract and no separate payment will be made.

DB 104-6 GUARANTEES

The Design-Builder guarantees, by signing the Contract, mechanical and electrical equipment, apparatus, materials, and workmanship provided under the Contract for a minimum period of one year after Final Acceptance. Other items included in the Design-Builder's warranty proposal shall be guaranteed for the period and terms specified elsewhere in the Technical Proposal included in Part 8 of the Contract Documents. A Maintenance Bond shall be submitted to the Department per DB Section 103-2 for all guaranteed and warranted items.

Instruction sheets are required and shall be furnished by the manufacturer for all Materials, equipment, apparatus, supplies, and operation. The information shall be delivered by the Design-Builder to the Department's Project Manager prior to Final Acceptance of the Project, with the following written warranties and guarantees:

A) The manufacturer's standard warranty for each piece of mechanical and electrical Equipment or apparatus furnished under the Contract;

B) The Design-Builder's guarantee that, during the guarantee period, necessary repair or replacement of the warranted Equipment, apparatus, and other items included in the Design-Builder's warranty proposal shall be made by the Design-Builder; and

C) The Design-Builder's guarantee for satisfactory operation of the mechanical and electrical systems furnished and constructed under the Contract for the guarantee period.

DB 104-7 DIFFERING SITE CONDITIONS, SUSPENSIONS OF WORK, AND SIGNIFICANT CHANGES IN THE CHARACTER OF THE WORK

DB 104-7.1 Differing Site Conditions

Additional compensation via Change Order shall be made for time related costs, if any, pursuant to DB Section 109-8. For any increased costs of the Work resulting from the Differing Site Condition, payment shall be made pursuant to DB Sections 109-8, but the Equipment compensation shall be governed and controlled by the provisions of DB Section 109-8.2.2(D).

DB 104-7.2 Suspensions of Work Ordered by the Department's Project Manager

See DB Section 102-19 and DB Section 109-12.

DB 104-7.3 Significant Changes in the Character Of Work

See DB Section 102-19 and DB Section 109-12.

DB 104-7.4 Notification of Differing Site Conditions and Extra Work

The Design-Builder shall immediately notify the Project Manager of alleged changes to the Contract due to differing site conditions, extra work, altered work beyond the scope of the Contract, or action(s) or lack of action(s) taken by the Department that have allegedly changed the Contract terms and conditions.

A) No further work is to be performed or Contract costs incurred on the change after the date the change occurs unless directed otherwise by the Project Manager.

B) Within seven days of the initial notification, the Design-Builder shall provide the following applicable information to the Project Manager in writing:

1) The date of occurrence and the nature and circumstances of the occurrence that constituted the alleged change.
2) Name, title, and activity of each Department representative knowledgeable of the alleged change.
3) Identify any documents and the substance of any oral communications involved in the alleged change.
4) Basis for an allegation of accelerated schedule performance, if applicable.
5) Basis for an allegation that the work is not required by the Contract, if applicable.
6) Particular elements of Contract performance for which additional compensation may be sought under this Section including:

a. Project Component(s) that have been or may be affected by the alleged change.
b. Labor or Materials, or both, that will be added, deleted, or wasted by the alleged change and what equipment will be idled or required.
c. Delay and disruption to the manner and sequence of performance that has been or will be caused by the alleged change.
d. Estimated adjustments to Project Component Value(s), delivery schedule(s), staging, and Contract time necessary due to the alleged change.
e. Estimate of the time within which the Department must respond to the notice to minimize cost, delay, or disruption of performance.

The failure of the Design-Builder to provide required notice in accordance with this Subsection shall constitute a waiver of any and all entitlement to adjustments in the Contract Price or time as a result of the alleged change.

C) Within ten days after the receipt of notice, the Project Manager will respond in writing to the Design-Builder to:

1) Confirm that a change occurred and, when necessary, direct the method and manner of further performance.
2) Deny that a change occurred and, when necessary, direct the method and manner of further performance.
3) Advise the Design-Builder that additional time is required to evaluate the allegation or adequate information has not been submitted to decide whether 1. or 2. above applies, and indicate the needed information and date it is to be received by the Project Manager for further review.

Any adjustments made to the Contract shall not include increased costs or time extensions for delays resulting from the Design-Builder's failure to provide requested additional information in accordance with this clause.

See also DB Section 102.19.

DB 104-8 CHANGES IN BASIC PROJECT CONFIGURATION; UTILITY RELOCATIONS; HAZARDOUS MATERIALS; ENVIRONMENTAL MITIGATION

DB 104-8.1 Changes in Basic Project Configuration

The Department acknowledges and agrees that the Design-Builder's Proposal was based on certain basic information presented by the Department regarding the nature of the Project to be constructed. This basic information is considered the Basic Project Configuration. The Design-Builder shall not make any material change in Basic Project Configuration except as/or unless authorized by a Change Order,. Non-material Department-directed changes will be covered by a Change Order whether they are within the parameters of the Basic Project Configuration or not. Department-directed changes within the Basic Project Configuration specified in this Section may be ordered without any change in the Lump Sum Contract Price or extension of the Contract Time, provided the change is ordered prior to completion of the Preliminary Design Review for the affected Design Unit(s).

DB 104-8.1.1 Standard for Determining Materiality of Change in Basic Project Configuration

See Part 1 – Project Scope.

DB 104-8.1.2 Necessary Basic Project Configuration Change

This Contract generally obligates the Design-Builder to undertake all Work necessary to complete the Project without changes in the Lump Sum Contract Price. This Section provides for changes to the Lump Sum Contract Price due to Necessary Basic Project Configuration Changes. If any Necessary Basic Project Configuration Change increases or decreases the cost of performing the Work, then the Department will issue a Change Order to adjust the Lump Sum Contract Price accordingly. If a Necessary Basic Project Configuration Change changes the time required for performance of the Work, the time adjustment will be covered by a Change Order. Furthermore, if the Design-Builder commences any construction Work affected by the change prior to delivery of appropriate notice of the change to the Department under this Section, the Change Order shall allow the Department a credit for the cost of any unnecessary Work performed and/or shall exclude any additional costs associated with redoing the Work already performed. The Change Order shall also account for any offsets from Change Orders previously issued.

In the event that the Department approves a Necessary Basic Project Configuration Change that reduces the Design-Builder's costs, the Change Order shall note the amount of cost decrease available for future offsets.

DB 104-8.1.3 Relationship to Value Engineering Proposals

If an approved Value Engineering (VE) Proposal as described in DB Section 105 results in a material change in Basic Project Configuration, any cost savings from such VE Proposal(s) shall be shared in accordance with DB Section 105. In such cases, savings resulting from reduction in quantities shall be shared per DB Section 105.

DB 104-8.1.4 Inaccuracies in Design-Builder's Preliminary Design

Any cost increases and/or delays resulting from changes to the Basic Project Configuration due to inaccuracies in the Preliminary Design shall be borne by the Design-Builder. In such event, no change in the Work shall be deemed to have occurred and no Change Order will be issued for any such cost increases and/or delays. Accordingly, any non-material changes in the Basic Project Configuration (other than non-material Department-directed changes following the Preliminary Design Review) shall be the responsibility of the Design-Builder.

DB 104-8.1.5 Applicability of Change Orders

In general, the Design-Builder may implement non-material changes in the Basic Project Configuration, if approved by the Department, without a Change Order, unless the change involves a circumstance for which a Change Order is specifically required hereunder. The Design-Builder acknowledges and agrees that constraints set forth in the environmental approvals and other Contract Documents, as well as the site conditions and the planned ROW limits, will impact the Design-Builder's ability to make non-material changes in the Basic Project Configuration.

DB 104-8.2 Changes Applicable to Utility Relocations

The following provisions govern entitlement to Change Orders with respect to relocation of utilities.

DB 104-8.2.1 Change in Design

In as much as the Design-Builder is both furnishing the design of and constructing the Project, the Design-Builder may have significant opportunities to reduce the costs of certain portions of the Work, which may increase the costs of certain other portions of the Work. In considering such opportunities, the Design-Builder shall at all times consider the impact of design changes on relocations of utilities and related facilities with the overall goal of minimizing the necessity for relocations of such utilities and related facilities to the extent practicable. Accordingly, if, as a result of a change made by the Design-Builder to the Design-Builder's preliminary design, either the costs of a utility relocation are reduced

(including avoidance of a proposed utility relocation shown in the Contract Documents), new relocations are required, or relocation costs are otherwise increased, then the following shall apply to any resulting cost increases or decreases affecting the Design-Builder and/or the Department:

A) The Design-Builder shall not be entitled to a Change Order for any such additional costs it incurs, including both additional relocation costs and the costs of any additional Work on other aspects of the Project undertaken in order to facilitate the avoidance or reduction of relocation costs;

B) The Design-Builder shall reimburse the Department for any mutually agreed upon additional expenses incurred by the Department; and

C) The Design-Builder shall not be obligated to provide a credit to the Department on account of reductions in the cost of the Work due to any such avoided or reduced relocation.

DB 104-8.2.2 Additional Restrictions on Utility-Related Change Orders

A) Avoidance of Relocations

Whenever the Design-Builder claims entitlement to a Change Order under this Section, the Design-Builder shall bear the burden of proving that the utility relocation could not reasonably have been avoided and of proving the amount of any costs and/or delays claimed by the Design-Builder.

B) Incremental Costs Only

In cases where the Design-Builder is entitled to a Change Order under this Section, the Change Order shall allow a price increase only for the incremental costs directly arising from the circumstances giving rise to such Change Order.

C) Coordination Costs

In no event will the Design-Builder be awarded any increase in the Lump Sum Contract Price for any increased costs of coordinating with the affected utility owner on account of any utility relocation for which a Change Order is merited under this Section.

D) Timing of Change Orders

In general, the parties anticipate that Change Orders for utility relocations will be executed as the changes occur. However, the Department and Design-Builder may agree to consolidate certain changes into a single Change Order. The Design-Builder's mark-ups under DB Section 109-8.2.2(D)(6) shall be deemed to include compensation for all costs associated with any time differential between performance of the relocation Work and the date of issuance of the Change Order.

E) No Change Orders for Utility Service Lines or Temporary Relocations of Utilities

The Design-Builder shall not be entitled to a Change Order for increased costs of the Work resulting from, or for any extension of time for, delays associated with the following:

1) Any relocation of any utility service lines; and/or

2) Any temporary relocations of utilities implemented for the convenience of the Design-Builder's own construction operations.

DB 104-8.3 Hazardous Materials Change Order

If unforeseen Hazardous Materials are found to exist within the limits of disturbance for the Project, the Department will issue a Change Order for any necessary remediation. The Design-Builder shall utilize

the services of previously qualified, trained, and/or appropriately certified personnel and Subcontractors for hazardous and contaminated substance remediation. No training costs (or costs for physical examinations) will be allowed in any Change Orders for hazardous and contaminated substance remediation.

DB 104-8.4 Changes in Environmental Mitigation Requirements

Changes in environmental mitigation requirements may occur as the result of changes in governmental rules, as the result of changes in the Work directed by the Department, or as the result of design decisions made by the Design-Builder or its construction methodologies. The Department shall issue a Change Order for changes in the scope of environmental mitigation requirements to be performed by the Design-Builder to the extent that they are directly attributable to changes in governmental rules or changes in the Work directed by the Department (including any assignment of mitigation requirements to the Design-Builder that were originally contemplated to be performed by the Department or others). The Design-Builder shall bear full responsibility for performance of any mitigation measures required as the result of its design decisions or construction methodologies. The Design-Builder shall also bear full responsibility for obtaining modifications to existing permits to accommodate its design decisions or construction methodologies. No additional compensation or extensions of time will be granted because of delays in obtaining approvals from the appropriate permitting agencies. Work that is proposed outside of the requirements or limits of the existing permits will not be allowed until the appropriate permitting agency approves the modification. Furthermore, the Design-Builder shall be entitled to compensation only for the incremental costs associated with compliance with the new requirements and shall not be entitled to additional compensation for Work relating to such compliance that was included in its original scope, including any commitments made in the Design-Builder's Proposal.

DB 104-8.5 General

Changes under this DB Section 104-8 shall be governed by the notice, record keeping, and other requirements of DB Sections 104 and 109. For any increased costs of the Work resulting from a significant change in the character of the Work, payment shall be made pursuant to DB Section 109-8.2, but the Equipment compensation shall be governed and controlled by the provisions of DB Section 109-8.2.2(D)(4).

Adjustments in Contract Time shall be included in the Change Order to reflect changes in the Critical Path for the Project.

The Design-Builder or the Department must make written notification to the other party of the existence of the apparent "significant change" if that party wishes to adjust the Lump Sum Contract Price or the Contract Time. Such notice shall be given within ten Calendar Days of the time at which the party had, or should have had, knowledge of an event, matter, or occurrence that results in a significant change in the character of the Work. Work that is substantially completed prior to the issuance of notice may not be considered for Contract adjustment.

Timely issuance of notice shall be a necessary requirement for consideration of Contract adjustment as provided in this Section.

DB 104-9 RETENTION OF RECORDS

The Design-Builder shall retain all records for six years after final payment is made under the Contract. Required records shall include all accounts, papers, maps, plans, drawings, engineering calculations, reports, photographs, or other documentary materials, regardless of physical form or characteristics, made or received by the Design-Builder in connection with the Contract. Legible electronic copies are acceptable, provided they are so arranged, identified, and indexed that any individual document, or

component of the records, can be located with reasonable facility.

The Design-Builder shall maintain records of all required payrolls and of the details that comprise the total Lump Sum Contract Price. These records shall be available at any time within six years following the date of final payment of the Project at the request of the Department for review and audit, if it is so deemed necessary by the Secretary. In case all or part of such records are not made so available, the Design-Builder understands and agrees that any items not supported by reason of such unavailability of the records shall be disallowed, or if payment has already been made, the Design-Builder shall, upon demand in writing by the Secretary, refund to the Department the amount so disallowed.

STATE OF DELAWARE

DEPARTMENT OF TRANSPORTATION

DESIGN-BUILD PROJECT

for

INDIAN RIVER INLET BRIDGE

Replacement of Bridge 3-156,
SR1 over Indian River Inlet
State Contract # 26-073-03 Readvertised
Federal Contract # BRN-S050(14)

SCOPE OF SERVICES PACKAGE

CONTRACT DOCUMENTS

PART 2

DB SECTION 105

CONTROL OF WORK

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DB SECTION 105

CONTROL OF WORK

DB 105-1 DEPARTMENT'S PROJECT ORGANIZATION AND AUTHORITY OF DEPARTMENT'S PROJECT MANAGER

As designee of the Secretary, the Department's Project Manager has immediate charge of the Project. The Department's Project Manager is responsible for the administration and satisfactory completion of the Project. The Department's Project Manager will be delegated authority commensurate with that responsibility, including the authority to reject defective Material and construction and disapprove and reject design documents that do not comply with Contract requirements. It is understood that the Department's Project Manager may further delegate authority commensurate with responsibility for certain decisions assigned to other Department personnel.

The Design-Builder is required to submit all issues related to the Project through the Department's Project Manager. The Department's Project Manager will decide all questions that may arise, including, but not limited to, the following topics:

A) Acceptability of design documents;
B) The quality and acceptability of Material furnished;
C) Work performed;
D) The rate of progress of the Work;
E) Interpretation of the Contract;
F) Acceptable performance of the Contract requirements; and
G) Administration of monthly progress payments.

The decision of the Department's Project Manager of the aforementioned shall be in writing and shall be delivered to the Design-Builder's Project Manager as quickly as possible.

In addition to the authority to administer the Contract, modify the Contract by Change Order, and oversee and terminate the Contract as expressly provided in other Sections of the Contract, the Department's Project Manager will have the authority to suspend the Work, wholly or in part, or withhold progress payments due to the following:

A) Conditions such that unsatisfactory Work might result, regardless of responsibility;
B) Improper Material or procedures being used;
C) Unsafe conditions for the workers or the general public as a result of the failure of the Design-Builder to correct those conditions;
D) The Design-Builder's failure to carry out provisions of the Contract;
E) The Design-Builder's failure to carry out directions of the Department's Project Manager;
F) The Design-Builder's failure to comply with state or federal law or regulation;
G) The Design-Builder's non-conformance with the Maintenance of Traffic provisions of the Contract, causing serious disruptions to traffic operations; or
H) The Department's Project Manager's determination that suspension is necessary because of unsuitable weather.

The Design-Builder or the Department's Project Manager may suspend Work if conditions exist that are potentially injurious to the Project, including Work performed in the absence of Department accepted Design Plans and Project Specifications and/or Work being performed in the absence of the Department's qualified Inspectors and/or sampling and testing personnel. No additional compensation will be paid to the Design-Builder because of such suspension. The Design-Builder shall not suspend Work without written authority from the Department's Project Manager. See DB Sections 102-19 and 109-12.2 for

more information on the Department Project Manager's authority to suspend Work.

The Department's Project Manager may also suspend the Work wholly or in part for other conditions or reasons beyond the control of the Design-Builder or not connected with the construction of the Project when deemed necessary in the public interest. Additional Work caused by such suspensions will be paid for by the Department pursuant to DB Section 104 and DB Section 109.

Any adjustment of Contract Time for suspension of Work shall be made as provided in DB Section 108-6.

DB 105-2 CONFORMITY WITH DESIGN PLANS AND PROJECT SPECIFICATIONS

All Work performed and all Material furnished shall conform to the lines, grades, cross sections, dimensions, and Material requirements of the Contract.

When the Department's Project Manager finds the Materials furnished, Work performed, or the finished product not within reasonably close conformity with the Contract but that reasonably acceptable Work has been produced, the Department's Project Manager will determine to what extent the Work will be accepted and remain in place. If accepted, the Department's Project Manager will document the basis of determination by Contract modification that will provide for an appropriate adjustment in the Lump Sum Contract Price for such Work or Material as he/she deems necessary to conform to his/her determination based on engineering judgment.

In the event the Department's Project Manager determines the Materials, the Work performed, or finished product have resulted in an inferior or unsatisfactory product, the Work or Materials shall be removed and replaced or otherwise corrected by and at the expense of the Design-Builder.

DB 105-3 COOPERATION BY THE DESIGN-BUILDER

The Design-Builder shall give the Work the constant attention necessary to facilitate the progress thereof and shall cooperate with the Department's Project Manager, other Department representatives, and other contractors.

The Design-Builder shall have on the Work site at all times, as the Design-Builder's agent, a competent superintendent capable of reading and understanding the Plans and Project Specifications and experienced in the type of Work to be performed. Prior to the start of construction, the Design-Builder shall submit the qualifications of a proposed superintendent to the Department for review and approval.

At the pre-construction meeting, the Design-Builder shall furnish the Department's Project Manager written notice of the superintendent's name and his or her home, office, and mobile telephone numbers. The superintendent shall have authority to execute orders or directions of the Department's Project Manager without delay and to promptly supply such Materials, Equipment, tools, labor, and incidentals as required. The superintendent shall be furnished regardless of the amount of Work sublet.

DB 105-4 COOPERATION WITH UTILITIES

The Department will notify all known utility companies, pipeline owners, or other parties affected by the Work and endeavor to have the necessary adjustments of public or private utility fixtures, pipelines, and other appurtenances within or adjacent to the limits of construction made as soon as possible. The Design-Builder shall assist the Department by providing any information required by the affected or

interested parties.

Upon award of the Contract, utility companies affected will be advised by the Department of the name and address of the Design-Builder, approximate date Work will begin, and other pertinent information.

Except as hereinafter provided, and regardless of whether the utility is shown on the Plans or referred to in the Project Specifications, all water lines, sanitary sewer lines (force main and gravity lines), gas lines, electric lines, fiber optic cables, telephone lines, cable television lines, service connections, water and gas valve boxes, light standards, cableways, signals, and other utility appurtenances within construction limits which prevent completion of the Design-Builder's Work will be relocated or adjusted by the owners at no expense to the Design-Builder. Part 5 - Utility Requirements of this Contract, indicates utility items to be relocated, adjusted, or constructed by the Design-Builder.

It is agreed that the Design-Builder has considered in its Proposal all permanent and temporary utility appurtenances in their present or proposed relocated positions and that no additional compensation will be allowed for delays, inconvenience, or damage sustained due to interference from the said utility appurtenances or the operation of moving them.

When the Department's Project Manager determines that the Design-Builder is experiencing significant delays in the Work because of delays by others in removing, relocating, or adjusting utility appurtenances, an extension of Contract Time will be considered in accordance with DB Section 104-8.2.

When the Design-Builder's Work involves excavating or underground demolition activity, the Design-Builder is required to reach Miss Utility of Delmarva a minimum of two but not more than ten working days prior to starting any Work, by calling (800) 282-8555 in Delaware or toll-free (800) 441-8355 in order to comply with Delaware Code, Chapter 8, Title 26. See DelDOT Standard Specifications, August 2001, Section 105.09 for further details concerning utilities.

DB 105-5 COOPERATION BETWEEN THE DESIGN-BUILDER AND OTHER CONTRACTORS

The Department reserves the right to contract for and perform additional work on or near the Work covered by this Contract.

When separate contracts are let within, adjoining, or adjacent to the limits of this Project, the Design-Builder and each other contractor shall conduct the work not to hinder the progress of work by other contractors and shall cooperate with each other as directed.

The Design-Builder shall arrange the Work and shall place and dispose of Materials, equipment, temporary works, and other construction-related items so as not to interfere with the operation of other contractors within, adjoining, or adjacent to the limits of the Project. The Design-Builder shall acceptably join the Work with that of other contractors and shall perform the Work in proper sequence to that of the others and without causing disruption or delay to the schedule of Project completion.

The Design-Builder shall assume all liability, financial or otherwise, in connection with the Contract and shall hold the Department harmless and indemnify the Department from all damages or claims that may arise because of inconvenience, delay, or loss experienced by the Design-Builder or caused to other contractors due to the presence and operations of other contractors working within, adjoining, or adjacent to the limits of the Project.

DB 105-6 INSPECTION

The Design-Builder shall have the primary responsibility for Inspection of all Project Work through its Quality Control (QC) Manager, Design QC Manager, and Construction QC Manager and their respective staffs. See DB Sections 112 and 113 of the Contract Documents for the specific Design-Builder QC responsibilities.

The Department shall have the primary responsibility for Quality Assurance of all Project Work through its Design Project Manager and Construction Project Manager and their respective staffs.

DB 105-6.1 Delaware Department of Transportation's Inspection

The Department's designated representative(s) shall be authorized to inspect any Work done and Material furnished, including all or any part of the Work and the preparation, fabrication, or manufacture of the Material to be used. The Department's inspection shall include, but not be limited to, the Design-Builder's compliance with applicable safety requirements set forth in DB Section 107. The Department's designated representative(s) is not authorized to either alter or waive the provisions of these Specifications or the Contract or to issue instructions contrary to the Department accepted Design Plans and Project Specifications without written approval of the Department's Project Manager or to act as foreman for the Design-Builder. However, he/she shall have the authority to reject unacceptable Work or Material. The Department's Inspections and tests are for the sole benefit of the Department and do not constitute any of the following:

A) Relief of the Design-Builder's responsibility for providing adequate Quality Control measures;
B) Relief of the Design-Builder's responsibility for damage to or loss of the Material before Final Acceptance;
C) Implication of Final Acceptance; or
D) Affectation of the continuing rights of the Department after Final Acceptance of the completed Work.

DB 105-6.1.1 Delaware Department of Transportation's Inspection of Work

All Material and each part or detail of the Work will be subject to Inspection by the Department's Project Manager and/or designated representative(s). The Department's Project Manager and staff shall be allowed full Work access and shall be furnished with necessary information and assistance by the Design-Builder to make a complete and detailed inspection, as deemed appropriate by the Department's Project Manager or designated representative.

If the Department's Project Manager requests it, the Design-Builder, at any time before Final Acceptance of the Work, shall remove or uncover such portions of the finished Work as may be directed. After examination, the Design-Builder shall restore said portions of the Work to the standard required by the Project Specifications. If the Work thus exposed or examined proves acceptable, the uncovering or removing and the replacing of the covering or making good of the parts removed may be paid for as Extra Work under DB Section 109-8. But, if the Work so exposed or examined proves unacceptable, or if the Design-Builder failed to document its Work or complete and/or document its QC activities related to the Work, the uncovering or removing and the replacing of the covering or making good of the parts removed will be at the Design-Builder's expense.

Work done or Material used without Inspection by an authorized Department representative may be ordered removed and replaced at the Design-Builder's expense if the Department was not given the required notice that the Work was to be performed. When a utility, unit of government, political subdivision, or railroad is to pay a portion of the cost of the Work covered by this Contract, its representative(s) shall have the right to inspect the Work. See also Part 5 - Utility Requirements. Such

Inspection shall in no sense make the utility, unit of government, political subdivision, or railroad a party to this Contract and shall in no way interfere with the rights of either party hereunder.

DB 105-6.1.2 Removal of Unacceptable and Unauthorized Work

All Work that does not conform to the requirements of the Contract shall be considered unacceptable unless otherwise determined acceptable under the provisions in DB Section 105.

Unacceptable Work, whether caused by poor Work, defective Material, damage through carelessness, or any other cause found to exist prior to the Final Acceptance of the Work shall be removed immediately and replaced in an acceptable manner irrespective of the presence of, or lack of, a Department designated representative at the time the Work was originally completed. This clause shall have full effect regardless of the fact that the defective Work may have been done or the defective Material used with the full knowledge of the Department's representative. The fact that the Department's Project Manager or designated representative may have previously overlooked such defective Work shall not constitute an Approval or Final Acceptance of any part of it.

DB 105-7 LOAD RESTRICTIONS

The Design-Builder shall comply with all legal and contractual load restrictions in the hauling of materials or equipment on public roads. A hauling permit or other special permit will not relieve the Design-Builder of liability for damage to public or private property which may result from the movement of such loads or equipment.

Vehicles transporting construction materials to Department projects shall not exceed the gross vehicle weight (GVW) or licensed weight, if less, as specified in the Delaware Code. Materials inspection weigh tickets will not be issued by Department personnel for GVWs in excess of the allowable maximum.

Payment for Materials delivered to the Project shall not exceed the allowable GVW minus the truck tare weight. An average tare weight may be established on a basis approved by the Department's Project Manager so that empty weighing is not necessary before every load. No payment will be made for any excess material weight.

It shall be the responsibility of the Design-Builder to notify its subcontractors, vendors, and suppliers of this requirement.

The maximum GVW for different vehicle axle configurations is as follows; provided that in the case of three-axle vehicles the extra weight fee has been paid and is so noted on the registration card:

Customary Values	
Single Unit Values	***GVW, Maximum***
2-axle vehicle (e.g., 2-axle dump truck)	40,000 lbs.
3-axle vehicle (e.g., 3-axle dump truck)	65,000 lbs. *70,000 lbs.
4-axle vehicle (e.g., 4-axle dump truck)	73,280 lbs.

Customary Values	
Tractor-Semi-Trailer Combinations	
3-axle combination unit	60,000 lbs.
4-axle combination unit	70,000 lbs.
5-axle combination unit	80,000 lbs.

* When extra weight fee has been paid and is so noted on registration card.

The Design-Builder shall be responsible for all damages done by hauling equipment. Operating Equipment or hauling loads that may damage Structures, Roadway, utilities, and or any construction is prohibited unless protective measures are taken by the Design-Builder. See also Part 5 - Utility Requirements.

DB 105-8 MAINTENANCE DURING CONSTRUCTION

The Design-Builder shall satisfactorily maintain the areas designated for bridge construction (staging areas, construction accesses, etc.) within the ROW limits of the Project, from the effective date of the Notice to Proceed (NTP) until the date of Final Acceptance. Adjacent and parallel Roadways within the Project limits utilized to access staging areas or work areas shall be the maintenance responsibility of the Design-Builder. This maintenance responsibility includes, but is not necessarily limited to, maintaining drainage (sediment from construction shall be removed so as not to block drainage outside of the ROW), periodic watering and mowing of roadside vegetation, and removing of debris to the satisfaction of the Department's Project Manager, as well as such striping, patching, and shoulder maintenance which will provide safe and convenient conditions at all times for the public. The Design-Builder shall continuously and effectively satisfy its maintenance responsibilities with such Equipment and forces as may be necessary to maintain a safe and satisfactory condition for the duration of the Project.

DB 105-9 FAILURE TO MAINTAIN ROADWAY OR STRUCTURE

If the Design-Builder fails to comply with DB Section 105-8, the Department's Project Manager will immediately notify the Design-Builder in writing of such noncompliance. If the Design-Builder fails to remedy the condition within 24 hours after receipt of the written notice, the Department's Project Manager may immediately remedy the condition, and the cost thereof will be deducted from payments for the Work.

When the condition requires more immediate remedy due to hazard to life, health, and property, the Department's Project Manager may immediately remedy the condition and the costs thereof will be deducted from payments for the Work.

DB 105-10 DESIGN-BUILDER'S RESPONSIBILITY FOR WORK

The Design-Builder is responsible for carrying out the provisions of the Contract at all times, regardless of whether an authorized Department designated representative is present or not. Any Work or item that is, at any time, found to be out of Specification or not in compliance with the Design Plans shall remain the responsibility of the Design-Builder and shall be subject to such corrective measures that are approved in writing by the Design-Builder's Designer and accepted in writing by the Department's Project Manager.

DB 105-11 DELDOT'S CONSULTATION AND WRITTEN COMMENT, APPROVALS, AND NON-CONFORMANCE REPORTS

Except for items specifically designated for "Approval" or "approval" in the Contract Documents, The Department's Consultation and Written Comment regarding reviews, observations, and/or inspections of design documents, Working Drawings, other required submittals, and construction means and methods shall be considered and addressed by the Design-Builder. While the Design-Builder is not required to revise its Work in response to such comments, the Design-Builder shall provide a timely written response to the Department's Project Manager regarding its disposition of each of the Department's individual comments. Any issues arising during Consultation and Written Comment by the Department if not properly addressed by the Design-Builder, could affect the Department's Final Acceptance of the Project.

Deficiencies, non-compliance, errors, and/or omissions will be documented by the Department in written Non-Conformance Reports (NCRs). The Design-Builder shall respond to and address issues covered by NCRs and shall bring the Work into compliance with Contract requirements. In such cases, the Design-Builder's corrective actions will be subjected to further Consultation and Written Comment by the Department.

Approvals will only be given by the Department for those submittals or Work specifically identified in the Contract Documents as for "Approval" or "approval."

Consultation and Written Comments or Approval by the Department of design documents, Working Plans, other required submittals, activities/actions, construction means and methods, and/or the Design-Builder's construction detail does not relieve the Design-Builder of the full responsibility for providing adequate QC measures and does not relieve the Design-Builder of providing proper and sufficient Material, Equipment, and labor to complete the Work in accordance with the Contract, Design Plans, and Project Specifications.

DB 105-12 MEETINGS

The Design-Builder shall participate in meetings as indicated in this Section. The party leading the meeting shall record minutes of all meetings and distribute them within five Working Days of the meeting. Meeting minutes shall clearly identify the following:

A) Action items and issues;
B) The party responsible for the action item;
C) The status of issues; and
D) Due dates for identified action items.

Action items and issues shall be retained in the minutes of subsequent meetings until the required action is completed and/or the issue is resolved.

DB 105-12.1.1 Value Engineering Proposals

The Department's Project Manager will consult with the Design-Builder and arrange and lead meetings within 30 Calendar Days of NTP to review any initial Value Engineering (VE) Proposals (see DB Section 105-13) submitted by the Department or the Design-Builder.

If requested by the Department's Project Manager, the Design-Builder shall prepare an estimate of effects (time and cost) for VE Proposals.

Attendance at the meetings and the preparation of the estimate of effects shall be at no increase in the Lump Sum Contract Price or Contract Time to the Department.

Other VE meetings may be called by the Design-Builder or the Department as necessary, to discuss and evaluate additional VE Proposals that may arise.

DB 105-12.1.2 Design Mobilization Meeting

Within 30 calendar days of NTP, the Design-Builder's Project Manager will consult with the Department's Project Manager and will arrange and lead a meeting at the Designer-Builder's Project office prior to the Design-Builder initiating additional design Work.

The agenda shall be developed and prepared by the Design-Builder in consultation with the Department's Project Manager and shall include the following:

A) The organization for design including all sub-consultants, subcontractors, or similar entitites;
B A review of qualifications of design Quality Control staff;
C) A design workshop agenda (see DB Section 111-16);
D) The location of design personnel;
E) The design schedule and time allocations for Design Reviews; and
F) Design Quality Control and Quality Assurance.
G) The Department's Project Manager or the Design-Builder may add other items to the agenda.

DB 105-12.1.3 Site Mobilization Meeting

The Design-Builder's Project Manager will consult with the Department's Project Manager and arrange and lead a meeting at the Design-Builder's office prior to the Design-Builder's occupying any part of the site. The Design-Builder's Key Personnel who will be responsible for activities on the agenda shall attend the meeting. See DB Section 108-3 for more information on the Design-Builder's Key Personnel.

The agenda shall be developed and prepared by the Design-Builder in consultation with the Department's Project Manager and the Design-Builder and prepared by the Design-Builder and shall include, but not be limited to, the following items:

A) Assigned staging areas and shared use of site with other contractors;
B) DelDOT and DNREC requirements;
C) Temporary utilities and facilities;
D) Security and "housekeeping;"
E) Maintenance responsibilities on-site and surrounding areas;
F) Temporary works; and
G) Plans for early construction, if any.

DB 105-12.1.4 Preconstruction Meeting

The Department's Project Manager will contact the Design-Builder to schedule a Preconstruction Meeting prior to each major phase of any construction work. Agenda items shall include, but are not limited to the following:

A) Construction Schedule;
B) Personnel, including subcontractors;
C) Required drawings;
D) Material approvals and testing;
E) Coordination with other contractors; and
F) Progress Payments.

It is expected that multiple preconstruction meetings will be required in accordance with the Design-Builder's phasing plans to construct the project. The Department's Project Manager or the Design-Builder may add agenda topics that are consistent with the meeting goals, meeting schedule, and the general purpose for the meeting. The initial preconstruction meeting is expected to be a full day meeting.

DB 105-12.1.5 Progress Meetings

Progress meetings shall be held at least weekly throughout the progress of the Project. The Design-Builder shall prepare the agenda in consultation with the Department's Project Manager and distribute copies together with draft minutes of the previous meeting to all planned participants at least two Calendar Days prior to the meeting. The Design-Builder shall lead the meetings.

The Design-Builder's Key Personnel shall attend the progress meetings. See DB Section 108-3 for more information on the Design-Builder's Key Personnel.

A typical agenda shall include the following items:

A) A confirmation of minutes of the previous meeting and status of action items arising at previous meetings;
B) A review of Work progress;
C) Design problems and decisions;
D) Field observations, problems, and decisions;
E) Identification of issues affecting planned progress;
F) Planned activities (design and construction) for the coming two week period;
G) Maintenance of quality and Work standards;
H) Safety;
I) Environmental issues
J) Coordination with other Contracts;
K) Schedule updates (monthly);
L) Public Outreach items/issues;
M) Maintenance of Traffic; and
N) The status of Change Orders, if any.

DB 105-12.1.6 Special Meetings

The Department's Project Manager may require special meetings at any time and that all or specified Design-Builder Key Personnel attend. These meetings may include discussions with the Public concerning aesthetic issues, construction and/or design schedule updates, etc. in accordance with the Design-Builder's Proposal and Part 8 of the Contract Documents. See DB Section 108-3 for more information on Design-Builder's Key Personnel.

DB 105-13 VALUE ENGINEERING PROPOSALS

This provision is to share with the Design-Builder only the cost savings generated on this Contract as a result of a VE Proposal(s) offered by the Design-Builder and Approved by the Department. Any time savings resulting from a VE Proposal will be considered at the completion of the Project as an incentive to the Design-Builder, provided the Contract contains an incentive clause for early completion of the Work and the Design-Builder has not met the incentive limit in the Contract. A time only reduction will not be considered as a VE Proposal. The purpose is to encourage the use of the Design-Builder's ingenuity and experience in recommending approaches and methods different from existing Contract specifications that will reduce the overall cost of the Contract. After the NTP is issued for the Contract, the successful Proposer will be permitted to submit to the Department's Project Manager, written VE Proposals, for modifying the Plans, Specifications, or other requirements of the Contract for the purpose of reducing the total cost of the Project. The VE Proposal shall not impair, in any manner, the essential functions and characteristics of the Project, including, but not limited to, safety, service life, reliability, economy of operation, ease of maintenance, desired appearance, traffic flow during construction, or necessary standardized features.

The VE Proposal shall be specifically identified by the Design-Builder as a cost reduction proposal. The Design-Builder has the option of submitting a conceptual VE Proposal to the Department for review prior to making formal submission. However, the Design-Builder may submit the formal VE Proposal directly.

The conceptual VE Proposal shall provide the following minimum information:

A) A description of the VE Proposal;
B) A listing of Work items affected by the proposed change, including any change in Contract Time and/or Maintenance of Traffic; and
C) An initial estimate of the net cost savings that the change is expected to generate.

The Design-Builder may proceed to the formal VE Proposal upon the Department's Approval of the conceptual VE Proposal. The Department is not obligated to approve the Design-Builder's formal VE Proposal, even if the conceptual VE Proposal is initially considered acceptable.
At a minimum, the following information shall be submitted by the Design-Builder with the formal VE Proposal:

A) A statement that the proposal is submitted as a VE Proposal;
B) A detailed description of all differences between the existing Contract requirements and the proposed change(s), and the comparative advantages and disadvantages of each, including, effects on service life, economy of operations, ease of maintenance, desired appearance, necessary standardized features, reliability, traffic flow during construction, safety, and Contract Time;
C) Complete Plans, Specifications, and calculations showing all proposed revisions relative to the original Contract features and requirements. All Plans and engineering calculations shall bear the signature and seal of a Professional Engineer licensed to practice in the State of Delaware;
D) Detailed estimates of the cost to the Department for performing the Work under the existing Contract and under the VE Proposal;
E) An assessment of any effects that adoption of the VE Proposal could have on other costs to the Department including future maintenance and operation;
F) A statement of the latest time or date that any agreement adopting the VE Proposal must be executed in order to obtain the maximum cost reduction during the remainder of the Contract and the reasoning for this time schedule. This date must allow the Department time for review and processing. Should the Department find insufficient time is available for review and processing, it may reject the VE Proposal on such basis. If the Department fails to respond to the VE Proposal by the date or time specified, the Design-Builder shall consider the proposal rejected and shall have no claim against the Department;
G) A statement of the effect that adoption of the VE Proposal will have on the time for completion of the Contract; and
H) A description of any previous use or testing of the final VE Proposal on another Department project or elsewhere and the conditions and results therewith. If the VE Proposal was previously submitted on another Department project, the Design-Builder shall indicate the date, the project, and the action taken by the Department.

The provisions of this DB Section 105-13 shall not be construed to require the Department to consider any VE Proposal that may be submitted. The Department reserves the right to reject any and all VE Proposals. Proposers are cautioned to not base their Price Proposals on the anticipated Approval of a VE Proposal and to recognize that the VE Proposal may be rejected. In the event of rejection, the Design-Builder will be required to complete the Contract as executed. If the Department is already considering certain revisions to the Contract or has approved certain changes in the Contract for general use that are subsequently incorporated in a VE Proposal, the Department will reject the Design-Builder's VE Proposal and may proceed without obligation to the Design-Builder. The Department will not be liable to the Design-Builder for failure to act upon or accept any VE Proposal or for any delays to the Work attributable to such VE Proposal. The Design-Builder may withdraw, in whole or in part, any VE

Proposal not accepted by the Department within the period specified in the VE Proposal. The decision of the Department as to the acceptance or rejection of VE Proposals shall be final.

The Design-Builder will be notified in writing of the Department's decision to accept or reject each VE Proposal submitted under this DB Section 105-13. If a VE Proposal is accepted, the necessary Contract modifications will be implemented by execution of a Change Order, which will provide for equitable price adjustments giving the Design-Builder and the Department equal shares in the resulting net savings. Until a VE Proposal is incorporated by such Contract modification, the Design-Builder shall perform the Work in accordance with the terms of the existing Contract.

The net cost savings to be shared shall be determined as the difference in costs between the original Lump Sum Contract Price for the involved Work and the actual final costs to the Department occurring as a result of the proposed change. Only that Work directly affected by the Change Order will be considered in making the final determination of net cost savings. Subsequent Change Orders affecting the modified Work, but not related to the VE Proposal, will be excluded from such determination. In reviewing the VE Proposal, the Department reserves the right to reject the VE Proposal if, in its sole judgment, the proposed net cost savings do not represent a reasonable measure of the value of the Work to be performed or deleted.

All costs incurred by the Design-Builder in developing the VE Proposal shall be borne by the Design-Builder. The Change Order implementing the necessary Contract modifications shall include a lump sum estimate of the approximate net cost savings anticipated as a result of the VE Proposal. The Design-Builder's 50% share of the net cost savings shall constitute full compensation for implementing all changes pursuant to the Change Order. Any time saving for early completion of the Project resulting from the VE Proposal will be considered upon completion of the Project as an incentive to the Design-Builder provided the Contract contains an incentive clause for early completion of the Work and the Design-Builder has not met the incentive limit in the Contract.

The Department reserves the right to include in the Change Order any conditions it deems appropriate for consideration, approval, and implementation of the VE Proposal. The Department also reserves the right to require the Design-Builder to share in the Department's costs of investigating a VE Proposal submitted by the Design-Builder as a condition of considering such VE Proposal. The Department will have the option to perform the investigation in-house or by consultants. When such a condition is imposed, the Design-Builder shall indicate his acceptance in writing, and such acceptance shall constitute full authority for the Department to deduct costs incurred by such investigation from any monies due or that may become due to the Design-Builder under the Contract.

The Department reserves the right to adopt a VE Proposal for general use when it determines that said VE Proposal is suitable for application to other contracts. When an accepted VE Proposal is adopted for general use, only the contractor that first submitted such VE Proposal will be eligible for compensation pursuant to this DB Section 105-13, and in that case, only as to those contracts awarded to that contractor prior to submission of the accepted VE Proposal. Value Engineering Proposals identical or similar to previously submitted VE Proposals will be eligible for consideration and compensation under this DB Section 105-13 if the identical or similar previously submitted VE Proposals were not adopted for general application to other Department contracts. Subject to the provisions of this Contract, the state or any other public agency shall have the right to use all or any part of any submitted VE Proposal without obligation or compensation of any kind to the contractor.

Any changed conditions arising as a result of the acceptance of a VE Proposal will not be considered as the basis for any claim for additional compensation.

STATE OF DELAWARE

DEPARTMENT OF TRANSPORTATION

DESIGN-BUILD PROJECT

for

INDIAN RIVER INLET BRIDGE

Replacement of Bridge 3-156,
SR1 over Indian River Inlet
State Contract # 26-073-03 Readvertised
Federal Contract # BRN-S050(14)

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PART 2

DB SECTION 106

CONTROL OF MATERIALS

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DB SECTION 106

CONTROL OF MATERIALS

DB 106-1 MATERIAL REQUIREMENTS

Materials used on the Project must, at a minimum, be certified or tested prior to use. The certification process, which is administered by the DelDOT Materials & Research's Materials (M&R) Administration Unit, is described in DB Section 106-2 below. The various units within M&R will test materials used on the Project that are not accepted based on certification. Minimum testing requirements on Project materials and the assorted types of tests performed are described in DB Section 106-3.

DB 106-2 MATERIALS CERTIFICATION

DB 106-2.1 Product Approval / Vendors & Suppliers.

The Department does not maintain an "approved products list," through which a vendor can submit prospective materials to the Department for testing and approval. The Department accepts materials on a project basis.

If a vendor, or supplier, wishes to have their materials used on the Project, they must have the Design-Builder submit each proposed material for review. Each material will then be verified for conformance to specifications by historical information or testing. A complete description of the submittal and approval process is located in the Materials Administration Unit in Part G of the DelDOT Materials Manual.

When M&R has completed its review and evaluation of a submitted material, and finds the material to meet the requirements, both the Design-Builder and the vendor are notified in writing as to what steps are required for incorporation of that material into the Project. If, upon evaluation, the material does not meet Specification requirements, both the Design-Builder and the vendor are notified in writing as to why the material cannot be incorporated into the Project. Although materials may be accepted through this procedure for use on the Project, final acceptance of all materials depends on acceptable field performance.

Buy American Contract Requirement: In accordance with Section 165 of the Surface Transportation Assistance Act of 1982, Title 23 of the United States Code, the following applies to all contracts:

> For this Contract, all iron, coating materials, steel materials, and coating of steel must be produced in the United States, except a minimal amount of foreign cement and steel materials may be used provided the cost of materials does not exceed 0.1% of the total Contract cost or $2,500.00, whichever is greater.
>
> A. *Certificate of Compliance.*
>
> *A Certificate of Compliance shall be furnished to the Department by the Contractor. The Certificate shall be signed by the Contractor to the effect that the materials and/or assembled materials will be of domestic origin and will comply in all respects with the requirements of the Contract. Mill test reports verifying that steel products are of domestic origin as defined in the Special Provisions shall be provided. All materials accepted on the basis of Certificate of Compliance may be sampled and tested at any time. Use of material on the basis of Certificate of Compliance shall not relieve the Contractor of responsibility for incorporating material in the Project conforming to the requirements of the Contract. Any material not conforming to such requirements shall be subject to rejection whether in place or not. The*

Department reserves the right to refuse to permit the use of material on the basis of Certificate of Compliance.

B. *Domestic Material.*

Domestic materials are those which are melted, cast-formed, shaped, drawn, extruded, forged, fabricated, or otherwise processed in the United States.

DB 106-2.2 Certificates of Compliance.

The Contract or the Department's Standard Material and Testing Schedule will designate the materials that can be incorporated in the Work if accompanied by certificates of compliance from the manufacturer. The certificates of compliance shall state that the materials or assemblies provided by the Design-Builder fully comply with the specification requirements for this Contract. The manufacturer shall sign all certificates of compliance. Each lot of certified materials or assemblies delivered to the Project must be accompanied by a certificate of compliance clearly identifying the materials delivered and that the Contract requirements are specifically satisfied for this Project. Generic material certifications will not be accepted by the Department.

The Department may sample and test any materials used by the Design-Builder on the basis of certification of compliance. If the Department determines that materials or assemblies are not in conformance with Contract requirements, the materials, or assemblies will be rejected in accordance with DB Section 105-6.2.

DB 106-3 SAMPLING AND TESTING

DB 106-3.1 General.

Sampling and testing performed on the Project will follow the American Association of State Highway and Transportation Officials (AASHTO), American Society for Testing and Materials (ASTM), or Department of Highway (DOH) standards. When a reference is made to any of the aforementioned test procedures, it is understood that the reference is to the most current revision at the time of Proposal Submission. It is also understood that the Specifications and procedures applicable to the Project shall include all modifications current on the Proposal due date for the Project. Sampling and testing procedures are referred to using the following designations:

M – AASHTO Materials Specification

T – AASHTO Test Procedure

ASTM – ASTM Materials Specification or Test Procedure

DOH – Standard Test Procedure used by the department for which no corresponding ASTM or AASHTO procedure exists or modification of the ASTM or AASHTO procedures have been deemed appropriate.

DB 106-3.2 Sampling and Testing Procedures.

All materials used on the Project will be sampled and tested at consistent rates, based on estimated plan

quantities to be developed and furnished by the Design-Builder. Table B-1 of the DelDOT Materials Manual lists the minimum testing frequencies for materials used on Department projects. In addition to the testing frequency of the materials, test procedures performed are also listed.

The Department reserves the right to increase the sampling rates from the minimums when conditions warrant. All materials are sampled at a project rate, not by total job rate. Sampling and testing is performed throughout the Project on a random basis to assure all materials are tested.

DB 106-3.3 Rounding Requirements of Sampling and Testing Results.

All measurements and calculations for materials sampling and testing will adhere to the rounding and accuracy requirements of the applicable AASHTO, ASTM, or DOH specifications. If there are no specific requirements included in the applicable specification, all items are to be measured in the field to two decimal places, and then calculated to three decimal places when calculations are required.

DB 106-4 QUALITY CONTROL, QUALITY ASSURANCE, AND INDEPENDENT ASSURANCE TESTING PROGRAMS

DB 106-4.1 Quality Control (QC) Requirements.

All Materials and products proposed to be used in construction shall be inspected, sampled, and tested by Design-Builder, as described in DB Section 112 and Appendices 112A and 112B to DB Section 112 and as indicated by the Contract Documents. The Design-Builder shall perform all tests required by the Contract and other tests the Design-Builder determines are necessary to verify the quality and suitability of all materials used on the Project. For all required tests, the Design-Builder shall submit test results or samples as requested by the Department, and shall obtain necessary approvals prior to using the materials on the Project. The approval of any material or source of supply of such material shall not relieve the Design-Builder of the responsibility to supply a material that is compatible with all other materials used on the Project, as such materials are normally used, without defect and for the specified design life of the Project. The Design-Builder shall warrant that all materials used in the Work or Project shall be made, manufactured, processed, or produced by suitable means, that all materials have been tested with satisfactory results, and that all materials may be compatibly incorporated into the Work or Project without defect.

The implementation and fulfillment of the Design-Builder's QC/QA plan will be reviewed by the Department for conformance to the program proposed by the Design-Builder and included in Part 8 of the Contract Documents.

DB 106-4.2 Quality Assurance (QA) and Independent Assurance (IA) Requirements.

The purpose of the Quality Assurance Program is to prescribe policies, procedures, and guidelines to assure that quality materials are used on the Project. The Department will perform all Quality Assurance Sampling/Testing for the Work.

It is the Department's policy to have a Quality Assurance Program that will assure materials, products, and workmanship incorporated into the Department's projects are in conformity with the requirements of the approved plans and specifications, including all approved changes.

DB 106-4.3 Quality Assurance Program.

The Quality Assurance Program follows the minimum sampling requirements described under DB Section 106-3. Using these guidelines, the Department's Quality Assurance supervisor will determine the materials to be tested on the Project. The number and type of tests are to be documented.

Sampling and testing of materials used on the Project, as described under DB Section 106-3, is the responsibility of Quality Assurance technicians (Field Control). All samples used for assurance sampling and testing are random samples. In addition to the minimum sampling, more samples may be taken at any point in the production for verification of quality. (Where more than one sampling location is permitted, the Department reserves the right to further designate the sampling location). The results of these tests can be used in the acceptance decision as specified in the Contract requirements and all approved changes.

All sampling and testing is performed in close cooperation with Project Manager or an authorized representative. The Project Manager, or an authorized representative, should be aware of all sampling and testing on the Project and must be informed of all test results as soon as possible to ensure sufficient time for corrective action, if necessary. Results of testing are documented on various forms, which are provided in Part E of the DelDOT Materials Manual, and are described in Part C of the DelDOT Materials Manual for each material.

The ultimate responsibility for providing direction to the Design-Builder regarding the Work rests with the Department's Project Manager or an authorized representative. M&R is responsible only for testing project materials; the administration and results of the testing are the responsibility of the Department's Project Manager or an authorized representative. Quality Assurance technicians are only to direct the Design-Builder with the mutual consent of the Department's Project Manager and the Design-Builder's Project Manager.

DB 106-4.4 Independent Assurance Program.

The Independent Assurance (IA) Program is an internal program administered and performed by Department personnel or designated agents from an AASHTO accredited laboratory not assigned to the QA program. The IA supervisor will act in an advisory capacity in carrying out this program.

IA sampling, witnessing, testing, and equipment verification will be performed by M&R technicians, or their designated agents who have no direct responsibility for project verification sampling and testing, using equipment other than that used by the Quality Assurance (Field Control) technician assigned to the Project. IA sampling and testing, by either actual testing or by observation of Department personnel, or designated agents employed by an AASHTO accredited laboratory performing the sampling and testing, will be a minimum of 10% of Quality Assurance testing.

On the Project, test equipment will be evaluated by using calibration checks, testing split samples of verification or proficiency samples, or any combination of these methods. Person(s) observing the Quality Assurance sampling and testing will inspect project equipment used for acceptance testing to assure that the equipment is adequate for the designated procedure. The equipment will also be checked at the time of the required calibration, if applicable, and ensure that proper documentation of the calibration checks are on file.

Field reviews of IA samples will be documented by signing and dating entries on test reports. IA test results that agree with non-IA test results within the limits in the "IA Sample Comparison Sheet" (LB Forms –110-112 as included in Appendix 106A) will not require any further comments on the reporting

form. If IA samples have significant or major differences, greater than the acceptable percentages defined in the aforementioned forms, the supervisor will conduct an investigation to determine the possible cause of the difference. This investigation may be as simple as having all testing technicians run their retained splits of the samples. If, after comparing results of the retained splits, significant or major differences still exist, the supervisor shall conduct a thorough investigation into the sampling, testing, and equipment used to perform the tests. The results of this investigation shall be documented on the appropriate form.

The IA supervisor makes acceptance decisions based on verification sampling and testing and factors relating to the quality of the material or product. IA testing is not performed solely for the purpose of verifying quality, but it is also meant to evaluate technicians and equipment. When the Project is completed, the IA supervisor certifies that the IA schedule has been substantially followed and the results of the split sample testing are in close agreement. Exceptions and corrective actions are noted on a form or on an attached sheet.

IA technicians are not responsible for the verification of materials and their conformance to specification requirements. IA testing is used solely to verify results obtained from Project Quality Assurance (Field Control) for procedure and equipment verification.

Prompt and appropriate action will be taken by the Department's Chief Materials & Research Engineer to correct or improve sampling and/or test methods if the need is indicated.

DB 106-5 TEST DOCUMENTATION AND RECORD KEEPING.

All material forms must have the appropriate Contract Number and Project Component/Description. All document and reporting forms must be dated and signed by the appropriate technicians.

All originating materials records for projects are to be kept in the Project file. Copies of product and material reports for acceptance decisions and IA test reports will be retained for all Department projects in the Central Laboratory. Copies of records cited above will be retained for the period specified by the most current Department policy.

STATE OF DELAWARE

DEPARTMENT OF TRANSPORTATION

DESIGN-BUILD PROJECT

for

INDIAN RIVER INLET BRIDGE

Replacement of Bridge 3-156,
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State Contract # 26-073-03 Readvertised
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SCOPE OF SERVICES PACKAGE

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PART 2

DB SECTION 107

LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC

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LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC

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DB SECTION 107

LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC

DB 107-1 LAWS TO BE OBSERVED

The Design-Builder is required to investigate and shall strictly comply with, all Federal, State, or county laws and regulations, and city or town ordinances and regulations. The Design-Builder shall indemnify and save harmless the State of Delaware, the Department of Transportation, its Secretary and all officers, agents, and servants against any claim or liability arising from or based upon the violation of any such laws, ordinances, regulations, orders, or decrees by its employees.

If the Design-Builder should discover any provisions in the Contract that are contrary to or inconsistent with any law, ordinance, regulation, order, or decree, the Design-Builder shall immediately report it to the Department's Project Manager in writing.

DB 107-2 PERMITS AND LICENSES, TAXES AND INSURANCE

DB 107-2.1 Permits and Licenses

The Design-Builder shall procure all permits and licenses, pay all charges, fees, and taxes, and give all notices necessary and incidental to the due and lawful prosecution of the Work.

Prior to the execution of any contract, the successful bidder shall be required to show that it has satisfied the requirements of Sections 2502 and 2503, Chapter 25, Title 30 of the Delaware Code, and if the bidder is a non-resident corporation, that the bidder has complied with the requirements of Subchapter XIV, Title 8 of the Delaware Code, Annotated Revised 1974, and as amended.

DB 107-2.2 Insurance

The Design-Builder shall maintain, at a minimum, the following insurance coverages:

A) Professional liability coverage with combined single limits of Ten Million Dollars ($10,000,000.00) per claim and aggregate during the period starting on the date of Notice to Proceed (NTP) and ending on the Final Acceptance date. The policy shall have a retroactive date no later than the date on which the Scope of Services Package was issued and shall have and with a five year extended reporting period with respect to events that occurred but were not reported during the term of the policy. The policy shall protect against any negligent act, error, or omission arising out of the professional services that includes coverage for acts by others for whom the Design-Builder is legally responsible. The policy shall apply to the activities of all design, engineering, and construction management professionals assigned to the Project.

B) <u>For professional liability coverage only</u>: In the event no principle participants of the Design-Builder are providing services that require professional liability coverage as required above, coverage shall be provided by the Designer of record for the Design-Builder;

C) Workers' compensation insurance in compliance with state law, with the exception that the Design-Builder's Employer's Liability shall be at least One Million Dollars ($1,000,000.00) when Work is to be over water and involves maritime exposures. For the coverage provided in this DB Section 107-2.2 the Design-Builder's insurer will have no right of recovery or subrogation against the State of Delaware or DelDOT;

D) Commercial General Liability (CGL) insurance with a combined single limit per occurrence for bodily injury; and property damage. The aggregate loss limit must be on a

per project basis. This insurance shall include coverage for bodily injury fire legal liability, premises-operation; broad form contractual liability; products and completed operation; use of contractors and subcontractors; personal injury; broad form property damage; and explosion, collapse, and underground (XCU) coverage. The required limits shall be not less than Five Million Dollars ($5,000,000.00) per occurrence, with annual aggregates of Ten Million Dollars ($10,000,000.00). The policy shall include products and completed operations extended coverage for a minimum of five years following Final Acceptance. If the Design-Builder's CGL insurance or other form with a general aggregate limit and products and completed operations aggregate limit is used, then the annual aggregate limits shall apply separately to the Project, or the Design-Builder may obtain separate insurance to provide the required limit which shall not be subject to depletion because of claims arising out of any other project or activity of the Design-Builder; Any such excess insurance shall be at least as broad as the Design-Builder's primary insurance. The Design-Builder shall be the named insured, its Subcontractors, and any Persons for whom the Design-Builder is legally or contractually responsible, whether occurring on or off the Site;

E) Umbrella excess coverage in excess of commercial general liability, with a required combined single limit amount of insurance of Fifty Million Dollars ($50,000,000.00). This limit of liability shall apply "collectively" and not "separately" for the Design-Builder and Subcontractors on the Project.

F) A blanket builder's risk insurance policy on an "all risk" basis for the entire Project including (1) coverage for any ensuing loss from faulty workmanship, nonconforming Work materials, omission, or deficiency in design or specifications; (2) coverage against damage or loss caused by wind, earth movement, flood, fire, theft, vandalism and malicious mischief, and machinery accidents and operational testing; (3) coverage for removal of debris and insuring the buildings, structures, machinery, equipment, facilities, fixtures, and all other properties constituting a part of the Project; (4) transit coverage, including ocean marine coverage (unless insured by the supplier), with sub-limits sufficient to insure the full replacement value of any key equipment item; and (5) coverage with sub-limits sufficient to insure the full replacement value of any property or equipment stored either on or off the Site. Such insurance shall be on a form acceptable to the Department and shall have a limit equal to One Hundred Million Dollars ($100,000,000.00) plus shall include "soft cost expense cover" (including advertising, design fees, professional fees, financing, lease administration, realty taxes, general administration, lease expenses, permit fees, insurance premiums and other costs associated with such damage or loss and with any governmental approvals) with a Five Million Dollar minimum annual aggregate limit and shall include earthquake insurance with a Twenty Million Dollar ($20,000,000.00) minimum annual aggregate limit and flood insurance with a Twenty Five Million Dollars ($25,000,000.00) minimum annual aggregate limit. There shall be no coinsurance penalty provision in any such policy.

G) Environmental liability insurance during the period starting on the date of issuance of the NTP to design the improvements and ending on the date of Final Acceptance, with a five year extended reporting period with respect to events that occurred but were not reported during the term of the policy. The policy shall cover Work related to environmental remediation and environmental losses resulting from, the Design-Builder or its Subcontractors and any Persons for whom the Design-Builder is legally or contractually responsible. The required combined single environmental liability limit amount shall be Ten Million Dollars ($10,000,000.00). The Design-Builder shall be the named insured, its Subcontractors, and any Persons for whom the Design-Builder is legally or contractually responsible, whether occurring on or off the Site; and

H) The Design-Builder and all named subcontractors shall maintain Business Automobile

Liability insurance with a combined single limit per occurrence for bodily injury and property damage. This insurance shall include bodily injury and property damage coverage arising from the ownership, maintenance, or use of all for owned/leased automobiles, hired automobiles, and non-owned automobiles used in the performance of the of the Work, including loading and unloading. The required combined single limit amount of insurance shall be Two Million Dollars ($2,000,000.00). Subcontractors to provide the Design-Builder and the Department evidence of insurance for Automobile Insurance as specified in Section DB 107-2.2.1.

The following shall be included as provisions in each policy:

1) The insurance company(ies) issuing the policy(ies) shall have no recourse against the State of Delaware and DelDOT for payment of any premiums or for assessments under any form of the policy;

2) Any and all deductibles and self-insured retentions in the above described insurance policy(ies) shall be assumed by and be at the sole risk of the Design-Builder.

Insurance is to be placed with insurance companies authorized in the State of Delaware with an A. M. Best's rating of A-: VI or higher. This rating requirement may be waived for Workers' Compensation coverage only.

Should any policies be canceled, the Design-Builder shall immediately notify the Department.

Upon failure of the Design-Builder to furnish, deliver, and maintain such insurance as required or provide proof of insurance on a yearly basis or as requested by the Department, this Contract, at the election of the Department, may be immediately declared suspended, discontinued, or terminated or payment on Price Center (PC) 1 may be suspended. Failure of the Design-Builder to maintain any required insurance shall not relieve the Design-Builder from any liability under the Contract, nor shall the insurance requirements be construed to conflict with the obligations of the Design-Builder concerning indemnification under this DB Section 107-2.2.

The Design-Builder is responsible for requiring and verifying that all Subcontractors working on the Project maintain appropriate types and levels of insurance coverage.

DB 107-2.2.1 Verification of Coverage

A) Policies

Concurrently with the Design-Builder's execution hereof, the Design-Builder shall deliver to the Department the following items:

1) A certificate of insurance with respect to each policy required to be provided by the Design-Builder under this DB Section 107-2.2; and

2) Each certificate of insurance with respect to each policy required to be provided by the Design-Builder under this DB Section 107-2.2 shall clearly identify the Department as a certificate holder; and

3) Copies of all endorsement to the policies that set forth the required additional insureds and other amendments to the policy forms.

The required certificates must include original signatures by the authorized representative of the insurance company shown on the certificate with proof that he/she is an authorized representative thereof and is authorized to bind the named underwriter(s) and their

company to the coverage, limits, and termination provisions shown thereon. The Department shall have no duty to pay or perform under this Contract until such certificate(s) and endorsements, in compliance with all requirements of this DB Section 107-2.2 have been provided. Upon the Department's request, certified, true, and exact copies of each of the insurance policies (including renewal policies) required under this DB Section 107-2.2 shall be provided to the Department.

B) Renewal Policies

The Design-Builder shall promptly deliver to the Department a certificate of insurance and copies of all endorsements with respect to each renewal policy, as necessary to demonstrate the maintenance of the required insurance coverages for the terms specified herein. Such certificate shall be delivered not less than ~~30~~ 60 calendar days prior to the expiration date of any policy and shall bear a notation evidencing payment of the premium thereof. If requested by the Department from time to time, certified duplicate copies of the renewal policy shall also be provided.

DB 107-2.2.2 Endorsements and Waivers

All insurance policies required to be provided by the Design-Builder hereunder shall contain or be endorsed to comply with the following provisions, provided that, for the workers' compensation policy, only the following clauses (D) and (F) shall be applicable:

A) For claims covered by the insurance specified herein, said insurance coverage shall be primary insurance with respect to the insureds, additional insureds, and their respective members, directors, officers, employees, agents, and consultants and shall specify that coverage continues notwithstanding the fact that the Design-Builder has left the Site. Any insurance or self-insurance beyond that specified in this Contract that is maintained by an insured or additional insured shall be excess of such insurance and shall not contribute with it;

B) Any failure on the part of a named insured to comply with reporting provisions or other conditions of the policies, any breach of warranty, any action or inaction of a named insured or others, any foreclosure relating to the Project, or any change in ownership of all or any portion of the Project shall not affect coverage provided to the other insureds or additional insureds (and their respective members, directors, officers, employees, agents, and consultants);

C) The insurance shall apply separately to each insured and additional insured against whom a claim is made or suite is brought, except with respect to the aggregate limits of the insurer's liability;

D) Each policy shall be endorsed to state that coverage shall not be suspended, voided, canceled, modified, or reduced in coverage or in limits except after 60 calendar days' prior written notice by certified mail, return receipt requested, has been given to the Department. Such endorsement shall not include any limitation of liability of the insurer for failure to provide such notice;

E) All endorsements adding additional insureds to required policies shall be on a form providing additional insureds with coverage for "completed operations";

F) Each policy shall provide coverage on an "occurrence" basis and not a "claims made" basis (with the exception of professional liability and pollution insurance policies);

G) The commercial general liability insurance policy shall be endorsed to state that coverage for Subcontractor employees shall not be excluded; and

H) The automobile liability insurance policy shall be endorsed to include Motor Carrier Act

Endorsement-Hazardous materials clean up (MCS-90).

DB 107-2.2.3 Waivers of Subrogation

The Department and Design-Builder waive all rights against each other and their respective members, directors, officers, employees, agents, and consultants for any claims, but only to the extent covered by insurance obtained pursuant to this DB Section 107-2.2, except such rights as they may have to the proceeds of such insurance and provided further that the Design-Builder shall not be entitled to additional compensation or time extension under this Contract to the extent compensated by any insurance specified herein. The Design-Builder shall require all Subcontractors to provide similar waivers in writing each in favor of all other parties enumerated above.

DB 107-2.2.4 Commercial Unavailability of Required Coverages

If, through no fault of the Design-Builder, any of the coverages required in this DB Section 107-2.2 (or any of the required terms of such coverages, including policy limits) become unavailable or are available only with commercially unreasonable premiums, the Department will work with the Design-Builder to find commercially reasonable alternatives to the required coverages that are acceptable to the Department. The Design-Builder shall not be entitled to any increase in the Lump Sum Contract Price for increased costs resulting from the unavailability of coverage and the requirement to provide acceptable alternatives. The Department shall be entitled to a reduction in the Price if it agrees to accept alternative policies providing less than equivalent coverage, with the amount to be determined by extrapolation using the insurance quotes included in the Escrowed Proposal Documents (or based on other evidence of insurance premiums as of the Proposal due date if the Escrowed Proposal Documents do not provide adequate information). The Department's right to a reduction in the Lump Sum Contract Price as set forth in the preceding sentence shall be without regard to the insurance costs expended by the Design-Builder for the less than equivalent coverage or on other insurance required under this DB Section 107-2.2.

DB 107-2.2.5 Prosecution of Claims

Unless otherwise directed by the Department in writing, the Design-Builder shall be responsible for reporting and processing all potential claims by the Department or Design-Builder against the insurance required to be provided under this DB Section 107-2.2. The Design-Builder agrees to report timely to the insurer(s) any and all matters which may give rise to an insurance claim and to promptly and diligently pursue any and all insurance claims on behalf of the Department, whether for defense or indemnity or both. The Department agrees to promptly notify the Design-Builder of the Department's incidents, potential claims, and matters which may give rise to an insurance claim by the Department, to tender its defense or the claim to the Design-Builder, and to cooperate with the Design-Builder as necessary for the Design-Builder to fulfill its duties hereunder.

DB 107-2.2.6 Commencement of Work

The Design-Builder shall not commence Work under this Contract until it has obtained the insurance required under this DB Section 107-2.2, has furnished original certificates of insurance evidencing the required coverage as required under DB Section 107-2.2 and such insurance has been approved in writing by the Department, nor shall the Design-Builder allow any Subcontractor (or shall such Subcontractor be entitled) to commence Work under it Subcontract until the insurance required of the Subcontractor has been obtained and approved by the Design-Builder.

DB 107-2.2.7 Delaware Department of Transportation's Right to Remedy Breach by the Design-Builder

If the Design-Builder or any Subcontractor fails to provide insurance as required herein, the Department shall have the right, but not the obligation, to purchase such insurance or to suspend the Design-Builder's right to proceed until proper evidence of insurance is provided. Any amounts paid by the Department shall, at the Department's sole option, be deducted from amounts payable to the Design-Builder or reimbursed by the Design-Builder upon demand, with interest thereon from the date of payment by the Department to the reimbursement date, at the maximum rate allowable under applicable law. Nothing

herein shall preclude the Department from exercising its rights and remedies under DB Section 108-8 as a result of the failure of the Design-Builder or any Subcontractor to satisfy the obligations of this DB Section 107-2.2.

DB 107-2.2.8 Disclaimer

The Design-Builder and each Subcontractor have the responsibility to make sure that their insurance programs fit their particular needs, and it is their responsibility to arrange for a secure any insurance coverage which they deem advisable, whether or not specified herein.

DB 107-3 PATENTED DEVICES, MATERIALS, AND PROCESSES

The Design-Builder and the surety shall hold and save harmless the State, the Department, their officers or agents, in accordance with the terms of these Specifications, from any and all claims because of the use of any patented design, device, material, or process in connection with the work agreed to be performed under this Contract. Any patent agreement between patentee and the Design-Builder shall be furnished to the Department.

DB 107-4 RESTORATION OF SURFACES OPENED BY PERMIT

The right to construct or reconstruct any utility service in the highway or street or to grant permits to construct or reconstruct is, at any time during construction, hereby expressly reserved by the Department. The Design-Builder shall not be entitled to any damages for unauthorized digging or any delay occasioned thereby.

Any individual, firm, or corporation wishing to make an opening in the highway outside of the project limits must secure a permit from the Department. The Design-Builder shall allow parties bearing such permits and only those parties, to make openings in the highway. When ordered, the Design-Builder shall make all necessary repairs due to such openings and such necessary work will be paid for as extra work or as provided in the Contract and will be subject to the same Contract conditions as the original work performed.

DB 107-5 SANITARY CODE AND SAFETY PLAN

It is a condition of all contracts, and shall be made a condition of each subcontract entered into pursuant to the prime contract, that the Design-Builder, and any subcontractor, shall not require any person employed in performance of the Contract to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous to such person's health or safety.

The Design-Builder shall provide and maintain in a neat and sanitary condition, such accommodations for the use of its employees as may be necessary to comply with the requirements of the State and local Boards of Health, or of other bodies or tribunals having jurisdiction.

DB 107-5.1 Design-Builder's Safety Obligations

The Design-Builder shall perform all actions necessary for safety and be solely and completely responsible for conditions on the site, including safety of all persons and property on the site during the Contract. This requirement shall apply continuously for the duration of the Contract and shall not be limited to normal business hours or other time constraints or be reduced or diminished in any way because the Design-Builder is not given sole possession of the site. The Design-Builder is fully responsible for the safety of workers engaged upon the Project and all other persons working at or visiting the site and the protection of the public in the vicinity.

DB 107-5.2 Design-Builder's Safety Plan

The Design-Builder shall submit a written Project-specific Safety Plan that documents the Design-

Builder's safety policy and which identifies and addresses specific health and safety concerns to be encountered on the Project to the Department for review and approval. Before the Work begins, and periodically throughout the Project, the Design-Builder's Project supervision staff shall meet with the Department's Project Manager to review and discuss the status of safety issues on the Project. A notice indicating that the Project's Safety Plan is available for examination by any worker employed on the Project shall be posted at the job site.

The Design-Builder shall implement, review, and update the Safety Plan and introduce a program for assuring that the Safety Plan is followed at all times. The Design-Builder shall coordinate with all authorities and relevant entities as necessary to ensure compliance with the Safety Plan.

The Departments Project Manager or designated representative will monitor and audit the Design-Builder's safety performance.

The Design-Builder's Safety Plan shall provide for the following:

A) Planning, management, and design to avoid hazards;

B) Detection of potential hazards;

C) Timely correction of hazards;

D) Dedication to the protection of the public and the workers;

E) Active participation of all persons involved with the Contract;

F) Dedicated safety staff; and

G) Safety training and safety meetings.

The Design-Builder shall ensure that all its employees and those of the Subcontractors of any tier (including labor-only) are under an obligation at all times to fully conform to the provisions of the Safety Plan. In the event that the Design-Builder's employees or its Subcontractors fail to conform to the provisions of the Safety Plan, the Design-Builder shall take appropriate disciplinary measures. Such measures shall include suspension, removal of offending employees from the site, and dismissal. The obligations and requirements of this DB Section 107-5.2 shall be included in the terms and conditions of employment of all employees of the Design-Builder and all Subcontractors of any tier, including labor-only Subcontractors.

DB 107-5.3 Content of the Safety Plan

The Safety Plan shall be comprehensive and include all required actions, activities, rules, and mitigation relative to the safety of the Work. It shall include the following items:

A) A policy statement indicating the Design-Builder's commitment to safety, goals stated as maximum lost hours, and no loss of life goals;

B) Identification of Department and Design-Builder safety officers, including responsibility definitions, an organization chart, reporting procedures, safety inspection procedures, and audit programs;

C) References to all applicable governmental rules;

D) An education and training plan for required training for all workers, including a separate program and Hazardous Materials communications plan for workers involved with hazardous and contaminated substances remediation, required toolbox meetings, and required posting of information;

E) Procedures to address Project health and safety concerns, including housekeeping, Material handling and storage, personal protective equipment, wall and floor openings,

scaffolds, ladders, welding, flame cutting, electrical Equipment, lock-out or tag-out, motor vehicles, heavy Equipment, small tools, concrete forms, steel erection, cranes and hoisting, Work platforms, fire prevention and protection, sanitation, confined space entry, blasting and explosives, and other items;

F) Industrial hygiene, including respiratory protection, noise, Hazardous Materials, and lists of hazardous chemicals present;

G) Fire protection and prevention;

H) Emergency and rescue procedures, including detailed procedures for all types of emergencies, such as, medical, fire, chemical spill, property damage, bomb threat, severe weather, flooding, explosion, and earthquakes;

I) Incident investigation, reporting, and record keeping;

J) Policy for substance abuse;

K) Security provisions;

L) Safety requirements and procedures for surveyors and engineering personnel conducting site investigations and verification sampling and testing; and

M) Procedures for compelling worker compliance with health and safety requirements.

The Safety Plan shall contain a list of the detailed safety procedures to be followed. Safety procedures shall be prepared separately for individual activities and these detailed procedures shall be appendices to the Safety Plan.

Certain of these items may be submitted in the format of the Design-Builder's health and safety program, with the Project's Safety Plan limited to Project-specific issues.

The Design-Builder shall be responsible for ensuring that each Subcontractor employed on the Project complies with this requirement. The Design-Builder shall provide to the Department a Project Safety Plan covering all Work to be done by a specific Subcontractor prior to that Subcontractor starting Work. As an alternate, the Design-Builder may provide a certification that all activities performed by, and workers employed by, Subcontractors will be subject to the Design-Builder's Project Safety Plan. Submission of the required Project Safety Plan by the Design-Builder and its acceptance by the Department shall not be construed to imply approval of any particular method or sequence for addressing health and safety concerns or to relieve the Design-Builder from the responsibility to adequately protect the health and safety of all workers involved in the Project as well as any members of the public who are affected by the Project.

DB 107-5.4 Submittal of the Safety Plan

Prior to the start of any field Work or construction, the Design-Builder shall submit its Safety Plan to the Department's Project Manager for written approval. Upon receipt of approval, the Design-Builder shall issue the complete Safety Plan, which will be based on the Design-Builder's Safety Plan information contained in its Proposal along with the incorporated comments of the Department's Project Manager and any other required updating. The Safety Plan shall be a controlled document to be issued by the Design-Builder to, at least, the following persons:

A) The Department's Project Manager;

B) The Department's designated representative;

C) The Design-Builder's Project Manager;

D) The Design-Builder's Safety Manager; and

E) Subcontractors of any tier, including labor-only Subcontractors.

Other controlled copies shall be distributed as determined by the Design-Builder and the Department's Project Manager. Uncontrolled copies shall be issued as considered necessary by the Design-Builder.

The Design-Builder shall maintain a traceable record of the issuance of the controlled copies including numbering and acknowledgement of receipt. Revisions of the Safety Plan shall be issued to all recipients of the controlled copies and managed in the same way as the controlled copies.

DB 107-5.5 Revisions to the Safety Plan and Procedures

The Department's Project Manager may require a revision to the Safety Plan or any safety procedure in order to ensure compliance with the Contract. The Design-Builder shall, following discussion with the Department's Project Manager, issue such revision within 30 Calendar Days of receipt of the instruction. A revision shall include an addition, omission, or revision, as applicable.

The Design-Builder shall review the Safety Plan and any safety procedure in order to revise it in accordance with activities and experiences on the site. Such revision, from time to time, shall enhance the standards of safety being implemented on the site. At the very least, procedures shall be reviewed and new procedures issued whenever the character or extent of any activity is changed or a new activity of a different nature is introduced which necessitates such revision.

In addition to such revision, the Design-Builder shall make a formal review of the Safety Plan once every 12 months on or near the anniversary of NTP. Such formal review shall consider all matters pertaining to safety planning and implementation, including, accident reports, inspections, audits, suggestions from meetings, and other sources, such as, the Department's Project Manager and hazard analysis reviews. Within seven Calendar Days of finishing this review, the Design-Builder shall issue a review report to the Department's Project Manager, giving the conclusions of the review and identifying the revisions to be made to the Safety Plan.

Within 30 Calendar Days of the issue of the review report, the Design-Builder shall issue a revised Safety Plan for review and written Approval by the Department's Project Manager.

DB 107-5.6 Compliance with Laws and Regulations

The Safety Plan and its implementation shall comply in all respects with all applicable federal, state, and local laws, regulations, and governmental rules.

DB 107-5.7 The Design-Builder's Safety Organization

The Design-Builder shall designate a member of its board of directors, if it is a corporation or a Joint Venture (JV), or a principal of its organization who shall be responsible and directly accountable to the Department in all matters concerning safety. The Design-Builder shall also require the Design-Builder's Project Manager to be responsible and directly accountable to this designated safety board member or principal in all matters concerning construction safety.

The Design-Builder shall appoint, within 30 Calendar Days of NTP, a Safety Manager whose Project duties shall be solely connected with the safety aspects of the Project and who shall report directly to the designated safety board member or principal. Such an appointment shall be subject to written acceptance by the Department's Project Manager. The Safety Manager shall be suitably qualified and experienced as specified in Part 4 – Special Provisions, Special Provision 108B. The Safety Manager shall implement, maintain, and monitor compliance with the Safety Plan and all safety procedures, and be based full-time at the site.

The Design-Builder shall provide and maintain an organizational structure that shall ensure the effective control of the Project's safety assurance tasks by the Design-Builder's safety staff. Such staff shall be

engaged solely in safety assurance. Responsibilities and task subdivision shall be clearly identified in the Safety Plan, and shall show direct lines of communication and reporting between the Design-Builder's Safety Manager and the designated safety board member or principal and between the Design-Builder's Safety Manager and the Design-Builder's Project Manager.

The Design-Builder shall not remove the appointed Safety Manager without the prior written consent of the Department's Project Manager. The Design-Builder shall nominate a replacement at the same time consent is sought.

If the Safety Manager is removed, a suitably qualified and immediately available replacement shall be proposed to the Department's Project Manager within 14 Calendar Days of receipt of the notice requiring the removal.

The Design-Builder shall provide adequate numbers of supporting staff for the Safety Manager, including a deputy to act in his/her absence.

The Design-Builder shall not commence any Work on the site until the safety manager has been appointed and accepted by the Department's Project Manager and has commenced duties on the site.

The Design-Builder shall ensure that all Subcontractors of any tier whatsoever, including labor-only Subcontractors, shall provide adequate safety staff.

Each Subcontractor of every tier, including labor-only Subcontractors, shall have a safety supervisor who shall have appropriate experience and training. Each Subcontractor safety supervisor shall be responsible for implementing and maintaining its respective safety plan. Subcontractor safety supervisors shall devote a substantial amount of their time to such duties. All Subcontractor safety plans shall at all times conform to the Design-Builder's Safety Plan.

Breaches of the Design-Builder's Safety Plan or other conduct prejudicial to safety may be cause for the Department's Project Manager to require the removal of any employee, including the Design-Builder's Project Manager or Safety Manager, from the site.

The Design-Builder shall give authority to the Safety Manager and safety staff to issue stop orders that instruct employees of the Design-Builder and its Subcontractors of any tier, including labor-only Subcontractors, to cease operations and take urgent and appropriate action to make the site safe and prevent unsafe working practices or other infringements of the Safety Plan or breach of any governmental rules.

The Design-Builder shall require its Safety Manager to verify by inspection that the requirements of this DB Section 107-5 and the Design-Builder's Safety Plan and safety procedures are being strictly complied with. In the event of any non-compliance, the Safety Manager shall forthwith issue an instruction to stop Work until the non-compliance is rectified. If the Design-Builder considers the non-compliance to be of a minor nature implementation may be delayed 24 hours, with the Department's consent. If the Department's Project Manager states that such delay is acceptable, the Design-Builder may suspend implementing the instruction for 24 hours and resume working. During the 24-hour period, the Design-Builder shall rectify the non-compliance.

No Work shall be performed on site unless the Design-Builder's Safety Manager or designated deputy is on site. Work shall not be performed at the site unless the specified safety supervisors are on the site.

The Design-Builder shall make provisions for local emergency service to respond to any emergencies or problems at the Project site and shall provide adequate emergency medical care to personnel working on the site. The Design-Builder shall also have personnel trained in First Aid and Cardio-Pulmonary

Resuscitation (CPR) at the Project site at all times that Work is on-going.

DB 107-5.8 Safety Considerations in Design

The Design-Builder shall identify and analyze the hazards and risks associated with the Work, including during construction and its ultimate use, and shall design the Work so as to eliminate, mitigate, or control such hazards.

DB 107-6 SITE SECURITY

DB 107-6.1 Requirements

The Design-Builder shall be responsible for the security of the site and the Work, including the facilities provided by the Design-Builder for the Department, from the date the Project is released to the Design-Builder until Final Acceptance. This shall include the protection of offices, workshops, Equipment, Material, and the Work from damage by vandalism, flood, storm, fire, and theft.

The site shall be adequately protected at all times to prevent unauthorized access onto the site, particularly to areas of high safety risk. This protection shall include security fencing at areas of high safety risk to the public as well as areas with high risk of vandalism and other areas where necessary for the Design-Builder to fulfill obligations under the Contract. All necessary access for the public through the site shall be adequately protected.

The Design-Builder shall provide adequate lighting and guarding at main security areas, such as, offices, facilities for the Department provided by the Design-Builder, Work areas, and storage yards.

The Design-Builder shall establish and maintain a system and people to control and guide visitors to and around the site.

DB 107-6.2 Site Security Plan

The Design-Builder shall prepare and submit to the Department's Project Manager, for written approval, a Site Security Plan within 60 Calendar Days of NTP, describing the Design-Builder's procedures for securing the site. The Site Security Plan shall include the security requirements described in DB Section 107-06.1. If the Department's Project Manager objects to the Site Security Plan, it shall be amended so as to resolve all objections. The Design-Builder shall review and update the Site Security Plan on a regular basis, and provide copies of any changes to the Department's Project Manager for written approval.

DB 107-6.3 Reports

The Design-Builder shall submit a security report, reporting any security-related incident, with the monthly progress report.

DB 107-7 PUBLIC CONVENIENCE AND SAFETY

In performing the work, the Design-Builder shall interfere as little as possible with traffic. The Design-Builder shall provide and maintain ingress and egress for all residences and places of business located along the construction route. So far as practicable, materials stored upon the highway shall be placed so as to cause as little obstruction to the traveling public as possible. If, as determined by the Project Manager, it is necessary to keep the road or any portion of it open to travel during the construction thereof, the Design-Builder shall so perform the work and provide such means that travel will not be obstructed or endangered. The Design-Builder shall provide and maintain in an acceptable condition such temporary roadways and bridges as may be necessary to accommodate the traffic using or diverted from the roadway under construction, and shall provide and maintain in a safe condition temporary approaches to and crossing of intersecting highways. All sidewalks, gutters, sewers, inlets, and portions of the highway adjoining the roadways under construction shall not be obstructed more than is absolutely

necessary.

DB 107-8 NAVIGABLE WATERS AND WETLANDS

All Work in, over, or adjacent to navigable waters or wetlands shall be conducted in accordance with rules and regulations of the United States (US) Army Corps of Engineers and US Coast Guard.

Navigable clearances on waterways shall not be infringed upon, and existing navigable depths shall not be impaired except as allowed by permits issued by the responsible agency.

The Department has obtained permits from the US Coast Guard and US Army Corps of Engineers relative to approval of construction plans for bridges, causeways, embankments, dredging, and spoil disposal for the Indian River Inlet Project (includes bridge, roadway approaches, demolition and park improvements). The Design-Builder will be furnished a copy of the permit and shall comply with all provisions and conditions of the permits. When required by permit, upon completion and before Final Acceptance of the Project, the Design-Builder shall furnish the Department's Project Manager 8-by-10-inch color photographs of the bridge from abutment to abutment, two photographs looking from the ocean side and two looking from the bay side . The prints shall be glossy finish, mounted on linen. These photographs will be furnished at no direct pay.

The Design-Builder shall prepare reproducible drawings complying with the standards of the US Coast Guard and the US Army Corps of Engineers showing falsework construction, test piles or other temporary pile driving operations, erection sequence, temporary navigational lighting, location of Equipment and barges in the navigable limits, and other drawings required by the permit agencies. Drawing sizes shall be a minimum of 8-by-10 1/2 inches with a one-inch border on the top or short side or as required by the permitting agency. The drawings shall be submitted to the Department's Project Manager for transmittal to the appropriate agency. Construction of falsework, or operation of construction Equipment within the navigable limits shall not commence until drawings are approved. The installation of test piles and/or permanent piles within the waterway will not be permitted by the Department.

The Design-Builder shall display lights on Equipment operating, berthed, or moored in navigable waters, and provide temporary navigational lighting on temporary and permanent construction in the navigable limits as required by the US Coast Guard.

Should the Design-Builder sink, lose, or throw overboard any Material, machinery, or Equipment that may be dangerous to navigation, it shall be immediately removed or recovered. The Design-Builder shall give immediate notice of such obstruction to proper authorities and, if required, shall mark or buoy such obstruction until it is removed.

The Design-Builder shall not deposit excavated material into the water-way or wetland without a permit from the appropriate agency.

All operations in connection with the Work shall be in accordance with permits, rules, and regulations of the US Army Corps of Engineers and the US Coast Guard. Deviations therefrom shall be only by special permission or special permit which shall be the responsibility of the Design-Builder to obtain. Failure of the Design-Builder to become familiar with the terms, conditions, and provisions of the permits, rules, and regulations applicable to the Work shall not relieve the Design-Builder of responsibility under this Contract.

The Design-Builder shall conduct operations to cause minimum interference with marine operations. If such interference is necessary, the Design-Builder shall notify the Department's Project Manager, in writing, sufficiently in advance so that the Department may obtain approval from the US Coast Guard at

least three weeks prior to said interference.

Copies of permits previously obtained by the Department are available in Part 3 -Appendix A. Any permit modifications or new permits required to accommodate the bridge design shall be obtained by the Design-Builder. Any necessary requests for time extensions will be made by the Department for existing Department-obtained permits.

Copies of any special permits obtained by the Design-Builder shall be submitted immediately to the Department's Project Manager.

DB 107-9 BARRICADES AND WARNING SIGNS

The Design-Builder shall provide, erect, and maintain necessary barricades, suitable lights, danger signals, signs, and other traffic control devices, including flaggers, and shall take all necessary precautions for protection of the Work and safety of the public. Highways closed to traffic shall be protected by effective barricades. Suitable warning signs shall be provided to direct traffic.

The Design-Builder shall erect and maintain warning signs in advance of any place on the Project where operations may interfere with vehicular and/or pedestrian traffic and at intermediate points where new Work crosses or coincides with an existing Road, sidewalk, or pathway.

DB 107-10 *SEE* D B SECTION 104-4 FOR ADDITIONAL REQUIREMENTS. USE OF EXPLOSIVES

Explosives shall not be used without prior written approval by the Department's Project Manager. When the use of explosives is necessary for the prosecution of the work, the Design-Builder shall exercise the utmost care not to endanger life or property, including new work. The Design-Builder shall be responsible for all damage resulting from the use of explosives.

All explosives shall be stored in a secure manner in compliance with all laws and ordinances, and all such storage places shall be clearly marked. Where no local laws or ordinances apply, storage shall be provided satisfactory to the Project Manager and not closer than 1000 feet from the road or from any building or camping area or place of human occupancy.

The Design-Builder shall notify each public utility company having structures in proximity to the site of the work of its intention to use explosives. Such notice shall be given sufficiently in advance to enable the companies to take such steps as they may deem necessary to protect their property from damage.

The use of explosives will not be permitted within 200 feet of any existing, newly finished, or partly finished structure on a project unless authorized in writing by the Project Manager. No explosives shall be stored overnight on the Project.

DB 107-11 PROTECTION AND RESTORATION OF PROPERTY

The Design-Builder shall be responsible for the preservation of all public and private property, trees, monuments, etc., along and adjacent to the roadway not designated on the Plans for repair, removal, or construction. The Design-Builder shall take the precautions necessary to prevent damage to pipes, conduits, and other underground structures, and shall protect from disturbance or damage all land monuments and property markers until authorized by the Project Manager. Any land monument or property markers damaged or disturbed shall be located and reset by Land Surveyors or a Professional Engineer registered in the State of Delaware. The Design-Builder shall not injure or destroy trees or shrubs outside the limits of the graded roadway section, nor remove or cut them without proper authority.

Where any direct or indirect damage is done to public or private property on account of any act, omission, neglect, or misconduct in the execution or non-execution of the work on the part of the Design-Builder, such property shall be restored at the Design-Builder's expense to a condition similar or equal to that existing before such damage.

In case of the failure on the part of the Design-Builder to restore such property or make good such damage, the Project Manager may upon giving 48 hours notice proceed to repair, rebuild, or otherwise restore such property as may be deemed necessary, and the cost thereof will be deducted from any monies due to the Design-Builder under the Contract. This responsibility will not end until Final Acceptance.

DB 107-12 EROSION, SEDIMENT CONTROL, AND WATER POLLUTION

DB 107-12.1 Definitions

Clearing. The clearing of trees, brush, shrubs, downed timber, rotten wood, rubbish, and any other vegetation, except where excluded by the definition for grubbing, as well as the removal of fences and structures. *See* the DelDOT Standard Specifications, August, 2001, Subsection 201.01.

Disturbed Area. An area where any activity has been initiated which may result in soil erosion from water or wind or movement of sediments or pollutants into state waters or onto lands in the state, or which may result in accelerated stormwater runoff, including, but not limited to, clearing, grubbing, grading, excavating, transporting, filling, and backfilling of land.

Grubbing. Shall mean the removal from the ground of trees, stumps, roots, brush, root mat, and debris.

Phasing. Staged construction sequencing as shown on the erosion and sediment control plans and the maintenance of traffic plans.

DB 107-12.2 Legal Authority

The Department is a delegated agency of the DNREC as defined in Chapter 40, Title 7 of the Delaware Code and the Delaware Sediment and Stormwater Regulations. Any project built under the Contract documents shall maintain compliance with the aforementioned law and regulations at all times throughout the life of that project. As a delegated agency, the Department may enforce compliance with the law and regulations through the Contract documents or may refer a project to the DNREC for enforcement action.

DB 107-12.3 Sediment and Stormwater Permit Approval.

A signature, date, and seal on the title sheet of the Plans by the Department's Stormwater Engineer indicating the Plans have been reviewed "As To Process" indicates that the Plans were designed in conformance with the applicable State and Federal stormwater regulations and that the Sediment and Stormwater Permit is approved. All Work shall be completed pursuant to the Plans.

Review and approval of the erosion, sediment control, and water pollution control plan or errors and omissions in the Plans shall not relieve the Design-Builder from its responsibilities for compliance with the Delaware Sediment and Stormwater Regulations or other applicable laws or regulations and the more stringent water pollution control requirements shall apply.

DB 107-12.4 Description of Work

Erosion and sediment control measures shall be applied to erodible earth material exposed by any of the

Design-Builder's land disturbing activities on the Project. The Work shall consist of the application of temporary and permanent erosion and sediment control items as provided in the Contract or ordered by the Project Manager. The temporary erosion control items shall be coordinated with the permanent erosion control items specified. The items shall include, but are not limited to, the use of berms, dikes, dams, sediment basins, traps, geotextiles, stone check dams, silt fences, phased construction, special land grading methods, mats and nets, aggregates, mulches, grasses, slope drains, chemical binders, tackifiers, and other erosion and sediment control items or approved methods as designated in the Contract documents or as directed by the Project Manager.

See Part 3 – Design Requirements.

DB 107-12.5 Completion of the Work

This Subsection sets forth the methods of construction operations, progress schedules, and construction phasing, staging, and sequencing for the completion of temporary or permanent erosion and sediment control work.

The Design-Builder shall implement the temporary and permanent erosion control items for each phase of construction as detailed in the Contract documents. Additional erosion and sediment control items may be required from time to time during the life of the Project as deemed necessary by the Project Manager in order to provide continuous erosion and sediment control protection.

Before starting each phase of any land-disturbing activity, the Design-Builder shall make certain that all erosion and sediment control items required in that phase are installed and functional.

A) ***Construction Phasing.*** For Project sites in excess of 20 acres (8 ha), the construction must be phased in 20 acre (8 ha) increments. Once grading is initiated in one 20 acre (8 ha) increment, a second 20 acre (8 ha) increment may be cleared and grubbed provided the Design-Builder installs and maintains effective erosion and sediment control measures on both sections in such quantities and locations as deemed acceptable by the Project Manager.

When balancing earthwork, such as when borrow from a cut is used as fill at a noncontiguous location distant from the cut, more than a total of 20 acres (8 ha) may be allowed to be grubbed and graded within the overall limits of the Project at any one time with prior written approval from the Project Manager. In such cases, one 20 acre (8 ha) increment in cut and one 20 acre (8 ha) increment in fill may be grubbed and graded at each separate location concurrently. Examples of when this would likely occur would be on interchange construction or on a new alignment.

The Project Manager may further limit the area of clearing, grubbing, stripping, and grading operations to the Design-Builder's capability and actual progress of keeping the finish grading, mulching, seeding, and other temporary or permanent erosion control measures current according to the approved progress schedule and construction sequence.

B) ***Construction Sequence.*** The Design-Builder shall sequence the construction to comply with the following constraints unless indicated otherwise on the Plans:

1. Implement temporary erosion and sediment control items prior to any operation that exposes soil to erosion, such as during the clearing portion and prior to the grubbing portion of each phase of construction.
2. Schedule and perform the clearing and grubbing operations so that grading operations and permanent stabilization can follow immediately thereafter. Once earthwork has begun, the operation shall be continuous from clearing and grubbing through to

completion of grading and final stabilization in accordance with DB Subsection 107-12.9 A.2. Any interruption in these operations in excess of 14 calendar days must be approved by the Project Manager and shall require interim stabilization in accordance with DB Subsection 107-12.9 A.1.

3. Vegetatively stabilize bare soil areas in each phase of construction in accordance with DB Subsection 107-12.9 A.1. prior to advancing the work into the next phase of construction.
4. Vegetatively stabilize all cut and fill slopes of the highway excavation and embankment as the work progresses in height increments not to exceed 10 feet (3 m) measured along the slope surface.
5. Excavate roadside ditches as early in the Project as possible to establish good drainage.
6. Vegetatively stabilize all grass ditches, swales, and medians within seven calendar days after their initial excavation.
7. Remove temporary erosion and sediment controls after final stabilization is complete in accordance with DB Subsection 107-12.9 A.2. Return land contours to original grade or as indicated on the Plans, and vegetatively stabilize any remaining bare soil areas.

DB 107-12.6 Plan Changes

The Design-Builder shall not deviate from the Plans without prior review and approval by the Project Manager and appropriate regulatory authorities. Those portions of the Plans which are normally covered by environmental permits include, but are not limited to, erosion and sediment control, stormwater management, construction sequencing, stream diversions, and site dewatering.

For plan changes initiated by the Design-Builder, revised construction Plans shall be submitted for review and approval by the Project Manager. The revised Plans shall be prepared in accordance with current Department standards for roadway design, traffic control, erosion and sediment control, and stormwater management. Revised Plans shall also conform to all applicable Federal, State, or municipal pollution control laws, rules, or regulations. All supporting design calculations and cost analyses required by the Project Manager shall accompany the submission. The number of copies required to be submitted for review shall be determined by the Project Manager depending on the nature of the proposed revision.

Design-Builder proposed revisions to the Plans, as well as review time by the Department, will not justify a delay in the progress schedule. All costs involved in preparing plan revision documents for changes proposed by the Design-Builder shall be the responsibility of the Design-Builder.

DB 107-12.7 Limits of Construction

The Design-Builder shall not perform any work including, but not limited to, clearing, grubbing, construction phasing, equipment storage, and material stockpiling outside the limits of construction shown on the Plans without prior approval of the Project Manager.

If the Design-Builder chooses to use additional lands that are not within Department rights-of-way or easements, it shall be the Design-Builder's responsibility to make all arrangements with the property owners and to acquire all permits from the appropriate regulatory authorities for the use of these lands.

The Design-Builder shall acquire a statement signed by the property owners that releases the Department from all claims arising from the use of the property being considered. The signed statement from the property owner and copies of all permits acquired by the Design-Builder shall be transmitted by the Design-Builder to the Project Manager for the Project Manager's records prior to initiating any operation on the property being considered for use.

DB 107-12.8 Site Reviewer

A Site Reviewer shall be a person from the Design-Builder's staff assigned to erosion and sediment control implementation and maintenance and shall be required on specific projects as noted in the Plans. The name and DNREC certification number of each Site Reviewer so required shall be submitted to the Department prior to construction activities beginning. The Site Reviewer may receive certification directly through he DNREC Division of Soil & Water Conservation. Additional details may be found online at *http://www.dnrec.state.de.us/DNREC2000/Divisions/Soil/Stormwater/StormWater.htm.*

DB 107-12.9 Vegatative Stabilization

A) *Interim and Final Stabilization.* An area of the work shall be considered vegetatively stabilized for erosion control if it meets the criteria in one of the following two cases:

1) *Interim Stabilization*. The seeding and mulching items, sod, or erosion and sediment control items as noted on the Plans are in place and accepted by the Project Manager.
2) *Final Stabilization.* Meets the requirement for the removal of the temporary erosion controls placed during interim stabilization and complete growth of vegetation has occurred to the satisfaction of the Project Manager. Complete growth of vegetation includes permanent grass reaching a height of 3" (75 mm) over all areas seeded.

B) *Incremental Stabilization.* Side slopes, and other slopes 1:3 (vertical to horizontal) or steeper require placement of either temporary or permanent seeding and mulching as the work progresses in height increments not to exceed 10 feet (3 m) measured along the slope surface.

C) *Tracking of Slopes.* During grading operations the Design-Builder shall track all slopes 1:3 (vertical to horizontal) or steeper to prevent gully and sheet erosion. The tracking shall be accomplished by driving cleated equipment such as a bulldozer up and down the slopes so the cleats make horizontally oriented indentations in the soil. All tracking of slopes shall be in accordance with Section 202 of the Standard Specifications. Prior to applying seeding items on slopes 1:3 (vertical to horizontal) or steeper, the Design-Builder shall track the slopes as described above in order to prepare a stable seedbed. All costs associated with tracking of slopes to prepare a seedbed shall be incidental to the seeding item being applied to the slope surface.

D) *Maximum Soil Exposure Times.* All erodible earth material exposed by the Design-Builder's activities shall be vegetatively stabilized within the time frames specified below:

Location	***Maximum Time to Vegetatively Stabilize***
Sediment controls (berms, ditches, traps, basins, etc.)	Seven calendar days from initial construction
Areas meeting final grades	Seven calendar days from completion of grading
Areas not meeting final grades	Fourteen calendar days from ceasing work in that location

DB 107-12.10 Temporarily Stockpiled Material

Erodible earth material designated on the Plans or required by the Project Manager to be excavated and temporarily stockpiled for later use in the Project shall be located away from live streams and wetlands, kept within Department rights-of-way and easements, and placed only in areas deemed appropriate by the Project Manager.

The Design-Builder shall install the erosion and sediment control items designated on the Plans or as directed by the Project Manager about the base of the pile in advance of the actual stockpiling operation. Erodible earth material shall be placed in piles of neat conformations. Side slopes shall be seeded and mulched as the pile is placed in height increments of 10 feet (3 m) measured along the slope surface. All remaining unstabilized surfaces shall be seeded and mulched immediately following completion of the stockpiling operation.

If the Design-Builder proposes to stockpile erodible earth material in areas not designated on the Plans for such use, it shall be the Design-Builder's responsibility to prepare and submit for approval by the Project Manager erosion and sediment control plans for those proposed areas that are located within Department rights-of-way and easements. Materials shall not be stockpiled until an erosion and sediment control plan for the proposed stockpile has been approved by the Project Manager.

If the Design-Builder proposes to stockpile erodible earth material in areas outside of Department rights-of-way and easements, it shall be the Design-Builder's responsibility to prepare and submit for approval a plan for the use of the proposed site to the appropriate agencies having jurisdiction. No stockpiling operation shall commence in areas outside the Department rights-of-way and easements until the Project Manager has received copies of all plans approved by the appropriate regulatory agencies and received copies of statements signed by the property owners, as required under DB Section 107-12.7, which release the Department from any claims arising from the use of the property.

DB 107-12.11 Channel and Ditch Scour Protection

Riprap or other proposed channel lining items designated on the Plans at pipe, culvert, and bridge inlets and outlets and along channel lengths shall be placed before the pipes, culverts, bridges, and channels become operational.

DB 107-12.12 Sediment-Laden Runoff

Stormwater runoff from disturbed areas shall be directed to an approved sediment control measure, such as a trap or basin, prior to release to ditches, storm drain systems, streams, or surface water bodies of any type. All storm drain pipes which convey sediment-laden runoff shall discharge to a sediment trap or sediment basin prior to release from the Project limits of construction as shown on the Plans, or as directed by the Project Manager.

DB 107-12.13 Dewatering Operations

The Design-Builder shall not pump or otherwise withdraw water from below the water table at a rate exceeding 50,000 gallons per day without having first obtained the necessary water allocation and well permits.

The Design-Builder is responsible for obtaining all permits required from the appropriate issuing authority (DNREC) for the withdrawal of groundwater from the Project site. Costs associated with water allocation and water well permit acquisition shall be paid by the Design-Builder. The Design-Builder shall submit copies of all permit approvals to the Project Manager for the Project Manager's records.

Sediment-laden dewatering discharge shall be directed to an approved sediment trapping device such as a dewatering basin, portable sediment tank, sediment trap, or sediment basin, prior to release to ditches, storm drain systems, streams, or surface water bodies of any type.

Prior to initiating a pumping operation to remove water from open excavations or temporary cofferdams,

the area to be dewatered shall be allowed to rest undisturbed under quiescent conditions for a period of 12 hours in order to induce physical settling of suspended particles.

The Design-Builder shall attach the suction line of the pumping equipment to a flotation device, immersing the intake end no more than 6" below the water surface. In this manner, water shall be "skimmed" off the surface.

Once the water level has been pumped down, further dewatering shall be accomplished in conjunction with a sump pit constructed in conformance with Department standards or as directed by the Project Manager.

DB 107-12.14 Clean Water Diversions

Stormwater runoff from non-disturbed areas shall be directed away from work areas using any combination of dikes, swales, and slope drains or as shown on the Plans, or as directed by the Project Manager.

DB 107-12.15 Stream Diversions

The Design-Builder shall not conduct work in a stream without having first obtained the appropriate wetland and subaqueous lands permit(s).

When work is to be conducted in the flow line of a stream, whether the stream is perennial or intermittent, the Design-Builder shall use any combination of dikes, swales, ditches, cofferdams, pipes, pumps, and other devices as shown on the Plans, or as directed by the Project Manager to direct the stream flow around the work area.

DB 107-12.16 Temporary Stream Crossings

Equipment shall not be operated in live streams without a stream diversion being installed to the satisfaction of the Project Manager. Temporary bridges or other structures shall be installed if the work requires the crossing of a stream by construction equipment

DB 107-12.17 Wash Water

Water containing sediment from any construction activity on the Project such as saw cutting, milling, aggregate washing, and equipment washing and which is not regulated as waste water under State or Federal statutes shall be discharged to a sediment trapping device and treated by filtration or settling. Sediment-laden wash water shall not be discharged directly to any stream or waterbody of any type.

DB 107-12.18 Waste Water

Water containing pollutants such as raw sewerage, bitumen, fuels, lubricants, paint, or other harmful materials, is strictly regulated under State and Federal statutes and as such shall not be discharged into waters of the State as defined in Chapter 60, Title 7 of the Delaware Code or into natural or manmade channels or storm drain systems leading to waters of the State.

The Design-Builder is responsible for obtaining all permits required from the appropriate issuing authority for the discharge of waste waters from the Project site. Costs associated with waste water permit acquisition shall be paid by the Design-Builder. The Design-Builder shall submit copies of all permit approvals to the Project Manager for the Project Manager's records.

DB 107-12.19 Water Pollution Violations Enforced

If a water pollution control violation exists on the Project which in the Project Manager's judgment poses a public health or safety risk, such as a fuel or chemical spill or release of raw sewerage, the Project Manger may refer the violation to the DNREC for immediate enforcement action. The cost of clean up shall be the sole responsibility of the Design-Builder if the DNREC investigation reveals the Design-Builder's actions caused the violation.

DB 107-12.20 Maintenance

Erosion and sediment control items shall be maintained during the construction season as well as the winter months and other times when the Project is closed down. The Design-Builder shall inspect the Project site immediately after each rain and repair, replace, or maintain any erosion and sediment control item promptly as needed or as directed by the Project Manager. Any eroded surface shall be stabilized, and any accumulated sediment not trapped by a control measure shall be removed and disposed of in an approved stockpile area or hauled off-site. Access shall be maintained to all sediment control devices until construction phasing and stabilization allow the removal of those controls that are no longer required.

Costs associated with repairing, replacing, and maintaining the erosion and sediment control items are incidental to the initial construction of each item

DB 107-12.21 Erosion and Sediment Control Reports

The Department will provide the Design-Builder with erosion and sediment control reports on a regular basis. The reports will itemize work required to maintain compliance with the Contract. The Design-Builder shall complete the items of work listed by the completion dates indicated on the reports.

DB 107-12.22 Failure to Implement and Maintain Erosion and Sediment Control Measures

Controlling erosion and sedimentation is the Design-Builder's responsibility under the Contract. If the Design-Builder fails at any time to implement and maintain the required erosion and sediment control provisions of the Contract, the Project Manager will notify the Design-Builder, orally or in writing, to comply with the required erosion and sediment control provisions. If the Design-Builder fails to perform the work as directed by the Project Manager, the Project Manager may take the following actions in the order listed below to gain compliance with the Contract.

A) *Stop Work Order.* If the Design-Builder continues to fail to implement and maintain the erosion and sediment controls after oral or written direction to do so by the Project Manager, or continues not to follow the approved construction phasing, sequencing, and progress schedule, the Project Manager may order a "Shut-Down" of all land-disturbing activities except those necessary to bring the site into compliance with the Contract. The Project Manager will establish a time frame for completion of the erosion and sediment control work.

If the unsatisfactory construction procedures and operations are not corrected promptly after the initial "Shut-Down", the Project Manager may suspend the performance of other construction until all items of work on the erosion and sediment control reports are complete and accepted.

No claims for additional time or money shall be considered due to "Shut-Downs" resulting from the Design-Builder's failure to implement and maintain the required erosion and sediment control items or failure to follow the approved construction phasing, staging, sequencing, and progress schedule required by the Contract documents.

B) *Withhold Progress Payment.* If the Design-Builder fails to bring the erosion and sediment controls into compliance with the Contract documents or fails to proceed in accordance with the approved construction phasing, staging, and sequencing after oral or written direction from the Project Manager to do so and after a "Shut-Down" of all land-disturbing activities, then no monthly estimate or payment will be made. No payment will be made until all items of work on the erosion and sediment control reports are complete and accepted. *See DB Section 102-19 and DB Section 109-12.*

C) *Deduct Cost of Work Completed By Others.* If the Design-builder fails to remedy unsatisfactory conditions within the time frame established and after all land-disturbing activities have been shut down and payment has been withheld, then the Project Manager may proceed with adequate forces and equipment to implement or maintain the erosion and sediment control items necessary to bring the Project into compliance with the Contract documents. The entire cost of this work for engaging an on-call contractor and administering the on-call contractor will be deducted from monies due the Design-Builder on the Contract.

D) *Default of Contract.* More than one "Shut-Down" for erosion and sediment control noncompliance may be considered as a failure to perform the terms of the Contract and will be grounds for finding the Design-Builder in default of the Contract in accordance with DB Section108-8. If the Design-Builder defaults on the erosion and sediment control provisions of the Contract, the Project will be referred to the DNREC for enforcement action.

DB 107-13 AIR NAVIGATION

The Department has obtained a permit (or a determination of no hazard to air navigation) from the Federal Aviation Administration (FAA) for all permanent Structures and temporary Structures (such as, equipment, falsework, construction cranes). The Design-Builder shall obtain new permits if the final design of the bridge or temporary works required to construct the bridge exceed the limits outlined in the existing permit.

If required, the Design-Builder shall complete a separate FAA Notice of Proposed Construction or Alteration (*see* http://forms.faa.gov/forms/faa7460-1.pdf) for both the permanent structure and any temporary structures. The Design-Builder shall receive any appropriate approvals or clearances from the FAA pursuant to the Notice of Proposed Construction or Alteration prior to commencing with any construction on the Project in accordance with the notice. The FAA Notice of Proposed Construction or Alteration may be applied for electronically at the FAA's Web site, http://oeaaa.faa.gov, and using the E-filing area.

The Notice of Proposed Construction or Alteration shall be submitted for review and approval to the FAA, with a copy to the Department's Project Manager. Construction and operations in connection with the Work for protection of aerial navigation shall be in accordance with the approved permit or Notice of Proposed Construction or Alteration and applicable federal regulations. Failure of the Design-Builder to be familiar with applicable rules and regulations of the FAA shall not relieve the Design-Builder of responsibility under this Contract.

DB 107-14 RESPONSIBILITY FOR DAMAGE CLAIMS

The Design-Builder shall assume the responsibility and liability for, and shall indemnify and save harmless the Department, its officers, and employees, from and against all suits, actions, claims, and all damages, direct or indirect, of whatever nature, caused to any person(s) or property or resulting to the work from any act, work, or plan performed or submitted by the Design-Builder or upon its behalf; including but not limited to responsibility of the Design-Builder to provide for the protection and safety of all persons and property. This indemnification and save harmless requirement shall apply, but not be limited to, all suits, actions, claims brought, and all damages resulting from any death, injury, or damage received or sustained by any person(s), third person(s), or property based upon:

A) Operations of the Design-Builder, including but not limited to work performed; neglect in safeguarding the work; use of unacceptable materials; any act, work, or plan performed or submitted by the Design-Builder on its behalf or resulting from performance,

nonperformance of the work, or any omission, neglect, or misconduct occurring during the course of the Contract.

B) Any claim(s) or amount(s) recovered from any infringement(s) of patent, trademark, or copyright.

C) Any claim(s) or amount(s) arising or recovered under the "Workers Compensation Act", for any violation or alleged violation of any law, ordinance, rule, regulation, order, or decree.

The Department may withhold as retainage for the use of the State to pay any amount claimed or anticipated, as determined by the Project Manager, except that such money shall not be withheld when the Design-Builder produces satisfactory evidence that it is adequately protected by public liability and property damage insurance. In any event, the surety shall be liable to pay any amount recovered as a result of any suit, action, claim, injuries, or damages sustained and until such time as the matter has been settled or otherwise legally resolved.

DB 107-15 OPENING SECTIONS OF THE PROJECT TO TRAFFIC

The Project Manager may order certain sections of Work to be opened to traffic or other use prior to completion or acceptance of the Work. Opening these sections shall not constitute acceptance of work or waiver of any Contract provisions.

On those sections opened, the cost of establishing maintenance and protection of traffic, maintaining the roadway or other work to accommodate traffic or other use, and repairing damage to the work that occurs after opening will be determined as follows:

A) If the Contract provided for a total road closure, the opening is not part of a phased or staged construction, and the opening is not due to the fault or inactivity of the Design-Builder, the added costs will be at the Department's expense. Compensation for these added costs will be in accordance with DB Section 109-8.

B) If the opening was designated as part of the Contract such as phased or staged construction, then the added costs are incidental to the Contract and the Work will be performed at no additional expense to the Department.

C) If the opening was due to the fault or inactivity of the Design-Builder, then the Work will be performed at no additional expense to the Department. If the Design-Builder is dilatory in completing features of the work according to the Contract or progress schedule, the Project Manager will give written notification establishing a time period for completing these features. If the Design-Builder fails to complete or make a reasonable effort to complete the work according to the written notification, the Project Manager may order all or a portion of the Project opened to traffic. The Design-Builder shall not be relieved of liability or responsibility for maintaining the work and shall conduct the remaining construction operations with minimum interference to traffic at no additional expense to the Department for any added cost of the Work.

DB 107-16 HAZARDOUS MATERIAL REPORTING AND CLEAN-UP OF SPILLS

The Design-Builder shall be responsible for reporting and cleaning up spills associated with construction of the Project, and shall report and respond to spills of Hazardous Materials such as gasoline, diesel fuel, motor oils, solvents, chemicals, toxic and corrosive substances, and other Material that are a threat to public health or the environment. The Design-Builder shall be responsible for reporting past spills encountered during construction and current spills not associated with construction. Reports shall be

made immediately to the Department's Project Manager if on state ROW or to the property owner if outside of state ROW. Unreported spills identified after construction and associated with construction of the Project shall be cleaned up by the Design-Builder. Failure to report or respond to a spill shall result in the Design-Builder bearing the full cost of remediation of clean-up of such unreported spills.

The Department shall be responsible for any delay costs and expenses due to it or the Design-Builder making a new discovery of Hazardous Materials that are not identified in the Scope of Services Package or the Contract Documents. The Design-Builder is responsible for all costs and expenses, including delay costs and expenses, for all Hazardous Material spills that are identified in the Scope of Services Package or the Contract Documents or that are caused by the Design-Builder or any of its Subcontractors, employees, or agents.

DB 107-17 DESIGN-BUILDER'S RESPONSIBILITY FOR THE WORK

The Design-Builder is responsible for carrying out the provisions of the Contract at all times, regardless of whether an authorized Department-designated representative is present or not. Any Work or item that is, at any time, found to be out of Specification or not in compliance with the Design Plans shall remain the responsibility of the Design-Builder and shall be subject to such corrective measures that are approved in writing by the Design-Builder's Designer and accepted in writing by the Department's Project Manager.

Until the Design-Builder has achieved substantial completion, the Design-Builder shall have the sole and absolute responsibility for the work and to provide for the protection and safety of employees of the Department, Design-Builder, subcontractors, suppliers, and members of the general public. In no case, including but not limited to, supervisory acts or administration of the Contract by the Project Manager, will the Design-Builder be relieved of the responsibility to indemnify the Department pursuant to the provisions of the Contract.

The Design-Builder shall rebuild, repair, restore, and make good all losses, injuries, or damages to any portion of the work under the control of the Design-Builder or due to his/her fault or inactivity, at no cost to the Department. The Design-Builder shall rebuild, repair, restore, and make good all losses, injuries, or damage to any portion of the work not under the control of the Design-Builder under agreed unit prices or as extra work under DB Section 109-8. "Items not under the control of the Design-Builder" shall be defined for purposes of this Subsection as Acts of God such as earthquakes, tidal waves, tornadoes, or hurricanes; catastrophic conditions such as hazardous waste materials spills, explosions, etc., or acts of the public enemy or of governmental authorities.

In case of the suspension of work the Design-Builder shall be responsible for the Project and shall take such precautions as may be necessary to prevent damage to the Project, provide for normal drainage and normal traffic operations, and to erect any necessary temporary structures, signs, or other facilities. During such period of suspension of work, the Design-Builder shall properly and continuously maintain in an acceptable growing condition all living material in newly established plantings, seedings, and soddings furnished under the Contract, and shall take adequate precautions to protect new tree growth and other vegetative growth against injury.

DB 107-18 DESIGN-BUILDER'S RESPONSIBILITY FOR UTILITY PROPERTY AND SERVICES

At points where the Design-Builder's operations are adjacent to properties of railway, telegraph, telephone, power companies, or other utilities, or are adjacent to other properties, facilities, or appurtenances, damage to which might result in considerable expense, loss, or inconvenience, work shall not be commenced until all arrangements necessary for the protection thereof have been made.

In the event of interruption to water or utility services as a result of accidental breakage, or as a result of being exposed or unsupported, the Design-Builder shall promptly notify the proper authority. The Design-Builder shall cooperate with said authority in the restoration of service as promptly as possible. No work shall be undertaken around fire hydrants until appropriate plans for continued service have been approved by the local fire authority.

Fire hydrants on or adjacent to the highway shall be kept accessible to fire apparatus at all times and no material or obstruction shall be placed within 15 feet (4.5 m) of any such hydrant. Work shall be left entirely accessible at all points to fire apparatus at all times.

DB 107-19 ACQUISITION AND CONVEYANCE OF REAL PROPERTY

The Department has identified property to be used for the Project, the boundaries of which are depicted in the Contract Documents.

Any additional ROW required due to design requirements originated by the Design-Builder and deemed necessary by the Department will be acquired by the Department. Additional ROW acquisitions may cause Project delays. The Department will only be responsible for time and cost impacts associated with acquisition of additional ROW in the case of a Necessary Basic Project Configuration Change (*see* DB Section 104-8.1.2). If additional ROW is required for the Design-Builder's convenience or if additional ROW is needed for a reason other than a Necessary Basic Project Configuration Change, the Department will conduct the acquisition of the ROW, but the Design-Builder will be responsible for all costs associated with the additional ROW and its acquisition.

The Design-Builder shall cooperate with the Department in the completion of Project design and identification of final ROW requirements and construction impacts. It is expected that the Design-Builder will identify any additional ROW needs no later than the Preliminary Design Review for any affected Project component.

The Design-Builder shall coordinate with the Department regarding any design features that may impact properties, even though no property acquisition is contemplated. The intent is to avoid damages to properties not previously identified and addressed.

DB 107-19.1 Coordination

Within 30 Calendar Days of Contract Award, the Design-Builder will meet with the Department for the following reasons:

A) Identification and evaluation of the status of all required ROW parcels as being any of the following:

1) Already acquired with all impacts identified (status code A);

2) Not yet acquired, but with all impacts identified (status code B);

3) Not yet acquired and without all impacts identified (status code C); and

4) Not yet acquired with probable need for condemnation (status code D); and

B) Confirmation of the Design-Builder's preferred priorities for acquisition of outstanding ROW and development of a mutually agreed ROW Acquisition Schedule (Form 107A) that is consistent with the current Baseline Progress Schedule. *See* ITP Appendix C for the appropriate form.

The Design-Builder shall not enter onto parcels until the Delaware Department of Transportation has obtained the legal right to do so.

DB 107-19.2 Change in Project Design

If, after the Contract Award, the Design-Builder identifies additional parcels to be acquired and/or modifications to the ROW limits (fee takings, easements, or other property rights), the Design-Builder shall prepare and submit to the Department new or revised surveys, legal descriptions, ROW maps, and justification of the need for additional ROW. The Department will review the request, determine whether the proposed acquisition is appropriate and necessary, and notify the Design-Builder regarding the minimum time required to complete the acquisition. If the Design-Builder and Department agree to the additional acquisition, the Design-Builder shall prepare any additional documents necessary for the Department to proceed with the acquisition.

If the Department determines that the acquisition is appropriate and required for the Project, the Department will acquire the ROW in accordance with Department procedures, subject to the conditions specified in this DB Section 107-19 regarding allocation of time and cost responsibilities.

DB 107-19.3 Delay in Acquisition

The Design-Builder shall meet with the Department to review ROW acquisition status at progress meetings. In the event that the Design-Builder determines that the Critical Path may be affected, the Design-Builder shall notify the Department immediately to determine the best course of action to avoid such delay through alternative design or construction methods or revisions to the Design-Builder's Baseline Progress Schedule or ROW Acquisition Schedule.

If properties are not available by the dates shown in the ROW Acquisition Schedule, the Design-Builder shall exercise good faith efforts to work around any delay and to minimize any time or cost impacts associated with changes in the ROW Acquisition Schedule.

DB 107-19.4 Precedence of Right-of-Way Acquisition Schedule

The Baseline Progress Schedule and the design of the Project furnished by the Design-Builder shall not require the Department to acquire any real property except in accordance with the ROW Acquisition Schedule or as agreed by the Department and the Design-Builder.

DB 107-19.5 Right-Of-Way within Federal or State Lands

Deviations from planned ROW may be allowed within federal government land boundaries. However, acquisition of additional ROW from federal agencies generally requires considerably more time than a private property acquisition.

The Design-Builder is responsible for constructing features, such as fencing and drainage, required by state and federal land management agencies.

DB 107-19.6 Encroachments

The Department will aggressively pursue removal of encroachments located within the existing ROW on or before Contract Award.

The Design-Builder shall notify the Department of any encroachments that are in the way of construction upon their discovery.

Upon written notification by the Department, the Design-Builder will remove any encroachments that are in the way of construction in accordance with the Department's rules, regulations, and procedures.

If the Design-Builder is required to remove encroachments that are not identified in the Contract Documents, such Work will be considered Extra Work under DB Section 104, and the Design-Builder may be entitled to additional compensation and/or time.

DB 107-19.7 Temporary Construction Easements

The Design-Builder shall be responsible to identify, prepare, and submit to the Department new or revised

surveys, legal descriptions, ROW maps, and justification of the need for the acquisition of all temporary construction easements not previously obtained by the Department at no change in Contract Time or Price. The Department will acquire the temporary construction easements on behalf of the Design-Builder.

DB 107-20 PERSONAL LIABILITY OF PUBLIC OFFICIALS

The Department, Director, Project Manager, or their authorized agents will incur no personal liability as a result of carrying out any of the provisions of the Contract, as the result of exercising any power or authority granted to them thereby, or as the result of any act by the Design-Builder. In such matters, they act as the agents and representatives of the State.

DB 107-21 NO WAIVER OF LEGAL RIGHTS

Upon completion of the work, the Department will expeditiously make final inspection and notify the Design-Builder of acceptance. Such final acceptance, however, shall not preclude or stop the Department from correcting any measurement, estimate, or certificate made before or after completion of the work, nor shall the Department be precluded or stopped from recovering from the Design-Builder or its surety, or both, such overpayment as it may sustain, or recovering the cost of the failure on the part of the Design-Builder to fulfill its obligations under the Contract. A waiver on the part of the Department of any breach of any part of the Contract shall not be held to be a waiver of any other or subsequent breach.

The Design-Builder, without prejudice to the terms of the Contract, shall be liable to the Department for latent defects, fraud, or such gross mistakes as may amount to fraud, or as regards the Department's rights under any warranty or guaranty.

DB 107-22 THIRD PARTY LIABILITY

It is agreed between the parties executing the Contract that it is not intended by any provisions of the Contract to create in the public nor any member thereof a third-party beneficiary hereunder, nor to authorize anyone not a party to this Contract to maintain a suit for personal injuries or property damage pursuant to the Contract.

DB 107-23 ANTI-TRUST VIOLATIONS

By execution of the Contract, the Design-Builder conveys to the Department all rights, title, and interest in and to all causes of action it may acquire under federal and state anti-trust laws relating to the goods or services purchased by the Department pursuant to the Contract.

DB 107-24 THE DESIGN-BUILDER'S RESPONSIBILITY FOR THE TRAVELING PUBLIC

The Design-Builder shall conduct Work within the construction zone so that there will be minimal hazard to anyone transiting the Work Site on the open lanes of travel. To keep hazards to a minimum, the Design-Builder shall, as far as practical, keep Equipment, Material, and workers from intruding into the travel lanes; remove any hazardous construction debris deposited on those lanes on a continuous and regular basis; inspect and repair the travel lanes; and remove obstacles deposited by the public as they transit the Work site.

Notification that a hazard to the public exists may be received through the Design-Builder's inspections, from the Department's employees, or the public. In any case, corrective action shall be taken to remedy the hazard within a reasonable time after notification is received. The Design-Builder shall have a contact number answerable on a 24 hour basis so that action can be initiated quickly when hazards are identified.

All claims from the public for losses that are alleged to have occurred within the construction zone shall be handled by the Design-Builder, even though a Subcontractor may have introduced the hazard that caused the damage. The Design-Builder shall designate, before the Work commences, the individuals who will be responsible for response to third party claims. The individuals shall provide claimants with a written outline of the Design-Builder's claims procedure, along with a written copy of the Design-Builder's name, address, and telephone number and the name and title of the Design-Builder's individual assigned to damage claim response. The Design-Builder shall maintain a status report of all claims filed and the status of such claims. This report shall contain, at a minimum, the name, address, and telephone number of the claimant; the nature of the claim; pertinent findings regarding the claim; and a statement regarding the resolution of the claim. This report shall be available to the Department's Project Manager upon request.

The Design-Builder shall establish a local contact number for the purpose of filing claims and post that telephone number conspicuously so that claimants can contact the right person quickly. In addition, the Design-Builder's name, address, and telephone number shall be posted at each approach to the construction zone. All construction vehicles (whether Design-Builder, Subcontractor, or privately owned) working at the construction zone shall have clean and unobstructed license plates and be marked legibly with the appropriate company name.

DB 107-25 DESIGN-BUILDER'S PAYROLLS

See DB Section 102-3.

DB 107-26 ARCHEOLOGICAL AND HISTORICAL FINDINGS

If the Design-Builder encounters cultural artifacts or archaeological or historical sites, operations shall be discontinued. The Department's Project Manager will contact the proper authorities in order that an appropriate assessment may be made to determine the disposition thereof and necessary actions relative to the site. When directed, the Design-Builder shall excavate the site to preserve the artifacts encountered. Such excavation will be paid for as Extra Work, including an appropriate adjustment in Contract Time in accordance with DB Section 109-8. Borrow and muck disposal areas furnished by the Design-Builder shall be subject to such assessment prior to use.

DB 107-27 DISPUTES RESOLUTION

DB 107-27.1 Scope of the Procedure

The dispute resolution procedure outlined in this SB Section 107-27 covers all disputes between the Department and the Design-Builder arising from this Contract. This procedure shall be binding.

DB 107-27.2 Continuation of Performance

At all times during the pendency of a dispute under this procedure, the Design-Builder shall continue Work pursuant to the terms of this Contract and the Department shall continue to pay the Design-Builder. After resolution, the Department shall pay or be credited any amounts due the Design-Builder after conclusion of the dispute resolution procedure.

DB 107-27.3 Claims for Adjustment and Dispute

In any case where the Design-Builder believes that extra compensation is due for work or material not clearly covered in the Contract or not ordered by the Project Manager as an extra, or the Design-Builder feels that it has encountered unusual and unforeseen conditions beyond its control, as defined herein, not discoverable by reasonable inspection and diligence on the Design-Builder's behalf and if all other

Contract provisions have been complied with, the Design-Builder shall notify the Project Manager orally or in writing of its intention to make claim for such extra compensation before the Design-Builder begins the work on which the claim is based on. If written notification is not given within five working days and the Project Manager is not afforded proper facilities by the Design-Builder for keeping strict account of actual costs as required, then the Design-Builder waives the claim for extra compensation.

A. *Design-Builder Written Notification.* The written notification to the Project Manager shall include:

1. The date of occurrence and the nature and circumstances of the occurrence that constitute a change;
2. Name and title of Department representatives knowledgeable of the claimed change; and
3. Particular elements of Contract performance for which additional compensation may be sought under this Section.

The fact that the Project Manager has kept account of the cost as aforesaid shall not in any way be construed as proving the validity of the claim. Nothing contained in this Subsection shall be construed as establishing any claim contrary to any other provision of the Specifications.

B. *Project Manager Response.* Within ten calendar days after receipt of notice, the Project Manager will respond in writing to the Design-Builder to:

1. Confirm that a change occurred and, it shall be allowed and paid as an extra as provided herein; or
2. Deny that a change occurred and, direct the Design-Builder to follow the claims submittal procedure as outlined; or
3. Advise the Design-Builder that adequate information has not been submitted to decide whether B.1. or B.2. above applies, and indicate the need for more information for further review. The Department will respond to such additional information within ten calendar days of receipt from the Design-Builder; or
4. Advise the Design-Builder that the Department will review the claim, after obtaining the claims submittal as described herein.

Any adjustments made to the Contract shall not include increased costs or time extensions for delay resulting from the Design-Builder's failure to provide requested additional information in accordance with this clause.

C. *Claim Submittal.* The Design-Builder must submit a formal claim in writing within 60 calendar days after the item claimed has been completed. The Design-Builder can only recover, and the formal claim shall only consist of those items allowed under Subsection 107-27.4 and must contain:

1. The precise nature and basis for the claim;
2. Each fact upon which the Design-Builder relies, to support the claim;
3. The precise reason the Design-Builder believes the claim should be granted;
4. The language in the Contract upon which the Design-Builder relies, in support of the claim;
5. The amount of money or nature and extent of relief to which the Design-Builder believes it is entitled; and
6. Any other factors which the Design-Builder believes support the claim. In complying with this requirement, the Design-Builder must certify the claim using the following form:

The undersigned is duly authorized to certify this claim on behalf of (the Design-Builder).

(The Design-Builder) *certifies that this claim is made in good faith, that the supporting data are accurate and complete to the best of the Design-Builder's knowledge and belief, and that the amount requested accurately reflects the Contract adjustment for which* (the Design-Builder) *believes that the Department is liable.*

(THE Design-Builder)

By:

(Name)
(Title)

Date of Execution:

The Design-Builder agrees to follow the procedure described in this Section and that any claimed dollar amount and/or relief sought, not made pursuant to this Section, within the time limits prescribed shall be forever waived and not raised at any subsequent meeting or hearing dealing with the claim. The Department shall establish a claims procedure to be followed, consistent with these Specifications, which claims procedure shall provide the means and methods by which the Design-Builder and the Department shall process the claim.

Claims and disputes submitted in accordance with this Section, will be first reviewed fully the Department's Assistant Director level. Within 30 calendar days after receiving the claim submittal, the Assistant Director for South Construction will respond, in writing, with the Department's decision. If additional time is required by the Department to review the claim, the Assistant Director for South Construction will notify the Design-Builder. Rejection of the claim or dispute by the Department at this level may be appealed. The Design-Builder shall give notice of the appeal, in writing, within ten calendar days of the rejection by the Assistant Director for South Construction.

The Design-Builder may appeal the Assistant Director for South Construction's decision to the Chief Engineer of the Department requesting to proceed with the Dispute Resolution process as outlined in DB Section 107-27.4. The Contractor shall give notice of the appeal to the Assistant Director for South Construction, in writing, within ten calendar days after receiving the Assistant Director's decision.

DB 107-27.X Allowable Costs for Disputes (*For reference this is Section 105.19 of the Department Standard Specifications)*

All claims shall be submitted according to the procedure established in Subsection 107-27.X. Submit a written claim notification a maximum of five working days after the original oral notification. Provide in the written notification a brief statement of the reason and basis for the claim and a list of the items for which additional compensation is being claimed in order to permit the Project Manager to keep a strict account of actual costs incurred. Within 60 calendar days after that portion of the work upon which the claim is based is completed, the Design-Builder shall submit to the Project Manager an itemized list of labor, equipment, and materials used and such other costs as specifically allowed pursuant to this Subsection. The Design-Builder shall not be entitled to recover any costs other than those contained and allowed herein. As described below, A. through G. shall cover all direct and indirect costs allowed and H. identifies all non-allowable costs.

A. *Labor*. In accordance with DB Section 109-8.2.2.D.1.
B. *Bond, Insurance, and Tax.* In accordance with DB Section 109-8.2.2.D.2.
C. *Materials.* In accordance with DB Section 109-8.2.2.D.3.
D. *Equipment.* In accordance with DB Section 109-8.2.2.D.4.
E. *Percentage Markups.* In accordance with DB Section 109-8.2.2.D.6 thru 7.
F. *Subcontractor Claims.* Any claim submitted by the Design-Builder on behalf of a subcontractor shall be submitted according to Subsection 107-27.3 and shall be solely limited to the list of all direct or indirect costs permitted by A. through D. above. For work approved by the Department, the subcontractor will be allowed a percentage markup as permitted by DB Section(s) 109-8.2.2. The Contractor will be allowed an additional percentage markup as permitted by DB Section 109-8.2.2. to be computed on the final sum total of such subcontractor cost claimed under A. through D. above for portions of subcontractor work approved by the Department.
G. *Waiver of Liquidated Damages.* A claim, not for additional costs, but for a waiver by the Department of an assessment of liquidated damages, in whole or in part, may also be made by the Design-Builder as part of this Subsection.
H. *Non-allowable Damages or Expenses.* The expenses listed above as A. through G. shall constitute the sole cost(s) and expense(s) to which the Design-Builder shall be entitled on any claim submitted for additional compensation or settlement of any claim made under these Specifications, except as further provided in DelDOT Standard Specification 105.21. The parties agree that the Department will have no liability for the following items of damage or expense:
    1. Profit in excess of that provided herein,
    2. Loss of profit,
    3. Labor and equipment inefficiencies,
    4. Home office overhead in excess of that provided herein,
    5. Consequential damages, including but not limited to loss of bonding capacity, loss of bidding opportunities and insolvency,
    6. Indirect costs or expenses of any nature,
    7. Attorneys fees, claim preparation expenses or costs of litigation, and
    8. Interest on any claimed amounts.
I. Any claim submitted shall not affect in any manner the imposition or waiver of Liquidated Damages, except that any Liquidated Damages shall be waived for any delay for which a time extension is granted in accordance with DB Section 108-6.
J. The Design-Builder agrees to make its accounting records and cost information available at the time of submission of the claim and such other records as the Department may require, in order to determine the validity and amount of each item claimed. They shall be open to inspection or audit by representatives of the Department during the life of the Contract and for a period of not less than three years after the Design-Builder's acceptance of Final Payment as set forth in DB Section 109-11 and the Contractor shall retain such records for that period. Where payment for materials, equipment, or labor is based on the cost of forces other than the Design-Builder's, the Design-Builder shall make every reasonable effort to ensure that the cost records of such other forces are open to inspection and audit by representatives of the Department on the same terms and conditions as the cost records of the Design-Builder. Payment for the cost of such forces may be deleted if the records of such third parties are not made available to the Department's representatives. If an audit is to be commenced, the Design-Builder is to be provided with a reasonable notice of the time when such audit is to begin. In case all or a part of such records are not made available, the Design-Builder understands and agrees that any items not supported by reason of such unavailability of the records will not be allowed, or if payment therefore has already been made, the Design-Builder shall refund to the Department the amount so disallowed.

DB 107-27.4 Chief Engineer's Decision

After receiving the written notification from the Design-Builder, appealing the Assistant Director for

South Construction's decision and requesting a hearing by the Disputes Resolution Board as outlined in Subsection 107-27.6, the Chief Engineer will notify the Design-Builder, in writing, within 30 calendar days of the receipt of the notice regarding the claim. The decisions upon all claims by the Chief Engineer shall represent the findings of the Department.

DB 107-27.5 Dispute Resolution Board – Members and Term of Service

A Dispute Resolution Board shall be established to hear disputes between the Department and the Design-Builder. The Dispute Resolution Board shall be established within 90 Calendar Days of the effective date of this Contract by the appointment by the Design-Builder and Department of their respective designated members. The Dispute Resolution Board shall consist of one member selected by the Department (this person may be the Department's Chief Engineer), one member selected by the Design-Builder, and a third member selected by the first two members. The third member shall be the Chairperson of the Dispute Resolution Board. The qualifications for the members of the Dispute Resolution Board are as follows:

A) All Dispute Resolution Board members shall have substantial experience in highway or bridge design and construction. The experience may be technical, administrative, or legal. The goal is to have a Dispute Resolution Board with the technical and administrative skills and experience that will promote confidence in its decisions; and

B) The Chairperson of the Dispute Resolution Board shall not be employed currently and shall not have been employed within the last three years with the Department, the Design-Builder, or any member Design-Builder's team.

If the two members selected by the Department and the Design-Builder cannot agree on a third member within 30 Calendar Days of their selection, then both members shall withdraw from the Dispute Resolution Board and new members shall be appointed, except the Department's Chief Engineer may be reappointed by the Department.

The Dispute Resolution Board shall serve for the duration of performance under this Contract. Each party may elect to replace its board member at any time with a showing of reasonable justification. The Chairperson of the Dispute Resolution Board may be replaced at any time with the consent of both parties. If any Dispute Resolution Board member resigns or is replaced, the new member shall be selected in the same manner in which the original appointment had been made.

DB 107-27.6 Hearing Procedure

The party seeking to invoke this dispute resolution procedure shall forward to each member of the Dispute Resolution Board a copy of its claim and all of its supporting documents and shall provide three copies of these materials to the other party. Appropriate notification of Professional Liability Insurance providers will be made at this time. The responding party shall provide its response and all supporting documentation within 20 Working Days of the receipt of the claim. The claimant shall then reply within five Working Days to the response.

The Dispute Resolution Board shall set a hearing on the matter within 30 Calendar Days of the claimant's reply to the response. The Dispute Resolution Board Chairperson shall direct all meetings and hearings. Presentation of evidence shall be in a manner as directed or permitted by the Dispute Resolution Board in it discretion. The Dispute Resolution Board shall not be bound by judicial rules of evidence. Documents and testimony shall be presented in the order, manner, and degree of detail that the Dispute Resolution Board deems most efficient and probative. Each party shall be allowed to make a brief initial presentation and to rebut any factual assertion by the other party; however, the Dispute Resolution Board shall determine when enough evidence has been presented and it may limit the presentation of any documentation or testimony that it deems not relevant or redundant. At the Dispute Resolution Board's option, testimony may be required to be given under oath and the oath shall be administered by the Chairperson.

Either party may have legal counsel and insurer representation present at the hearing. Legal counsel may not examine or cross-examine witnesses, object to questions or statements during meetings, or make legal motions or arguments during meetings or hearings.

The Dispute Resolution Board shall have full authority to establish guidelines and procedures for the investigation of a claim. The entire process is intended to be flexible and the Dispute Resolution Board is encouraged to adapt the process to individual circumstances presented by particular disputes.

After the conclusion of the hearing, the Dispute Resolution Board shall issue its written decision within 30 Calendar Days. The written decision shall set forth the reasons for the Dispute Resolution Board's decision.

The Design-Builder or the Department may appeal the Dispute Resolution Board's decision by requesting an Arbitration hearing as outlined in DB Section 107-27.8.

DB 107-27.7 Dispute Resolution Board Expenses

Dispute Resolution Board members shall be paid a reasonable hourly rate for their services subject to civil service regulations, if applicable. Each party shall negotiate the fee arrangements with the member it selects, however, the other party must agree on the rate. Both parties shall agree on the fee arrangement for the Chairperson.

Dispute Resolution Board members shall be reimbursed for out-of-pocket expenses including, but not limited to, travel, copying, telephone, clerical services, and mailings. The Dispute Resolution Board members shall be allowed a reasonable per diem for meals and actual lodging costs provided they stay in hotels. Dispute Resolution Board members must provide documentation for all expenses.

The parties shall share all Dispute Resolution Board members' fees and expenses equally.

DB 107-27.8 Arbitration

Any claim, properly presented pursuant to DB Section 107-27.6, in the absence of agreement by the Design-Builder and the Department as to the resolution thereof, and upon the demand of either party delivered in writing to the other within 30 calendar days from the date of the written decision by the Chairman of the Disputes Resolution Panel, as provided in the aforesaid DB Section 107-27.6; shall be decided by arbitration in accordance with the Construction Industry Arbitration Rules of the American Arbitration Association then in effect; except as otherwise modified by these Specifications. The arbitration proceeding may involve presentation of facts or such portions thereof as have previously been presented at prior administrative hearings held pursuant to DB Section 107-27.6 herein or may be based entirely upon the record, as established therein. The record established at prior administrative hearings pursuant to DB Section 107-27.6 shall be specifically admissible at such arbitration proceedings and such facts as have been established shall be specifically binding upon the parties; with the exclusion of opinions and conclusions thereon. Such arbitration shall be specifically based upon the claim presented at prior administrative hearings and no material, information, fact, and/or claim not presented at such hearings held pursuant to said DB Section 107-27.6 shall be admissible at any arbitration conducted pursuant to this Section. The arbitrators, in their final ruling on the claim shall include a summary of the evidence, findings of fact based upon the evidence, conclusions of law, and a concise statement of the relief awarded. This agreement to arbitrate shall be strictly enforceable as provided under Chapter 57, Title 10 of the Delaware Code, as amended.

DB 107-27.9 Design-Builder and Subcontractor/Supplier Disputes

Any dispute arising between the Design-Builder and its subcontractor/supplier concerning payments held in trust, as required by Chapter 8, Title 17 of the Delaware Code, shall be resolved by arbitration. The Department shall not serve as the arbiter of such disputes, but shall, in the absence of agreement between

the parties, designate the American Arbitration Association to resolve the matter.

STATE OF DELAWARE

DEPARTMENT OF TRANSPORTATION

DESIGN-BUILD PROJECT

for

INDIAN RIVER INLET BRIDGE

Replacement of Bridge 3-156,
SR1 over Indian River Inlet
State Contract # 26-073-03 Readvertised
Federal Contract # BRN-S050(14)

SCOPE OF SERVICES PACKAGE

CONTRACT DOCUMENTS

PART 2

DB SECTION 108

PROSECUTION AND PROGRESS

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DB SECTION 108

PROSECUTION AND PROGRESS

DB 108-1 SUBLETTING OF CONTRACT

The Design-Builder shall not subcontract, sublet, sell, transfer, assign, purchase work or materials from an organization other than its own, or otherwise dispose of the contract or contracts or any portion thereof, or of its right, title or interest therein, without written consent from the Project Manager. The Design-Builder shall perform with its own organization work amounting to not less than 50% of the total Contract Price, except that any items designated in the Contract as "specialty items" may be performed by subcontract and the cost of any such specialty items so performed by subcontract may be deducted from the original Total Lump Sum Contract Price before computing the amount of work required to be performed by the Design-Builder with its own organization. Only the original Contract Price and the value of subcontracted work approved by the Project Manager will be used to compute the percentage of subcontracted work. Adjustments in quantities or additional items of work will not require an adjustment of the percentage computed as described above. The Design-Builder's organization shall be construed to include only those workers on its payroll, employed and paid directly by the Design-Builder, and equipment owned or rented by the Design-Builder with or without the operator(s) as is consistent with normal industry practice.

If the Design-Builder to whom the Contract is awarded proposes to subcontract any part of Work, the scope and value of the Work to be done by the subcontractor shall be outlined. The cost of materials to be used by the subcontractor shall be outlined. The cost of materials to be used by the subcontractor shall be included in the value of the subcontracted work. A subcontractor shall not subcontract further a portion of the Work intended to be done by the original subcontractor without the express written permission of the Project Manager. In granting such permission, the Project Manager shall ensure that the subcontractor seeking to subcontract the Work to be performed by another shall nonetheless perform with its own organization work amounting to not less that 50% of the total subcontracted price included in the Price Proposal.

All traffic control work and related items shall either be performed entirely by the Design-Builder's own organization or totally subcontracted. Maintenance of the equipment shall not be subject to this requirement.

When the Design-Builder has sublet a portion of the Contract or a bid item to a subcontractor, the actual payment to the subcontractor shall be applied to fulfill Disadvantaged Business Enterprise (DBE) requirements of the Contract, as specified in DB Section 102-15. The cost of a portion of the Contract or Project Component performed by a DBE shall be applied against the Design-Builder to determine if the Design-Builder is performing at least 50% of the total Contract bid price, as required herein.

The Design-Builder must obtain written permission from the Project Manager for each subcontractor to whom the Design-Builder intends to subcontract or sublet a portion of the Work prior to execution of the subcontract agreement. As a prerequisite to payment for any Work done by a subcontractor or on a subcontractor's behalf and prior to any Work being done on the Project by the said subcontractor, the Design-Builder shall submit a certified copy of the Design-Builder's subcontractor agreement and any and all other contracts with suppliers or any other person, firm, or organization for review and approval by the Project Manager. Each subcontract shall be in writing and shall contain and state that all pertinent provisions and requirements of the prime contract are incorporated into the subcontract. It shall be the Design-Builder's responsibility to determine that all such provisions are included and such provisions shall be implied where not specifically included.

The Design-Builder may also be required to submit additional information concerning the prospective

subcontractor or supplier, including any additional information required by the terms of this Contract, by the Department or FHWA, or other governmental agency, where necessary. Such information may include but may not be necessarily limited to:

A. The organization that performs the Work is particularly experienced and equipped for such work.
B. Assurance by the Design-Builder that the Labor Standards Provision set forth in this Contract shall apply to labor performed on all work encompassed by the Contract.
C. All Civil Rights Provisions and DBE requirements have been satisfied.
D. The Department is indemnified and saved harmless from the action of the subcontractor or supplier.
E. Disputes Resolution Clause is included in the subcontract.
F. Design-Builder saves harmless and indemnifies the Department for omissions in the Design-Builder's subcontractor agreement.

Any review performed or permission or approval granted under these Specifications shall not operate, nor be interpreted as approval of the Work to be performed by the subcontractor or material supplied by a supplier, nor shall it operate to relieve the Design-Builder of the sole responsibility for satisfactory completion of the Contract. No contracts, subcontracts, supplier agreements, sales, transfers, leases, assignments, or any other agreements applicable to this Contract shall in any case release the Design-Builder of its sole responsibility and liability under the Contract and bonds.

The Department, in its discretion, may refuse to pay for all or part of the Work or materials or may refuse to accept any work performed by such unapproved subcontractor or materials supplier and may refuse to consider work performed or materials supplied as part of the subcontracted work.

DB 108-2 START AND PROGRESS OF WORK

DB 108-2.1 Progress Schedules

Sufficient materials, equipment, and labor shall be provided by the Design-Builder to guarantee the completion of the Project within the Contract time.

The Design-Builder shall submit a Critical Path Method (CPM) progress schedule to the Project Manager for review. The Work shall not be started until the progress schedule and methods of construction operations for each phase of construction are acceptable to the Project Manager and are in conformance with all applicable erosion and sediment control requirements. The progress schedule shall be used to establish the critical construction operations and to monitor the progress of the Work.

The schedule shall show the order in which the Design-Builder proposes to carry on the Work and be of sufficient detail to demonstrate a reasonable and workable plan to complete the Project within the Contract Time. The schedule shall be in a suitable scale to indicate graphically the total percentage of Work scheduled to be completed at any time. 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 initial update of the Baseline Schedule and all subsequent monthly updates shall be certified by the Design-Builder's Quality Control (QC) Manager and signed and sealed by a Delaware-licensed Professional Engineer. The certification shall state the following:

"This Updated Baseline Schedule hereby submitted correctly represents the Design-Builder's planned and actual progress as of the date of the schedule and contains none of the following:

A. Excessive leads or lags; and

B. Assigned constraints, except those specified in the Contract Documents.

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 purpose of this scheduling requirement is to ensure adequate planning and execution of the Work and to evaluate the progress of the Work. Consultation and Written Comment by the Department regarding the Original Baseline Schedule shall not be construed to imply approval of any particular method or sequence of construction or to relieve the Design-Builder of providing sufficient Material, Equipment, and labor to guarantee completion of the Project in accordance with the Contract Documents. The updated Baseline Schedules may be utilized to facilitate the Department's Quality Assurance (QA) activities. Consultation and Written Comment regarding the Original or Updated Baseline Schedules shall not be construed to modify or amend the Contract or the date of completion therein.

The Baseline Progress Schedule and updates will be reviewed by the Department and the Design-Builder at least monthly as part of one of the weekly progress meetings.

The Design-Builder shall employ and supply a sufficient force of workers, Materials, and Equipment and shall prosecute the Work with such diligence so as to maintain the rate of progress indicated on the Baseline Schedule to prevent Work stoppage and ensure completion of the Project within the Contract Time. Any additional or unanticipated costs or expense required to maintain the schedule shall be solely the Design-Builder's obligation and shall not be charged to the Department unless provided for in other provisions of the Contract.

The Design-Builder shall furnish weekly Work schedules indicating the number of personnel, kind of Equipment, and location and nature of the Work to be performed.

See Part 4 - Special Provisions for detailed requirements related to the Baseline and Updated Schedules under "Project Control System Development Plan" and "CPM Schedule Updates and/or Revised Updates".

DB 108-2.2 Failure to Submit Baseline Progress Schedule or Update

If the Design-Builder fails to submit a Baseline Progress Schedule or any revision or update when required, the Department's Project Manager may suspend payment per DB Section 109.

DB 108-2.3 Monthly Progress Reports

The Design-Builder shall submit a monthly progress report with each payment request, consisting of the following:

A) A progress narrative;

B) Quality certifications;

C) A safety report, using Form SAF (DB Section 107 and Appendix 108A);

D) A security report (DB Section 107);

E) A monthly Baseline Schedule update (DB Section 108-1 and Part 4 – Special Provisions);

F) A Change Order status report;

G) A monthly subcontract report;

H) Quantity calculations (DB Section 109-2.7);

I) An updated Contract Submittals List (CSL);

J) A summary of hazardous and contaminated substance activities;

K) Project photographs; and

L) A statement of Materials and labor used.

DB 108-2.3.1 Progress Narrative

The Design-Builder shall prepare and submit a monthly progress narrative. The progress narrative shall summarize the following information:

A) Activity and progress for the Contract, including design and construction and identification of the start and completion dates of major phases of Work;

B) Achievement of any Project Milestones*;*

C) Quality Control efforts, including results of any Design Reviews and/or quality audits;

D) Problems/issues that arose during the period and remaining problems/issues to be resolved;

E) Resolution of problems/issues raised in previous progress reports or resolved during the period;

F) Critical schedule issues and proposed resolutions, proposal of actions planned to correct any negative float or other schedule slippage, and explanation of potential delays and/or problems and their estimated impact on performance and the Substantial Completion Date; and

G) Issues which may need the Department's Project Manager's attention or action for the next month, including Design Reviews.

DB 108-2.3.2 Quality Certifications

The Design-Builder shall submit monthly a certificate signed by the Design QC Manager and the Construction QC Manager certifying the following for the previous month:

A) That all Work, including that of the Designer and all other designers, Subcontractors at all tiers, suppliers, and fabricators has been checked and/or inspected by the Design-Builder's QC staff and that all Work, except as specifically noted in the certification, conforms to the requirements of the Contract; and

B) That the Quality Plan and all measures and procedures provided therein are functioning properly and are being followed, except as specifically noted in the certification.

DB 108-2.3.3 Change Order Status Report

The Design-Builder shall provide a report of outstanding Change Order requests containing the following:

A) The Design-Builder's and the Department's Change Order identification numbers and/or coding;

B) The issue title;

C) A brief description of the change;

D) Any outstanding issues to be resolved;

E) The estimated cost and time implications; and

F) The projected resolution date.

DB 108-2.3.4 Subcontract Report

As part of the monthly progress report, the Design-Builder shall submit a subcontract report providing the Department with an updated list of Subcontractors including DBE Subcontractors (design and construction at all tiers). The location where the Subcontractors worked shall be shown

The Design-Builder shall also report the results of all procurements consummated in the previous month, including those procured competitively and by other means. The Design-Builder shall indicate the type of Work or product procured and size of the procurement (in dollars), the names of firms competing for the subcontract, and the name of the successful Subcontractor.

The report shall indicate the total number of Subcontractors and the total dollar value of all subcontracts awarded to date. DBE Subcontractors shall be clearly identified in the report.

The report shall indicate, for each subcontract, the following:

A) The original subcontract amount;

B) The value of any modifications to date; and

C) Payments made to date.

DB 108-2.3.5 Contract Submittals List

Within 30 Calendar Days of Notice to Proceed (NTP), the Design-Builder shall prepare and submit to the Department's Project Manager a Contract Submittals List (CSL) covering all submittals required during the first six months of the Contract. Thereafter, the Design-Builder shall submit monthly updates to Form CSL with the Monthly Progress Report (DB Section 108-2.3). The updated Form CSL shall show the record of submittals made to date and shall show the submittals due over the next three-month period.

DB 108-2.3.6 Summary of Hazardous and Contaminated Substances Activity

The Design-Builder shall submit a monthly summary of activities related to hazardous and contaminated substances. If there is no activity, the report shall indicate such.

DB 108-3 KEY PERSONNEL

DB 108-3.1.1

In addition to the Design-Builder's Principal-in-Charge, Project Manager, Design Manager, and Construction Manager, described below, the positions listed in Part 4 – Special Provisions, Special Provision 108B shall be the Design-Builder's Key Personnel for the Project. The Design-Builder shall provide personnel that meet the minimum requirements specified in Part 4 – Special Provisions, Special Provision 108B.

A. Design-Builder's Principal-in-Charge: Should have a minimum of 20 years experience in construction and management of major bridge or highway projects that included work of a similar scope, nature, and complexity as this project. The Principal-in-Charge should have served in a similar role on a minimum of one prior design-build project of similar scope, nature, and complexity as this project.

B. **Design-Builder's Project Manager:** Should have a minimum of 15 years experience in construction and management of major bridge structures with demonstrated experience on the design and construction engineering of bridge projects that included work of a similar scope, nature, and complexity as this project. The Project Manager shall have served in a similar role on a minimum of one prior design-build project. The Design-Builder's Project Manager shall be the Design-Builder's representative and single point of contact.

C. **Design Manager:** Shall be a Delaware-licensed Professional Engineer who is an employee of the Designer or a firm on the design team. The Design Manager shall have a minimum of 15 years experience in design of large bridge design projects with similar type, scope and complexity as this project. The Design Manager should have served in a similar role on a minimum of one prior design-build bridge project.

D. **Construction Manager:** Should have a minimum of 15 years experience in construction of major bridge structures with demonstrated experience on the construction of bridge projects that included work of a similar scope, nature, and complexity as this project. The Construction Manager should have served in a similar role on a minimum of one prior design-build bridge project.

The Department's Project Manager may designate other positions as Key Personnel or change the designation of some of the positions as needed at any time during the Contract. Additionally, any of the key personnel identified in Part 4 – Special Provisions, Special Provision 108B, may serve in more than one capacity on the Project.

Key Personnel shall be located in the Project vicinity for the duration of the Contract except for the following positions:

A) The Project Principal-in-Charge and QC Manager shall be available and present as necessary to fulfill their Project responsibilities;

B) The Design Manager and Design QC Manager shall be available and present as necessary through the completion of final design for design changes and other design services during and after construction, including preparation of As-Built Plans; and

C) The Construction Manager and Construction QC Manager shall be present on site whenever construction activities are being actively pursued.

DB 108-3.2 Directory

Within 15 Working Days after NTP, the Design-Builder shall submit to the Department's Project Manager a directory and organizational chart showing all of its Key Personnel. The directory shall be updated throughout the Contract as changes occur. The directory shall include the names, titles, areas of responsibility, office address and location, office telephone and facsimile numbers, and cellular and/or pager numbers of Key Personnel. The Design-Builder shall provide information sufficient for the Department to contact any of the Key Personnel on a 24-hour basis for the duration of the Contract.

The Department's Project Manager shall provide a directory of the Department's Project staff to the Design-Builder.

DB 108-3.3 Temporary Absence of Key Personnel

If any of the Key Personnel plans to be absent from the site for more than 48 hours, the Design-Builder shall inform the Department's Project Manager in writing seven Calendar Days in advance of an "acting" to represent the absent Key Personnel.

DB 108-3.4 Changes in Key Personnel

The Design-Builder shall assign the Key Personnel identified in the Design-Builder's Proposal to this Project. Except in exceptional circumstances, as determined by the Department's Project Manager, the Design-Builder shall submit the names and qualifications of proposed replacement Key Personnel to the Department's Project Manager 30 Calendar Days in advance of any replacement of any Key Personnel.

The Design-Builder may change Key Personnel only upon receipt of a written consent from the Department's Project Manager. The Department's Project Manager may require written justification from the Design-Builder explaining the replacement of any Key Personnel.

DB 108-4 TRAFFIC REQUIREMENTS AND DESIGN-BUILDER'S OPERATIONS

The Design-Builder shall conduct work at all times in such a manner and in such sequence as will ensure the least interference with traffic. The Design-Builder shall give due regard to the location of detours and to the provisions for handling traffic. The Design-Builder shall not open up work to the prejudice or determent of work already started, and the Project Manager may require the Design-Builder to finish a section on which the Work is in progress before work is started on any additional sections.

DB 108-5 CHARACTER OF WORKERS AND EQUIPMENT

In the construction of all public works for the State or any political subdivision thereof, or by persons contracting with the State or any political subdivision thereof, preference in employment of laborers, workers, or mechanics shall be given to bonafide legal citizens of the State who have established citizenship by residence of at least 90 days. Each public works contract for the construction of public works for the State or any political subdivision thereof shall contain a stipulation that any person, company, or corporation who violates the provisions of this Section shall pay penalty to the State Treasurer equal to the amount of compensation paid to any person in violation.

The Design-Builder shall employ only competent and efficient persons. Whenever, in the opinion of the Project Manager, any employee is careless or incompetent, obstructs the progress of the Work, acts contrary to instructions of the superintendent or foreman, or conducts themselves improperly, the Design-Builder shall, upon the request of the Project Manager, discharge the employee from the Work and shall not again employ that person on the Contract or any other contract for the Department, except with the written consent of the Project Manager.

All machinery and equipment owned or controlled by the Design-Builder, that is proposed to be used by the Design-Builder on the Work, shall be of sufficient size and capacity and such mechanical condition as to meet the requirements of the Work and to produce a satisfactory quality of work. Equipment used on any portion of the Project shall be such that no injury to the roadway, adjacent property or other highways results from its use.

When methods and/or equipment to be used by the Design-Builder in accomplishing the construction are not prescribed in the Contract, the Design-Builder is free to use any methods and/or equipment that it demonstrates to the satisfaction of the Project Manager will accomplish the Contract work in conformity with the requirement of the Contract.

When methods and/or equipment to be used by the Design-Builder in accomplishing the construction are not prescribed in the Contract, the Design-Builder is free to use any methods and/or equipment that it demonstrates to the satisfaction of the Project Manager will accomplish the Contract work in conformity with the requirement of the Contract.

When the Contract specifies that the construction be performed by the use of certain methods and/or

equipment, such methods and/or equipment shall be used unless others are authorized by the Project Manager. If the Design-Builder desires to use a method and/or type of equipment other than those specified in the Contract, the Design-Builder may request authority from the Project Manager to do so. The request shall be in writing and shall include a full explanation of the reasons for desiring to make the change. If approval is given, it will be on the condition that the Design-Builder will be fully responsible for producing construction work in conformity with Contract requirements. If, after trial use of the substituted methods and/or equipment, the Project Manager determines that the Work produced does not meet the Contract requirements, the Design-Builder shall discontinue the use of the substitute method and/or equipment and shall complete the remaining construction with the specified methods and/or equipment.

The Design-Builder shall remove the deficient work and replace it with work of specified quality, or take such other corrective action as the Project Manager may direct. No change will be made to the Lump Sum Contract Price for the Project Components or items involved, nor in Contract Time as the result of authorizing a change in methods and/or equipment under these provisions unless it is as a credit or a VEP.

DB 108-6 EXTENSION OF CONTRACT TIME

An extension of the Contract Time may be granted by the Department under the following conditions provided documentation has been given to the Project Manager. If the Design-Builder finds that it will be impossible to complete the Work on or before the time allowed by the Contract, the Design-Builder shall, prior to the termination of such time, submit a written request to the Project Manager for an extension of time for completion of the Contract. The Design-Builder shall set forth fully therein the reasons that it considers would justify the request. If requested by the Project Manager, the Design-Builder shall submit a revised detailed progress schedule showing the remaining Work to be completed on or before the requested extended completion date. If the Project Manager finds that the Work was delayed or damage to the Work occurred on account of unusual conditions beyond the control of the Design-Builder to warrant additional time, the Project Manager will grant an extension of time for completion in such amounts as appears to be reasonable and proper. Upon written notice being sent by the Project Manager, the new completion time shall be incorporated into and become part of the Contract and shall be binding upon the Design-Builder and Surety. The Design-Builder shall not be entitled to any additional time as a result of any delay caused by the Design-Builder's failure to prosecute the Work and/or the Design-Builder's failure to work in accordance with the progress schedule without valid reason as permitted by these Specifications.

DB 108-7 FAILURE TO COMPLETE ON TIME

For each Calendar Day or Working Day that work remains uncompleted after the Contract Time has expired or beyond the completion date established by the Contract, the sum specified will be deducted from any money due the Design-Builder. This sum shall not be considered and treated as a penalty but as Liquidated Damages due the Department by reason of inconvenience to the public, added cost of engineering and supervision, and other extra expenditures of public funds due to the Design-Builder's failure to complete the Work on time. Any adjustment of the Contract time for completion of the Work granted under DB Section 108-6 will be considered in the assessment of liquidated damages.

Each and every consecutive calendar day, including Saturdays, Sundays, and holidays, shall be included in the computations for the assessment of Liquidated Damages.

The Design-Builder shall become liable for Liquidated Damages for delays commencing from the date on which the Contract time, as adjusted by DB Section 108-6, shall expire.

If there is a delay in the delivery of critical materials, such as steel, copper, or aluminum, due to defense

needs, energy crisis, etc., a time extension shall be allowed for such delays. Each case will be independently evaluated to determine if the delays were, in fact, beyond the control of the Design-Builder or fabricator and delayed the Project completion. Satisfactorily supported time extension requests shall be made concurrently with the delay and not after the fact.

Requests for time extensions shall be subject to review by the Project Manager, and the Project Manager will determine the amount of time extension allowed.

There will be no acceptance of unsupported claims of delays in delivery of Material as a basis for time extensions. The Design-Builder is presumed to have included in its Contract price, allowance for any anticipated delays in procurement of materials, which procurement is its sole responsibility. Unless some unusual market condition such as an industry-wide strike, natural disaster, or area-wide shortage arises after bids are taken and prevents procurement of materials within the allowable time limitations, delays in delivery of such materials do not provide sufficient reason for suspending time charges.

Permission for the Design-Builder or Surety to continue and finish the Work after the Contract Time and approved extensions have elapsed shall not waive the Department's rights under the Contract.

The Department may waive such portions of the Liquidated Damages as may accrue after the Work is substantially complete and is in a condition for safe and convenient use by the traveling public.

Payment of Liquidated Damages will be deducted from payments otherwise due the Design-Builder or be made by direct payment by the Design-Builder in the event the total Liquidated Damages due exceed said deductions.

Liquidated Damages for the period from May 1 through October 30, will be at a rate of **$15,226.50** per Calendar Day.

Liquidated Damages for the period from November 1 through April 30, will be at a rate of **$12,886.50** per Calendar Day.

DB 108-8 DEFAULT OF CONTRACT

The Project Manager may give notice to the Design-Builder and the Surety, in writing, declaring the Contract to be in default under the following conditions:

A. If the Design-Builder fails to begin the Work within the time specified in the Notice to Proceed.
B. If the Design-Builder fails to perform the Work with sufficient labor, equipment, and material resources to ensure the prompt completion of the Work in accordance with the approved schedule.
C. If the Design-Builder's Work is determined by the Project Manager to be defective or otherwise unacceptable Work or if the Design-Builder refuses or neglects to remove Materials or replace or repair rejected Work.
D. If the Design-Builder discontinues the prosecution of the Work or fails to resume the Work that has been discontinued.
E. If the Design-Builder becomes insolvent, declares bankruptcy, commits any acts of bankruptcy or insolvency, or allows any final judgment to stand unsatisfied for a period of ten days.
F. Makes an assignment for the benefit of creditors without authorization by the Department.
C. For any other cause whatsoever, fails to carry on the Work, in the Department's judgment in

a manner consistent with Contract requirements.

If the Design-Builder or Surety, within a period of ten days after such notice, does not proceed in accordance therewith, then the Project Manager will declare the Design-Builder to be in default on the Contract, terminate the Design-Builder's right to proceed with the Work, and have full power and authority, without violating the Contract, to take over the prosecution of the Work from the Design-Builder. The Department may appropriate or use the Design-Builder's materials at the site as may be suitable for use in the Project and may enter into an agreement with another contractor or entity for the completion of the Contract according to the terms and provisions thereof, or use other methods as in the opinion of the Project Manager will be required for the completion of the Contract.

All costs and changes incurred by the Department, as a result of the default, including the cost of completing the Work under contract or remedying defective or otherwise unacceptable work, and any applicable Liquidated Damages or disincentives will be deducted from monies due the Design-Builder for completed work. If such cost exceeds the sum which would have been payable under the Contract, then the Design-Builder and the Surety shall be liable and shall pay to the Department the balance of such costs in excess of the Contract Price.

If it is determined, after termination of the Design-Builder's right to proceed, that the Design-Builder was not in default, the rights and obligations of the parties will be the same as if the termination had been issued for the convenience of the Department in accordance with DB Section 108-10. Thus, damages to which the Design-Builder may be entitled as a result of an improper default termination will be limited to amounts as provided for in DB Section 108-10.

DB 108-9 TERMINATION OF DESIGN-BUILDER'S RESPONSIBILITY

The Contract will be considered complete when all Work, including the acceptable submission of all required documents, has been satisfactorily completed, the final inspection made, and the Work accepted by the Department. The Design-Builder will then be released from further obligation except as set forth in the Design-Builder's Payment, Performance and Maintenance Bonds and DB Section 107.

DB 108-10 TERMINATION OF CONTRACT

The Department may, by written order to the Design-Builder, terminate the Contract or any portion of the Contract when such termination would be in the best interest of the Department. In the event such termination occurs without fault and for reasons beyond the control of the Design-Builder, all completed items as of the date of termination will be paid for at the Contract Price, where applicable. Payment for partially completed and eliminated work will be paid for as provided in DB Section 109-9, Eliminated Items.

Acceptable materials, obtained by the Design-Builder for the Work, but which have not been incorporated therein, may, at the option of the Department, be purchased from the Design-Builder at actual cost delivered to a prescribed location, or otherwise disposed of as mutually agreed.

After receipt of notice of termination from the Department, the Design-Builder shall submit, within 60 days of the effective termination date, its claim for additional damages or costs not covered above or elsewhere in these Specifications. Such claim may include such cost items as reasonable idle equipment time, mobilization efforts, uncompensated bidding and project investigation costs, overhead expenses attributable to the Project terminated, legal and accounting charges involved in claim preparation, subcontractor costs not otherwise paid for, actual idle labor costs if work is stopped in advance of the termination date, guaranteed payments for private land usage as part of original Contract, and any other cost or damage item for which the Design-Builder feels reimbursement should be made. The intent of

negotiating this claim would be that an adjusted figure be reached with the Design-Builder. In no event, however, will loss of anticipated profits be considered as part of any settlement.

The Design-Builder agrees to make its cost records available to the extent necessary to determine the validity and amount of each item claimed.

Termination of the Contract or portion thereof shall not relieve the Design-Builder of its contractual responsibilities for the Work completed, nor shall it relieve the Surety of its obligation for and concerning any just claim arising out of the Work performed.

STATE OF DELAWARE

DEPARTMENT OF TRANSPORTATION

DESIGN-BUILD PROJECT

for

INDIAN RIVER INLET BRIDGE

Replacement of Bridge 3-156,
SR1 over Indian River Inlet
State Contract # 26-073-03 Readvertised
Federal Contract # BRN-S050(14)

SCOPE OF SERVICES PACKAGE

CONTRACT DOCUMENTS

PART 2

DB SECTION 109

LUMP SUM PRICE, PROGRESS, AND PAYMENT

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DB SECTION 109

LUMP SUM PRICE, PROGRESS, AND PAYMENT

This DB Section 109 describes and specifies the lump sum pricing concepts, specifies the means of determining the Work progress, and establishes the procedures for requesting and making payment.

DB 109-1 LUMP SUM PRICING CONCEPT

The Schedule of Values concept will be used for all pricing. The price for each Project Component (PC) will be reflected as a Project Component Value (PCV) on Form SV (Schedule of Values) in Appendix C to the Instructions to Proposers (ITP). The sum of all of the PCVs will be the Lump Sum Contract Price.

The pricing concepts are summarized as follows:

A) The Project is divided into Sections (*see* Form PCD (Project Component Description)) and Form SV in Appendix C to the ITP;

B) Project Components are identified and defined for Project-wide activities and construction activities within the Sections;

C) Project Component Values (lump sum prices or the sum of unit priced items) are assigned to each Project Component and to designated activities within each Project Component by the Proposer/Design-Builder per the ITP;

D) A Contract Periodic Payment Schedule (PPS-C) is prepared by distributing the PCVs over the period of performance of the Work within each PC on a cumulative amount earned basis (a time-price curve). The time-price curve for the Project as a whole is determined by summing the cumulative amounts earned for the PCs;

E) Milestones (MS) designated by the Department and Design-Builder are identified and defined for each of the PCs;

F) The date when achievement of the MSs is planned is identified and shown on a Schedule of MSs; and

G) The sum total of all the Project Components shall be the Lump Sum Contract Price.

Details of the process are described in this DB Section 109.

DB 109-1.1 Project Components

DB 109-1.1.1 General Requirements for Defining Sections and Project Components

Form PCD shows the Department's suggested titles and limits of Sections and PCs. The Proposer/Design-Builder may adjust the PC titles, contents, and limits subject to the requirements noted below, but shall designate Sections and PCs of a similar magnitude and nature to those shown on Form PCD.

The Proposer/Design-Builder shall divide the Project into PCs each representing one or more groups of inter-related Work forming part of the Project. The Proposer/Design-Builder will use the following indicators to create the Sections and PCs:

A) Use Section "A" for non-construction Project Components, including the following, as applicable:

1) Project Component 1 for preliminaries and general requirements, including activities shown in Form PC1 and Table 109-2;

2) Project Component 2 for Project-wide engineering and design activities, including activities shown in Form PC2;

3) Project Component 3 for Maintenance of Traffic activities, including those shown on Form PC3;

4) Project Component 4 for Project-wide environmental compliance and mitigation activities shown on Form PC4;

5) Project Component 5 for public outreach activities, including those activities listed on Form PC5;

Project Components 1 through 5 are reserved for Section "A" for the activities described above;

B) Use Sections "B," "C," and so on for construction Sections and construction PCs. Project Component numbering for Sections subsequent to Section "A" should always begin with PC 6. For example, Section "B" will begin with PC 6, as will Sections "C" and beyond. Thus, there will be only one each of PCs 1 through 5 for any given project. However, there may be multiple PCs 6 and above for a project. For clarity, each PC 6 and above must be identified by Section and PC number (i.e., Project Component B-6 for Section "B," PC C-6, and so on);

C) Each construction PC shall represent a series of Work activities comprising a complete Project Component when constructed. *See* Form SV; and

D) Each Project Component shall have two or more MSs.

See the ITP, Appendix C, for all Pricing Forms.

For all PCs except PCs 1, 2, 3, 4, 5 (Forms PC1, PC2, PC3, PC4, PC5), the Proposer/Design-Builder shall provide a description identifying the scope of Work for each PC in bulleted or narrative form on Form PCD. The Proposer/Design-Builder may include a list of the key components shown on Form SV in each PC description. The Proposer/Design-Builder must generally describe all the Work encompassed within each PC and clearly cross reference items of a similar nature that are included in other PCs.

DB 109-1.1.2 Mobilization

Mobilization shall be an activity in PC 1. Mobilization shall not exceed five percent *of* the Lump Sum Contract Price.

DB 109-1.1.3 Material Delivered To The Site

If the Proposer/Design-Builder plans to request payment for Material delivered to the site, it must show delivery of the Material as an activity of the associated Project Component(s). *See also* DB Section 109-6.3.

DB 109-1.1.4 Specific Rules For Project Components

The following rules apply for Project Components.

A) Project Components 1 through 5
The Proposer/Design-Builder may add Project-wide activities to Forms PC1 through PC 5, but shall not delete any of the activities shown on Forms PC1 through PC 5.

B) Other Project Components

1) Unless agreed to by the Department, Project Components shall not contain more than one Critical Path; and

2) The Design-Builder may find it beneficial to place significant portions of the Project that will be completed by a separate Subcontractor and/or represent significant differences in crafts and/or trades, such as utility relocations, in separate PCs.

DB 109-1.2 Periodic Payment Schedule

The PPS-C shows the planned amount payable to the Design-Builder for each month of Work carried out in the PCs, subject to conditions stated in the Contract. The PPS-C will be the basis for the amounts of periodic payments. However, accelerated payments may be made in accordance with DB Section 109-5.7.

In its Proposal, the Design-Builder submitted a Proposed Periodic Payment Schedule (PPS-P) for the Work. The Design-Builder shall develop and submit the PPS-C to the Department's Project Manger within 45 Working Days of Notice to Proceed (NTP) for review and written acknowledgement. The Design-Builder shall develop the PPS-C in accordance with this DB Section 109-1.3. The PPS-C, upon written approval of the Department's Project Manager, will be incorporated into Part 8 of the Contract.

DB 109-1.2.1 General Requirements for the Periodic Payment Schedule

The Design-Builder shall develop and submit the PPS-C broken down to each Section and PC. The Sections and PCs in the PPS-C shall match those shown on Form PCD. The Design-Builder shall make no changes in PCVs except as authorized by Change Orders.

The PPS-C shall cover the entire period of the Contract in monthly increments, through Final Acceptance, using months and years on the Gregorian calendar, starting at the date of NTP.

The Design-Builder shall make the cumulative payment percentages shown on the PPS-C compatible with the progress of the Work indicated in its proposed Baseline Progress Schedule.

All Project Components, regardless of measurement and payment method, shall be shown on the Periodic Payment Schedule.

DB 109-1.2.2 Developing the Periodic Payment Schedule

The Design-Builder shall distribute the PCV of each PC over the period of the Contract within the limitations described in this DB Section 109-1.3 to indicate the Design-Builder's desired payment schedule.

There will be no advance payment and there will be no separate PC for mobilization. Mobilization costs shall be included in PC 1.

The sum of the Project Component Values shall equal the Lump Sum Contract Price.

The Design-Builder shall determine the monthly cumulative payment distribution of the PCV over the duration of the Contract for each PC. The resulting curve shall be the PPS-C for each PC.

The time-price curve for each PC shall be developed in such a manner that the amount planned to be earned for any month preceding the date of a MS shall not be less than ten percent of the PCV.

The Design-Builder shall do the following to determine the Periodic Payment Schedule for the Contract:

A) For each Project Component, list each monthly cumulative payment for each month for that Project Component; and

B) For each month, sum the planned cumulative payments for the PCs to determine the planned maximum cumulative Contract payment for each month of the Contract.

DB 109-1.2.3 Review of the Periodic Payment Schedule

In addition to the procedure for revision of the PPS-C pursuant to DB Section 109-1.4.4, the Department's Project Manager will carry out a detailed examination and review of the PPS-C, the MSs, and the dates stipulated for their achievement and an assessment of the extent to which the Work has been carried out up to the date of such review, in the following events:

A) The Department's Project Manager accepts a revised Baseline Progress Schedule containing a change to the sequence or timing of the Work; or

B) The Department's Project Manager grants an extension of time in accordance with DB Sections 104 and 109; or

C) The Design-Builder adopts a recovery schedule in accordance with DB Section 108; or

D) The Department's Project Manager orders a suspension of the Work or any part thereof; or

E) The Department's Project Manager instructs a change under DB Section 104; or

F) Following the suspension of payment pursuant to DB Section 109-6.1(C), the relevant MS has not been achieved within three months of the date stipulated in the Schedule of MSs; or

G) There is a significant change in a PCV by reason of a determination of the Department's Project Manager in accordance with the Contract.

DB 109-1.2.4 Cooperation

The Design-Builder shall cooperate with and, to the best of the Design-Builder's ability, assist the Department's Project Manager in making any such detailed examination pursuant to DB Section 109-1.2.3. The Design-Builder shall provide all such information as may be reasonably required in connection therewith at no increase in Lump Sum Contract Price or extension in time. If, as a result of this detailed examination, the Department's Project Manager is of the opinion that, in relation to any PC, the relationship between periodic payments and progress of the Work and the degree of control over periodic payments envisaged at the date of concurrence of the Design-Builder's Proposal has not been or will not be maintained, then the Department's Project Manager may give 30 Calendar Days written notice to the Design-Builder to prepare a revised PPS-C and/or a revised Schedule of MSs that will, in the Department's Project Manager's opinion, restore, so far as reasonably practicable, said relationship and degree of control. On the expiration of the said notice and after considering any representations the Design-Builder may have made in the meantime, the Department's Project Manager shall, if still of the opinion that revisions ought to be made, revise the PPS-C and/or the Schedule of MSs in any manner that the Department's Project Manager sees fit, based on the rate of progress of the Work which the Department's Project Manager anticipates and with the objective of restoring, so far as is reasonably practicable, said relationship and degree of control.

DB 109-1.3 Milestone Descriptions and Schedule of Milestones

The Design-Builder shall establish and describe MSs that define significant events and/or reflect certain or significant accomplishments towards the completion of Work within each PC that can be readily identified without resorting to measurement of quantities.

For each PC, the Design-Builder shall identify and list the MSs that are reflective of the Baseline Progress Schedule. For each MS identified, the Design-Builder shall provide a detailed description of the Work to be accomplished using Form M.

The Design-Builder shall show its designated Milestones and Department-designated Milestones on Form MS.

The Design-Builder shall develop a numbering system for MSs that readily ties each MS to its specific PC. The Design-Builder will number MSs within the same PC sequentially over time.

If the Design-Builder plans to request payment for Material, products, or components delivered to the site, it must provide for each PC a specific description of the Material, products, or components, including estimated quantities of each. Material, products, or components of a similar type, such as different sizes of Culvert, may be combined in a single MS for a given PC. The Design-Builder shall list similar Material within separate PCs separately for each PC.

The Design-Builder shall complete the Schedule of MSs by selecting events which represent the completion of significant activities, including delivery of Material, products, or components to the site, to be undertaken by the Design-Builder and that are in accordance with the proposed methods and sequence of design and construction.

The Design-Builder shall not describe Milestones in terms of “percent complete.”

The Design-Builder shall enter the scheduled month of completion for each MS in each PC in the column provided. The Design-Builder shall express the months in terms of months after NTP.

Individual Milestones shall meet the following requirements:

A) There shall be Milestones at the start and completion of Work in a Project Component;

B) If the duration of the Work on a PC exceeds six months, the Design-Builder shall identify and describe additional interim MSs so that MSs are not more than three months apart;

C) Milestones shall signify the completion of elements of the Work that can be readily identified as being completed without resorting to conventional measurement of quantities;

D) The Design-Builder shall relate Milestones to activities on the Critical Path, where practicable;

E) There shall be no further periodic payments for a Project Component after achieving the last MS in a Project Component;

F) For PC1, show MSs for each activity in this DB Section 109-1.3(F)(1) through (4) in accordance with due dates established by the Department when such dates are specified in the Contract. Otherwise, the MS dates shall be as designated by the Design-Builder on Form MS for each of the following:

1) Mobilization shall be paid such that 100% of the mobilization costs, not to exceed five percent of the Lump Sum Contract Price, shall be paid out by the time that 50% of the Lump Sum Contract Price has been paid on the Project;

2) Submittal (or resubmittal) of and issuance of the Department's Project Manager's written acceptance or approval (if specified) for the following items:
   a) Safety Plan;
   b) Quality Plan;
   c) Baseline Progress Schedule; and
   d) Other plans to be submitted;

3) Provision for the following:
   a) Facilities and Equipment, if any, for the Department; and
   b) The Design-Builder's temporary facilities;

4) Removal of temporary and Design-Builder provided facilities and site cleanup, landscaping, and restoration. This MS may be scheduled after the Substantial Completion Date; and

5) Periodic audits and updates of the Quality Plan and Safety Plan

6)
For PC 1, MSs shall be at three month intervals covering all activities not covered in this DB Section 109-1.4(F)(1) through (4);

G) For preconstruction engineering and design (Project Component 2), the following particular rules apply:

1) There shall be MSs at the start of design and at the receipt of the Department's Project Manager's written acknowledgement after the Final Design Review as per DB Section 111 for each Design Unit identified by the Design-Builder;

2) The Design-Builder may include additional intermediate Milestones; and

3) The final Milestone shall be the submission and Approval of Record Drawings;

H) Show the month each Milestone is to be completed on Form M;

I) For MSs relating to payment for Material delivered to the site, indicate the planned month of delivery of the Materials as described on Form M;

J) Include Department-designated MSs on Form M;

K) For PC 3, the submittal of the Maintenance of Traffic Plan and its updates shall be MSs. The Design-Builder shall show major traffic shifts and detour changes as MSs;

L) For PC 4, environmental compliance and mitigation, the submittal of specified plans shall be MSs. The Design-Builder shall set MSs for on-going activities at no greater than three month intervals; and

M) For PC 5, Public Outreach activities, the Design-Builder shall set MSs for on-going activities at no greater than three month intervals;

DB 109-1.4 Revisions During the Contract

DB 109-1.4.1 Revisions to Project Components

In the event that revisions to the PCs are required during the Contract, the following procedures shall

apply:

A) Where new PCs are required, the Design-Builder shall revise and submit the following to the Department's Project Manager for written Approval:

1) Form SV;

2) Form PCD;

3) Form M; and

B) Where revisions to existing PCs are required, the Design-Builder shall revise and submit the following to the Department's Project Manager for written Approval:

1) The appropriate revised Project Component description on Form PCD;

2) Any change to Form SV;

3) Revisions to Form M to reflect new Milestones or changes in Milestones; and

4) Revised Project Components 1, 2, 3, 4, and/or 5 on Forms PC1, PC2, PC3, PC4, PC5.

DB 109-1.4.2 Revisions to Schedule of Values

The Design-Builder shall revise the affected PCVs and Form SV to incorporate any change to the Lump Sum Contract Price. The Design-Builder will update Forms SV and PCD and Forms PC1, PC2, PC3, PC4, and PC5, as appropriate, and submit them to the Department's Project Manager for written Approval.

DB 109-1.4.3 Adjustments to Schedule of Milestones (Form M)

In the event that revisions to the Schedule of MSs (Form M) are required during the Contract, the following procedures shall apply:

A) In the event that a MS is not achieved, the Department's Project Manager may order the Design-Builder to revise and submit the Baseline Progress Schedule and the Schedule of MSs (Form M) to update the following:

1) The date by which the non-achieved, changed, or added MS(s) will be achieved; and/or

2) The schedule for any affected subsequent MS which may not be achieved by the originally designated date;

B) The Design-Builder shall revise the Schedule of MSs (Form M) to show changes to affected MSs;

C) In the event of a revision of the Baseline Progress Schedule, the Design-Builder shall revise dates of the affected MSs;

D) In the event of changes to Work, the Design-Builder shall make such changes, additions, or deletions to only those affected MSs so identified in the ordered change;

E) In the event that a MS is changed as result of a time extension the Design-Builder shall change those dates affected by the time extension;

F) In the event that a MS is changed as a result of a suspension of Work order the Design-Builder shall change those dates affected by the suspended Work; and

G) In the event that the Design-Builder's progress exceeds that shown on the Schedule of MSs, and payment is made at an accelerated rate in accordance with DB Section 109-5.7, the Design-Builder shall revise the Schedule of MSs (Form M), as necessary, to reflect any planned changes to the Schedule of MSs.

DB 109-1.4.4 Revisions to the Periodic Payment Schedule

If the Design-Builder's progress is such that MS(s) are completed prior to the date(s) shown on the Schedule of MSs (Form M) and payment is made at an accelerated rate in accordance with DB Section 109-5.7, the Design-Builder shall adjust the PPS-C for the affected PC(s) and submit the revised PPS-C to the Department's Project Manager for written Approval.

The Design-Builder may submit a request to the Department's Project Manager to allow a change to its PPS-C for a PC to reflect changes in timing of the Work within a given PC. No change in PCVs will be permitted except to reflect changes in Lump Sum Contract Price made through Change Orders. The Design-Builder shall accompany any such request with the following:

A) Proposed revisions to the Baseline Progress Schedule to reflect the change in schedule; and

B) Proposed revisions to the MS descriptions and/or Schedule of MSs (Form M) consistent with the requested change in the PPS-C.

The Department, in its sole discretion, may consent to the requested change but will be under no obligation to do so.

Documentation of any changes in the Periodic Payment Schedule will be made as a no-cost Change Order.

When revisions are made to the PPS-C in accordance with the Contract, the Department's Project Manager may reduce or extend the period over which periodic payments may be made.

DB 109-2 MEASUREMENT/DETERMINING PROGRESS

Unless specified otherwise in the Contract Documents, there will be no measurement of quantities to determine payment due, except for any unit price items.

The Design-Builder shall measure unit price items as specified in DB Sections 109-2.5 and 109-5.2, or per the Project Specifications developed by the Design-Builder and accepted by the Department for items that have unit prices.

For PCs and/or Change Orders paid on a force account basis, the Design-Builder shall substantiate progress with submittal of statements specified in DB Section 109-8.2.2.

For PCs and/or Change Orders paid on a unit price basis, the Design-Builder shall substantiate progress with submittal of invoice documents specified in DB Section 109-8.2.1.

For all Work paid on a lump sum basis, the achievement of Milestones shall be determined as follows.

DB 109-2.1 Project Component 1

Where a MS requires the submittal of insurance certificates (in addition to the initial submission of the insurance certificates at the time of Contract execution) or similar documents, the MS is met when the

document has been delivered to the Department's Project Manager and content of the document is shown to meet the Contract requirements and the Department's Project Manager notifies the Design-Builder in writing of that determination.

Where a MS requires the submittal of a specified plan or similar document, the MS is met when the plan has been submitted to the Department's Project Manager for Consultation and Written Comment and the Department's Project Manager issues the written comment(s) relative to the plan or document.

Where a MS requires an audit and/or update of a specified plan, the MS is met when the report of the audit and/or plan update is submitted to the Department's Project Manager for Consultation and Written Comment and the Department's Project Manager issues the written comment(s).

If Design Plans or documents are returned to the Design-Builder without the Department's Project Manager's written acknowledgement, the Design-Builder shall not have met the MS.

Mobilization shall be invoiced at the end of the period following submittal of a Baseline Progress Schedule and the PPS-C that the Department's Project Manager acknowledges in writing meets the Contract requirements.

For continuing activities listed in Table 109-2, the MSs, which shall be at three month intervals, are met when the specified standards and/or requirements, such as those listed in Table 109-2, are met.

TABLE 109-2

PROJECT COMPONENT 1 CONTINUING ACTIVITIES STANDARDS

ACTIVITY	REQUIREMENT/STANDARD
Project Management and Construction Management	• Monthly progress reports prepared and submitted in accordance with DB Section 108; • Key Personnel are on site and meet qualifications requirements of Part 4 – Special Provisions, Special Provision 108B; • Meetings conducted and attended, and minutes prepared in accordance with, DB Section 105; • Baseline Progress Schedule submitted and maintained in accordance with Part 4 – Special Provisions, Special Provision 108A; • Required notices given to the Department's Project Manager in timely manner; and • Contract submittal list submitted and updated in accordance with DB Section 108. • Maintain coordination and cooperation with adjacent contracts and contractors.
Quality Control of Management and Construction	• Quality Plan and updates submitted and received Department's Project Manager's written acknowledgement in accordance with DB Section 113. • Management and construction activities conducted in accordance with the Quality Plan; • Sampling and testing conducted in accordance with DB Sections 105 and 106; and • Documentation prepared and maintained in accordance with DB

ACTIVITY	REQUIREMENT/STANDARD
	Section 112-9.
Security	• Site Security Plan and updates submitted and Department's Project Manager's written acknowledgement of Site Security Plan received in accordance with DB Section 107; and • Security facilities maintained and security services provided in accordance with the Site Security Plan.
Facilities and Equipment provided for the Department	• Facilities and Equipment provided, maintained, and cleaned, and utilities provided and paid for.
Safety	• Safety Plan and updates submitted and received Department's Project Manager's written acknowledgement in accordance with DB Section 107; and • Construction Work conducted in accordance with DB Section 107 and the Safety Plan, including submittal of required reports.
Communications	• Courier service provided.
Design-Builder's Temporary Facilities and Site Maintenance	• Site and facilities maintained in accordance with DB Section 107.
Insurance	• Specified levels of insurance maintained in accordance with DB Section 107.

DB 109-2.2 Project Component 2

The MSs are met when the requirements for preconstruction engineering; design and design management; and design QC, including Design Reviews, have been achieved for the applicable Design Unit including the specified reports, the documentation and QC records, the certifications of the Designer and the Design QC Manager, and the Department's Project Manager's written acknowledgement. In the case of design studies and/or reports, the MS is met when the Department's Project Manager issues a written acknowledgement regarding the study or report.

Progress will be determined on a cumulative percent complete basis consistent with the percent complete shown on Form DUS (*see* DB Section 111-3) as agreed between the Design-Builder and the Department's Project Manager.

DB 109-2.3 Project Components 3 through 5

The MSs are met when specified plans, reports, and/or updates are submitted and the Department's Project Manager issues a written acknowledgement that they meet Contract requirements.

Milestones for Maintenance of Traffic are met when Maintenance of Traffic measures, meeting Contract requirements, are implemented and when planned traffic switches are made.

DB 109-2.4 Project Components Associated with Construction

When the MS is identified by the Design-Builder in its Schedule of MSs (Form M) and requires the completion of an entire PC or partial completion of Work associated with a PC, the MS is met only when all components within the MS are constructed in accordance with Contract requirements.

The Design-Builder must comply with the Quality Control requirements before the Milestone is met.

The Milestone will not be considered met until temporary erosion control measures are in place.

Milestones will not be considered met until applicable environmental requirements have been met.

DB 109-2.5 Unit Priced Work

In computing amounts in estimates or Work done under unit prices, all estimates, including the final, will be made for actual quantities of Work performed and Material placed in accordance with the requirements contained in the Project Specifications, Design Plans, and standard sheets (except as provided under DB Section 109-6.3) as determined as per DB Section 109-6.2, and the resulting quantities involved in the Contract shall be accepted as final, conclusive, and binding upon the Design-Builder.

DB 109-3 CHANGES TO LUMP SUM CONTRACT PRICE

The Lump Sum Contract Price shall be increased or decreased only by a Change Order. The Design-Builder shall revise the PCVs in accordance with the terms of a Change Order and submit the revisions to the Department's Project Manager for written Approval.

The Department's Project Manager may decide the applicable PC for the purpose of any revision in accordance with this DB Section 109-3 if and insofar as the same is not identified in the pricing documents, and shall notify the Design-Builder in writing upon making any such decision.

Notwithstanding this DB Section 109-3, the Department's Project Manager may decide not to include a sum payable to the Design-Builder pursuant to the Contract in a PCV, in which case the Department's Project Manager shall notify the Design-Builder of the decision and the Design-Builder may apply for payment of the sum in accordance with DB Section 109-5.

DB 109-4 CONTRACT PAYMENTS

Payments to the Design-Builder for Work satisfactorily performed will be made monthly.

DB 109-4.1 Scope of Payment

The Design-Builder shall receive and accept compensation provided for in the Contract as full payment for furnishing all Material and for performing all Work under the Contract in a complete and acceptable manner and for all risk, loss, damage, or expense of whatever character arising out of the nature of the Work or the prosecution thereof.

DB 109-4.2 Payment Concept

Payment will be calculated using the PPS-C except for Work performed under other specified means, such as unit prices and/or force account (*see* DB Sections 109-5.2 and 109-8.2.2).

The Design-Builder will be paid monthly based on the percentages and amounts shown on the PPS-C for each PC developed in the manner described in DB Section 109-1.2.2 except as provided in DB Section 109-6.1.

If Work defined for a MS in a PC is not completed by the date shown on the Schedule of MSs (Form M), payment may be adjusted to a level commensurate with actual progress made.

Payment will be based on the Price Proposal and the PPS-C. No payment will be made based on the PPS-P and no payment will be made until the PPS-C is incorporated into the Contract.

Requirements relating to requests for payment for the Work are set forth in DB Section 109-5.

Except for PCs paid on a force account or unit price basis, the PPS-C sets out the maximum accumulative percentage of each PCV (or part thereof) in relation to each month for which the Design-Builder may apply for payment in accordance with this DB Section 109-4.2, subject to the achievement of relevant PCPs. Payment for PCs paid on a force account or unit price basis shall be determined per DB Section 109-8.2.2 and DB Section 109-5.2, respectively.

DB 109-4.3 Progress Payments

No payment will be made for Work until its satisfactory completion in accordance with the Contract and Specifications.

DB 109-4.4 No Payment on Design-Builder's Non-Compliance

No final payment will be made so long as any lawful or proper direction to the Design-Builder by the Department's Project Manager or his/her designee concerning the Work or Material has not been complied with. *See* also DB Section 109-6.1(D).

DB 109-4.5 Claims

The Department will withhold from progress payments and the final payment any amounts claimed due from the Design-Builder.

DB 109-5 REQUESTS FOR PERIODIC PAYMENT

The Design-Builder shall submit all requests for periodic payment to the Department's Project Manager with the monthly progress report (*see* DB Section 108) signed by the Design-Builder's Project Manager, except that the request for final payment must be signed by the Design-Builder's representative or designated Project Principal-in-Charge. The Design-Builder shall submit the request by the fifth day of each month (if a holiday, the next Working Day) or other mutually agreed date.

The Design-Builder's Project Manager, QC Manager, and Design Manager shall execute the certifications on Form RPP (Appendix 109A).

Mobilization will be paid per DB Section 109-2.1.

The Design-Builder shall submit the request for periodic payment using the format illustrated in Form RPP. The Design-Builder will complete the Request for Periodic Payment in accordance with the instructions shown on Form RPP. The maximum cumulative payments at any point in time shall not exceed the sum of planned cumulative payment for each PC as shown on the PPS-C, except when the Design-Builder meets MS's in advance of the dates shown on the Schedule of MS's (Form M). In such case, the Design-Builder shall adjust the maximum payment to incorporate the cumulative payment shown on the PPS-C for MS(s) achieved in advance of the date(s) shown on the Schedule of MSs (Form M). *See also* DB Section 109-5.7.

The Design-Builder shall complete and submit, as part of its request for periodic payment, the certificate

of achievement of MSs on Form RPP, listing the MSs the Design-Builder considers to have been achieved in the previous month. The Design-Builder's Project Manager and the Design-Builder's QC Manager shall sign the draft certificate of achievement of MSs. The request for periodic payment will have no effect until countersigned by the Department's Project Manager pursuant to DB Section 109-6.

DB 109-5.1 Payment Requests with the Monthly Progress Report

Each application for periodic payment shall contain the following:

A) The amount claimed to be payable using Form RPP, setting out the percentage and amount of each PCV claimed according to the PPS-C, including amounts due under force account PCs and/or Change Orders;

B) Any other amount claimed to be payable or deducted pursuant to a determination of the Department's Project Manager, identifying the relevant determination; and

C) A Milestone certificate included on Form RPP indicating the MSs the Design-Builder considers to have been achieved during the preceding month and certifying compliance with Contract requirements. The certification shall be signed by the Design-Builder's Project Manager, QC Manager, and Design Manager.

The Design-Builder shall make payment application for any Work where MSs have been met in advance of the time or date shown on the Schedule of MSs (Form M), subject to meeting all preceding MSs in the applicable PC, in accordance with DB Section 109-5.7.

DB 109-5.2 Unit Price Work

The Design-Builder shall submit a summary table of quantities with the request for periodic payment indicating location, item number and description, quantity, unit price, and total amount due for the period covered by the request for periodic payment. The Design-Builder will attach copies of quantity measurement notes or field book entries stamped and signed by a Delaware-licensed Professional Engineer or Surveyor assigned to the Design-Builder's construction QC organization. The Design-Builder's Project Manager and the Construction QC Manager must sign and date the summary table.

The Design-Builder shall measure quantities as per DB Section 109-2.5.

DB 109-5.3 Payment for Material

Payment for stockpiled or stored Material will be considered only for Materials anticipated to be stored for periods in excess of 90 Calendar Days. When approved by the Department's Project Manager, partial estimates may include an allowance for the value of tested and acceptable materials of a non-perishable or non-contaminative nature which have been produced or furnished in a condition ready for incorporation as a permanent part of work yet to be completed, provided the following terms and conditions are met:

A. *Request.* The request for payment allowance for properly stored materials must be in writing, accompanied by an itemized inventory statement, written consent of the surety, and documentation of prepayment for the materials.

No payment allowance will be permitted for amounts less than $25,000.00 for each material of a qualifying Contract item.

B. *Materials.* An allowance of 100% of the cost to the Design-Builder for materials, not to

exceed 90% of the Contract item price, may be made when such material is delivered and stockpiled or stored in accordance with the requirements specified herein.

Prior to such allowance, all such material shall have been tested and found acceptable to the Project Manager.

Payment shall not be allowed in excess of the quantity required for the Contract. The required quantity shall be based on the Contract bid quantities and approved revisions.

C. *Excluded Materials.* No allowance shall be made for fuels, form lumber, falsework, temporary structures, or for other materials of any kind that will not become an integral part of the finished construction.

No allowance shall be made for cement, aggregate, sand, seed, plants, fertilizer, or other perishable or contaminative items, nor for materials that, in the opinion of the Project Manager, have an unacceptable shelf life, environmental, or safety restriction.

D. *Storage.* All materials shall be stored in an approved manner and in areas where damage is not likely to occur. The material stored shall be dedicated to the Project.

When it is determined impractical to store materials within the limits of the Project, the Project Manager may approve the storage of materials on private property or, for structural members, in the manufacturer's or fabricator's yard. Requests for payment for such material stored outside the limits of the Project shall be accompanied by a release from the owner and/or tenant of such property or yard agreeing to permit the removal of the materials from the property without cost to the State.

E. *Materials Inventory.* Materials shall be available for inspection and inventory at the storage site by the Project Manager or his authorized representative at all times.

F. *Materials Measurement and Payment.* The method of measurement for materials shall be in units which are easily inventoried and acceptable to the Project Manager.

Payment allowance for Materials shall be included in the progress estimate as a Project Component (PC) and shall be subject to any retainage provisions as outlined in the Contract.

DB 109-5.4 Equipment Used to Construct the Project

The Department shall not pay for direct costs of Equipment used to construct the Project. The Design-Builder shall allocate costs for Equipment, whether new, used, or rented, as part of the activities with which the Equipment is associated.

DB 109-5.5 Bond Premiums

The amount payable to the Design-Builder for bond premiums shall be a dollar-for-dollar pass through of the Design-Builder's costs (not to exceed the amount shown on Form PC1 for such premiums).

DB 109-5.6 Permits

The amount payable to the Design-Builder for permits shall be a dollar-for-dollar pass-through of the

Design-Builder's costs (not to exceed amount shown on Form PC1 for permits). The Design-Builder shall provide backup documentation supporting each cost in this category to the Department prior to any payment.

DB 109-5.7 Accelerated Payment

The Design-Builder will be entitled to payment at a rate in excess of that shown on the PPS-C if a MS is completed prior to the date shown on the Schedule of MSs (Form M), provided all MSs preceding the aforementioned MS on the Schedule of MSs (Form M) for that PC have also been completed. Periodic payment will be based on the percentages shown on the PPS-C for the date when the completed MS was anticipated for completion.

See also DB Sections 109-1.4.3 and 109-1.4.4 for resulting adjustments to the Schedule of MSs (Form M) and PPS-C.

DB 109-5.8 Transportation Tax Exemption

All unit prices shall be based on exemption from any transportation tax for which the State is, by law, exempt on materials entering into and forming a part of the Project.

In order for the Design-Builders to take advantage of the exemption from payment of the tax on transportation and to have the construction materials consigned to the State, in care of itself, the Design-Builder shall furnish the supplier with a statement certifying that the Design-Builder has been authorized to claim the exemption, identifying the Contract in which the authorization was given and instructing the supplier to make the shipment involved free of tax.

DB 109-5.9 Source of Supply and Carrier Rates on Construction Materials

Bidders must fully inform themselves as to the source of supply of acceptable materials needed for the work and in regard to the carrier rates and transportation facilities for these materials before submitting proposals.

Inability to secure satisfactory materials from the source upon which the bid was based, or changes in carrier, or the alteration of transportation facilities for these materials during the life of the Contract, shall not constitute cause for claim for extra compensation.

DB 109-6 REVIEW AND PROCESSING OF REQUESTS FOR PERIODIC PAYMENT

Upon receipt of a request for periodic payment, the Department's Project Manager will proceed in accordance with this DB Section 109-6. At the same time, the Department's Project Manager will countersign the certificate of MSs achieved (Form RPP) for MSs met.

Any adjustments by the Department's Project Manager to a request for periodic payment shall be reasonable and in accordance with the Contract Documents.

Upon resolution of any problems with any draft certificate of MSs that resulted in an adjustment in the amount of a prior request for periodic payment, or upon satisfaction of any conditions that were the basis for such an adjustment, the Design-Builder may include the amount of the adjustment in the next request for periodic payment.

DB 109-6.1 Payment Limitations and Partial Suspension of Payments

There will be no advance payments or payments for mobilization except as specified in DB Section 109-1.2.2 and 109-1.3(F)(1).

The Department will not pay for construction Work, including Work being paid on a force account basis, unless the following conditions are met:

A) Design Plans and Project Specifications that have been released for construction as per DB Section 111-12.5 are on site for the Work being constructed;

B) Design Plans and Project Specifications have been checked and reviewed in accordance with DB Section 111-12 and design documentation maintained in accordance with DB Section 111-18;

C) Construction Work has been inspected and sampling and testing conducted in accordance with DB Section 112-2;

D) Items covered by Non-Conformance Reports (NCR) issued by the Department, the Design QC Manager, or Construction QC Manager are corrected and/or resolved to the satisfaction of the Department; and

E) Construction documentation is completed and records and reports submitted and/or retained in accordance with DB Section 112-9.

If the Design-Builder does not meet the MS by the date indicated on the Schedule of MSs (Form M), the payment for that PC in which the MS appears will be prorated commensurate with the progress of the actual Work satisfactorily completed until the date the MS is met, at which time the payment shall be brought up to the appropriate level through the next request for periodic payment.

As a condition precedent to consideration by the Department's Project Manager of any periodic payment for Work described in PC 1 for the preceding month, the monthly progress report completed in accordance with DB Section 108 must accompany each such application.

As a condition precedent to consideration by the Department's Project Manager of any periodic payment for Work described in PC 1 for the preceding month, all certified payrolls of the Design-Builder and all Construction Subcontractors shall be up to date and submitted to the Department.

The Department may suspend payment for PCs' 1, 3, 4, and/or 5 Work for any period if the Design-Builder's performance of Project Components 1, 3, 4, and/or 5 continuing activities during the period resulted in any of the following:

3) Serious disruptions to necessary Maintenance of Traffic and access through the site;

4) Serious disruptions to the Department's access to the site or use of facilities provided for the Department's use;

5) Unacceptable safety performance as evidenced by the Design-Builder's accident record;

6) Non-compliance with environmental requirements that leads to citations, fines, and/or other penalties by environmental authorities;

7) Serious disruptions to procedures and documentation required by the Quality

Plan and/or specified in the Contract;

8) Continued reports of blocked vehicular and/or pedestrian access to properties; or

9) Continued report of failure to comply with the requirements of Part 3 – Design Requirements and Performance Specifications, Public Outreach Performance Specification.

The Department's Project Manager may determine that the three month MSs for PCs 1, 3, 4, and/or 5 continuing activities have not been met and may suspend payment for PCs' 1, 3, 4, and/or 5 Work at the end of the three month period covered by the MS if there is a continuing history of non-compliance and failure to correct deficiencies noted in the Department's Project Manager's monthly assessment of the Design-Builder's performance for PCs' 1, 3, 4, and/or 5 continuing activities listed in DB Sections 109-2.1 and 109-2.2.

No payment will be made under PCs or Change Orders being paid on a force account basis for design or construction Work necessitated to correct deficiencies noted on an NCR. The Design-Builder shall clearly delineate in its records and on the force account report (*see* DB Section 109-8.2) personnel and Equipment used on any corrective force account Work on such deficiencies.

If the Design-Builder fails to actively prosecute Work within a PC, the Department's Project Manager may suspend payment in that PC at the previous month's level or, as agreed between the Design-Builder and the Department's Project Manager, adjust the payment to a level commensurate with actual progress made.

DB 109-6.2 Certification for Periodic Payment

Within seven Calendar Days of receipt of a request in accordance with DB Section 109-5, the Department's Project Manager shall issue to the Department, with a copy to the Design-Builder, a periodic payment certificate showing the amount of any periodic payment the Department's Project Manager considers payable by the Department to the Design-Builder. Such periodic payment certificate shall be the sum of the following:

A) The amounts shown to be due by reference to the Contract Periodic Payment Schedule; and

B) The amounts determined by the Department's Project Manager to be due in respect of the following:

1) Additional cost incurred and payable in accordance with the Contract;

2) Work executed pursuant to a force account Change Order; and

3) Any other amount or allowance to which the Design-Builder is entitled under the Contract, unless account has been or will be taken of such amount or allowance by way of a revision of a PCV under DB Section 109-1.4.2;

less:

a) Any retention monies as provided for in DB Section 109-7;
b) Any amounts certified for payment on certificates previously issued; and
c) Any amounts recoverable from the Design-Builder in accordance with the Contract, including any amount withheld for PC 1 because the Design-Builder failed to provide the monthly progress report in the form and detail required in the Contract or failed to provide a revised Baseline

Progress Schedule that the Department's Project Manager has accepted.

At the same time, the Department's Project Manager shall countersign the certificate of MSs (Form RPP) to be based on the draft submitted by the Design-Builder pursuant to DB Section 109-5, amended as necessary, certifying the MSs the Department's Project Manager considers the Design-Builder to have met. The Department's Project Manager shall have power to omit from any such certificate the value of any Work with which the Department's Project Manager may, for the time being, be dissatisfied. The Department's Project Manager may by any certificate delete, correct, or modify any sum or statement of fact previously certified by him or her.

DB 109-6.3 Cap on Periodic Payment

On some projects, if there is a need, periodic payments may be limited by a cumulative cap set forth on the PPS-C. If a cap on payment is in place on a project, at no time shall the Design-Builder's cumulative total progress payments exceed the cumulative total expenditure shown on the PPS-C except for the Design-Builder's accelerated performance as defined and provided in DB Section 109-5.7. The initial PPS-C set forth in DB Section 109-1.3 hereto is subject to revision from time to time as appropriate to account for any changes in the Lump Sum Contract Price as evidenced by Change Orders.

DB 109-6.4 Payment by Department

Within 21 Calendar Days after receipt by the Department of an acceptable request for periodic payment (such acceptability as determined by the Department), the Department will pay the Design-Builder the amount of the request approved for payment by the Department's Project Manager, less any applicable retainage and less any amounts that the Department is otherwise entitled to withhold. If a cap on payment is in place on the Project, in no event shall the Department have any obligation to pay the Design-Builder any amount which would result in payment for any activity in excess of the value of the activity shown on the PPS-C, except as provided in DB Section 109-5.7.

DB 109-6.5 *Asphalt Cement Cost Adjustment*

For all Sections within Division 400 of the Standard Specifications, payments to the Design-Builder will be adjusted to reflect increases or decreases in the Delaware Posted Asphalt Cement Price when compared to the Project Asphalt Cement Base Price, as defined in the Contract Documents.

The Delaware Posted Asphalt Cement Price will be issued weekly by the Department and will be the industry posted price for Asphalt Cement, F.O.B. Philadelphia, Pennsylvania.

The Project Asphalt Cement Base Price will be the anticipated Delaware Posted Asphalt Cement Price expected to be in effect at the time of receipt of bid.

All deviations of the Delaware Posted Asphalt Cement Price from the Project Asphalt Cement Base Price are eligible for cost adjustment. No minimum increase or decreases or corresponding percentages are required to qualify for cost adjustment.

Actual quantity of asphalt cement qualifying for any Asphalt Cement Cost Adjustment will be computed on the basis of weight tickets and asphalt percentage from the approved job mix formula. For Recycled Hot-Mix the asphalt percentage eligible for cost adjustment shall be only the new asphalt cement added to the mix.

There shall be no separate payment for asphalt cement. That cost shall be included in the various unit

prices bid per metric ton for those bid items that contain asphalt cement.

If the Design-Builder exceeds the authorized allotted completion time, the price of asphalt cement on the last authorized allotted work day shall be the price used for cost adjustment during the time Liquidated Damages are assessed.

The Project Asphalt Cement Base Price shall be determined by the Department for each project and shall be set forth in Part 4 - Special Provisions.

DB 109-7 RETAINAGE OF FUNDS

The Department will not withhold retainage from periodic payments due the Design-Builder. The Department will deduct from the amounts due in periodic payment as outlined in the circumstances below.

Whenever Liquidated Damages are assessable, such damages shall be deducted from the monthly and final estimate. The payment of any current or final estimate or of any retained percentage shall in no way affect the obligation of the Design-Builder to repair or renew any defective parts of the construction and to be responsible for all damage due to such defects.

If at any time there is evidence of any lien or claim for which, if established, the Department might become liable, and which is chargeable to the Design-Builder, the Department shall have the right to retain out of any payment then due or to become due an amount sufficient to completely indemnify the Department against such lien or claim. If there should prove to be any such claim after all payments are made, the Design-Builder shall refund to the Department all monies that the Department may be compelled to pay in discharging any lien made obligatory in consequence of the Design-Builder's neglect or default.

No provision contained in these Specifications shall be construed as creating any debt, liability or obligation on the part of the State or Department to any subcontractor, supplier, or materialman.

DB 109-8 EXTRA WORK, FORCE ACCOUNT WORK, AND RECORD KEEPING

DB 109-8.1 Contract Item Charges

The Department reserves the right to order changes in the scope of the Contract Work as is necessary to complete the Project, in accord with the intent of the Contract Documents.

A) *Lump Sum Work*

Lump Sum Contract adjustments shall be based on negotiations between the Design-Builder and the Department.

B) *Unit Priced Work*

Payment shall be made at the Contract Unit Price (if applicable) for all Work less than or equal to twice the original Contract quantity. Once this limit is exceeded, any additional Work shall be considered to be new Work, with payment determined in accordance with DB Section 109-8.2. Negotiated Unit Prices for extra and force account Work shall be paid per unit for the full quantity of extra Work performed.

DB 109-8.2 New Item Charges

DB 109-8.2.1 Agreed Prices

Agreed prices for new items of Work or Material may be incorporated in the Change Order as the Project Manager may deem them to be just and fair and beneficial to the State. These prices must be supported by a complete price analysis in the Change Order, or if approved by the Department's Project Manager, by reference to the weighted average bid or proposal prices for similar types and quantity of Work from other recent contracts. The price analysis will be based on an estimated breakdown of charges listed in DB Section 109-8.2.2. Agreed prices may be lump sum or unit priced Work.

DB 109-8.2.2 Payment for Differing Site Conditions, Major Changes, Extra Work, and Force Account

Differing site conditions, changes, and extra work performed under Section 104 will be paid for using the following methods as appropriate:

A) Contract unit prices.

B) Unit prices agreed upon in the change order authorizing the work.

C) A lump sum amount agreed upon in the change order authorizing the work.

D) If directed by the Department, work performed on a force account basis is to be compensated in the following manner except as further provided in Standard Specification Subsection 105.21:

1. *Labor.* For all necessary labor and foremen in direct charge of the specific operations, whether the employer is the Design-Builder, subcontractor, or another, the Design-builder shall receive the rate of wage (or scale) actually paid as shown in its certified payrolls for each and every hour that said labor and foremen are actually engaged in such work.

   The Design-Builder shall receive the actual costs paid to, or on behalf of, workers by reason of health and welfare benefits or other benefits, when such amounts are required by collective bargaining agreements or other employment contracts generally applicable to the classes of labor employed on the work.

2. *Bond, Insurance, and Tax.* For bond premiums, property damage, liability, and workers compensation insurance premiums, unemployment insurance contributions, and social security taxes on the force account work, the Design-Builder shall receive the actual incremental cost thereof, necessarily and directly resulting from the force account work. The Design-Builder shall furnish satisfactory evidence of the rate or rates paid for such bond, insurance, and tax.

3. *Materials.* The Department reserves the right to furnish such materials as it deems advisable, and the Design-builder shall have no claims for costs and markup on such materials.

   Only materials furnished by the Design-Builder and necessarily used in the performance of the work will be paid for. The cost of such materials shall be the cost to the purchaser, whether Design-Builder, subcontractor, or other forces from the supplier thereof, together with transportation charges actually paid by the purchaser, except as the following are applicable:

   a. If a cash or trade discount by the actual supplier is offered or available to

the purchaser, it shall be credited to the State notwithstanding the fact that such discount may not have been taken.

b. If materials are procured by the purchaser by any method which is not a direct purchase from a direct billing by the actual supplier to such purchaser, the cost of such materials is the price paid to the actual supplier as determined by the Project Manager plus the actual costs, if any, incurred in the handling of such materials.

c. If the materials are obtained from a supply or source owned wholly or in part by the purchaser, the cost of such materials shall not exceed the price paid by the purchaser for similar materials furnished from said source on items or the current wholesale price for such materials delivered to the job site, whichever price is lower.

d. If the cost of such materials is, in the opinion of the Project Manager, excessive, then the cost of such material is deemed to be the lowest current wholesale price at which such materials are available in the quantities concerned delivered to the Project site, less any discounts as provided in a. above.

e. If the Design-Builder does not furnish satisfactory evidence of the cost of such materials from the actual supplier thereof, the cost will be determined in accordance with d. above.

4. *Equipment and Plant.*

a. *Design-Builder-Owned Equipment and Plant.* The hourly rates for Design-Builder-owned equipment and plant will be determined from the applicable volume of the Rental Rate Blue Book (referred to hereafter as the "Blue Book"), published by Machinery Information Division of K-III Directory Corporation, 1735 Technology Drive, Suite 410, San Jose, CA 95110.

The Blue Book will be used in the following manner:

(1) The hourly rate will be determined by dividing the monthly rate by 176. The weekly, hourly, and daily rates will not be used.

(2) The number of hours to be paid will be the number of hours that the equipment or plant is actually used on a specific force account activity.

(3) The current revisions will be used in establishing rates. The current revision applicable to specific force account work is as of the first day of work performed on that force account work and that rate applies throughout the period the force account work is being performed.

(4) An area adjustment will be made. Equipment life adjustment will be made in accordance with the rate adjustment tables.

(5) Overtime shall be charged at the same rate indicated in (1) above.

(6) The estimated operating costs per hour will be used for each hour that the equipment or plant is in operation on the force account work. Such costs do not apply to idle time regardless of the cause of the idleness.

(7) Idle time for equipment will not be paid for, except where the equipment has been held on the Project site on a standby basis at the request of the Project Manager and, but for this request, would have left the Project site. Such payment will be made at

one-half the rate established in (1) and (4) above.

(8) The rates established above include the cost of fuel, oil, lubrication, supplies, small tools, necessary attachments, repairs, overhaul and maintenance of any kind, depreciation, storage, overhead, profits, insurance, all costs (including labor and equipment) of moving equipment or plant on to and away from the site, and all incidentals.

(9) Operator costs are not included in this hourly rate for this equipment.

All equipment shall, in the opinion of the Project Manager, be in good operating condition. Equipment used by the Design-Builder shall be specifically described and be of suitable size and suitable capacity required for the work to be performed. In the event the Design-Builder elects to use equipment of a higher rental value than that suitable for the work, payment will be made at the rate applicable to the suitable equipment. The Project Manager will determine the suitability of the equipment. If there is a differential in the rate of pay of the operator of oversize or higher rate equipment, the rate paid for the operator is to be that for the suitable equipment.

In the event that a rate is not established in the Blue Book for a particular piece of equipment or plant, the Project Manager will establish a rate for that piece of equipment or plant that is consistent with its cost and use in the industry.

The above provisions apply to the equipment and plant owned directly by the Design-Builder or by entities which are divisions, affiliates, subsidiaries, or in any other way related to the Design-Builder or its parent company.

b. *Rented Equipment and Plant.* In the event that the Design-Builder does not own a specific type of equipment and must obtain it by rental, the Design-Builder shall inform the Project Manager of the need to rent the equipment and of the rental rate for that equipment prior to using it on the work. The Design-Builder will be paid the actual rental rate for the equipment for the time that the equipment is actually used to accomplish the work, provided that rate is reasonable, plus the cost of moving the equipment on to and away from the job. The Design-Builder shall provide a copy of the paid receipt or canceled check for the rental expense incurred.

5. *Miscellaneous.* No allowance will be made for general superintendence, the use of small tools, or other costs for which no specific allowance is herein provided.

6. *Profit.* Profit shall be computed at 5% of the following:
   a. Total material cost (bare cost not including FOB).
   b. Total direct labor cost (actual hours worked multiplied by regular hourly rate) as provided by 109-8.2.2 D.1.

7. *Overhead*. Overhead is defined to include the following:

a. All salaries and expenses of executive officers, supervising officers, or supervising employees and all home office expenses;
b. All clerical or stenographic employees;
c. All charges for minor equipment, such as small tools, including shovels, picks, axes, saws, bars, sledges, lanterns, jacks, cables, pails, wrenches, and other miscellaneous supplies and services; and
d. All drafting room accessories such as paper, tracing cloth, and blueprinting.

Overhead costs for Force Account work shall be computed at 10% of the following:

a. Total material cost (bare cost FOB).
b. Total direct labor cost (actual hours worked multiplied by the regular hourly rate) and benefits as provided by 109-8.2.2 D.1.
c. Total Equipment and Plant cost.
d. Specific extraordinary overhead expenses, such as hiring of additional supervisory personnel or the use of special type of minor equipment (as defined above), which the Design-Builder has to purchase specifically for the Force Account, may be allowed. In such instances, the Design-Builder will be paid only the reasonable costs of such extraordinary overhead expenses provided the Project Manager has agreed to such costs prior to their being incurred.

8. *Subcontracting.* For administration costs in connection with approved subcontract work, the Design-Builder shall receive an amount equal to 5% of the total of such work completed as set forth in 1. through 4. above.

9. *Records.* The Design-Builder shall maintain force account records in such a manner as to provide a clear distinction between the direct costs of work paid for on a force account basis and the costs of other operations.

From the above records, the Design-Builder shall furnish the Project Manager completed daily force account work reports for each day's work to be paid for on a force account basis. Said daily force account work reports shall be signed by the Design-Builder and submitted daily. The daily force account work reports shall be detailed as follows:

a. Name, classification, date, daily hours, total hours, rate, and extension for each laborer and foreman.
b. Designation, dates, daily hours, total hours, rental rate (including a copy of the Blue Book pages used), and extension for each unit of machinery and equipment.
c. Quantities of materials, prices, and extensions.
d. Transportation of materials.
e. Cost of property damage, liability, and workers compensation insurance premiums; unemployment insurance contributions; bonds; and social security tax.

Material charges shall be substantiated by valid copies of vendor's invoices. Such invoices shall be submitted with the daily force account work reports, or if

not available, they shall be submitted with subsequent daily force account work reports. Should said vendor's invoices not be submitted within 60 days after the date of delivery of the material, or within 15 days after the completion, whichever occurs first, the Department reserves the right to establish the cost of such materials at the lowest current wholesale prices at which said materials are available, in the quantities concerned delivered to the location of work less any discounts provided in 109-8.2.2 D.3.a

The Project Manager will compare its records with the completed daily force account work reports furnished by the Design-Builder and make any necessary adjustments. When these daily force account work reports are agreed upon and signed by both parties, said reports become the basis of payment for the work performed, but do not preclude subsequent adjustment based on a later audit by the Department.

The Design-Builder's cost records pertaining to work paid for on a force account basis shall be open to inspection or audit by representatives of the Department as provided in Standard Specification Subsections 105.19 and 105.21.

DB 109-9 ELIMINATED ITEMS

Should any items contained in the Contract be found unnecessary for the completion of the work, the Project Manager may, upon written order to the Design-Builder, eliminate the items from the Contract. The elimination of these items shall not invalidate the Contract. When the Design-Builder is notified of the elimination of items, the Design-Builder will be reimbursed for the actual work done and all actual costs incurred. Reimbursement of materials actually purchased prior to notification of the elimination of items will be paid for at the actual cost of the materials plus 15%. Such materials shall become the property of the Department. In no event will reimbursement for an eliminated item exceed the extended amount of the Contract item. Also, in no case will the Design-Builder be reimbursed for the loss of anticipated profit.

DB 109-10 ACCEPTANCE AND SUBSTANTIAL COMPLETION

DB 109-10.1 Project Acceptance

Final Acceptance will not occur until completion of the Project in accordance with this DB Section 109-10. However, at the request of the Design-Builder and at the sole discretion of the Project Manager, the Contract Time may be stopped without all the required documents, certificates, or proofs of compliance.

When the Contract Time is stopped, the Design-Builder is to expeditiously provide the exempted documents, certificates, or proofs of compliance. Final Acceptance and payment will not be made until all documents, certificates, or proofs of compliance have been executed and delivered to the Project Manager.

A) *Partial Project Acceptance.* When a unit or portion of the Project, such as a structure, interchange, or section of road or pavement is substantially completed, the Design-Builder may request final inspection of that unit or portion. If the unit or portion has been completed in accordance with the Contract, the Project Manager may accept it as completed. The decision to make partial acceptance of a unit is solely at the discretion of the Project Manager. Partial acceptance will not void or alter any of the terms of the

Contract.

B) *Project Acceptance.* Upon receiving notice from the Design-Builder of Project completion, the Project Manager will make a semi-final inspection. During this inspection, the Project Manager will note by stations and in detail all work or conditions requiring correction. The Design-Builder shall immediately prosecute the corrective work. When completion of the noted corrections are completed to the satisfaction of the Project Manager, a final inspection will be arranged. The Project Manager will make a final inspection of the work to certify the Project can be used, occupied, or operated for its intended use. The Project Manager will note any further corrective measures as deemed necessary. The Design-Builder shall prosecute corrective measures immediately. When the work is satisfactorily completed, together with receipt of proper documentation as noted herein, the Project Manager will notify the Design-Builder in writing of the date of acceptance of the Project.

The Design-Builder shall prepare and submit Record (as-built) Drawings of the following types in electronic format on Compact Disc – Read Only Memory (CD-ROM) and one reproducible hard copy set:

A) Plan and profile sheets;

B) Signing and striping;

C) Pavement typical sections;

D) All Bridge Plans;

E) Retaining Structure Plans;

F) Utility relocation Plans;

G) Lighting Plans;

H) Drainage Structure Plans;

I) Cross sections in areas with retaining structures and/or cuts and/or fills in excess of ten feet high; and

J) Plans of consolidated access points.

If there are no outstanding items to be completed or corrected before Final Acceptance of the Project, the Design-Builder shall, following inspection:

A) Submit to the Department's Project Manager special guarantees, warranties, maintenance agreements, maintenance manuals, final certifications, and similar documents required under the Contract;

B) Deliver tools, spare parts, instructions, and similar items required to operate and maintain the Work; and

C) Make changeover of locks to all Equipment and facilities and deliver keys and/or combinations to the Department's Project Manager.

Final Acceptance shall be final and conclusive except for defects not readily ascertainable by the Department; actual or constructive fraud; gross mistakes amounting to fraud; or other errors which the

Design-Builder knew or should have known about as well as the Department's rights under any warranty or guarantee. Final Acceptance may be revoked by the Department at any time prior to the issuance of the final payment upon the Department's discovery of such defects, mistakes, fraud, or errors in the Work.

Damage, theft, or vandalism to the items by the public after Final Acceptance will be repaired or replaced by the Department or by the Design-Builder in conformance with DB Section 104. When the damage to an item is such that only partial repair or replacement is required and the Work is to be done by the Design-Builder, payment shall be made as provided in DB Section 109-8.2. Items damaged due to negligence of the Design-Builder shall be repaired or replaced at no cost to the State.

DB 109-11 FINAL PAYMENT

The Project Manager will, as soon as practicable after the completion of the Contract, make a final estimate of the work done thereunder and the value of such work, and the Department shall pay the entire sum found to be due after deducting from all previous payments all amounts to be kept and all amounts to be retained under the provisions of the Contract. All prior partial estimates and payments shall be subject to correction in the final estimates payment.

The acceptance by the Design-Builder of the last payment, as aforesaid, shall operate as and shall be a release to the State, the Department, the Director, and its agents from all claims of liability under the Contract, or for anything done or furnished or relating to the work under the Contract, or for any act or neglect of the State, the Department, the Director, or its agents relating to or connected with the Contract.

DB 109-12 CHANGED CONDITIONS AND DELAY PROVISIONS

DB 109-12.1 Compensable Delays and Changed Conditions

The provisions of this Contract permit monetary compensation for delays and interference in certain defined instances. The Design-Builder agrees, other than is set forth specifically in Section 109-13, that the only claims it may make for extra compensation caused by delay or interference affecting the performance or the scheduling of Contract Work are for those instances arising out of the following:

A) Differing site conditions;

B) Suspension of Work (other than stop orders pursuant to DB Section 109-12.2);

C) Significant changes in the character of the Work; and

D) Situations not referenced in DB Section 109-12 and which are not within the contemplation of the parties at the time of entering into the Contract.

In addition, these aforementioned provisions may also form the basis for Extra Work compensation pursuant to DB Section 109-8 and DB Section 109-9. Failure of the Design-Builder to adequately progress the completion of the Work will be considered in determining whether the aforementioned instances are the primary causes of delay. In all such instances, for any claim asserted under this DB Section 109-12.1, the Design-Builder shall keep detailed written records of the costs and agrees to make them available to the Department at any time for purposes of audit and review.

Any dispute relating to such claims shall be promptly submitted to the Department's Project Manager in writing, pursuant to the notice provisions of the Contract. Failure by the Design-Builder to notify the Department's Project Manager in writing pursuant to the provisions of this Contract, or to maintain and

furnish cost records of such claims, shall constitute a waiver of the claim.

DB 109-12.2 Suspensions of Work Ordered by the Department

The Project Manager may suspend the work in whole or in part by written order to the Design-Builder, for any reason or condition which would be in the best interest of the Department. The Project Manager may also suspend the work when the Design-Builder fails to perform any provisions of the Contract. The Design-builder shall immediately comply with the written order of the Project Manager to suspend the work wholly or in part. The work shall be resumed when conditions are favorable as determined by the Project Manager or when methods are corrected as approved in writing by the Project Manager.

A) If the delay resulting from the written suspension order is considered unreasonable, the Design-Builder shall submit a written request to the Project Manager providing the reasons and justification for any Contract adjustment considered necessary as a result of the suspension. The justification for a time extension shall follow the notification and documentation procedures defined in DB 108-06. The written request for the Contract adjustment must be submitted to the Project Manager in writing seven calendar days following receipt of the Project Manager's notice to resume work.

   An adjustment will not be made unless the request has been submitted within the prescribed time.

B) There will be no adjustment under the provisions of this Subsection if the work performance would have been suspended or delayed by any other cause, under any other terms or conditions of the Contract.

C) The request for an adjustment will be reviewed by the Project Manager. If there is Agreement that 1) there has been an increase in the Contract performance cost or time as a result of the suspension, and 2) the suspension was caused by conditions beyond the control and not the fault of the Design-Builder or those parties for whom the Design-Builder is responsible, adjustments in the Contract Price, excluding profit, will be made according to DB 109-8.2.2. Any adjustments to Contract Time will be made according to DB 108-06.

DB 109-13 FORCE MAJEURE EVENTS

The Department will be responsible for and agrees to issue Change Orders for the following purposes:

A) Compensate the Design-Builder for reasonable, verifiable additional costs incurred arising from force majeure events (excluding delay damages except for any force majeure event which is determined to be a Department-caused delay, at the sole discretion of the Department); and

B) Extend the completion deadlines as the result of any delay in the critical path on Baseline Progress Schedule caused by a force majeure event. It shall be the responsibility of the Design-Builder to demonstrate to the Department that the delay in the critical path is attributable solely to the force majeure event.

   "*Force Majeure*" shall mean an event or circumstance which prevents Design-Builder from performing its obligations under this Contract, which event or circumstance (a) could not reasonably be anticipated as of the date of the Contract, (b) is not within the reasonable control of Design-Builder, (c) does not result from the fault or negligence of the Design-Builder, (d) the Design-Builder is unable to overcome or avoid or cause to be

avoided by the exercise of reasonable care, and (e) includes, but is not limited to, the following events:

1. Acts of God (including fires, floods, hurricanes, tornados, earthquakes or other significant and unusual natural catastrophes) occurring at the project site or at the places of manufacture of Project components (so long as such components require greater than sixty (60) days to be manufactured and fabricated) including their transportation routes; *excluding, however*, inclement weather (including rain, significant rainstorms (nor'easter), snow, ice, high winds and extreme heat) experienced from time to time;
2. Any Governmental Authority having jurisdiction over the Work suspends or otherwise prohibits the conduct of the Work, *excluding, however*, (1) any actions by any Governmental Authority resulting from the breach or alleged breach by the Claiming Party of any applicable Law and any Permit); and (2) any delay, rejection or other adverse action (including the imposition of conditions) taken with respect to any Permit for the Work to be acquired by the Claiming Party after the Effective Date;
3. War, epidemics, or blockades;
4. Acts of terrorism or sabotage;
5. Any change in governmental rule or change in the judicial or administrative interpretation of or adoption of any new governmental rules which are materially different with governmental rules in effect on the date the date of the Contract;
6. Strikes, job actions, work stoppages or slowdowns or labor disputes ("Labor Disputes") of any type that could not have been avoided by the reasonable action of the Contractor. Contractor shall be responsible for any Labor Disputes among its labor forces that resulted from its own acts or inaction or any acts or inaction of its Subcontractors or suppliers for whom Contractor is responsible;
7. The discovery at, near, or on the site of any archaeological, paleontological, biological, or cultural resources or hazardous or contaminated substances, provided that the existence of such resources or substances was not disclosed by the Department; and
8. Civil unrest, other than union activity.

C) Force majeure shall be limited to the matters listed above and specifically excludes from the definition the following matters which might otherwise be considered force majeure:

1. Except as related to Section 109-13B(2) and 109-13B(3), an explosion or malicious or other acts intended to cause loss or damage or other similar occurrence;
2. The suspension, termination, interruption, denial or failure to obtain, or non-renewal of any permit, license, consent, authorization, or approval (including all governmental approvals other than environmental approvals) which is necessary for the performance of the Work or the maintenance of the Project;
3. Any lawsuit relating to any new approval which is the Design-Builder's risk under the Contract;
4. The Work or the presence on the Project site of any third party,

including, but not limited to, that of other contractors or personnel employed by the State of Delaware; by other public bodies; by railroad, transportation, or utilities; or by private enterprises or any delay in progressing such Work by any third party as indicated or disclosed in the Contract Documents or ordinarily encountered or generally recognized as inherent in the Work;

5. The existence of any facility or appurtenance owned, operated, or maintained by any third party, as indicated or disclosed in the Contract Documents or ordinarily encountered or generally recognized as inherent in the Work;
6. The act, or failure to act, of any other public or governmental body or railroad, transportation company or corporation, or utility, including, but not limited to, approvals, permits, restrictions, regulations, or ordinances attributable to the Design-Builder's design, submission, action or inaction, or means and methods of construction;
7. Restraining orders, injunctions, or judgments issued by a court which were caused by the Design-Builder's submissions, action or inaction, or means and methods of construction;
8. Any shortages of supplies or Material required by the Contract Work;
9. Variations in soil moisture content from that represented in reports, borings, or tests conducted by the Department and included in the Contract Documents;
10. Any situation which was within the contemplation of the parties at the time of entering into the Contract; and
11. All other matters not caused by the Department or beyond the control of the Department and not listed in Section 109-13B(1) through (8).

STATE OF DELAWARE

DEPARTMENT OF TRANSPORTATION

DESIGN-BUILD PROJECT

for

INDIAN RIVER INLET BRIDGE

Replacement of Bridge 3-156,
SR1 over Indian River Inlet
State Contract # 26-073-03 Readvertised
Federal Contract # BRN-S050(14)

SCOPE OF SERVICES PACKAGE

CONTRACT DOCUMENTS

PART 2

DB SECTION 110

ESCROW OF PROPOSAL DOCUMENTS

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DB SECTION 110

ESCROWED PROPOSAL DOCUMENTS

DB 110-1 GENERAL

The purpose of Escrowed Proposal Documents is to preserve all of the Design-Builder's Price Proposal documents for joint use by the Design-Builder and the Department in the resolution of any disputes, claims, arbitration proceeding, or litigation arising from this Contract. The submitted Proposal documentation shall be placed in escrow with a banking institution and preserved by that institution as specified in the following Subsections of this Section. In addition, concurrent with the submission of quotations or revisions to quotations provided in connection with formally proposed Amendments to this Contract and concurrent with approval of each Change Order, if appropriate, one copy of all documentary information used in preparation of the quotation or Change Order shall be added to, and held with the other Escrowed Proposal Documents. The Escrowed Proposal Documents will remain in escrow subject to DB Section 110-2 until all of the following have occurred:

A) One hundred eighty days have elapsed from Final Acceptance or termination of the Work, as applicable;

B) All disputes regarding this Contract have been settled; and

C) Final payment on this Contract has been made by the Department and accepted by the Design-Builder.

DB 110-2 AVAILABILITY FOR REVIEW

The Escrowed Proposal Documents shall be available for joint review by the Design-Builder and the Department in connection with review changes in the Baseline Progress Schedule and/or Contract Periodic Payment Schedule (PPS-C), negotiations of price adjustments and Change Orders, and/or the resolution of disputes. The Department shall be entitled to review all or any part of the Escrowed Proposal Documents in order to determine the applicability of the individual documents to the matter at issue. The Department shall be entitled to make and retain copies of such documents as it deems appropriate in connection with any such matters, provided that the Department has executed and delivered to the Design-Builder a confidentiality agreement specifying that all proprietary information contained in such documents will be kept confidential; that copies of such documents will not be distributed to any third parties other than the Department's agents, attorneys, and experts, and other dispute resolvers hereunder; and that all copies of such documents (other than those delivered for dispute resolvers) will be returned to the depository (or to the Design-Builder, if the Escrowed Proposal Documents have been returned to it) upon final resolution of the negotiations or disputes. The foregoing shall in no way be deemed a limitation on the Department's discovery rights with respect to such documents.

DB 110-3 PROPRIETARY INFORMATION

The Escrowed Proposal Documents are, and shall always remain, the property of the Design-Builder subject to the Department's right to review the Escrowed Proposal Documents as provided herein. The Department acknowledges that the Design-Builder may consider that the Escrowed Proposal Documents constitute trade secrets or proprietary information. The Department further acknowledges that the Design-Builder expended money in developing the information included in the Escrowed Proposal Documents and that it would be difficult for a competitor to replicate the information contained therein. The Department acknowledges that the Escrowed Proposal Documents and the information contained therein are being provided to the Department only because it is an express prerequisite to Award of this Contract. Thus, the Escrowed Proposal Documents will at all times be treated as proprietary and confidential information and will be used

only for the purposes described in this DB Section 110.

At the Design-Builder's request, confidentiality agreements will be executed and delivered to the Design-Builder by the Department's employees or agents who review or have access to the Escrowed Proposal Documents.

DB 110-4 REPRESENTATION

The Design-Builder represents and warrants that the Escrowed Proposal Documents provided with the Proposal constitute all of the information used in the preparation of its Proposal and agrees that no other Proposal preparation information will be considered in resolving disputes or claims. The Design-Builder also agrees that the Escrowed Proposal Documents are not part of the Contract and that nothing in the Escrowed Proposal Documents shall change or modify the Contract.

DB 110-5 CONTENTS OF ESCROWED PROPOSAL DOCUMENTS

The Escrowed Proposal Documents shall, among other things, clearly itemize the estimated costs of performing each aspect of the Work required by the Contract Documents. All Work shall be separated into sub-items as required to present a complete and detailed estimate of all costs. Crews, Equipment, quantities, and rates of production shall be detailed. Estimates of costs shall be further divided into the Design-Builder's usual cost categories such as direct labor, repair labor, Equipment ownership and operation, expendable Material, permanent Material, and subcontract costs, as appropriate. Plant and Equipment and indirect costs shall also be detailed in the Design-Builder's usual format. The Design-Builder's allocation of plant and Equipment, indirect costs, contingencies, markup, and other items to each direct cost item shall be clearly identified. The Escrowed Proposal Documents shall include all assumptions, quantity takeoffs, rates of production and progress calculations, quotes from Subcontractors and suppliers, memoranda, narratives, and all other information used by the Design-Builder to arrive at the Proposal Price or Change Order price, as applicable.

DB 110-6 FORM OF ESCROWED PROPOSAL DOCUMENTS

The Design-Builder shall submit the Escrowed Proposal Documents in the format actually used by the Design-Builder in preparing its Proposal. It is not intended that the Design-Builder perform any significant extraordinary work in the preparation of these documents prior to the Proposal due date. However, the Design-Builder represents and warrants that the Escrowed Proposal Documents related to the Proposal have been personally examined prior to delivery to escrow by an authorized officer of the Design-Builder and that they meet the requirements of DB Section 110-5 and are adequate to enable a complete understanding and interpretation of how the Design-Builder arrived at its Proposal Price. The Design-Builder further represents, warrants, and covenants that the Escrowed Proposal Documents related to each Change Order will be personally examined prior to delivery to escrow by an authorized officer of the Design-Builder and that they meet the requirements of DB Section 110-5 and will be adequate to enable a complete understanding and interpretation of how the Design-Builder arrived at its Change Order price.

DB 110-7 REVIEW BY THE DELAWARE DEPARTMENT OF TRANSPORTATION

The Department may at any time conduct a review of the Escrowed Proposal Documents to determine whether they are complete. In the event the Department determines that any data is missing, the Design-Builder shall provide such data within three Working Days of the request and at that time it will be date stamped, labeled to identify it as supplementary Escrowed Proposal Documents information, and added to the Escrowed Proposal Documents. The Design-Builder shall have no right to add documents to the Escrowed Proposal Documents except upon the Department's request. At the Department's option, which

may be exercised at any time, the Escrowed Proposal Documents associated with any Change Order or Contract Amendment shall be reviewed, organized, and indexed in the same manner described in the Instructions to Proposers (ITP).

DB 110-8 SUBCONTRACTOR AND SUPPLIER PRICING DOCUMENTS

The Design-Builder shall require each Subcontractor and/or supplier to submit to the Design-Builder a copy of all documentary information used in preparing its sub-bid or sub-proposal immediately prior to executing the subcontract, to be held by the same escrow depository which is holding the Escrowed Proposal Documents and which shall be accessible by the Design-Builder and its successors and assignees (including the Department) and other dispute resolvers on terms substantially similar to those contained herein. Each such subcontract shall include a representation and warranty from the Subcontractor stating that its Escrowed Proposal Documents constitute all the documentary information used in preparation of its sub-bid or sub-proposal.

See DB Section 110-5 for content requirements.

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SCOPE OF SERVICES PACKAGE

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PART 2

DB SECTION 111

DESIGN MANAGEMENT AND DESIGN QUALITY CONTROL/QUALITY ASSURANCE

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DESIGN MANAGEMENT AND

DESIGN QUALITY CONTROL/QUALITY ASSURANCE

DB 111-1 GENERAL DESIGN-BUILDER RESPONSIBILITIES

The Work shall be performed in accordance with the details as shown on the Design Plans, Project Specifications, and Working Drawings prepared by the Design-Builder, subject to the Department's Consultation and Written Comment.

It shall be the Design-Builder's sole responsibility to provide Design Plans, Project Specifications, and Working Drawings of such a nature to develop a finished product in accordance with the Contract requirements. The Design-Builder shall verify pertinent dimensions in the field prior to the design and review of Design Plans, Project Specifications, and Working Drawings. Review of the Design-Builder's Design Plans, Project Specifications, and/or Working Drawings by the Department shall not relieve the Design-Builder of the responsibility for the satisfactory completion of the Work in conformance with the Contract Documents.

Design Plans, Project Specifications, and Working Drawings shall be subject to the Department's Consultation and Written Comments per DB Section 111-12 before beginning construction Work covered by the Plans and the design intent shall not be thereafter amended or altered without the prior approval of the Design-Builder's Designer and subsequent Consultation and Written Comment by the Department.

The Contract Price includes the cost of furnishing all Design Plans and Working Drawings.

The Design-Builder shall perform the following:

A) Manage the Design and Design Quality Control of the Work;

B) Obtain new permits and/or permit modifications required by temporary and/or permanent impacts associated with the Work that fall outside the boundaries of the current permit impacts;

C) Provide information and coordination necessary to assist the Department in providing and/or obtaining the necessary approvals from authorities having jurisdiction for temporary road diversions and detours, shutdowns, Utility Relocations, temporary sidewalk closures, and pedestrian detours; and

D) Ensure that the Designer properly checks the designs of the Project and that the Design Quality Control (QC) Manager certifies QC procedures in accordance with the Contract.

The procedures outlined in this Section for the checking of design of permanent components shall also apply to design of major temporary components and construction sequences that affect the permanent components of the Project.

Please refer to Part 2 – Design-Build Section 101, Section 101-3, for the definitions of QC and Quality Assurance (QA).

DB 111-2 DESIGN-BUILDER'S DESIGN ORGANIZATION AND OBLIGATIONS

DB 111-2.1 Designer

The Design-Builder shall appoint a suitably qualified and experienced Designer, which may be a consultant or other member(s) of the Design-Build team, to undertake the design of the permanent

components and the major temporary components of the Project. The Design-Builder shall require the Designer to be located in the field office and maintain all necessary representation throughout the duration of the Contract to ensure the Designer can meet all its obligations under the Contract and to ensure that the design intent is met by construction.

DB 111-2.2 Location of Design-Builder's Designer

The Designer may perform production design Work in the Project vicinity or elsewhere. Key design personnel shall be available as necessary for the duration of the design.

DB 111-2.3 Completeness of Design

At a minimum, the Designer shall determine the following for all temporary and permanent conditions, as applicable:

A) Effects of all loading requirements;

B) Dimensions of all elements;

C) Structural redundancies, where they exist;

D) Sub-soil interaction to support the loads from above;

E) Effects of wind loading and vibration;

F) Effects of seismicity;

G) Effects of fatigue;

H) Durability and maintainability requirements, including coastal conditions and the preparation of a maintenance manual;

I) Details of required Quality Assurance/Quality Control procedures, monitoring, and controls;

J) Effects of hydrology, design flows, and scour depths; and

K) Effects on previously or partially constructed facilities adjacent to the bridge site.

Working Drawings will be reviewed by the Department for conformance to Contract requirements. However, design will be considered complete for each Design Unit upon the Department's Design Acceptance that is only to occur following submittal, review, and acceptance of the Record (as-built) Drawings for the specified Design Unit.

DB 111-2.4 Design Manager

The Design-Builder shall designate and assign a Design Manager to manage all Work performed by the Design-Builder's Designer. The Design Manager shall be available as required in DB Section 108.

The Design Manager and/or staff working under the direct supervision of the Design Manager shall conduct an assessment and evaluation of design such that the Design Manager can certify to the Design-Builder and to the Department that the design satisfies the Contract requirements, including the following requirements:

A) Accuracy;

B) Adequacy;

C) Compliance with specified codes, standards, and permits;

D) Conformance to standards of practice;

E) Cost effectiveness;

F) Quality; and

G) Fitness for purpose and function as specified in the Contract.

The Design Manager shall include such written certification for all Work being subjected to a Design Review as per DB Section 111-12.

The Design Manager's activities shall include, at a minimum, assessment and evaluation of the following:

A) Design reports;

B) Design Reviews and conformity to Contract requirements;

C) Review of shop drawings;

D) Evaluation and mitigation of Non-Conformance Reports;

E) Analytical approach;

F) Drawing details for conformity to Contract requirements;

G) Project Specifications for conformity to Contract requirements;

H) Design and Working Drawings;

I) Major temporary components' effect on permanent components;

J) Field design changes;

K) Design approvals for Materials and procedures; and

L) Record Drawings for conformity with final design and Contract requirements.

DB 111-2.5 Responsible Engineer

The Designer shall designate and assign a Responsible Engineer for each Design-Builder-designated Design Unit. The Responsible Engineer(s) shall sign and seal design reports, Design and Working Drawings, and Project Specifications for the assigned Design Unit(s). Responsible Engineers shall be Delaware-licensed Professional Engineers.

Responsible Engineers shall be in the Project vicinity as necessary to coordinate the Work on assigned Design Units. The Responsible Engineer shall be present in the Project area for assigned Design Unit(s) and shall attend applicable Design Reviews.

DB 111-2.6 Design Quality Control Manager

The Design-Builder shall assign a Design QC Manager as one of the Key Personnel. The Design-Builder's Design QC Manager shall report to the Design-Builder's QC Manager and shall be a person who is fully independent from the production of the design. Design QC Manager means an independent engineering firm employed by the Design-Builder responsible for administering and managing the design QC specified in the Contract Documents. The Design QC Manager shall not be owned or controlled by any Principal Participant or by any construction subcontractor of the Design-Builder. The Designer or a firm associated with or subsidiary to the Designer may serve as the Design QC Manager, except any Designer that is a Principal Participant or any Designer (or subsidiary of a Designer) that is an Affiliate of any Principal Participant or construction subcontractor shall not serve as the Design QC Manager.

The Design-Builder's Design QC Manager shall be responsible for the QC of all Work conducted by the

Designer. The Design-Builder's Design QC Manager shall be in the Project vicinity as required in DB Section 108.

The Design-Builder's Design QC Manager shall assess and evaluate the Design-Builder's design QC activities in order to be able to certify to the Design-Builder and to the Department that the design QC activities comply with the Quality Plan and Contract requirements.

The Design-Builder shall ensure that its Design QC Manager carries out all duties expressed and implied in the Contract.

The Design-Builder's Design Quality Control Manager shall have QC responsibilities related to the following:

A) Design of permanent and major temporary components;

B) Changes in design of permanent components; and

C) Record Drawings.

The Design-Builder's Design Quality Control Manager shall also perform the following activities:

A) Identify and report non-conformities/non-compliance;

B) Track, monitor, and report on status of outstanding design-related non-conformance reports;

C) Supply monthly report (*see* DB Section 111-18.3.1); and

D) Submit specified certificates (permanent components and major temporary components).

These responsibilities are further specified in DB Section 111-12.

DB 111-2.7 Check by the Designer

The requirement that the Design-Builder engage and use a Design QC Manager shall not relieve the Designer from carrying out all the checks and reviews that a professional and prudent designer would normally carry out on the type of Work that is actually being designed.

DB 111-3 DESIGN UNITS

The Design-Builder shall package all design and drawings for the Work into separate Design Units. Each Design Unit shall comprise similar and coherent significant parts of the Project that can be checked and reviewed as a self contained package with due consideration for accommodating interfaces with other Project components.

Within 30 calendar days of Notice to Proceed (NTP), the Design-Builder shall provide a written report updating and identifying each Design Unit. The written report shall include the following:

A) Design Unit descriptions, including the scope of design Work within each Design Unit, limits, and interface points;

B) Planned review stages and dates, including specific information to be reviewed, planned review dates (measured from the NTP date), and percent complete represented by each review. *See* Appendix 111A - Forms, Form DUS;

C) The identity of the Responsible Engineer; and

D) Locations where design Work will be performed.

The Design-Builder shall submit any revisions to the information provided in response to this DB Section

111-3 in writing to the Department concurrent with the monthly progress report.

DB 111-4 RELATIONSHIP OF CONSTRUCTION STARTS TO DESIGN DEVELOPMENT AND REVIEW

It is the intent of the Department to only allow construction to begin on a Design Unit upon completion of Final Design and Design QA/QC for that Design Unit. Construction may progress in increments determined by the Design-Builder, at the Design-Builder's risk, provided each increment of construction is covered by plans and specifications that have been reviewed and meet the requirements for Readiness for Construction noted in DB Section 111-12.5.

DB 111-5 SCHEDULE FOR DESIGN CHECKS, REVIEWS, AND SUBMISSION OF CHECKED DESIGN

The Design-Builder is responsible for scheduling and conducting Design Reviews to meet design and/or construction needs of the Baseline Progress Schedule. The Design-Builder shall include in its Baseline Progress Schedule submitted with its Proposal a minimum of 4 weeks for the Department's Design Review of each submittal package. It is recognized and anticipated that the Design Review process and frequency, duration, and intensity of Design Reviews may vary with the complexity of the individual Design Units and the associated construction activities. The duration of Design Reviews shall be discussed and mutually agreed between the Department and Design-Builder during the Design Workshop (*see* DB Section 111-16) and verified and modified by mutual agreement during the course of the Project. The Design-Builder shall give written final notice of scheduled Design-Reviews to the Department's designated representative at least one week prior to any review.

The Design-Builder shall include the agreed Design Review schedule for all Design Units (including their components and elements) as part of the Baseline Progress Schedule. The Design Review schedule shall be reviewed monthly until design Work is complete. The Design-Builder shall not schedule more than two concurrent Design Reviews without the Department's written concurrence.

Except for Record Drawings, "submissions" shall be in the form of sufficient copies [to accommodate participants in the Design Review(s)] of Design Plans and Project Specifications and supporting data and reports assembled for review in the Designer's office. For final Design Reviews, "submissions" shall be in the form of two hard copies and one electronic copy of Design Plans and Project Specifications and supporting data.

The Design-Builder shall make specified submissions of checked designs in accordance with DB Section 111-12. Submissions shall be completed for each Design Unit, but may be combined for multiple Design Units at any one time upon the Department's written concurrence. The Design-Builder shall submit each Design Unit for Consultation and Written Comment (*see* DB Section 105-11) in accordance with the Baseline Progress Schedule.

For each Design Unit designated by the Design-Builder, the Design-Builder shall include design checks and Design Reviews as indicated in Table 111-12 and such additional reviews as may arise as indicated in DB Section 111-12.4.4. The Design-Builder shall allow the time for the Department's participation and input to any Design Review conducted by the Design-Builder's Design QC Manager as agreed as per this DB Section 111-5. The Design-Builder shall incorporate this schedule into the Baseline Progress Schedule and report progress and updates in the monthly updates. The Design-Builder shall keep the Department up-to-date on exact timing of reviews through the weekly progress meetings.

The Design-Builder shall not be entitled to an increase in Contract Price or Time due to any differences between the mutually agreed Design Review schedule and the Design Review schedule assumed in the

Design-Builder's Proposal.

DB 111-6 REVISIONS TO DESIGN

The Design-Builder shall deal with any changes to design initiated by the Design-Builder and already checked by the Designer and certified by the Design QC Manager as an entirely new design. The Design-Builder shall not be entitled to any increase in the Contract Price or extension of time pursuant to DB Section 108-6 in such circumstances.

DB 111-7 DESIGN REVIEW PLAN

The Design-Builder shall prepare and submit a written Design Review Plan within 30 calendar days of NTP for Consultation and Written Comment by the Department. The Design Review Plan shall describe the level of design that the Designer will accomplish for each of the planned stages of design development and provide a description and/or checklist for each Design Unit clearly identifying the design product that will be reviewed. The Design Review Plan shall include proposed review time for each Design Review, including the review time for Department and Project stakeholders.

DB 111-8 STAGES OF DESIGN DEVELOPMENT

The Design-Builder shall make a single comprehensive design check and Design Review for each Design Unit at the stages of design development specified herein.

The following are the five stages of design development:

A) Preliminary Design;

B) Semi-Final Design;

C) Final Design;

D) Working Drawings; and

E) Record (as-built) Drawings.

The intent of each stage of design development and Design Review is the following:

1) Verify that the design complies with the Contract requirements;

2) Allow separate Design Units to be released for construction; and/or

3) In the case of reviews of Working Drawings, to allow construction to continue.

Design Reviews or design checks shall be completed as specified in DB Section 111-12 for each Design Unit (and for each component or element within a Design Unit) at each stage of design development.

The Design-Builder shall time the Design Review and submissions (where specified) to be consistent with the Baseline Progress Schedule.

DB 111-9 DESIGN REVIEWS

The Design-Builder shall invite the Department to participate in Preliminary, Semi-final, Final Design; and Working Drawing Reviews. The Department may invite other Project Stakeholders to participate. The Design-Builder shall address and/or resolve the Department's comments in consultation with the Department prior to the Design Review process being considered complete. Any Stakeholder comments will be forwarded to the Design-Builder by the Department and shall be addressed and/or resolved by the Design-Builder.

DB 111-9.1 Preliminary Design Review

The Preliminary Design Review shall be the first Design Review after Award and is intended to verify that the design concepts proposed by the Design-Builder meet Contract requirements. The Preliminary Design Review shall verify the following:

A) The design concepts governing future design development are defined consistently with Contract requirements;

B) The final Basic Project Configuration;

C) The design concepts are substantiated and justified by adequate Site investigation and analysis;

D) Final Rights-Of-Way requirements;

E) Permit impacts;

F) The specific standards applicable to the proposed concepts are identified and appropriate;

G) The proposed design concepts are constructible;

H) The availability of required Materials/Equipment; and

I) The design meets Project quality requirements and required design QC procedures have been followed.

If the Preliminary Design is amended subsequent to the Preliminary Design Review, the Design-Builder shall re-check and re-certify the design at an additional Preliminary Design Review. The Design-Builder will not be entitled to an increase in Contract Price or a time extension for the re-check and re-certification except when the amended design results from a change order requested by the Department.

See also DB Section 111-13 regarding design deviations and exceptions.

DB 111-9.2 Semi-Final Design Review

The Design-Builder shall schedule and conduct a Semi-Final review when the Design Plans and Project Specifications for a Design Unit are at the 60% to 80% stage of completion.

The Design-Builder and the Department shall use the Semi-Final Design Review(s) to verify that the concepts and parameters established and represented by Preliminary Design are being followed and that Contract requirements continue to be met. The Design-Builder shall specifically highlight, check, and bring to the attention of the Department any changes to information presented at Preliminary Design. The Design-Builder shall submit the Semi-Final Design for Consultation and Written Comment by the Department (*See* DB Section 105-11).

DB 111-9.3 Final Design Review

The Design-Builder shall schedule and conduct a Final Design Review when the Design Plans and Project Specifications for a Design Unit are 100% complete. The Design-Builder shall specifically highlight, check, and bring to the attention of the Department any changes to information presented at previous Design Reviews. The Design-Builder shall submit final design for Consultation and Written Comment by the Department (*See* DB Section 105-11).

The Design-Builder shall not construct any permanent components or major temporary components until the design checks, Design Reviews, and Design QC Manager's certifications have been completed for the relevant Design Unit and the Department's provided Consultation and Written Comment for the design.

The Design-Builder shall not commence any construction until any design-related Non-Conformance Reports (NCR) have been addressed and resolved to the satisfaction of the Department.

The Final Design Review, upon completion of the Department's Consultation and Written Comment, may be used to satisfy the applicable Readiness for Construction requirements of DB Section 111-12.5.

DB 111-10 WORKING DRAWINGS

Working Drawings shall comprise the development and production of working drawings. The Design-Builder shall check, review, and certify working drawings in accordance with DB Section 111-12.1 through 111-12.3 and DB Section 111-14 prior to their being issued for construction.

The Design-Builder shall invite the Department to participate in the review of Working Drawings. The Department may invite the Stakeholders to participate in reviews of Working Drawings.

Working Drawings include, but are not limited to, the following:

A) Working drawings;

B) Material and product data from Manufacturers; and

C) Calculations.

DB 111-11 RECORD DRAWINGS

The Design-Builder shall submit the Record (as-built) Drawings for each Design Unit in accordance with DB Sections 109-10.1 and 111-12.

See DB Section 111-12.4.2 for additional requirements and information relating to Record Drawings and information.

DB 111-12 DESIGN CHECKS, CERTIFICATIONS, AND REVIEWS

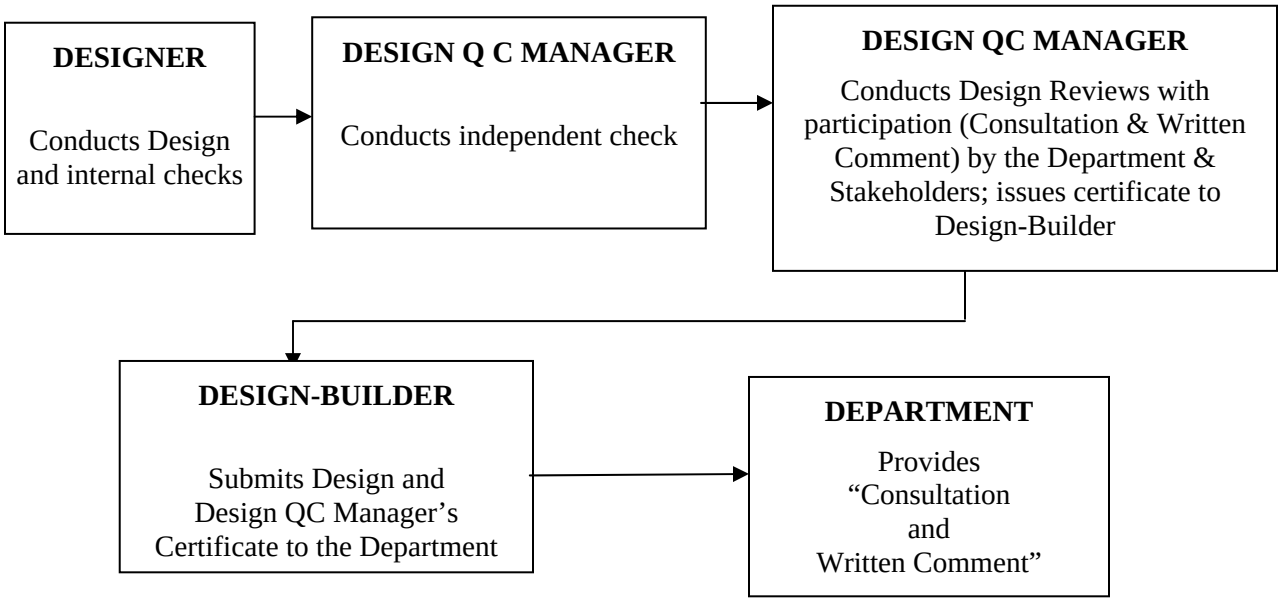
The Designer's organization shall check all design documents (drawings, plans, specifications, calculations, and reports) produced by the Design-Build Team. The Design-Builder's Design QC Manager will certify that these documents have been checked as per Contract requirements and the Design-Builder's Quality Plan. The Design-Builder's Design QC Manager's written certification shall be provided as specified in DB Section 111-12.5.

The Design-Builder and the Department shall follow the process shown in Figure 111-12A for Design Reviews conducted by the Design-Builder's Design QC Manager (applies to all Design Reviews except Record Drawing Reviews).

FIGURE 111-12A

DESIGN REVIEW FLOW CHART

(DESIGN-BUILDER'S DESIGN QUALITY CONTROL MANAGER CONDUCTS DESIGN REVIEW)

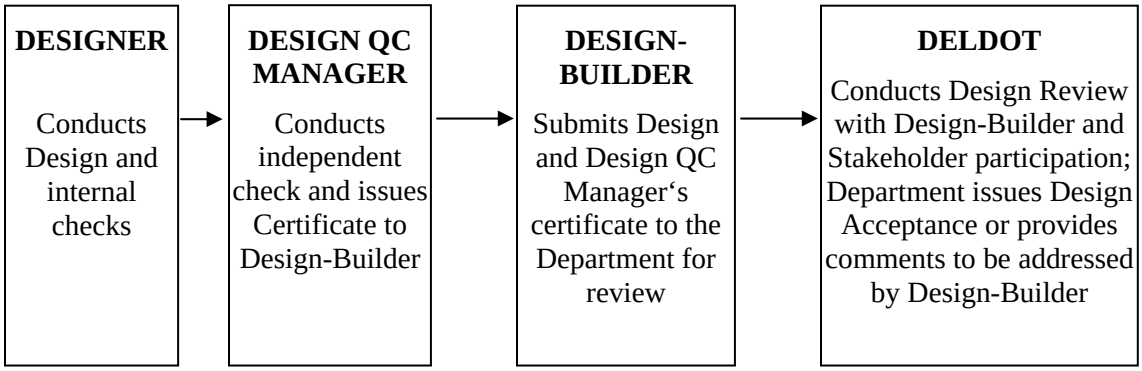


The Design-Builder and the Department shall follow the process shown in Figure 111-12B for designs being submitted for the Department's review (applies to review of Record Drawings only).

FIGURE 111-12B

DESIGN REVIEW FLOW CHART

(DELDOT CONDUCTS DESIGN REVIEWS)



The Design-Builder shall conduct and complete the design checks, certifications, and reviews for each Design Unit by the entity specified in Table 111-12. The Department will provide Consultation and Written Comment for the design(s) prior to the Design-Builder releasing final designs for construction as specified in DB Section 111-12.5. The Department may also issue design NCRs that must be addressed and resolved to the satisfaction of the Department prior to releasing the design(s) for construction.

The Design-Builder shall conduct its Design Review or submit its design for review in accordance with Table 111-12, supported by a written certification issued by the Design-Builder's Design QC Manager, at the stages of design development shown in Table 111-12 for each Design Unit in accordance with the Design Review schedule in the Baseline Progress Schedule.

TABLE 111-12

DESIGN CHECKS, CERTIFICATIONS, AND REVIEWS

FOR PERMANENT AND TEMPORARY COMPONENTS

STAGE OF DESIGN DEVELOPMENT	DESIGN CHECK AND CERTIFICATION TO DESIGN-BUILDER	DESIGN REVIEW
Preliminary Design	Designer and Design QC Manager	Design QC Manager
Semi-Final Design	Designer and Design QC Manager	Design QC Manager
Final Design	Designer and Design QC Manager	Design QC Manager
Working Drawings and related documents	Designer and Design QC Manager	Design QC Manager
Record Drawings	Designer and Design QC Manager	Department's designated representative

TABLE 111-12

DESIGN CHECKS, CERTIFICATIONS, AND REVIEWS

FOR PERMANENT AND TEMPORARY COMPONENTS

STAGE OF DESIGN DEVELOPMENT	DESIGN CHECK AND CERTIFICATION TO DESIGN-BUILDER	DESIGN REVIEW
Major temporary components	Designer and Design QC Manager	Design QC Manager
Temporary components	Designer and checker	Not applicable

DB 111-12.1 Design-Builder's Independent Checks

The Design-Builder shall perform independent checks of permanent components, major temporary components, and effects of temporary components on the permanent components using senior engineers not involved in the production of the design being reviewed who have equal or greater qualifications and experience as the Responsible Engineer for the design being checked.

Independent design checks shall include design assessment and analytical checks as specified in DB Sections 111-12.2 and 111-12.3.

DB 111-12.2 Design Assessment

Design assessment shall be the review of general compliance with the requirements of the Contract, taking into consideration the proposed method of construction, and, as a minimum, shall cover the following areas:

A) Loads;

B) Codes and standards;

C) Methods of analysis;

D) Computer software and its validation;

E) Interface requirements;

F) Maintenance requirements;

G) Materials and Material properties;

H) Durability requirements;

I) Fatigue performance;

J) Hydrology;

K) Design flows; and

L) Scour.

DB 111-12.3 Analytical Check

The independent design check shall include an independent analytical check using separate calculations (and without reference to Designer's calculations) to establish the structural adequacy and integrity of critical structural members. This shall include, but is not limited to, the following:

A) The structural geometry and modeling;

B) Material properties;

C) Member properties;

D) Loading intensities; and

E) Structural boundary conditions.

DB 111-12.4 Design Reviews

Any time or cost impacts for revisions that result from the Department's and Stakeholders' participation in Design Reviews and/or caused by Design-Builder's non-compliance with Contract requirements, including the Department's and Stakeholders' time for reviewing revisions, shall be borne by the Design-Builder.

DB 111-12.4.1 Design Reviews Conducted by the Design-Builder's Design Quality Control Manager

The Design-Builder shall notify and invite the Department to participate in all Design Reviews conducted by the Design-Builder's Design QC Manager. The Department may also invite Project Stakeholders including affected Utility Owners to participate. The Department will provide Consultation and Written Comment (based on the Department and Stakeholder participation) regarding these Design Reviews.

For Design Reviews conducted by the Design-Builder's Design QC Manager (*see* Table 111-12), the Design-Builder's Design QC Manager shall provide a Design Review report for each Design Unit at the conclusion of each Design Review. The Design Review reports will identify any actions arising from the review. The Design Review report shall note items requiring corrective action on the design NCR, Form NCR-D (Appendix 111A). The Design-Builder's Design QC Manager shall send the design NCR to the Designer and a copy to the Department.

The Design-Builder shall conduct Design Reviews in the offices of the Designer and/or Design-Builder in the Project vicinity. The Responsible Engineer and any specialists with significant input to the design or review shall be present. The Design-Builder shall make available all drawings, copies of calculations, reports, or other items pertinent to the Design Review.

DB 111-12.4.2 Record Drawings Review

Record (as-built) Drawings and Project Specifications shall incorporate complete information that defines the Work as constructed to meet the Contract requirements.

The Design-Builder shall submit complete Record Drawings for each Design Unit to the Department for review and Design Acceptance in accordance with DB Section 111-11. The Department review will verify the Project has been designed and constructed in accordance with Contract requirements and to see if Record Drawings comply with Contract requirements and fully and accurately reflect the Work performed.

The Design-Builder shall make all corrections noted in the review of Record Drawings and resubmit the corrected Record Drawings to the Department for review and Design Acceptance.

Design Acceptance by the Department will not occur until the Record Drawings are submitted, reviewed, and corrected to the satisfaction of the Department.

DB 111-12.4.3 Design Review of Major Temporary Components

The Design-Builder's Design QC Manager shall conduct a Design Review of major temporary components that represent complex structures and that potentially can affect the safety, quality, and

durability of the permanent components. The review shall include the effect of the major temporary components on the permanent components.

DB 111-12.4.4 Additional Reviews

The Department (with Stakeholder participation, if invited by the Department) may conduct additional "over-the shoulder" reviews as considered necessary to ensure a continued and uniform consistency in the quality and effective incorporation of revisions to designs. The Design-Builder may also conduct reviews necessary to facilitate early release of designs for construction.

DB 111-12.4.5 Independent Design Review

Prior to the Final Design Review, the Department may choose to conduct an Independent Design Review on the bridge. If performed, this Independent Design Review shall be conducted by an independent design consultant/firm, which is a design consultant/firm that is not owned or controlled in any way by the Design-Builder, one of its Principal Participants, the Designer, or any of the Subcontractors that are performing design for this Project. At the sole discretion of the Department, the Independent Design Review may consist of a 100% analysis of the bridge design, stage-by-stage erection (computer analysis only) and spot-checking of permanent structure components. If the Department chooses to perform the Independent Design Review, the Department shall bear the costs for this review. The Department will share pertinent results of the Independent Design Review with the Design-Builder through Consultation and Written Comment during the Final Design Review.

DB 111-12.5 Readiness for Construction

The Design-Builder may start construction of any element of the permanent components only after all the following items have occurred:

A) A Final Design Review has occurred for the items being considered for release to construction;

B) All Drawings and Documentation prepared by the Responsible Engineer, Manufacturer, Supplier, or other Persons are signed and sealed by a Delaware-licensed Professional Engineer;

C) The Designer has conducted its design QC checks throughout the design process in compliance with the Quality Plan and certifies in writing that the design is complete to the appropriate level or stage of review, checked, and ready to be released for construction;

D) The Design-Builder's Design QC Manager has signed the title sheet for the drawings, certifying to the following (the title sheet can be formatted to include the items of certification):

   1) Design checks have been completed;

   2) Work conforms to Contract requirements;

   3) Any deviations or design exceptions have been approved in writing by the Department (DB Section 111-13);

   4) Design Quality Control activities are following the Design-Builder's Quality Plan; and

   5) All outstanding issues or comments from Design Reviews have been resolved;

E) The Responsible Engineer has signed all drawings prepared under his/her direction. For those drawings and documents included in the submittal that are prepared by a Manufacturer or Supplier or other Persons not under the Responsible Engineer's direct supervision, the Responsible Engineer will affix a stamp that indicates the design shown

on the sheet or document conforms to the overall design and Contract requirements;

F) The Design Manager has signed the title sheet to the drawings certifying to the items contained in this DB Section 111-2.5. (The title sheet can be formatted to include the items of certification);

G) The Design-Builder has verified the following:

1) Working Drawings, Project Specifications, and related documents for the portion of the Project to be constructed are complete and checked in accordance with this DB Section 111-12;

2) The design and drawings for Maintenance of Traffic (MOT) and temporary erosion control and environmental measures applicable to the Work are complete; and

3) Adequate stakes, lines, and/or monuments necessary to control the Work have been established on the Site; and

H) The Department will provide Consultation and Written Comment regarding the design and applicable MOT, temporary erosion control measures, and environmental requirements; and

I) The Department has reviewed and approved the Design-Builder's Security Plan.

The Department's Consultation and Written Comment will not constitute Approval or Design Acceptance of the design or subsequent construction.

Any design NCRs issued by the Design-Builder's Design QC Manager or the Department must be addressed and resolved by the Design-Builder to the satisfaction of the Department prior to any design being released for construction.

Upon meeting all of the Readiness for Construction requirements of this DB Section 111-12.5, the Design-Builder may proceed at his own risk with construction of the Work covered by relevant design documents. Prior to construction proceeding on any additional Design Units, the Design-Builder shall first complete the necessary design and meet all Readiness for Construction requirements for each additional Design Unit.

DB 111-12.6 Comment Resolution

The Department's and Stakeholders' comments from Design Reviews will be recorded on Form DR (Appendix 111A) and transmitted to the Design-Builder. The Design-Builder shall record its proposed disposition and response to each comment and meet with the Department to resolve outstanding comments and dispositions. Final disposition and resolution will be documented on Form DR.

If the Design Review reveals non-conformance with Contract requirements, the Department will prepare Form NCR-D (Appendix 111A) and submit it to the Design-Builder for action. The Design-Builder shall complete Form NCR-D when the non-conformance is corrected and return Form NCR-D to the Department.

All Design Reviews shall include a comment and NCR resolution process where unresolved comments and NCRs are discussed and a written action plan and schedule for resolution of unresolved comments and NCRs is developed. The Design-Builder's Design QC Manager will lead the process.

DB 111-13 DESIGN EXCEPTIONS

All deviations (design exceptions) from specified standards must be submitted to the Department for review and Approval. All requests for deviations and exceptions must be submitted with a justification report detailing the reasons to retain a non-standard or substandard feature or for providing an improvement that does not bring the feature up to standard. Requests for design deviations and exceptions must be submitted not later than the Preliminary Design Review and Approved by the Department in writing before the affected Design Units will be released for construction (DB Section 111-12.5). If the Department does not Approve a design exception, it is the Design-Builder's sole responsibility to provide design in accordance with this Contract. The Department will not consider providing the Design-Builder additional time or compensation under this Contract due to the rejection of a design exception request.

DB 111-14 DESIGN CHANGES BEFORE CONSTRUCTION

Design changes may occur prior to construction or after final design and may be initiated by the Design-Builder, through its Designer, or the Department.

For all design changes requiring calculations, the Designer and the Design-Builder's Design QC Manager shall conduct a documented check of all calculations. All design changes requiring alteration of design documents released for construction shall undergo all review procedures included for original design documents in the Design-Builder's Quality Plan and DB Section 111-12.

The Design-Builder shall bear all costs associated with changes initiated by the Design-Build Team. The Department shall be responsible for additional costs when changes requested by the Department are outside the scope of work and the Contract requirements.

DB 111-15 DESIGN SUPPORT DURING CONSTRUCTION

The Designer and Design-Builder's Design QC Manager shall verify during construction that the conditions actually encountered are consistent with the design and related Design Plans, Working Drawings, and Project Specifications. During the course of construction, if Design-Builder has questions, experiences interference / conflict caused by design, or feels errors and omissions may exist in the Design Plans, Working Drawings, and Project Specifications, the Design-Builder's Project Manager shall issue a written RFI (Request For Information) to the Designer for clarification and response. The Designer shall respond to each RFI in writing and shall clearly indicate all necessary design revisions, if applicable. The Design-Builder shall provide a copy of all RFIs and responses to the Department as they are issued. The Designer shall prepare necessary adjustments in the Design Plans, Working Drawings, and Project Specifications and the Design-Builder shall obtain required Department Consultation and Written Comment. The Design-Builder shall be responsible for obtaining Stakeholder permits or approvals. The Designer and Design-Builder's Design QC Manager shall check any such changes in accordance with the Quality Plan. The Design-Builder's Design QC Manager shall certify the change in writing as meeting the Contract requirements. The Design-Builder shall incorporate the adjustments in the Record Drawings. The Design-Builder shall retain copies of its Design QC Manager's written certifications and submit the certifications to the Department.

DB 111-16 DESIGN WORKSHOP

Within 45 working days of NTP, the Design-Builder shall arrange a design workshop to familiarize the Designer's personnel and the Department (and Stakeholders, if invited by the Department) review personnel with the design concepts, issues, status, and review procedures. The agenda shall include developing agreements regarding time allowed for design reviews (*see* DB Section 111-5). The Department and Design-Builder shall jointly develop the agenda of the workshop and how it will be

organized (i.e., by Design Unit and engineering discipline). The intent of the workshop is to make the subsequent Design Reviews more effective and efficient for all parties.

All agreements, schedules, and understandings reached during the design workshop shall be documented in writing and signed off by the Design-Builder's Project Manager and the Department.

DB 111-17 QUANTITY ESTIMATES

To facilitate determining sampling and testing requirements, the Design-Builder shall provide quantity estimates for the Work on its Final Plans. The quantity estimates shall be in units that facilitate sampling and testing (i.e., the units shall be consistent with the units used to determine frequency of sampling and testing). For example, if "X" numbers of compaction tests are specified to be taken for every "Y" cubic yards of embankment, the quantity estimate would need to be in cubic yards of embankment.

See also DB Section 111-19.4.

DB 111-18 DESIGN DOCUMENTATION

DB 111-18.1 Progress Tracking

The Design-Builder shall include engineering and design progress and changes in its Baseline Progress Schedule (including Work on any design change) in the monthly updates.

DB 111-18.2 Design Quality Records

The Design-Builder's Design QC Manager shall prepare and submit monitoring reports to the Department of all design issues and review comments resulting from the scheduled and additional checks and reviews, including spot-check reviews.

The Design-Builder shall also maintain an auditable record of all Quality Plan procedures. An independent auditor shall be able to determine by reviewing documentation if all procedures included in the Quality Plan have been followed.

The Design-Builder shall submit reports of checks and reviews within seven calendar days of the completion of the review.

The Design-Builder shall develop, implement, and maintain a log of design NCRs and/or notices indicating dates issued, reasons, status, or resolution and date of resolution.

The Design-Builder shall prepare and maintain daily records of design activities on forms acceptable to the Department.

DB 111-18.3 The Design-Builder's Design Quality Control Manager Reports

DB 111-18.3.1 Monthly Report to the Delaware Department of Transportation

The Design-Builder's Design QC Manager shall submit a monthly report directly to the Department by the third working day of the following month that includes the following:

A) A summary of reviews conducted;

B) Identification of nonconforming Work and current status and/or disposition (based on design non-conformance log, DB Section 111-18.2); and

C) A listing of submission(s) from the Design-Builder and status.

DB 111-18.3.2 Final Design Report

Upon completion of the Final Design for each Design Unit, including all its components and elements, the Design-Builder's Design QC Manager shall notify the Design-Builder, with a copy to the Department, of any outstanding monitoring report issues or unresolved review comments.

DB 111-19 DESIGN PLANS, WORKING DRAWINGS, AND PROJECT SPECIFICATIONS

The Contract Price will include the cost of furnishing all Design Plans, Project Specifications, Working Drawings, and Record Drawings.

The Contract Documents establish the minimum standards of quality and define requirements that the design and construction must satisfy.

During the design process, the Design-Builder shall develop Project Specifications and Design Plans based on the Contract Documents that are applicable to the specific Materials, products, Equipment, procedures, and methods that the Design-Builder intends to use.

During the Design Reviews, the Design Plans and Project Specifications will be evaluated by the Department to determine if they meet the Contract requirements.

DB 111-19.1 Plans

The Work shall be performed in accordance with the details as shown on the Design Plans prepared by the Designer and those Working Drawings prepared by the Design-Builder. It shall be solely the Design-Builder's responsibility to provide Working Drawings of such a nature as to develop a finished product in accordance with Design Plans, Project Specifications, and Contract requirements. The Design-Builder shall verify pertinent dimensions in the field prior to conducting a Working Drawings review. Participation in the review of the Design-Builder's Design Plans and/or Working Drawings by the Department (or Stakeholders, if invited by the Department) shall not relieve the Design-Builder of the responsibility for the satisfactory completion of the Work.

Working Drawings shall be reviewed and approved in writing by the Designer before beginning the construction Work and shall not thereafter be amended or altered without prior written approval of the Designer and the Department's Consultation and Written Comment.

All Final Design Documents and Record Drawings shall be signed and stamped/sealed by the appropriate Responsible Engineer and shall include, on the title sheet for the plans, certification signatures of the Design Manager and the Design-Builder's Design QC Manager (the title sheet can be formatted to cite the appropriate certification requirements of DB 111-2.4 and 111-12.5).

DB 111-19.2 Format and Organization for Design Plans and Record Drawings

All Design Plans and Record Drawings prepared by the Design-Builder shall be in accordance with the Plan Presentation requirements specified in Section 2.8 of the Department's Bridge Design Manual. Model Plans may be found within the Department's Design Resource Center at the following web address*: http://www.deldot.gov/static/business/project_development/plan_dev.shtml.*

DB 111-19.3 CADD Standards

CADD formatting for Design Plans and Record Drawings shall conform to the Department's CADD manual and drafting standards.

DB 111-19.4 Project Specifications

The Design-Builder shall prepare Project Specifications based on Contract requirements. The Design-Builder may perform the following activities:

A) Use the Delaware Department of Transportation's Standard Specifications as supplemented by the Design-Builder; and/or

B) Prepare new Specifications to cover Work.

Project Specifications, including the Department's Standard Specifications, will be reviewed by the Design-Builder and the Department during Design Reviews to verify that the Project Specifications provide a level of quality that meets or exceeds the Contract requirements and are suitable and appropriate to control the Work. The Design-Builder shall be responsible for demonstrating that the Project Specifications meet or exceed the standard of quality established by the Department's Standard Specifications. Any deviation that results in a lesser standard of quality will require Department approval and may require the execution of a change order. The Department shall determine, at its sole discretion, if the Project Specifications meet the Contract requirements. The Methods of Measurement and Basis of Payment included in the Department's Standard Specifications shall not apply to the Work included in the Design-Builder's Lump Sum Price Proposal.

Project Specifications shall define the type and frequency of QC sampling and testing to be conducted for the Work covered by a Project Specification. The Design-Builder shall use DB Sections 106 and 112, as well as the Department's Materials Manual, to determine the type and frequency of QC sampling and testing.

STATE OF DELAWARE

DEPARTMENT OF TRANSPORTATION

DESIGN-BUILD PROJECT

for

INDIAN RIVER INLET BRIDGE

Replacement of Bridge 3-156,
SR1 over Indian River Inlet
State Contract # 26-073-03 Readvertised
Federal Contract # BRN-S050(14)

SCOPE OF SERVICES PACKAGE

CONTRACT DOCUMENTS

PART 2

DB SECTION 112

CONSTRUCTION QUALITY CONTROL AND QUALITY ASSURANCE

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DESIGN-BUILD SECTION 112

CONSTRUCTION QUALITY CONTROL/QUALITY ASSURANCE

DB 112-1 GENERAL

Per Design-Build (DB) Section 113**,** the Design-Builder shall develop and implement a quality program for all phases of the Project, including design, construction, maintenance, and environmental compliance. The Design-Builder, through its Design-Builder Quality Plan, shall have the primary responsibility for the quality of the Work, including all Work and products of Subcontractors, fabricators, Suppliers, and vendors both on-site and off-site. The Department, in its oversight role through Quality Assurance (QA), reserves the right to and will conduct verification oversight inspections, audits, sampling and testing, and Independent Assurance (IA).

The program shall be capable of ensuring that procurement, shipping, handling, fabrication, installation, cleaning, Inspection, construction, testing, storage, examination, repair, maintenance, and required modifications of all Materials, Equipment, and elements of the Work will comply with the requirements of the Contract Documents and that all Materials incorporated in the Work and all Equipment and all elements of the Work will perform satisfactorily for the purpose intended.

DB 112-1.1 Definitions

See Design-Build Section 101-3 for definitions, including definitions of Quality Control and Quality Assurance.

DB 112-1.2 Construction Quality Control Inspection

All construction processes, procedures, and workmanship shall be inspected by the Design-Builder's Construction Quality Control (QC) Inspectors. The Construction QC inspections shall include the observations, measurements, and documentation specified in DB Section 112-9, Appendix 112A to this DB Section 112 and/or included in the Design-Builder's Quality Plan. Inspection observations, measurements, results, non-conformances, and corrective actions shall be documented on the forms in Appendix 112C to this DB Section 112 or on the Design-Builder's forms acceptable to the Department. Inspection observation and documentation shall include description of construction activity and location by Specification section.

DB 112-2 INSPECTION AND TESTING OF MATERIALS

DB 112-2.1 General

All Materials are subject to Inspection, sampling, and testing at any time before Final Acceptance of the Work.

References in the Contract to a Delaware test method or test designation of the American Association of State Highway and Transportation Officials (AASHTO), the American Society for Testing and Materials (ASTM), or any other recognized national organization shall mean the latest revision of that test method or Specification for the Work in effect on the Proposal due date, unless otherwise noted.

Materials will be sampled and tested by the Design-Builder's construction QC testers and samplers. Copies of all test results will be furnished to the Design-Builder's Project Manager, the QC Manager, and the Department's designated representative. When a test is done for the Design-Builder as process control assuring that its process and Materials source is producing an acceptable product, test results will also be furnished to the above stated individuals. These process control tests usually occur when an operation is begun and when changes occur in the source of Materials or method of production.

The Department's designated representative may observe any sampling testing performed by the Design-Builder's QC testers and samplers. If the Department's designated representative observes a deviation from the specified sampling or testing procedures, the Department's designated representative shall verbally describe the observed deviation to the Design-Builder's Construction QC Manager, followed by a written Non-Conformance Report (NCR) covering the deviation to the Design-Builder's Construction QC Manager and Project Manager within 24 hours. *See also* DB Section 109-4.4 regarding payment.

DB 112-2.2 Construction Quality Control Testing and Sampling

The Design-Builder's construction QC testers and samplers shall perform sampling and testing for process control. Construction QC testers and samplers shall be certified to the level appropriate for the Work being sampled/tested. The Design-Builder shall maintain a list of construction QC testers and samplers indicating what test certifications each person currently hold. Testers and samplers will be allowed 90 working days from Award of the Contract to obtain the certifications.

The construction QC testers and samplers will test and sample only those Materials for which they are certified to sample and test. Reports of each test shall be recorded on the form prescribed for that test. All tests that do not pass specified requirements will be added to a log of failed tests. This log of failed tests will be used to assure that the Work is reconciled by a passing test as specified in Appendix 112B to this DB Section 112.

The minimum frequency of QC sampling and testing shall be consistent with Appendix 112B to this DB Section 112 and the individual Project Specifications accepted by the Department's Project Manager, and the Department's Materials Manual. The most stringent of these will determine the sampling and testing frequency.

The Design-Builder shall utilize an electronic system to document and track Material and field test results. The minimum information in the electronic system shall be that required to populate the Department's system. The Design-Builder shall develop a method to transfer the Material and field test result information to the Department's database or, alternatively, may make arrangements with the appropriate sections and/or offices to use the Department's system. In lieu of electronic data entry and/or transfer, the Department reserves the right to request all data be provided on Department-furnished or approved forms at no additional cost.

DB 112-3 QUALITY ASSURANCE INSPECTION

Quality Assurance Inspection will be performed by the Department's designated representative(s) assigned to the Project.

The Department's designated representative(s) will audit sampling and testing results. The review, audit, and subsequent feedback to the Design-Builder's Construction QC Manager are intended to assess the adequacy of the construction QC.

If, in the opinion of the Department, the Design-Builder is not fully complying with the Quality Plan requirements, the Department will advise the Design-Builder in writing of apparent deficiencies. The Design-Builder will have seven Calendar Days to either provide adequate documentation to demonstrate that the alleged violations are unfounded or correct the violations to the satisfaction of the Department. If after seven Calendar Days neither of the above remedies have been accomplished, the Department may take steps to implement the necessary QC action. All costs associated with this effort by the Department will be documented and these costs will be deducted by Change Order from the Contract Lump Sum Price.

The Design-Builder's Project Manager will provide information to the Department's designated representative regarding verification that Milestones (MS) are met as per the Design-Builder's Schedule

of Milestones and quantities of any Unit Priced Work items. A monthly audit of Milestones and quantities of any Unit Priced Work items will be performed and any required correction will be made to the subsequent progress pay estimate. This review and audit will assure that the Milestone achievement and correct quantities are shown. Documents for payment of change orders must also contain sufficient information to satisfy an audit. Documents for the closure of each change order will be reviewed and included in the final pay estimate. Additionally, in accordance with DB Sections 105 and 109, the Department's Project Manager shall have the authority to suspend the Work if at any time he/she determines that the Design-Builder is not in conformance with Contract requirements.

See DB Section 109 regarding payment processing.

Verification Sampling and Testing will be performed by the Department or its designated representative assigned to this Project in accordance with DB Section 106.

DB 112-4 REFEREE LABORATORY

The Department's central Materials and Research laboratory shall serve as a "referee" laboratory for resolution of disputes regarding sampling and testing results reported by the Department's verification samplers and testers and the Design-Builder's construction QC testers and samplers. The services of the "referee" laboratory may be requested by the Department or by the Design-Builder. The sampling and testing results determined by the "referee" laboratory shall be final and binding on both parties and not subject to disputes resolution under DB Section 107-27. The party whose sampling and testing results are not confirmed and/or supported by the "referee" laboratory shall be considered the unsuccessful party. If the Design-Builder is the unsuccessful party, a $200 surcharge will be assessed for the "referee" laboratory services and will be deducted from payment(s) otherwise due the Design-Builder.

DB 112-5 COMPETENCE

If a concern arises as to the competence of any certified individual, this concern must be documented in writing to the Design-Builder's Project Manager and the Department's Project Manager. The concern will be investigated as deemed necessary by the Department's Project Manager. If this investigation substantiates the concern, corrective action, or decertification will be implemented in accordance with procedures established by the Department and/or the certifying body. *See also* DB Section 108.

DB 112-6 DESIGN-BUILDER QUALITY CONTROL

The Design-Builder shall provide process control measures adequate to produce a constructed product of acceptable quality that conforms to the Contract Documents. The Design-Builder shall perform process control sampling, testing, and Inspection during all phases of the Work at a rate sufficient to assure that the Work conforms to the Contract requirements.

The Design-Builder shall provide personnel and Equipment capable of providing a product that conforms to specified requirements and shall provide personnel and Equipment capable of verifying and documenting this conformance. Continual production of non-conforming Work will not be allowed.

See Appendix 112A for Construction Quality Control Documentation Required.

DB 112-7 DESIGN-BUILDER'S CONSTRUCTION QUALITY CONTROL ORGANIZATION

The Quality Plan shall provide the information regarding the construction Quality Control organization.

DB 112-7.1 Independent Construction Quality Control Firm (Quality Control Engineering Firm)

The Design-Builder shall retain the services of an independent engineering consultant organization (the QC Engineering Firm) to oversee, manage, certify, and perform construction QC activities as specified in this DB Section 112, other Contract Documents, and the Design-Builder's Quality Plan. The QC Engineering Firm (and any firm acting as a subconsultant to the QC Engineering Firm) shall not be owned by or be an Affiliate of the Design-Builder (*see* DB Section 101), any Principal Participant (*see* DB Section 101) or Construction Subcontractor. The QC Engineering Firm shall be responsible for management and scheduling all QC Inspection and QC sampling and testing of all items of construction Work for this Contract. Subject to the limitations stated above, the Designer may serve as the QC Engineering Firm.

The Design-Builder's Construction QC Manager, Construction QC Inspectors and Construction QC testers and samplers and their support staff shall be employees of the QC Engineering Firm or employees of firm(s) acting as subconsultants to the QC Engineering Firm. The QC Engineering Firm shall work directly for the Design-Builder's QC Manager and shall not report to the Design-Builder's Project Manager.

DB 112-7.2 Construction Quality Control Manager

The Design-Builder shall assign an on-site Construction QC Manager. This individual will be considered one of the Project's Key Personnel.

The Design-Builder's Construction QC Manager shall be responsible for overall management and supervision of the Design-Builder's construction QC programs. The Design-Builder's Construction QC Manager shall be a Delaware-licensed Professional Engineer. The Design-Builder's Construction QC Manager shall report directly to the Design-Builder's QC Manager.

The Design-Builder's Construction QC Manager, or his/her designees, shall be delegated the authority to make needed improvements to the quality of Work, including the suspension of the Work if required.

The Design-Builder's Construction QC Manager shall be responsible for coordinating the schedules of the Design-Builder's construction QC Inspectors and construction QC testers and samplers with the Design-Builder's construction activities so as not to delay the Design-Builder's operations due to Construction QC Inspection, sampling, and testing activities.

DB 112-7.3 Staffing Levels

The actual size of the field/site staff shall reflect the complexity, needs, shifts, and composition of QC activities consistent with Work in progress and the requirements outlined in Appendix 112X.

The Design-Builder's Quality Plan (*see* DB Section 113) shall identify administrative and clerical support for the maintenance and management of records and documents pertinent to QC activities.

The QC staffing schedule shall be updated as necessary throughout the Contract duration to reflect accurate forecasting of QC staffing requirements.

DB 112-7.4 Laboratories

Laboratory QC testing shall be conducted by Department-approved testing laboratories retained by the QC Engineering Firm under subcontract that comply with the requirements for Department certification for applicable tests. Laboratories shall be accredited by the AASHTO Material Reference Laboratory (AMRL), the Concrete Cement Reference Laboratory (CCRL), the National Precast Concrete Association (NPCA) for precasters, or the Prestressed Concrete Institute (PCI), as appropriate, for the Work to be constructed. Department certification shall be obtained for all AASHTO and ASTM test methods to be

performed by the testing laboratory. Certification shall also be obtained for AASHTO and ASTM test methods that are modified or referenced by Delaware test methods.

Satellites (field laboratories) of these laboratories may be used where appropriate for the tests being conducted. The Equipment in the satellite laboratories shall be certified at the start of Work and a minimum of once per year thereafter. Certification shall be by an independent party and may be requested by the Department at any time.

The laboratory shall have written policies and procedures to assure portable and satellite laboratories performing testing activities on the Project are capable of providing testing services in compliance with applicable test methods. The policy and procedures shall address Inspection and calibration of testing Equipment as well as a correlation testing program between the accredited laboratory and portable or satellite facilities.

The Department reserves the right to check testing Equipment for compliance with specified standards and to check testing procedures and techniques.

The Department also reserves the right to access the testing facilities of the testing laboratories with no additional cost to the Department to witness the testing and verify compliance of the testing procedures, testing techniques, and test results.

The Department's rights to check Equipment, procedures, and techniques and to access testing facilities will also apply to Project Stakeholders when the Design-Builder is performing Work on their facilities.

DB 112-8 DESIGN-BUILDER SCHEDULING AND NOTICE TO THE DEPARTMENT

The Design-Builder shall notify the Department in writing by Friday noon of each week of planned construction activities, including fabrication, for the following two weeks to allow the Department to schedule its resources. The Design-Builder shall deliver this information at the weekly coordination meeting where related discussion will occur. For activities (such as fabrication) occurring out of the immediate Project area (beyond 100 miles of the Project), the Design-Builder shall give the Department at least 21 Calendar Days notice of planned Work.

DB 112-9 DOCUMENTATION

The Design-Builder shall collect and preserve each of the following types of data in a computer-generated form concurrently during Design-Builder's performance of the Work, all of which shall be in a format acceptable to the Department:

A) Inspector Daily Reports (IDR);

B) Record (as-built) Drawings;

C) Secure databases, such as spreadsheets, standard database software, and computation books;

D) Materials acceptance records;

E) Photographs; and

F) Field change sheets.

Daily manpower and Equipment reports for the Design-Builder and each Subcontractor for construction-related activities shall be prepared and maintained by the Design-Builder, using the forms in Appendix

112C to this DB Section 112 or other forms with a format acceptable to the Department's Project Manager.

A daily diary for construction-related activities shall be maintained by Design-Builder's Project Manager or his/her designee(s), using a form acceptable to the Department's Project Manager, in which all significant occurrences on the Project shall be recorded daily in a narrative form, including, unusual weather, asserted occurrences, events and conditions causing or threatening to cause any significant delay or disruption or interference with the progress of any of the Work, significant injuries to person or property and a listing of each activity depicted on the current monthly plan update which is being actively prosecuted. Also, traffic accidents in the Project area will be noted as well as lane closures in effect at the time of the accident.

For Utility-related Work such data shall be maintained separately for each Utility facility.

For harmful/Hazardous Material remediation Work, such data shall be maintained separately for each site.

Records shall document all QC operations, Inspections, visitors to the site, activities, and tests performed, including the Work of Subcontractors. The Design-Builder may use the forms provided by the Department or its own forms providing equivalent information. Such records shall include any delays encountered and Work noted that does not conform to the requirements of the Contract and design together with the corrective actions taken regarding such Work.

The Design-Builder shall complete and submit appropriate documentation at the following times and frequencies:

A) Monthly:

See Design-Build Section 108;

B) Weekly:

The Design-Builder shall maintain and submit records that include factual evidence that required activities or tests have been performed, including the following:

1) Type, number, and results of QC and control activities, including, reviews, Inspections, tests, audits, monitoring of Work performance, and Materials analysis;

2) Closely-related data, such as, qualifications of personnel, procedures, and Equipment used;

3) The identity of the Design-Builder's QC Inspector or data recorder, the type of test or observation employed, the results, and the acceptability of the Work, and action taken in connection with any deficiencies noted;

4) Nature of non-conforming Work and causes for rejection;

5) Proposed corrective action;

6) Corrective actions taken; and

7) Results of corrective actions.

DB 112-10 MATERIAL ACCEPTANCE

Documentary evidence that Material and Equipment conform to the procurement requirements shall be available at the job Site no less than 24 hours prior to installation or use of such Material and Equipment. This documentary evidence shall be retained at the job Site and shall be sufficient to identify the specific requirements, such as, Contract Documents, codes, standards, or specifications, met by the purchased Material and Equipment. Additionally, a copy of all documentary evidence that Material and Equipment conform to the procurement requirements shall be provided to the Department, or its representative, at the same time the Design-Builder receives such documentary evidence. The effectiveness of the QC by the Design-Builder's own forces and Subcontractors shall be assessed by the Design-Builder and the QC Engineering Firm at intervals consistent with the importance, complexity, and quantity of the product or services.

The Department reserves the right to inspect and review these documents at any time.

At the completion of the Project, the Design-Builder shall submit with the final invoice a certificate of compliance signed by the Design-Builder's Project Manager and Construction QC Manager indicating that all materials incorporated in the Project conform to the Contract requirements.

See DB Section 106-2 for Materials Certification.

DB 112-11 FINAL ACCEPTANCE

The Department has the responsibility and authority for Final Acceptance of all Work.

The Design-Builder shall complete all Work and provide all documents, certifications, and other information in accordance with the Contract Documents. Final Acceptance will be based on QC testing verified by verification testing and the Final Inspection. Any deviations from the sampling and testing methods and frequencies indicated in Appendix 112B to this DB Section 112 or the individual Specifications will require the Department's Approval prior to the start of construction on any affected Work. If there is a discrepancy between the individual Specifications and Appendix 112B to this DB Section 112, the more stringent requirements shall apply unless otherwise agreed in writing by the Department.

Final Materials Acceptance will be based on certificates of compliance and/or Manufacturer's test results where specified in the individual Specification or Appendix 112B to this DB Section 112.

Deficient Materials and products shall be brought into compliance with Specifications or replaced. The method of reconciliation will be noted in the log of failed tests.

STATE OF DELAWARE

DEPARTMENT OF TRANSPORTATION

DESIGN-BUILD PROJECT

for

INDIAN RIVER INLET BRIDGE

Replacement of Bridge 3-156,
SR1 over Indian River Inlet
State Contract # 26-073-03 Readvertised
Federal Contract # BRN-S050(14)

SCOPE OF SERVICES PACKAGE

CONTRACT DOCUMENTS

PART 2

DB SECTION 113

DESIGN-BUILDER'S QUALITY PLAN

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DB SECTION 113

QUALITY PLAN REQUIREMENTS

DB 113-1 GENERAL REQUIREMENTS

The Design-Builder shall submit a Quality Plan, updated as necessary, to the Department for approval.

The Quality Plan shall address the topics contained in this DB Section 113 in the order listed therein and shall meet the specified requirements of this DB Section 113.

The Quality Plan shall set up a "quality system team" which shall be distinct and separate from the design and construction production organization. The quality system team shall report directly to the Design-Builder's management through the Design-Builder's Quality Control (QC) Manager. The Quality Plan shall describe the quality system to be implemented at all levels of the Design-Builder's organization, to include Subcontractors (design and construction) at all levels, including labor only subcontracts.

See Part 2 – Design-Build Section 101, Section 101-3, for the definitions of QC and Quality Assurance (QA).

DB 113-1.1 Quality Plan Submittal

The Design-Builder shall submit its Quality Plan to the Department's Project Manager within 30 calendar days of Notice to Proceed for review and approval.

DB 113-1.2 Quality Plan Reviews and Updates

The Design-Builder shall conduct management reviews of its quality system as specified in this DB Section 113.

Within 15 calendar days of the receipt of Department's comments on the initial Quality Plan, the Design-Builder shall make necessary revisions to address Department's comments and shall submit a conformed copy of the updated Quality Plan with revisions highlighted.

As Work progresses, the Design-Builder shall update the Quality Plan to reflect current conditions. The Design-Builder and/or the Department's Project Manager may identify the need for revisions to the Quality Plan. The Design-Builder shall submit any revisions or updates to the Quality Plan to the Department's Project Manager for approval within 30 calendar days of the identification of the need for a revision.

In addition, the Design-Builder shall submit its Quality Plan for review by the Department's Project Manager annually [within 12 months of Notice to Proceed (NTP) or receipt of the last Approval from the Department's Project Manager] even if no revisions have occurred during that 12-month period. The Design-Builder shall submit a conformed copy of the updated Quality Plan with revisions highlighted.

Failure to submit a conformed copy of updated Quality Plan in accordance with this D-B Section 113-1.2 shall be considered Non-Conformance with respect to the requirements set forth for Project Component 1 (PC 1) in DB Section 109. The Department may reject Design-Builder's submittals until the non-conformity is resolved.

DB 113-1.3 Environmental Mitigation

In developing its Quality Plan, the Design-Builder shall establish appropriate controls in its management,

design, construction/installation, and documentation procedures to ensure that environmental mitigation requirements are met and documented. This should include having a designated representative that is a DNREC Certified Construction Reviewer.

DB 113-1.4 Organizational Requirements

The Design-Builder shall designate a QC Manager who shall be classified as one of the Key Personnel and be responsible for overseeing the overall quality program and the preparation, implementation, and update of the Quality Plan for the Design-Builder, including management, design, and construction. The Design-Builder's QC Manager shall not report to the Design-Builder's Project Manager, but shall be directly responsible to and report to the Design-Builder's board, senior management, or similar level of the Design-Builder's organization not directly responsible for design or construction. Once the Design-Builder's Design and Construction QC Managers have been submitted and approved they cannot be removed from their respective positions by the Design-Builder without approval of the Department.

The Design-Builder's QC Manager shall be present and available for consultation with the Department's Project Manager and other Department staff on an on-call basis throughout the duration of the Project. The Design-Builder's QC Manager shall attend the weekly progress meetings at a minimum and such other meetings as the Department's Project Manager may request, including individual meetings between the Design-Builder's QC Manager and Department staff.

The Design-Builder's QC Manager shall be the primary point of contact to the Department for all issues relating to the Design-Builder's Quality Plan (preparation, review, implementation, and updates).

The Design-Builder's Design QC Manager and Construction QC Manager and their respective staffs shall report directly to the Design-Builder's QC Manager.

See DB Section 112 for responsibilities and qualification requirements of construction QC staff. *See* DB Section 111 for responsibilities and qualification requirements of design QC staff.

DB 113-1.5 Abbreviations

C/A	Corrective Action
HSPPD	Handling/Storage/Packaging/Preservation/Delivery
P/A	Preventive Action

See DB Section 101-2 for additional abbreviations.

DB 113-2 QUALITY SYSTEM REQUIREMENTS

DB 113-2.1 Management Responsibility

DB 113-2.1.1 Quality Policy

The Design-Builder's executive management shall define and document its policy for quality, including objectives for quality and its commitment to quality. (In the context of this DB Section 113, "executive management" shall mean those persons to whom the Design-Builder's Project Manager reports and who has overall responsibility for the Design-Builder's performance.) The quality policy shall be relevant to the Design-Builder's organizational goals and the expectations and needs of the Department. The Design-Builder shall ensure that this policy is understood, implemented, and maintained at all levels of the organization.

The Design-Builder shall have a published statement of its commitment to quality and the organization's

quality objectives signed by its responsible executive(s). It shall explain the commitment in terms of the services provided to the Department and the responsibilities assumed by the Design-Builder to discharge its contracted accountabilities, relative to the Department's overall responsibility to Stakeholders and the public-at-large for assuring quality in the constructed facility. The statement shall be made known to and understood by all staff and be included in the Quality Plan.

Executive management's commitment to quality could be demonstrated by the quality policy being signed by the responsible executive(s) and management's direct involvement in verifying the implementation and understanding of the quality policy.

All employees shall be made aware of the Design-Builder's quality policy. The indoctrination on quality policy may be formal and can be accomplished by various means depending on the size of the Project, the structure of the Design-Builder's management staff, and the number of employees.

DB 113-2.1.2 Organization

A) Responsibility and Authority

Executive management shall have the responsibility to plan and determine the overall direction of the Design-Builder and its relationship to the quality efforts. Executive management shall ensure the quality policy is documented and understood by all employees and management shall further ensure the implementation of the quality policy by everyone in the organization.

The quality system shall be an integral part of the overall management system and as such shall be supported and implemented from the top down. On a Design-Build (DB) project, most employees are involved in managing, performing, or verifying work that affects quality. It shall not be the sole domain of the design checkers, QC inspectors, or QC personnel. All workers, including design and construction production personnel (including those of Subcontractors), shall be aware of the quality system requirements that govern their respective Work.

A description of the organizational arrangements (such as, a chart) shall be available and maintained. All key roles and persons and lines of communication and authority between the Design-Builder and the Department and their representative(s) and with other organizations involved shall be identified.

The responsibility, authority, and interrelation of personnel who manage, perform, and verify work affecting quality shall be defined and documented, particularly for personnel who need the organizational freedom and authority to do any of the following:

1) Initiate action to prevent the occurrence of any nonconformities relating to the product, process, and quality system;

2) Identify and record any problems relating to the product, process, and quality system;

3) Initiate, recommend, or provide solutions through designated channels. It shall be everyone's responsibility to report any and all quality and safety problems;

4) Verify the implementation of solutions. Verifying the implementation of the solutions to quality problems shall be performed in a timely manner. The verification shall also investigate if the solution to the identified problem created another quality problem; and

5) Control further processing, delivery, or installation of nonconforming product until the deficiency or unsatisfactory condition has been corrected. Controls shall be established, including stopping work, if necessary, once a significant quality

problem is identified until the cause of the problem can be identified and the required corrective action can be implemented.

B) Resources

The Design-Builder shall identify resource requirements and provide adequate resources, including the assignment of trained personnel (*see* DB Section 113-2.18) for management, performance of Work, verification activities, and internal quality audits.

The Design-Builder shall have a system for assuring that projects are adequately staffed and that resources are provided adequate training to perform such activities as design reviews (DB Section 113-2.4), verification activities, receiving, in-process and final inspections (DB Section 113-2.10), and internal quality audits (DB Section 113-2.17).

The Quality Plan shall identify the source of staffing (management, professional, technical, and labor) and shall deal with the integration of resources into the specific Contract requirements.

Other resources shall also be addressed, such as, computers, craft tools, equipment, and facilities.

C) Design-Builder's Quality Control Manager

The Design-Builder's executive management shall appoint a QC Manager who, irrespective of other responsibilities, shall have a defined authority for the following activities:

1) Ensuring that a quality system is established, implemented, and maintained; and

2) Reporting on the performance of the quality system to the Design-Builder's management for review and as a basis for improvement of the quality system.

The Design-Builder's QC Manager shall have direct access to executive management to report on the performance of the quality system and shall not work under the Design-Builder's Project Manager or anyone else responsible for design or construction production.

DB 113-2.1.3 Management Review

The Design-Builder's executive management shall review the quality system at defined intervals sufficient to ensure its continuing suitability and effectiveness in satisfying the requirements of this standard and the Design-Builder's stated quality policy and objectives (*see* DB Section 113-2.1.1). Management reviews shall be held at least at three-month intervals.

Records of such reviews shall be maintained (*see* DB Section 113-2.16). Minutes shall be taken of the review meetings and these minutes shall be maintained as quality records. Copies of minutes shall be provided to the Department's Project Manager on request.

DB 113-2.2 Quality System

DB 113-2.2.1 General

The Design-Builder shall establish, document, and maintain a quality system as a means of ensuring that product conforms to specified requirements. The Design-Builder shall prepare a Quality Plan covering the requirements of this DB Section 113. The Quality Plan shall include or make reference to the quality system procedures and outline the structure of the documentation used in the quality system.

The Quality Plan shall cover temporary and permanent components; the Design-Builder; all Principal Participants; and all Subcontractors, suppliers, and vendors (design, construction, and materials) at all

tiers.

The Quality Plan shall either contain or reference the procedures and documentation structure outline critical to quality.

The Quality Plan shall also establish or reference the procedures that make up the quality system. Should the Quality Plan only reference the procedures, it shall also detail the levels of the documented system, its contents, and the interrelationship of the document types.

There shall be a "road map" within the Quality Plan that is lined up to the applicable element that describes the quality system. This roadmap may be a cross-reference, narrative, chart, index, or some similar method.

The Quality Plan shall detail the role of the Design-Builder, each Principal Participant, the Designer, the Design-Builder's Design and Construction QC Managers, and other team members having a significant quality role.

The Quality Plan shall define policies, goals, and objectives of the organization and organizational interfaces

DB 113-2.2.2 Quality-System Procedures

A) The Design-Builder shall prepare documented procedures consistent with the requirements of this DB Section 113 and the Design-Builder's stated quality policy.

B) The Design-Builder shall document standard Work methods in procedures (*see* DB Section 113-2.2.1) and enforce the implementation of these "Best Practices." However, it is inevitable that situations will arise which require a departure from the norm. These conditions shall be anticipated in the procedures and shall allow for control of these activities.

C) The Quality Plan shall define the liaison and interface between the quality organization and the design and construction arms of the Design-Builder.

D) The quality procedures shall, as a primary objective, be written with the intent of gaining employee understanding of the system.

E) It is the Design-Builder's responsibility to describe to the Department the rationale for the procedures selected and, if the procedures do not address every provision of this DB Section 113, to explain why the standard is not applicable in a particular situation. The following common pitfalls should be avoided:

1) Too much emphasis placed on creating multiple tiered documents when a simple Quality Plan will suffice;

2) Procedures which are too restrictive;

3) Procedures which are inconsistent;

4) Inordinate emphasis on documentation requirements; and

5) Over-commitment to procedures which provide little or no information to assist employees.

F) The following list of procedures (1 through 21) shall serve as the starting point for defining the Design-Builder's quality management system.

1) A procedure for preparation, control and distribution of Project Quality Plan;

2) Scope;

3) Key Personnel;

4) Organizational/technical interfaces;

5) Design input requirements;

6) Design output requirements (deliverables);

7) Design reviews;

8) Delaware Department of Transportation participation;

9) Levels of responsibility and authority for the following personnel:

   a) On-site staff;

   b) Other local office staff;

   c) Executive management; and

   d) The Design-Builder's Quality Control Manager;

10) An "Issue Paper" Process – A procedure to substantiate, justify and document the request for Department's approval of deviation from project design criteria, codes, and/or specifications.

11) A procedure to control, verify, and validate the design;

12) A procedure for document issue, approval, and revision;

13) A procedure for verification, storage, and maintenance of Department-supplied Materials or Equipment;

14) A procedure for the identification and traceability of deliverable items, such as, Design Plans, Project Specifications, Working Plans, and As-Built Plans;

15) A procedure for verification and control of computer programs used in design;

16) Procedures for inspecting, testing, and calibrating Equipment;

17) Procedures for handling nonconformance;

18) Procedures for corrective/preventive actions;

19) Procedures for handling, storing, packaging, and delivering Contract deliverables;

20) Training processes;

21) Procedures for internal quality audits; and

22) A procedure for management review.

   a) The Design-Builder shall identify its standard procedures applicable to the Project. Design-Builder shall develop Project-specific procedures for all elements of the Project that are important to quality for the Project, but are not addressed adequately by its standard procedures. Both types of procedures shall be included in the Project's Quality Plan.

   b) The Design-Builder shall effectively implement the quality system and its documented procedures. Implementation shall be demonstrated by internal quality audit reports, trending of nonconformances, records of root cause analysis, records of corrective and preventive actions, and/or records of how the Department's complaints were handled.

c) For the purposes of this DB Section 113, the range and detail of the procedures that form part of the quality system depend on the complexity of the Work, the methods used, and the skills and training needed by personnel involved in carrying out the activity. The procedures shall accurately reflect the Work that is to be accomplished and shall benefit the organization/Project.

d) Documented procedures may make reference to specifications that define how an activity is performed. Procedures shall describe the process steps of "what" needs to be done and Work instructions shall prescribe "how" it is to be done.

DB 113-2.2.3 Quality Planning

A specific Project Quality Plan is required. There shall be evidence of quality planning that ensures specific Contract/Project requirements have been identified and incorporated into the documented quality system. The Department's requirements represent the minimum requirements. The Design-Builder shall develop a fully comprehensive plan.

The Design-Builder shall define and document how the requirements for quality will be met. Quality planning shall be consistent with all other requirements of a Design-Builder's quality system and shall be documented in a format to suit the Design-Builder's methods of operation. The Design-Builder shall give consideration to the following activities, as appropriate, in meeting the specified requirements for the Project:

A) Preparing the Quality Plan;

B) If the Design-Builder already has a quality management system, blending the unique Project requirements into the quality system by completing the following for this Project:

1) Stating the Project objectives to be obtained;

2) Identifying responsibilities, authorities, and interfaces (both internal and external);

3) Identifying specific procedures, methods, and instructions to be used (standard and Project specific);

4) Identifying inspections, tests, audits, and surveillances to be used;

5) Controlling modifications and change; and

6) Incorporating Project requirements into the standard documents;

C) Identifying and acquiring any controls, processes, Equipment (including inspection and test Equipment), fixtures, resources, and skills that may be needed to achieve the required quality;

D) Ensuring the compatibility of the design, production process, installation, service, inspection and test procedures, and applicable documentation, the Design-Builder shall have significant interface obligations and shall describe in its Quality Plan how these obligations shall be met;

E) Updating, as necessary, QC, inspection, and testing techniques, including the development of new instrumentation;

F) Identifying suitable verification at appropriate stages;

G) Clarifying standards of acceptability for all features and requirements, including those which contain a subjective element; and

H) Identifying and preparing quality records. Quality records are comprised of such documents as audit inspection reports, approved designs, Specifications, Plans, calculations, purchase orders, Design Review records, vendor evaluation reports, cumulative progress reports, and audit reports.

DB 113-2.3 Change Order and Amendment Review

DB 113-2.3.1 General

The Design-Builder shall establish and maintain documented procedures for change order and Amendment review and for the coordination of these activities.

The methodology of the review shall be adequately defined and documented in procedure(s). The objective is to ensure that all Contract commitments are reviewed and agreed prior to issue or "execution."

This DB Section 113-2.3 applies to the Contract between the Design-Builder and the Department.

DB 113-2.3.2 Review

The change review is a process that should begin with the request for change and continues during the change order or Amendment preparation. The review process could be "graded" (i.e., different for change orders versus Contract Amendments) and could also be different based on the dollar value and legal framework (i.e., specific to the perceived risk of not doing so).

Change review shall take place for each request for change order or Contract Amendment.

Before submission of a proposal or the acceptance of a change order or Contract Amendment, the proposal shall be reviewed by the Design-Builder to ensure the following:

A) The requirements are adequately defined and documented. Where no written statement of requirement is available for an order received by verbal means, the Design-Builder shall ensure that the order requirements are agreed before their acceptance. The identification and documentation of the Department's requirements is required;

B) The standard also acknowledges that a written statement of requirements may not always be received from the Department. Where verbal orders are received from an authorized representative of the Department, the Design-Builder shall ensure requirements are defined, reviewed, and confirmed in writing. In any case, the Design-Builder shall be responsible to ensure the change requirements are understood and have been agreed to by both parties before acceptance;

C) Any differences between the Contract or accepted order requirements and those in the proposal are resolved. Differences between a proposal and the requested change shall be reconciled and reviewed for impact and action, clearly and mutually agreed; and

D) The Design-Builder has the capability to meet the Contract or accepted order requirements. The Design-Builder shall have the capability to fulfill the Project Contract requirements before acceptance of the change order or Amendment. This capability can reside in-house, with Subcontractors, or with subconsultants.

DB 113-2.3.3 Amendment to a Contract

The Design-Builder shall identify how an amendment to a Contract is made and correctly transferred to the functions concerned within the Design-Builder's organization.

The Contract review procedure shall include processing all Amendments to the Contract. Amendments and change order requests should be subject to an appropriate level of review as the initial Contract. The

review shall include impact on Work already performed, schedule, and costs.

DB 113-2.3.4 Records

Change order and Amendment reviews correspondence, meeting minutes, signed documents, and records of negotiation shall be maintained as Project records. Records of negotiations shall also be attached to a Change Order.

Channels for communication and interfaces with the Department's organization in these Contract matters shall be established and maintained.

DB 113-2.4 Design Control

DB 113-2.4.1 General

The Design-Builder shall establish and maintain documented procedures to control and verify the design of the product in order to ensure that the specified requirements are met.

Design control shall be applied to computer programs, design tables, and other products that provide analytical results which are used to develop or check designs.

The Quality Plan shall detail the roles of the following Design-Builder personnel:

A) Designer;

B) Design Manager;

C) Design Quality Control Manager; and

D) Responsible Engineer(s).

DB 113-2.4.2 Design and Development Planning

The Design-Builder shall prepare plans for each design and development activity. The plans shall describe or reference these activities and define responsibility for their implementation. The design and development activities shall be assigned to qualified personnel equipped with adequate resources. The plans shall be updated as the design evolves.

The Project design control procedures shall define the technical interfaces among the different groups which provide input to the design process or receive output. The necessary information shall be documented, transmitted, and regularly reviewed. If not defined in these procedures, a separate description shall be required.

DB 113-2.4.3 Design Input

Design-input requirements relating to the product, including applicable statutory and regulatory requirements, shall be identified, documented, and reviewed by the Design-Builder for adequacy. Incomplete, ambiguous, or conflicting requirements shall be resolved with those responsible for imposing these requirements.

The essence of this sub-element is that the Design-Builder determines what information is needed and the available sources for information, reviews all pertinent available data, assures itself that there is sufficient information to carry out its assignment, and resolves with the Department and other appropriate authorities any actual or apparent conflicts or inconsistencies in the information so gathered. The information, sources, and decisions shall be documented and treated as a quality record (DB Section 113-2.16).

DB 113-2.4.4 Design Output

The Design-Builder shall document design output and express output in terms that can be verified against design-input requirements and validated (*see* DB Section 113-2.4.8).

Design outputs are usually captured in documents such as Plans, reports and Specifications. The control of these outputs is an integral part of the Design-Builder's document control process.

Output documentation shall be reviewed for compliance with design requirements.

Design output shall comply with the following:

A) Meet the design-input requirements;

B) Contain or make reference to acceptance criteria; and

C) Identify those characteristics of the design that are crucial to the safe and proper functioning of the product (e.g., requirements for operating, storing, handling, maintaining, and disposing).

Design-output documents shall be reviewed before release.

DB 113-2.4.5 Design Review

At appropriate stages of design, documented reviews of the design results shall be planned and conducted. Participants at each Design Review shall include representatives of all functions concerned with the design stage being reviewed, as well as other specialist personnel as required. Records of such reviews shall be maintained (*see* DB Section 113-2.16).

This element reinforces the principle of qualified staff to perform verification functions. The purpose here is to ensure an unbiased look at the Work output being produced, to verify with a "fresh set of eyes" that the Department’s contractual requirements and needs are being met fully. Reviews shall include consideration of the Project's usability, reliability, maintainability, availability, and operability along with safety, cost, and aesthetics. In reviews it is prudent to address environmental impacts, community impacts, and similar concerns. Note that Design Reviews shall be recorded and retained as quality records. Any computer software used to perform alternative calculations or verify clearances through use of scale models or CADD techniques shall be validated before use for the application made and the validation documented in accordance with DB Section 113-2.16.

In addition to conducting Design Reviews, design verification may include the following activities:

A) Performing alternative calculations;

B) Comparing the new design with a similar proven design, if available;

C) Undertaking tests and demonstrations; and

D) Reviewing the design-stage documents prior to release.

DB 113-2.4.6 Design Verification

Design verification is the process of ensuring specified requirements have been met.

At each stage of design development the Design-Builder shall verify that the design stage output meets the design stage input requirements. The design verification measures shall be recorded (*see* DB Section 113-2.16).

The Design-Builder shall establish and the Quality Plan shall include procedures for verifying and

documenting that the design output meets the design input requirements. Verification shall include independent checks, tests, and/or reviews.

Verification shall be performed under the direction of the Design-Builder's Design Quality Control Manager.

Designs provided by subconsultants shall be independently verified and documented under the direction of the Design-Builder's Design QC Manager prior to its acceptance and incorporation into the Work of others.

DB 113-2.4.7 Design Validation

The Design-Builder shall perform design validation to ensure that Project conforms to defined user needs and/or requirements.

Design validation is the process of ensuring "requirements for a specific intended use are fulfilled." In other words, design validation is conformity with the user's needs rather than only specified requirements. In most cases, the Design-Builder cannot determine if the Department's "needs" have been fulfilled until the Project is complete and operational.

Design validation seeks to ensure that the final product conforms to the Department's needs. Design validation follows successful design verification. Validation may only be applicable for electronic, electrical, and/or mechanical components of a Project. Validation is normally performed under defined operating conditions. Validation is normally performed on the final product, but may be necessary in earlier stages prior to Project completion.

Multiple validations may be performed if there are different intended uses.

DB 113-2.4.8 Design Changes

After a design is complete and the Work is ready to be executed, is being executed, or is complete all subsequent design changes and modifications shall be identified, documented, reviewed, and approved by authorized personnel before their implementation.

The Design-Builder shall establish and include in the Quality Plan procedures on how design changes are initiated, reviewed, approved, implemented, and recorded in order to maintain configuration control. Changes may originate at the Department's request, internal and external design organizations, and site or field personnel.

The persons authorized to approve design changes shall be identified in the procedures. The mechanism for changes in the design can be detailed as part of the procedure for the original Work or addressed in a specific design change procedure(s). It is important that any proposed changes should be reviewed and approved by the Responsible Engineer that produced the original Work. The degree and nature of control on design changes shall be at least equivalent to that under which the original Work was accomplished. Changes shall be responsive to the design input and shall be verified and approved. An administrative system shall be in place to ensure that approved changes are documented and provided to holders of the original material in a timely manner. Also, there shall be a documented process that ensures that superseded information is removed from use when the updated document or record is received.

A master list of currently effective documents shall be maintained to reflect design changes approved. A listing of the design changes shall be communicated to the construction site on a timely basis consistent with the progress of construction activities. Under no circumstances shall Work be performed without current knowledge of the approved design changes to be incorporated into the Work product.

DB 113-2.5 Document and Data Control

DB 113-2.5.1 General

The Design-Builder shall establish and maintain documented procedures to control all documents and data that relate to the requirements of this DB Section 113-2.5 including, to the extent applicable, documents of external origin such as standards and the Department's plans.

The Design-Builder shall be responsible for the establishment and implementation of documented procedures for ensuring all documents essential to the quality of the delivered product or service are properly controlled. This shall include, but is not limited to, contracts, Plans, Specifications, master drawing lists or equivalent documents, critical procedures and Work instructions, quality system manuals, Project quality plans, and data (e.g., computer data bases and computer files).

Procedures should recognize that there is a finite life to electronic storage media. Consideration should be made for those "documents" which only exist in the electronic media.

DB 113-2.5.2 Document and Data Approval and Issue

The Design-Builder shall be responsible to see that the documents and data are reviewed and approved for adequacy by authorized personnel prior to issue. A master list or equivalent document control procedure identifying the current revision status of documents shall be established and be readily available to preclude the use of invalid and/or obsolete documents.

The Design-Builder shall be responsible for establishing, documenting, maintaining, and implementing a procedure which clearly defines the process for document review, resolution of comments, and approval authority.

Quality management system documentation shall also be controlled to ensure its proper authorization and distribution.

No construction Work activities shall be accomplished using unreleased, unauthorized, or outdated design documents.

This control shall ensure the following:

A) The pertinent issues of appropriate documents are available at all locations where operations essential to the effective functioning of the quality system are performed; and

B) Invalid and/or obsolete documents are promptly removed from all points of issue or use or otherwise assured against unintended use in the following ways:

1) Superseded, revised, and voided documents shall be removed from all Work areas and the employees whose Work is governed by those documents shall be informed of the changes to ensure compliance to the new or revised requirements;

2) A master document list or equivalent shall be maintained to identify the status and current revision of all controlled documents. The master list or equivalent shall be controlled and be available to all holders of controlled documents; and

3) Any obsolete documents retained for legal and/or knowledge-preservation purposes are suitably identified. Superseded, revised, and voided documents can be maintained for legal and/or historic information. However, the documented procedure must describe the method of identifying and storing these documents in a manner that ensures they are not inadvertently used by an unknowing

individual. There shall also be a record retention plan for the Design-Builder.

DB 113-2.5.3 Document and Data Changes

The Design-Builder shall identify and include in the Quality Plan the process for the initiation, review, and approval of all document changes prior to issuance of those changes.

Changes to documents and data shall be reviewed and approved by the same functions/organizations that performed the original review and approval unless specifically designated otherwise. If this is not possible then the designated approval authority shall have adequate background and experience upon which to base the decision. The designated functions/organizations shall have access to pertinent background information upon which to base their review and approval.

Where practical, the nature of the change shall be identified in the document or the appropriate attachments.

DB 113-2.6 Procurement and Purchasing

DB 113-2.6.1 General

The Design-Builder shall establish and maintain documented procedures to ensure that purchased services and products conform to specified requirements.

The Design-Builder shall be responsible for establishing, documenting, and maintaining procedures for the evaluation and selection of suppliers, vendors, and subcontractors. The procedures shall detail the requirements for all important activities, such as, preparation of purchase orders; contracts for services; bid lists; and vendor quality requirements, including, pre-award audits, in-process inspections, and product acceptance.

DB 113-2.6.2 Evaluation of Subcontractors, Suppliers, and Vendors

The Design-Builder shall perform the following functions:

A) Evaluate and select Subcontractors on the basis of their ability to meet subcontract requirements, including the quality system and any specific QC requirements;

B) Control the evaluation and selection of suppliers, vendors, and Subcontractors. Procedures, rather than just a statement of policy in the Quality Plan, shall be used;

C) Describe the evaluation and selection process for suppliers, vendors, and Subcontractors of all tiers and describe the priority of quality in the evaluation and selection criteria in the Quality Plan;

D) Define the type and extent of control exercised by the Design-Builder over Subcontractors. This shall be dependent upon the type of services or products, the impact of subcontracted Work on the quality of final product, and where applicable on the quality audit reports and/or quality records of the previously demonstrated capability and performance of Subcontractors; and

E) Establish and maintain quality records of acceptable Subcontractors (*see* DB Section 113-2.16). Records shall be maintained to document the selection, control exercised over, performance, delivery, and quality of all Subcontractors.

The methods the Design-Builder elects to use to control the delivery of the subcontracted service or product may include, but are not limited to the following:

1) Design Reviews;

2) Shop inspections;

3) Receiving inspections;

4) Witnessed inspection hold points;

5) Issuance of a certificate of compliance or analysis;

6) Testing and approval of a prototype or sample;

7) Provision and approval of a Quality Plan prior to contract award; and

8) Quality system audits.

The procedures shall detail how Subcontractors (including consultants) will be reported to the Department (DB Section 108-1).

DB 113-2.6.3 Procurement and Purchasing Data

A) Procurement and purchasing documents shall contain data clearly describing the service or product ordered, including where applicable:

B) The type, class, grade, or other precise identification;

C) The title or other positive identification and applicable issues of Specifications; Plans; process requirements; inspection instructions; and other relevant technical data, including requirements for approval or qualification of product, procedures, process Equipment, and personnel; and

D) The title, number, and issue of the quality system standard to be applied.

The Design-Builder shall review and approve procurement/purchasing documents for adequacy of the specified requirements prior to release.

The documented procedure shall identify how and by whom procurement and purchasing documents are reviewed, how comments are resolved, and who in the organization has the authorization for final approval of the document.

DB 113-2.6.4 Verification of Purchased Service or Product

A) Design-Builder Verification at Subcontractor's Premises

Where the Design-Builder proposes to verify purchased product or service at the Subcontractor’s premises, the Design-Builder shall specify verification arrangements and the method of product release in the procurement/purchasing documents.

The procurement/purchasing document shall include any requirement for the organization performing verification at its Subcontractor’s facilities. The method of verification and release of the product or service shall be specified in advance. This may also mean the purchase order or Specifications carry specific instructions on how the process verification will be performed to assure the final product will meet all of the procurement/purchasing requirements.

B) The Delaware Department of Transportation Verification of Subcontracted Product or Service

Where specified in the Contract, the Design-Builder or the Department's representative shall be afforded the right to verify at the Subcontractor's premises and the Design-Builder’s premises that subcontracted product or service conforms to specified requirements. Such verification shall not be used by the Design-Builder as evidence of effective control of quality by the Subcontractor.

When specified in the Contract Documents, the Department shall have the right of access

to the Design-Builder and/or Subcontractor facility to inspect, audit, or otherwise verify the specified procurement/purchasing requirements are being fulfilled. The right of access may be extended to authorized personnel and contracted third parties. The Design-Builder is obligated to perform verification actions regardless of what the Department does. The Department's verification may not be substituted for the Design-Builder's actions.

Verification by the Department shall not absolve the Design-Builder of the responsibility to provide acceptable product or service nor shall it preclude subsequent rejection by the Department.

The Subcontractors shall be responsible for fulfilling all of the specified procurement requirements regardless if the Department, Design-Builder, or agent thereof performed any tests or inspections. The Design-Builder shall provide the Department an acceptable product or service regardless of the extent of the Department's verification. Even if the Department has performed verification actions at the Design-Builder's facilities, the product may still be rejected if it is not acceptable.

DB 113-2.7 Control of Delaware Department of Transportation-Supplied Items

The Design-Builder shall establish and maintain documented procedures for the control of verification, storage, and maintenance of any Department-supplied items provided for incorporation into the supplies or for related activities. Any such item that is lost, damaged, or is otherwise unsuitable for use shall be recorded and reported to the Department (*see* DB Section 113-2.16).

One of the most significant products provided to the Design-Builder by the Department is design information in the form of Plans and Specifications as well as proprietary information, and these items shall be protected with the same vigilance as any hardware items supplied. Any apparent deficiency or ambiguity shall be identified to the Department for its necessary action.

The technical characterizations of the site, such as, the boring log or soil report data supplied by the Department for consideration in designing the structural system for the product are examples of the Department-supplied products for the structural consultant.

When such items are encountered documented procedures shall exist which detail the receipt/ acceptance, storage, and maintenance (preservation) of these items.

When items are considered inadequate for the task required documented procedures shall detail the process used to report such deficiencies to the Department.

DB 113-2.8 Product Identification and Traceability

Where appropriate, the Design-Builder shall establish and maintain documented procedures for identifying the product by suitable means from receipt and during all stages of production, delivery, and installation.

This means that the Design-Builder shall establish and maintain documented procedures whereby items of Work for which records are to be kept shall be identifiable. Examples of this on a construction site include the numbering of concrete pours in a structure or the establishment of a grid matrix for identifying columns.

The Design-Builder shall include the document title, the unique number, the Department's name, the Design-Builder's name, the preparer's name, and the date and revision number on all Project deliverables.

The filing and retrieval of operating manuals, certificates of compliance and/or analysis, heat numbers, inspection status, and nonconforming product shall be traceable to the items. Records shall be kept that identify the installed location of the Equipment.

Where and to the extent that traceability is a specified requirement, the Design-Builder shall establish and maintain documented procedures for unique identification of individual product or batches. This identification shall be recorded (*see* DB Section 113-2.5).

The intent of this DB Section 113-2.8 is to ensure the Design-Builder can effectively identify the root cause of a problem and implement effective corrective and preventive actions to resolve and prevent future occurrences of the problem.

DB 113-2.9 Process Control

The Design-Builder shall plan and control the Work and, when necessary, prepare a documented process plan defining how Work is to be carried out. Documentation may be in the form of a narrative, flow chart, or control points.

The Design-Builder shall identify and plan the production, installation, and servicing processes which directly affect quality and shall ensure that these processes are carried out under controlled conditions. Controlled conditions shall include the following:

A) Documentation of procedures defining the manner of production, installation, and servicing where the absence of such procedures could adversely affect quality. This requirement deals with the planning and control of all Work processes other than design control processes that are critical to the adequacy of the delivered Project;

B) Establishment and documentation of the method(s) for scheduling, monitoring, and reporting on the status of each significant aspect of the design or other Project tasks. The methods shall be consistent with the size and complexity of the effort. Such schedules shall identify required inputs from others and submittals to the Department and to relevant government authorities;

C) An assessment by the Design-Builder of this requirement. The key phrase of this requirement is "where the absence of such procedures could adversely affect quality";

D) Use of suitable production, installation, and servicing Equipment and a suitable working environment;

E) Compliance with reference standards/codes, quality plans, and/or documented procedures. Referenced standards shall be available to the people at the location where the Work is to be performed to ensure compliance to the specified requirements;

F) Monitoring and control of suitable process parameters and product characteristics;

G) The approval of processes and Equipment, as appropriate. Procedures shall identify who has the responsibility, authority, and expertise for the approval of various processes to ensure their adequacy;

H) Criteria for workmanship which shall be stipulated in the clearest practical manner (e.g., written standards, representatives samples, or illustrations); and

I) Suitable maintenance of Equipment to ensure continuing process capability.

DB 113-2.10 Inspection and Testing

DB 113-2.10.1 General

The Design-Builder shall establish and maintain documented procedures for inspection and testing activities in order to verify that the specified requirements for the Project are met. The required inspection and testing and the records to be established shall be detailed in the Quality Plan or documented procedures.

This section shall address inspection/testing methodology, methods of control, documentation, acceptance, and distribution of results.

Written procedures are required. In general, QC inspections shall be performed to written criteria with specified levels of acceptability based on clearly defined accept/reject criteria. Reports shall be signed and dated by QC inspection personnel and results clearly indicated. Copies of all QC documents shall be provide to the Department within one week from the time they are prepared.

The Design-Builder shall establish, document, and maintain procedures for inspection and testing activities.

Quality Control inspection and testing shall be performed in accordance with written procedures developed by the Design-Builder or the proper issue of test procedures issued by industry, government, and/or code bodies available to test personnel.

Verification of compliance with Specifications and/or requirements by means of inspection and testing is required at the following times:

A) On receipt of Materials;

B) At intermediate stages; and

C) When Work is completed.

The criteria for compliance are defined in the Contract as are appropriate sampling and testing requirements.

Checkpoints and hold points (Work that must be inspected and approved by the assigned QC inspector before Work can proceed) shall be clearly established and identified on the Project Baseline Schedule or other suitable means. Quality Control inspection procedures, logistics, and reporting of results shall be clearly defined, developed, and implemented.

DB 113-2.10.2 Incoming Product Inspection and Testing

The Design-Builder shall ensure that incoming product is not used or processed (except in the circumstances described in DB Section 113-2.10.2.3) until it has been inspected or otherwise verified as conforming to specified requirements. Verification of the specified requirements shall be in accordance with the Quality Plan and/or documented procedures.

The Quality Plan shall include incoming product inspection that shall include, but not be limited to, the following:

A) Documentation review;

B) Physical inspection of Materials and/or Equipment:

C) Identify items per the purchase order and shipping list, tag number, or marking;

D) Verification of quantity and size;

E) Dimensional checks, when applicable;

F) Verification of protective coatings, if applicable; and

G) Examination of item(s) for condition and shipping damage.

The Design-Builder shall maintain an adequate checking and approving procedure to ensure that all its Work, including, the monitoring, testing, and approving of such Work at the head office and on-site, meets the Department's requirements and the Contract.

In determining the amount and nature of receiving inspection, the Design-Builder shall consider the amount of control exercised at the Subcontractor's premises and the recorded evidence of conformance provided.

DB 113-2.10.3 In-Process Inspection and Testing

The Design-Builder shall provide the following functions:

A) Inspect and test the product as required by the Quality Plan and/or documented procedures; and

B) Hold product until the required inspection and tests have been completed or necessary reports have been received and verified.

DB 113-2.10.4 Final Inspection and Testing

The Design-Builder shall jointly conduct all final inspection and testing with the Department in accordance with the Contract requirements and the Quality Plan and/or documented procedures to complete the evidence of conformance of the finished Project to the specified requirements.

The Design-Builder shall have documented procedures to ensure that the final observation and testing where applicable have been completed.

Records of final inspection and tests are required to verify compliance to specified requirements has been achieved (*see* DB Section 113-2.16).

The Quality Plan and/or documented procedures for final inspection and testing shall require that all specified inspection and tests, including those specified either on receipt of product or in-process, have been carried out and that the results meet specified requirements.

DB 113-2.10.5 Inspection and Test Records

The Design-Builder shall establish and maintain records which provide evidence that the product has been inspected and/or tested. These records shall show clearly whether the product has passed or failed the inspections and/or tests according to defined acceptance criteria. Where the product fails to pass any inspection and/or test, the procedures for control of nonconforming product shall apply (*see* DB Section 113-2.13).

Inspection and test records for inspections and tests performed by Design-Builder, the Department, and/or a third party shall show whether the product has passed or failed according to defined acceptance criteria. Product that fails inspection becomes nonconforming product. Also, the records shall identify the inspection authority responsible.

DB 113-2.11 Control of Inspection, Measuring, and Test Equipment

DB 113-2.11.1 General

The Design-Builder shall establish and maintain documented procedures to control, calibrate, and maintain inspection, measuring, and test Equipment (including test software) used by the Design-Builder to demonstrate the conformance of product to the specified requirements. Inspection, measuring, and test Equipment shall be used in a manner which ensures that the measurement uncertainty is known and is consistent with the required measurement capability.

Where test software or comparative references, such as test hardware, are used as suitable forms of inspection they shall be checked to prove that they are capable of verifying the acceptability of product prior to release for use during production, installation, or servicing and shall be rechecked at prescribed intervals. The Design-Builder shall establish the extent and frequency of such checks and shall maintain records as evidence of control (*see* DB Section 113-2.16).

Where the availability of technical data pertaining to the measuring Equipment is a specified requirement such data shall be made available when required by the Department for verification that the measuring Equipment is functionally adequate.

Effective test procedures shall contain comprehensive listings of required Equipment, tools, and apparatus to successfully and conclusively perform the test. Matters of "repeatability" and "reproduceability" shall also be addressed, together with precision of measured results and calibration thresholds of measuring devices.

Comprehensive operations, maintenance, setup, and dimensional arrangements for the measuring, testing devices, and Equipment shall also be included in order to allow for their practical layout and installation at the measuring location. The Design-Builder’s QC Engineering Firm shall establish, document, and maintain procedures for the control of inspection, measuring, and test equipment. It shall be the Design-Builder's responsibility through its QC Manager to assess the Subcontractor (*see* DB Section 113-2.6.2) to ensure the required procedures exist and are implemented.

The Design-Builder and its QC Engineering Firm shall be responsible for ensuring applicable requirements of this DB Section 113 are addressed.

This DB Section 113-2.11 applies to inspection or testing and surveying Equipment. The Quality Plan shall address the following:

A) Definition of the responsibility and authority for the inspection, measuring, and test Equipment;

B) Procedures for selecting measurements, determining accuracy and precision required, and obtaining Equipment which meets those requirements;

C) Disposition of nonconforming Equipment;

D) Procedures for identification, maintenance, and storage of measuring Equipment;

E) Record keeping;

F) Calibration frequency;

G) Calibration status including indicators;

H) Disposition of items checked with Equipment found to be out of calibration; and

I) Traceability of primary and secondary calibration standards.

DB 113-2.11.2 Control Procedure

The Design-Builder, through its Quality Control Engineering Firm, shall provide the following function:

A) Determine the measurements to be made and the accuracy required, and select the appropriate inspection, measuring, and test Equipment that is capable of the necessary accuracy and precision;

B) Identify all inspection, measuring, and test Equipment that can affect product quality and calibrate and adjust them at prescribed intervals or prior to use against certified Equipment having a known valid relationship to internationally or nationally recognized standards. Where no such standards exist, the Design-Builder shall document the basis used for calibration;

C) Develop a master calibration listing indicating the inspection and test Equipment that is used. The log shall include at a minimum the identification number, item description, and required frequency of calibration and accuracy requirements. It is not intended that calibration is required for non-precision tools and instruments, such as, measuring tapes, concrete slump cones, rulers, and weld radius gauges;

D) Define the process employed for the calibration of inspection, measuring and test Equipment, including, details of equipment type, unique identification, location, frequency of checks, check method, acceptance criteria, and the action to be taken when results are unsatisfactory;

E) Identify inspection, measuring, and test Equipment with a suitable indicator or approved identification record to show the calibration status;

F) Maintain calibration records for inspection, measuring, and test Equipment (*see* DB Section 113-2.16);

G) Assess and document the validity of previous inspection and test results when inspection, measuring, or test Equipment is found to be out of calibration;

H) Ensure that the environmental conditions are suitable for the calibrations, inspections, measurements, and tests being carried out;

I) Ensure that the handling, preservation, and storage of inspection, measuring, and test Equipment is such that the accuracy and fitness for use are maintained;

J) Safeguard inspection, measuring, and test facilities, including both test hardware and test software, from adjustments which would invalidate the calibration setting; and

K) Ensure that geometry controls, including construction layout and surveying, are accurately maintained.

DB 113-2.12 Inspection and Test Status

The inspection and test status of product shall be identified by suitable means which indicate the conformance or nonconformance of product with regard to inspection and test performed. The identification of inspection and test status shall be maintained as defined in the Quality Plan and/or documented procedures throughout production, installation, and servicing of the product to ensure that only product that has passed the required inspections and tests is dispatched, used, or installed.

The Design-Builder shall establish, document, implement, and maintain an effective system for identifying and implementing the inspection and test status of Project products and services. The system shall utilize a method to identify conforming, nonconforming, indeterminate, downgraded, scrap, and rejected Material.

Lack of nonconformance identification shall not be an indication of acceptance.

DB 113-2.13 Control of Nonconforming Product

DB 113-2.13.1 General

The Design-Builder shall establish and maintain documented procedures to ensure that product that does not conform to specified requirements is prevented from unintended use or installation. This control shall provide for identification, documentation, evaluation, segregation (when practical), and disposition of nonconforming product and for notification to the functions concerned.

There shall be documented procedures to assess nonconformance in the Design-Builder's Work and in the work provided by other contractors, including the Department. The procedures shall safeguard against use of inaccurate or otherwise inappropriate information or data.

The procedures shall identify the individual(s) responsible for verifying the nonconformance, documenting it, processing the documentation in accordance with the procedures, and determining the effective corrective action/preventive action (*see* DB Section 113-2.14) to resolve the nonconformance.

Procedures shall also cover nonconformances which arise during construction. The procedures shall address the situation where it is discovered that Work does not conform to the requirements after the Work item has previously been subjected to the established checking and approval process. The procedures shall also address Work that is discovered or suspected to contain errors or omissions after delivery to the Department.

Work shall be immediately brought under control to limit the impact it could have on associated Work where it may have been used as input. Procedures shall include methods to inform those to whom the nonconforming Material had been provided as valid information and to retrieve and isolate from use known copies of the Material until a determination can be made about how to proceed. Nonconformances might be manifested as incorrect plans, errors in calculation (numerical or procedural), survey data that might be based on an incorrect benchmark or route, or even a correct design based on superseded Specifications.

DB 113-2.13.2 Review and Disposition of Nonconforming Product

The Design-Builder shall define the responsibility for review and authority for the disposition of nonconforming product.

A nonconformance shall be defined as any condition in Equipment, Materials, or processes which does not comply with required Plans, Specifications, codes, standards, documentation, records, procedures, or Contract requirements which cause the acceptability of Equipment, Materials, or processes to be unacceptable or indeterminate.

Nonconforming product shall be reviewed in accordance with documented procedures. The review may result in the following:

A) Rework to meet the specified requirements;

B) Acceptance with or without repair by consent of the Delaware Department of Transportation;

C) Regard for alternative applications; or

D) Rejection or scrapping.

The procedures shall also address the disposition of nonconforming items and the steps necessary to

verify that the nonconformances have been adequately addressed and that the item then be characterized as conforming.

The proposed use or repair of product which does not conform to specified requirements shall be reported for consent by the Department. The description of the nonconformity that has been accepted and repairs shall be recorded to denote the actual condition (*see* DB Section 113-2.16).

The Design-Builder shall keep and maintain records of nonconforming findings (*see* DB Section 113-2.16). Also, each nonconformance record shall contain all deliberations, retesting, resolution activities, findings, and decisions.

Repaired and/or reworked product shall be re-inspected in accordance with the Quality Plan and/or documented procedures.

Repair shall require the involvement of the Department, the Designer, and/or an authorized third party to review the condition and determine that although it does not meet the specified requirements, the overall impact is such that the resulting condition is acceptable.

DB 113-2.14 Corrective and Preventive Action

DB 113-2.14.1 General

The Design-Builder shall establish and maintain documented procedures for implementing corrective and preventive action.

This DB Section 113-2.14 encompasses two aspects of dealing with nonconformities. The first is implementation and effectiveness of previously implemented corrective actions.

The second is preventive action, which plays a major role in this requirement. Most procedures addressing corrective action need to include preventive action. The investigation of nonconformances needs to look into three possible causes. They are the product, the process, and the quality system.

These nonconformances may be identified by either internal or external audits or during regular inspections or Design Reviews. The appropriate authority to implement, verify, and review the effectiveness of both preventive and corrective actions shall be identified. Written procedures shall be prepared and implemented to determine the root causes of nonconformances and to revise existing procedures and Work instructions or to establish new ones to prevent the identified situations that cause or allow nonconformances to develop.

Any corrective or preventive action taken to eliminate the causes of actual or potential nonconformities shall be to a degree appropriate to the magnitude of problems and commensurate with the risks encountered.

The Design-Builder shall implement and record any changes to the documented procedures resulting from corrective and preventive action.

DB 113-2.14.2 Corrective Action

The Design-Builder shall maintain and document a procedure for dealing with complaints ensuring the recording, investigating, and determining of the appropriate corrective action, if any, that shall be taken.

The procedures for corrective action shall include the following:

A) The effective handling of complaints and reports of product, material, process or

implementation nonconformities;

B) Investigation of the cause of nonconformities relating to the product, process, and quality system and recording the results of the investigation (*see* DB Section 113-2.16);

C) Determination of the corrective action needed to eliminate the cause of nonconformities;

D) Application of controls to ensure that corrective action is taken and that it is effective; and

E) The tracking of complaints and identified nonconformance and the actions taken to resolve them as an indicator of the effectiveness of the quality system.

Determination and implementation of an effective corrective action requires knowing the root cause of the problem and planning the most effective method of resolving the problem.

Follow-up action shall investigate to see if the corrective action resolved the identified problem and also to ensure the corrective action did not have an undesirable effect on another element of the quality system.

DB 113-2.14.3 Preventive Action

The Design-Builder shall establish, document, and maintain procedures for implementing preventive actions.

The procedures for preventive action shall include the following:

A) The use of appropriate sources of information, such as processes and Work operations, which affect product quality, concessions, audit results, quality records, service reports, and the complaints to detect, analyze, and eliminate potential causes of nonconformities;

B) Determination of the steps needed to deal with any problems requiring preventive action;

C) Initiation of preventive action and application of controls to ensure that it is effective; and

D) Confirmation that relevant information on actions taken is submitted for management review (*see* DB Section 113-2.1.3).

DB 113-2.15 Handling, Storage, Packaging, Preservation, and Delivery

DB 113-2.15.1 General

The Design-Builder shall establish and maintain documented procedures for handling, storage, packaging, preservation, and delivery of product.

The procedures which shall be developed apply to all parties involved on a Project beginning with the Design-Builder writing the Specifications all the way through to the personnel responsible for the start-up and turn over of the facility to the Department. The specific application of the requirements is determined by the function performed: Design-Builder, manufacturer, distributor, vendor, warehousing, Equipment operator, and installer.

The engineer writing the Specifications shall be responsible for identifying any special handling, storage, packaging, preservation, and delivery requirements and assuring the requirements are identified in the appropriate Project documents. Procurement shall be responsible for assuring the vendor, distributor, and/or Subcontractors are aware of the requirements and are also aware of their responsibilities to identify all requirements to their Subcontractors.

Procedures shall be developed and implemented for designating which items require special handling,

storage, or maintenance. Development of the handling, storage, packaging, preservation, and delivery procedures and Work instructions are affected by the other elements of this DB Section 113 and therefore should be reviewed for applicability and requirement inclusion.

DB 113-2.15.2 Handling

The Design-Builder shall provide methods of handling products that prevent damage or deterioration.

Handling is any physical or electronic movement. Project Materials are usually handled numerous times from producer to installation and start-up. Procedures appropriate to the circumstances shall be developed and implemented to assure handling is done in a manner that prevents damage or deterioration of the material/equipment. There shall be assurances that handling requirements are documented and understood.

The procedures shall cover special handling by people and/or machines.

Special handling clothing and precautions shall be identified for all hazardous materials with assurances that only qualified and trained personnel handle the hazardous material. The handling procedures shall include instructions to follow for decontamination and notification of authorities and responsible parties in the event of an accident.

DB 113-2.15.3 Storage

The Design-Builder shall use designated storage areas or stock rooms to prevent damage or deterioration of product pending use or delivery. Appropriate methods for authorizing receipt to and dispatch from such areas shall be stipulated.

In order to detect deterioration the condition of product in stock shall be assessed at appropriate intervals.

Items requiring protection shall be identified and protected as necessary to prevent loss, damage, deterioration, or loss of identification.

Special storage requirements shall be clearly defined for Materials and Equipment which are received on the Project, including, plans, records and operating manuals. A master list shall be maintained indicating applicable purchase orders, including, quantity, product identification, documentation and records required, receiving inspection requirements, and items requiring special storage or maintenance.

Materials shall be segregated to prevent cross contamination or environmental contamination.

Material with limited shelf life shall be identified and procedures developed and implemented to identify means of assuring usage of Material prior to its expiration date. The procedures shall also identify the disposal of Materials that may be toxic or hazardous or might otherwise have an adverse effect on the environment or on unsuspecting humans.

DB 113-2.15.4 Packaging

The Design-Builder shall control packing, packaging, and marking processes (including materials used) to the extent necessary to ensure conformance to specified requirements.

Engineering or procurement documents shall specify applicable packaging requirements to ensure no damage, contamination, or deterioration occurs in the course of packaging and transporting the Material and Equipment. Procedures/Work instructions shall clearly define all special packing and packaging and marking process requirements (i.e., export crating, moisture barrier, regulatory requirements, climate control, identification, and all Contract requirements).

Labeling of hazardous materials, special handling instructions, and notification of authorities and the Design-Builder shall be clearly and plainly identified on the packaging.

DB 113-2.15.5 Preservation

The Design-Builder shall apply appropriate methods for preservation and segregation of product when the product is under the Design-Builder's control.

Procedures shall include special unpacking instructions, controlled conditions necessary to prevent or deter deterioration of Material or Equipment, prevention of corrosion and/or contamination, and required servicing.

DB 113-2.15.6 Delivery

The Design-Builder shall arrange for the protection of the quality of product after final inspection and test. This protection shall be extended to include delivery to destination.

When delivery of Equipment and/or Materials to the job site is the responsibility of the Design-Builder, it shall develop procedures or reference appropriate standards to protect the items during delivery.

DB 113-2.16 Control of Quality Records

The Design-Builder shall establish and maintain documented procedures for identification, collection, indexing, access, filing, storage, maintenance, and disposition of quality records.

Quality records shall be maintained to demonstrate conformance to specified requirements and the effective operation of the quality system. Pertinent quality records from the Subcontractor shall be an element of these data.

Records shall be kept of documents which serve as evidence that quality is achieved in Work on the Project. Records shall be adequately identified, filed, and stored. Retention periods and the storage medium of such records shall be established in accordance with Contract requirements.

All quality records shall be legible and shall be stored and retained in such a way that they are readily retrievable in facilities that provide a suitable environment to prevent damage or deterioration and to prevent loss. Quality records shall be made available for evaluation by the Department as per Contract requirements.

The Design-Builder shall develop and implement procedures to store, retrieve, and dispose of the documents required by the quality management system, including, but not limited to, correspondence, certifications, design calculations, Plans, reports of Design Reviews, and audit reports. In storage, whether active Project files or long term archives, documents that are designated as records shall be originals or reproducible copies and shall be legible, accurate, identified, and indexed so they can be associated with specific Projects. Documents shall be retrievable in a timely manner. Storage criteria shall be set to specify allowable storage media and ensure physical protection from damage or loss, which could involve duplicate storage facilities for some types of records.

Management shall identify records necessary to provide objective evidence of Contract review, procedure compliance, Design Review (when applicable), training, and completion and acceptance of inspection and testing or to provide traceability of Equipment or items to documentation.

A list of Project-required records shall be developed, retained, and/or turned over to the Department prior to completing the Work.

DB 113-2.17 Internal Quality Audits

The Design-Builder shall establish and maintain documented procedures for planning and implementing internal quality audits to verify whether quality activities and related results comply with planned arrangements and to determine the effectiveness of the quality system.

Internal quality audits shall be conducted in accordance with sound auditing principles. The frequency of the audits shall be appropriate to the importance and complexity of a Project or corporate operation but shall at least be on a quarterly basis. Audits shall be initiated early enough in the life of a Project to assure effective QC during all phases. The audits shall include Project management as well as technical Work activities.

Internal quality audits shall be carried out by personnel independent of those having direct responsibility for the activity being audited.

The internal quality audit program shall provide verification that the quality system is operating and being implemented as planned. Audits should be conducted on a planned and scheduled basis consistent with the importance of the activities being performed.

The results of the audits shall be recorded (*see* DB Section 113-2.16) and brought to the attention of the personnel having responsibility in the area audited. The management personnel responsible for the area shall take timely corrective action on deficiencies found during the audit.

Follow-up audit activities shall verify and record the implementation and effectiveness of the corrective action taken (*see* DB Section 1132.16).

The results of internal quality audits shall be reviewed in management review meetings. In accomplishing management review the results of internal audits and their attendant corrective action status shall be reviewed for adequacy and effectiveness.

Auditor qualifications shall be established and documented by the Design-Builder. Staff assigned auditing tasks shall be qualified accordingly with qualification records maintained as quality records. Auditing need not be a full time assignment but staff assigned auditing tasks shall have no direct responsibilities for the function or Work they audit.

Audits shall be carefully planned and executed to avoid or minimize disruption of the audited activity. Results shall be provided promptly to personnel responsible for the audited activity and their management. Corrective action shall be developed to identify the root causes and to institute measures to prevent the types of deficiencies identified in the audit. Corrective actions shall be monitored through review of documents, surveillance, or follow-up audits. These actions should be conducted in a timely manner to determine the effectiveness of corrective action that is implemented. Records of corrective actions should be kept together with the respective audit records.

Records of internal audits shall be maintained by the Design-Builder.

DB 113-2.18 Training

The Design-Builder shall establish and maintain documented procedures for identifying training needs and provide for the training of all personnel performing activities affecting quality. Personnel performing specific assigned tasks shall be qualified on the basis of appropriate education, training, and/or experience, as required. Appropriate records of training shall be maintained (*see* DB Section 113-2.16).

The Design-Builder shall establish documented procedures and records to ensure that the skills and professional judgment of their personnel are developed appropriately for their intended roles through training and/or the recorded accumulation of experience, with systematic reviews of their competence at determined levels, and before any deployment of new roles.

Training shall focus on improving competency and skill for those performing activities that materially impact quality.

Procedures established shall include the following:

A) Position descriptions defining the requirements of the various positions required in conducting activities affecting quality;

B) Personnel records documenting each person's experience and current education and training accomplished, both formal and informal, relative to current or projected position assignments;

C) Documented evaluation of that experience and training, including a determination of what training is required to become fully qualified for the activities to which the person is intended to be assigned;

D) A documented plan to accomplish the training deficiency;

E) Records documenting accomplishment of that training; and

F) Education, experience, and licensure used as a basis for qualifications of individuals, which should be verified.

All qualification and training records are quality records and shall be maintained accordingly (DB Section 113-2.16).

Project personnel shall be trained in all the special Project procedures applicable to their Work.

Craft journeymen with special skills need not be trained but their competency shall be verified and a record maintained of the verification.

DB 113-2.19 Servicing

Where servicing is a specified requirement, the Design-Builder shall establish and maintain documented procedures for performing, verifying, and reporting that the servicing meets the specified requirements. The requirement of this DB Section 113-2.19 is applicable only where it is specified in a Contract.

Should such a requirement exist the Design-Builder shall document procedures which detail the methodologies to be used while performing the service, how compliance to these operations and the Department's requirements are verified, and the agreed upon method of reporting compliance of service operations to Contract requirements.

With respect to the design perspective this requirement deals with the service rendered to the Department during the defects liability period, if any.

DB 113-2.20 Statistical Techniques

DB 113-2.20.1 Identification of Need

The Design-Builder shall identify the need for statistical techniques required for establishing, controlling, and verifying process capability and product characteristics.

The Design-Builder shall review its operations for activities which may benefit from the use of statistical techniques as a means of establishing a level of control, the maintenance of an existing level of performance, and the verification of performance. The needs assessment could include determining an activity impact on cost, time management/utilization, and quality of deliverables. It could also identify areas where the application of statistics would provide an indication of variation, activities efficiencies, and deviation control.

DB 113-2.20.2 Procedures

The Design-Builder shall establish and maintain documented procedures to implement and control the application of the statistical techniques identified in DB Section 113-2.20.1. Should the need for statistical programs be established, the Design-Builder shall document procedures detailing the methods to be applied.

DB 113-2.21 Quality System Non-Conformance

If, in the opinion of the Department, the Design-Builder is not complying with these QC requirements, the Department will advise the Design-Builder in writing of apparent deficiencies. The Design-Builder will have seven Calendar Days to either provide adequate documentation to demonstrate that the alleged violations are unfounded or correct the violations to the satisfaction of the Department. If after seven Calendar Days neither of the above remedies have been accomplished, the Department may take steps to implement the necessary QC action. All costs associated with this effort by the Department will be documented and the costs will be deducted from the Contract Lump Sum Price by Change Order.