

New York State Thruway Authority

**TAPPAN ZEE HUDSON RIVER
CROSSING PROJECT**

**DB CONTRACT DOCUMENTS
PART 2
DB SECTION 100
GENERAL PROVISIONS**

**CONFORMED
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SECTION 101
ABBREVIATIONS, SYMBOLS, AND TERMS AND DEFINITIONS

Wherever the following terms, abbreviations, or symbols are used in the Contract Documents, the intent and meaning shall be interpreted as follows in this DB §101.

DB 101-1 ABBREVIATIONS

Wherever the following abbreviations are used in the Contract Documents, they are to be construed the same as the respective expressions represented. Some of these abbreviations may be acronyms and may appear without periods.

AAN	American Association of Nurserymen
AAR	Association of American Railroads
AASHTO	American Association of State Highway and Transportation Officials
ACHP	Advisory Council on Historic Preservation
ACM	Asbestos Containing Materials
ADA	Americans with Disabilities Act
ADAAG	Americans with Disabilities Act Accessibility Guidelines
AETC	All Electronic Toll Collection
AGC	Associated General Contractors of America
AIA	American Institute of Architects
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
ALA	American Society of Landscape Architects
ALTA	American Land Title Association
AME	American Society of Mechanical Engineers
ANSI	American National Standards Institute, Inc.
AOAC	Association of Official Agricultural Chemists
ARA	American Railway Association
AREMA	American Railway Engineering and Maintenance-of-Way Association
ARTBA	American Road and Transportation Builders Association
ASCE	American Society of Civil Engineers
ASHRAE	American Society of Heating, Refrigerating and Air-Conditioning Engineers
ASIS	American Society of Industrial Security
ASTM	American Society for Testing and Materials
ATC	Alternative Technical Concept
AWPA	American Wood-Preservers Association
AWS	American Welding Society
AWWA	American Water Works Association
BAFO	Best and Final Offer
BDM	Bridge Design Manual
BIM	Building Information Modeling
BMP	Best Management Practices
C/A	Corrective Action
CADD	Computer Aided Design and Drafting
CCE	Construction Compliance Engineer
CCM	Construction Compliance Monitor
CCS	Code Compliance Specialist

CCTV	Closed Circuit Television
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CFR	Code of Federal Regulations
CIM	Civil Integrated Management
CPM	Critical Path Method
CQAM	Construction Quality Assurance Manager
CQCM	Construction Quality Control Manager
CRT	Commuter Rail Transit
CRU	Contract Review Unit
cSEL	Cumulative Sound Exposure Level
CSL	Contract Submittal List
CWI	Certification of Welding Inspector
DB	Design-Build
DBA	Decibels, A-scale
DBE	Disadvantaged Business Enterprise
DCE	Design Compliance Engineer
DCM	Design Compliance Monitor
DFS	Driver Feedback Sign
DONSI	Determination of No Significant Impact
DQAM	Design Quality Assurance Manager
DQCM	Design Quality Control Manager
DRB	Disputes Review Board
DRM	NYSTA Design Reference Manual
DTM	Digital Terrain Model
EBO	Equitable Business Opportunity Solution
EEI	Electrical Engineering Institute
EIS	Environmental Impact Statement
EMT	Emergency Medical Technician
EPA	United States Environmental Protection Agency (also USEPA)
EPC	Environmental Performance Commitment
EPD	Electronic Pricing Document
ERMS	Electronic Records Management System
ESA	Environmental Site Assessment
ESDC	Empire State Development Corporation
E-ZPass®	NYSTA Electronic toll collection system
FAR	Federal Acquisition Regulations
FCC	Federal Communications Commission
FHWA	Federal Highway Administration
FONSI	Finding Of No Significant Impact
FSS	Federal Specifications and Standards, General Services Administration
HARS	Historic Area Remediation Site
HDM	Highway Design Manual
HMA	Hot Mix Asphalt
HSPPD	Handling/Storage/Packaging/Preservation/Delivery
IA	Independent Assurance
IAS	International Accounting Standards
IEEE	Institute of Electrical and Electronics Engineers
ISO	International Standards Organization
ISTEA	Inter-modal Surface Transportation Efficiency Act of 1991

New York State Thruway Authority

ITP	Instructions to Proposers
LEED	Leadership in Energy and Environmental Design
LLC	Limited Liability Company
LOI	Letter of Interest
LRFD	Load and resistance factor design
MAP	Manual of Administrative Practices
MBE	Minority-Owned Business Enterprise
MM	Materials Method
MP	Materials Procedures
MPO	Metropolitan Planning Organization
MSDS	Material Safety Data Sheet
MURK	Manual on Uniform Record Keeping on Construction Contracts
MUTCD	National Manual of Uniform Traffic Control Devices and New York State Supplement
N/A	Not Applicable
NCR	Non-Conformance Report
NEC	National Electrical Code
NEMA	National Electrical Manufacturers Association
NEPA	National Environmental Policy Act
NETTCP	North East Transportation Technician Certification Program
NHPA	National Historic Preservation Act
NHS	National Highway System
NMFS	National Marine Fisheries Service
NPDES	National Pollutant Discharge Elimination System
NTCIP	National Transportation for ITS Protocol
NTP	Notice to Proceed
NYCRR	Official Compilation of Codes, Rules and Regulations of the State of New York
NYOGS	New York Office of General Services
NYS	New York State
NYSDEC	New York State Department of Conservation
NYSDOL	New York State Department of Labor
NYSDOS	New York State Department of State
NYSDOS/DCEA	New York State Department of State/Division of Code Enforcement and Administration
NYSDOT	New York State Department of Transportation
NYSOSC	New York State Office of the State Comptroller
NYSP	New York State Police
NYSTA	New York State Thruway Authority
NYSUCP	New York State Unified Certification Program
NYSUFP&BC	New York State Uniform Fire Prevention & Building Code
OCR	Office of Civil Rights
OEM	Original Equipment Manufacturer
OOC	Order on Contract
OPRHP	New York State Office of Parks, Recreation and Historic Preservation
ORT	Open Road Tolling
OSHA	Occupational Safety and Health Administration, United States Department of Labor
P/A	Preventive Action
PC	Price Center
PCC	Portland Cement Concrete

PCCM	New York State Prestressed Concrete Construction Manual
PCI	Precast/Prestressed Concrete Institute
PE	Preliminary Engineering
PEL	Permissible Exposure Level
PIDP	Pile Implementation Demonstration Program
PIP	Public Information Plan
PMBOK	A Guide to the Project Management Body of Knowledge from PMI
PMI	Project Management Institute
PPS-C	Contract Periodic Payment Schedule
PPS-P	Proposal Periodic Payment Schedule
PR	Project Requirement
PS	Performance Specification
PSHA	Probabilistic Seismic Hazard Assessment
QA	Quality Assurance
QC	Quality Control
QCP	Quality Check Points
QP	Quality Plan
RFP	Request for Proposals
RFQ	Request for Qualifications
RLOI	Request for Letter of Interest
ROD	Record of Decision
ROW	Right of Way
SAE	Society of Automotive Engineers
SBA	Small Business Administration
SCM	New York State Steel Construction Manual
SEP-14	Special Experimental Project 14
SEQR	New York State Environmental Quality Review Act
SHPO	State Historic Preservation Office
SHSM	Standard Highway Signs and Markings
SI	International System
SOQ	Statement of Qualifications
SP	Special Provision
SPDES	State Pollutant Discharge Elimination System
SSPC	Steel Structures Painting Council
STAA	Surface Transportation Assistance Act of 1982
STURAA	Surface Transportation and Uniform Relocation Assistance Act of 1987
SUP	Shared Use Path
TBD	To Be Determined
TCO/TCC	Temporary Approval for Occupancy
TRANSCOM	Transportation Operations Coordinating Committee
TSOC	Thruway Statewide Operation Center located in Albany, New York
TUB	Toll Utility Building
TWIC	Transportation Workers Identification Card
TZB	Tappan Zee Bridge
TZHRC	Tappan Zee Hudson River Crossing
UL	Underwriters' Laboratories
US	United States
USACE	U.S. Army Corps of Engineers
USC	United States Code
USCG	United States Coast Guard

USDOL	United States Department Of Labor
USDOT	United States Department Of Transportation
USEPA	United States Environmental Protection Agency (also EPA)
USFWS	United States Fish and Wildlife Service
US GAAP	Generally Accepted Accounting Principles (U.S.)
VDC	Virtual Design and Construction
VE	Value Engineering
VECP	Value Engineering Change Proposal
VES	Violation Enforcement System
WBE	Women-Owned Business Enterprise
WBS	Work Breakdown Structure
WIM	Weigh-in-Motion
WZTC	Work Zone Traffic Control

DB 101-2 [RESERVED]

DB 101-3 CAPITALIZED TERMS

The following capitalized terms shall have the following meanings:

Acceptance Program - All factors that comprise the Agencies' determination that the products of the Work are compliant with the Contract Documents. These factors include Quality System and Agencies' Oversight of the Design-Builder's activities.

Acceptance Testing - Testing, conducted by the Design-Builder's QA Engineering Firm, to measure the degree of compliance with the Contract Documents.

Acquisition Clearance and Status Report – The monthly report showing the status of ROW acquisition activities and anticipated schedule of availability of right of way for Design-Builder's performance of the Work. The initial Acquisition Clearance and Status Report, included in *Part 3, Section 7 – Right-of-Way*, is the ROW Acquisition Schedule.

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

AETC Commencement Date - The date the AETC toll system is activated for exclusive use for revenue toll collection in accordance with *Part 3, Project Requirements, Section 26 – Toll Plaza*. Activation is scheduled to occur 14 days after delivery of notice by the Design-Builder to the Authority requesting activation, which notice may be delivered only after a minimum 365-day period of concurrent operations with the existing toll system.

AET Period – The period commencing on the AETC Commencement Date and ending on the date on which Design-Builder achieves Toll Plaza Completion.

Agencies – The Authority and the Department. The term "Agency" is sometimes used to mean either the Authority or the Department.

Agreement - The agreement executed and delivered by the Authority and the Design-Builder for the Project.

Alternative Technical Concept – A concept that deviates from requirements set forth in the Request for Proposals and that: (i) has been included in the Proposal with the Authority's prior written approval in accordance with the Instructions to Proposers, based on a determination by the Authority that the proposed end product based on the deviation is equal to or better than the end product absent the deviation and approval of any deviations from the Project Environmental Approvals; or (ii) was included in an unsuccessful proposer's proposal and was incorporated into the Contract through pre-award negotiations.

Amendment - A formal alteration by addition, deletion, or modification of the terms of the executed Contract.

Approach Span - The bridge structure from an abutment to the Main Span over the Hudson River.

Approved List - The list of materials, equipment, manufacturers, fabricators, or material suppliers approved by the Materials Bureau under a particular specification. The Approved Lists are published periodically and are available from the Materials Bureau or the Authority's website.

Architecture -- The organizational structure of a system, identifying its components, their interfaces, and a concept of execution among them.

Artificial Activity - An activity that is not encompassed within the meaning of the definition of Work.

As-Built Plans - Final drawings and specifications furnished by the Design-Builder, documenting the details and dimensions of the completed Work.

Authority - New York State Thruway Authority, including staff and managers who have been delegated certain contractual and technical authority by the Executive Director. The Authority maintains a website at www.thruway.ny.gov.

Authority-Caused Delays - Unavoidable delays, to the extent that they affect the critical path, arising from the following matters and no others:

- A) A suspension order pursuant to DB §109-15.2(B);
- B) Authority-Directed Changes, excluding delays arising from the exercise of Options except as specified in the *Agreement, Article 1.2*;
- C) Failure or inability of Authority to provide the Design-Builder with access to the Site by the applicable date specified on the ROW Acquisition Schedule;
- D) Delays in Design Reviews by the Authority beyond time periods specified in, or established in accordance with, the Contract Documents;
- E) To the extent provided in DB §105-9.2, Authority direction to uncover, remove, and restore Work, only if the Authority had the opportunity to inspect the Work before it was uncovered, orders the Work uncovered after the fact, and the Work exposed proves acceptable;
- F) Unjustified delay by the Authority in activation of the AETC toll system for exclusive use for revenue toll collection beyond the date for activation specified in the notice to be delivered by the Design-Builder pursuant to *Part 3, Project Requirements, Section 26 – Toll Plaza*; or
- G) Failure of the Authority to pay undisputed amounts owing to the Design-Builder, to the extent that such nonpayment results in a suspension of Work by the Design-Builder as permitted under the *Agreement, Article 7.2 – Periodic Payments; Suspension for Nonpayment*.

Authority-Directed Changes - Any Work not included in the original scope (including changes in the Work due to the Authority's direction to implement modified Standards in performance of the Work) that the Authority has directed the Design-Builder to perform in accordance with DB §104-3.1, or that arises from changes to the assumed terms of an Authority Utility Agreement as described in DB §102-5.2.1.

Authority Engineering Geologist – An engineering geologist in the employ of the Authority or its designated inspection agency, acting at the request of the Chief Engineer, authorized to perform the duties required under these General Provisions.

Authority Geotechnical Engineer – A geotechnical engineer in the employ of the Authority or its designated inspection agency, acting at the request of the Chief Engineer, authorized to perform the duties required under these General Provisions.

Authority Having Jurisdiction - The Authority is a self-permitting agency as outlined by the laws of New York State. As such, the Authority is the “Authority Having Jurisdiction (AHJ)” for all demolition, construction and/or rehabilitation of the buildings and related structures and is responsible for the administration and enforcement of any applicable regulations or laws.

Authority’s Project Manager - The engineer, or a designated representative, representing the Authority and having direct supervision of the administration and execution of the Contract.

Authority Utility Agreements - The agreements between the Authority and utility owners as described in Exhibit A to *Part 4 - Utility Requirements*.

Baseline Project Schedule - The schedule submitted by the Design-Builder pursuant to DB §108-1.2.2B, as updated from time to time in accordance with the Contract.

Basic Project Configuration - The salient characteristics of the Project as defined in *Appendix I of the Agreement*.

Basis of Payment - The terms under which the Design-Builder is paid for Work.

Betterment - Any upgrading of a utility facility that is not attributable to the construction of the Project, and is made solely for the benefit of and at the election of the utility owner or other third party; provided, however, that the following are not considered Betterments:

- A) Any upgrade necessary for safe and effective construction or other accommodation of the Project;
- B) Replacement devices or materials that meet equivalent standards although they are not identical;
- C) Replacement of devices or materials no longer regularly manufactured with the next highest grade or size, where replacement devices or materials that meet equivalent standards are not available;
- D) Any upgrading specified in the Contract Documents, and any upgrading required by applicable Governmental Rules in effect as of the Proposal Date;
- E) Replacement devices or materials which are used for reasons of economy (e.g. non-stocked items may be uneconomical to purchase);
- F) Any upgrading required by Utility Standards in effect as of the Proposal Date; and

- G) Any discretionary decision by a utility owner contemplated within a particular Utility Standard described in clause (F) above.

If an Authority Utility Agreement includes a definition of “betterment” or similar concept, that definition shall control over the foregoing with respect to the utilities subject to such agreement.

Building Information Modeling (BIM) – A process involving the generation and management of a digital representation of physical and functional characteristics of a facility in three dimensions. The resulting model becomes a shared knowledge resource to support decision making about a facility from concept to design and construction then through its operational life.

Chairman - The Chairman of the Authority or his/her designated representative. The designated representative of the Chairman of the Authority is the Chief Engineer.

Change in Law - The enactment, adoption, modification, repeal, or other change in any Governmental Rule, including any change in the judicial or administrative interpretation of any Governmental Rule, or adoption of any new Governmental Rule, that is materially inconsistent with the Governmental Rules in effect (or deemed in effect) 30 days before the Proposal Date, and which (i) requires a material modification in the Project design or in a Relocation design, (ii) results in imposition of additional mitigation requirements on the Project respecting impacts on Environmental Resources or Cultural Resources, (iii) prevents renewal of any Governmental Approval, (iv) changes the sales and use tax exemption described in DB §102-10, or (v) results in an increase in the Design-Builder’s costs directly attributable to a change in Governmental Rule of at least \$500,000. A Governmental Rule shall be deemed in effect as of 30 days prior to the Proposal Date if it was passed or adopted, even though not yet effective, as of 30 days before the Proposal Date. In addition, the Design-Builder is charged with knowledge of proposed rules and regulations, and modifications thereto, that have been published in draft form by the promulgating authority as of 30 days before the Proposal Date, and no Change in Law shall be deemed to have occurred except to the extent that the rule or regulation as adopted differs materially from the draft rule or regulation and differs materially from Governmental Rules in effect as of 30 days before the Proposal Date.

Chief Engineer - The Chief Engineer of the Authority or his/her designated representative.

City - A subdivision of the State of New York that may be used to designate or identify the location of the proposed Work.

Civil Integrated Management (CIM) - The collection, organization, and managed accessibility to accurate data and information related to a highway facility.

Code or Uniform Code - The New York State Uniform Fire Prevention and Building Code(s) and associated referenced standards.

Code Compliance Certificate/Certificate of Compliance/Certificate of Occupancy (CCC, C of C, CO) - A written document (certificate) issued by a construction-permitting agency indicating that the agency has discovered no material or product deviations from applicable code provisions and specified standards for a building or structure or in work performed, and the work was done in compliance with approved construction documents thus authorizing the use or occupancy of a particular building, structure, equipment or system.

Code Compliance Specialist (Coordinator)/Code Compliance Manager – An Authority representative who is responsible for assuring that all buildings, premises, equipment, and activities under the Authority’s care, custody and control are maintained and operated in conformance with all applicable provisions of the Code(s), rules and other miscellaneous applicable regulations. He/she is authorized to issue construction permits and code compliance certificates for work which is subject to provisions of the Code. He/she is also responsible for providing for the review of requests for construction permits, for inspections during the process of construction, and for inspections in response to complaints regarding work which is subject to the Code. When appropriate he/she may issue notices of violations, stop work orders, and temporary approvals for occupancy.

Commissioner - The Commissioner of the New York State Department of Transportation.

Community Benefits Option – The Option set forth in DB §107-32.

Components – Pieces of design and/ or actual entities (subsystems, hardware units, software units) of the system/subsystem.

Comptroller - The head of the Office of the State Comptroller.

Construction Compliance Engineer (CCE) - The Agencies’ representative with primary responsibility for monitoring and/or auditing the Design-Builder’s construction and environmental field activities for compliance with the Contract requirements.

Construction Compliance Monitors (CCM) - Representatives of the Construction Compliance Engineer (CCE), with responsibility for monitoring and/or auditing the Design-Builder’s construction activities for compliance with the Contract requirements.

Construction Manager – Key Person appointed by the Design-Builder to lead the Construction activities.

Construction Permitting Agency - The Authority and any State agency so designated by the Secretary.

Construction Quality Assurance Manager - The Construction QA Manager shall be responsible for overall management and supervision of the Design-Builder’s construction QA programs. The Construction QA Manager shall be a New York-licensed professional engineer with similar experience as the Construction Manager. The Construction QA Manager will report directly to the Design-Builder’s Quality Manager. The Construction QA 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 Construction QA Manager shall be responsible for coordinating the schedules of construction QA Inspectors with the Design-Builder’s construction activities.

Construction Quality Control Manager - The Construction QC Manager is appointed by the Design-Builder to lead the Construction QC activities. The Construction QC Manager shall have similar experience as the Construction Manager. The Construction QC Manager will report directly to the Design-Builder’s Construction Manager. The 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.

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

Contract - Depending on the context, the Agreement or the Contract Documents identified therein.

Contract Deadline – The Initial Traffic Relocation Deadline, Toll Plaza Completion Deadline, Crossing Completion Deadline, Physical Completion Deadline or Final Acceptance Deadline.

Contract Documents - The documents identified as such in the *Agreement, Article 2 – Documents Forming the Contract*, including any and all provisions required by law to be inserted in the Contract whether actually inserted or not.

Contract Periodic Payment Schedule (PPS-C) – The schedule that indicates the maximum cumulative amount payable to the Design-Builder each month.

Contract Price - The total amount paid for the Work to be performed under the Contract, as it may be adjusted from time to time to account for Orders on Contract.

Contract Time - The time specified in the Contract Documents for completion of the Work. This time may be defined as a specified fixed date, a given number of work days, a given number of days, or a combination of the above. The Contract Time may be amended by mutual written agreement to include authorized extensions of time, as the performance of the Contract requires.

Cost - All expenditures, including design costs, wholly and necessarily incurred, whether on or off the Site, with respect to the Work and overhead, finance, and other charges properly allocable thereto. Cost does not include any allowance for profit.

Crossing - The new bridge to be constructed across the Hudson River north of the Governor Malcolm Wilson Tappan Zee Bridge, with an approximate centerline alignment as shown on the Directive Plans in *Part 6 – RFP Plans*, as well as all approaches, maintenance facilities, toll plaza facilities, and other appurtenances necessary for operation as a toll crossing.

Crossing Completion Deadline – The date by which Design-Builder must achieve Substantial Completion of the Crossing, as specified in the *Agreement, Article 4 – Contract Time*.

Crossing Substantial Completion – *see* “Substantial Completion.”

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.

Custody - The effective control of a building or structure, subject to the following.

- A) Buildings leased pursuant to chapter 354 of the Laws of 1963 or chapter 152 of the Laws of 1964 are to be considered within the custody of the State of New York.
- B) The State of New York shall not be deemed to have custody of buildings or building spaces privately owned which are occupied by State agencies pursuant to a commercial lease made by the Office of General Services or the Office of Mental Health with the private owner.
- C) Criteria for determining whether the State possesses effective control of a building include the following:

- 1) ownership of the building or the land on which it is located;
 - 2) rights of entry or limitations thereon of an owner or landlord with regard to a building;
 - 3) rights or obligations to make improvements or repairs to a building;
 - 4) whether a lease provides for total or nearly total discretion by the lessee with regard to the use or alteration of a building; and
 - 5) whether a particular building is subject to taxation or whether payments in lieu of taxes are paid by the occupant(s).
- D) Notwithstanding any other provision of this definition to the contrary and without regard to the criteria mentioned in paragraph (C) of this definition, for the purposes of this Contract the Office for Technology shall be considered to have custody and effective control of all statewide wireless network facilities; provided, however, that nothing in this definition shall be construed as subjecting to the provisions of any code any statewide wireless network facility that would not otherwise be subject to the provisions of the code; and provided further that for the purposes of this Contract, the Office for Technology shall not be considered to have custody or effective control of any statewide wireless network supporting building merely by reason of the construction or installation of any statewide wireless network facility thereon or therein.

DB Property Acquisition Option – The meaning set forth in DB §107-22.11.1.

DB Utility Agreements - The agreements between the Design-Builder and utility owners as required by the Contract.

Definitive Design - The stage of design development where design concepts and parameters are established that will be followed through to completion of the Project.

Definitive Design Review - Review of Definitive Design conducted by the Design-Builder's Design Quality Assurance Manager, with participation by the Agencies and Stakeholders, as described in DB §111-8.1.

Demolition Permit - A written document issued by the Authority's Code Compliance Specialist (Coordinator)/Code Compliance Manager authorizing the demolition and removal of buildings, equipment and materials after a determination by the Code Compliance Specialist (Coordinator)/Code Compliance Manager that the demolition as proposed will comply with applicable provisions of the laws of New York State.

Department - The New York State Department of Transportation, including staff and managers who have been delegated certain contractual and technical authority by the Commissioner. The Department maintains a website at www.dot.ny.gov.

Department of Engineering - The Authority's Department of Engineering, consisting of the Offices of Design, Construction Management, Transportation Planning and Environmental Services, Capital Program Development and Contracts Management.

Departmental Geotechnical Engineer – A geotechnical engineer in the employ of the Authority or its designated inspection agency, acting at the request of the Chief Engineer, authorized to perform the duties required under the Standard Specifications.

Departmental Engineering Geologist - An engineering geologist in the employ of the Authority or its designated inspection agency, acting at the request of the Chief Engineer, authorized to perform the duties required under the Standard Specifications.

Design Acceptance - Written confirmation by Agencies after submittal and review of the As-Built Plans that the design conforms to the Contract requirements and reflects the As-Built conditions. This is required as part of Final Acceptance.

Design-Builder - The Person selected pursuant to the RFP which enters into the Contract with the Authority to design and construct the Project.

Design-Builder's Project Manager - The Design-Builder's on-site designated representative and single point of contact for all aspects of the Work.

Design-Builder's Representative for Security Information - An individual authorized to be the Design-Builder's single point of contact for the purpose of communication with the Authority in relation to security-sensitive information.

Design Compliance Engineer - The Agencies' representative with primary responsibility for monitoring and/or auditing the Design-Builder's design and engineering activities for compliance with the Contract requirements.

Design Documents - Maps, Design Plans, Project Specifications, reports, calculations, records, submittals, and other specified documents prepared by the Design-Builder and/or Designer in the course of performing Project engineering and design Work.

Design Manager – Key Person appointed by the Design-Builder to lead the Design efforts and conduct an assessment and evaluation of design such that the Design Manager can certify to the Design-Builder and to the Agencies that the design satisfies the Contract requirements.

Design Plan - Plans prepared by the Design-Builder showing the location, character, dimensions and other design-related details of the Work to be done.

Design Quality Assurance Manager - The person appointed by Design-Builder who reports directly to the Design-Builder's Quality Manager and is responsible for the QA of all Work conducted by the Designer. The Design QA Manager shall be a New York-licensed professional engineer with similar experience as the Design Manager. The Design QA Manager shall be responsible for coordinating the schedule of Design QA activities with the Design-Builder's design activities.

Design Quality Control Manager - The person appointed by Design-Builder who reports directly to the Design-Builder's Design Manager and is responsible for the QC of all Work conducted by the Designer. The Design QC Manager shall be a New York-licensed professional engineer with similar experience as the Design Manager. The Design QC Manager shall ensure that checkers are assigned for each design discipline and for each Design Unit and that they are properly scheduled.

Design Requirements - Those specifications contained in the Contract that specify the minimum acceptable technical standards and define the limits within which the design of the Project shall be developed and conducted.

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 except As-Built Plans, which is performed by the Agencies. During all stages of the design, except As-Built Plans, the Agencies 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.

Designer - A Principal Participant, specialized Subcontractor, or in-house designer that leads the team furnishing or performing the design of the Project.

Digital Terrain Model (DTM) – A three-dimensional representation of a terrain’s surface. A DTM is a major constituent of geographical information processing.

Directive Plans - Plans contained in *Part 6- RFP Plans* designated as Directive Plans. Directive Plans 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) Standard Plans;
- B) Right-of-way plans; and
- C) Any other plans included in the RFP that depict the Basic Project Configuration, but only to the extent that such plans depict the Basic Project Configuration.

Disadvantaged Business Enterprise - A for-profit, small business concern as defined pursuant to Section 3 of the federal Small Business Act (Public Law 85-536, as amended) and Small Business Administration regulations implementing it (13 CFR Part 121) that is at least 51% owned by one or more individuals who are both socially and economically disadvantaged and which meets the definition set forth in 49 CFR Part 26.

Disadvantaged Business Enterprise (DBE) Plan - The Design-Builder’s plan submitted to the Authority in the Proposal, as updated from time to time hereunder, detailing the Design-Builder’s continuing responsibility to meet its DBE commitments, including its obligation to use good faith efforts to achieve the Project’s DBE participation goal, including how final design will lead to maintaining the goal or achieving additional participation in areas identified in any waiver granted at Contract award. (See DB §102-8.6.)

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 Authority 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.

Early Construction Start – The meaning set forth in DB §111-3.

Electronic Pricing Documents - Pricing data assembled by the Design-Builder, as described in ITP Section 4.7 and DB §110. The Electronic Pricing Documents may be used for negotiation of Orders on Contract and resolution of Disputes and claims and other purposes set forth in the Contract.

Electronic Records Management System - The Design-Builder shall provide and use an Electronic Records Management System (ERMS) for comprehensive construction management that will be used by the Design-Builder and the Agencies. The ERMS shall seamlessly cover the complete construction and materials management process from Contract award through Contract finalization.

Environmental Approvals - Those Governmental Approvals arising from or required by any Environmental Law in connection with development of the Project, including the DEIS, the FEIS, the Record of Decision (ROD) and SEQRA findings.

Environmental Documentation – The Environmental Approvals.

Environmental Laws - All Governmental Rules now or hereafter in effect regulating, relating to, or imposing liability or standards of conduct concerning the environment or to emissions, discharges, releases, or threatened releases of hazardous, toxic, or dangerous waste, pollutant, contaminant, substance, or material into the environment including into the air, surface water, or ground water or onto land, or relating to the manufacture, processing, distribution, use, re-use, treatment, storage, disposal, transport, or handling of hazardous, toxic, or dangerous waste, pollutant, contaminant, substance, or material, or otherwise relating to the protection of public health, public welfare, public safety or the environment (including protection of nonhuman forms of life, land, surface water, groundwater, and air), including the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. §960 et seq. ("CERCLA"), as amended by the Superfund Amendment and Reauthorization Act of 1986; the Resource Conservation and Recovery Act, 42 U.S.C. §6901 et seq. ("RCRA"), as amended by the Solid and Hazardous Waste Amendments of 1984; the Toxic Substances Control Act, 15 U.S.C. §2601 et seq.; the National Environmental Policy Act, 42 U.S.C. §4321 et seq.; the Occupational Safety and Health Act, 29 U.S.C. §651 et seq.; the Hazardous Materials Transportation Act, 49 U.S.C. §1801 et seq.; the Hazardous Materials Transportation Uniform Safety Act; the Oil Pollution Act of 1990; the Endangered Species Act, 16 U.S.C. §1531 et seq.; the Federal Water Pollution Control Act, the Clean Water Act, 33 U.S.C. §1251 et seq.; the Clean Air Act, 42 U.S.C. §7401 et seq.; the Safe Drinking Water Act, 42 U.S.C. §300f et seq.; the Migratory Bird Treaty Act, 16 U.S.C. §703 et seq.; and the New York State Environmental Conservation Law; all as amended and supplemented previously or in the future.

Environmental Performance Commitments – Any commitments, obligations or liabilities as defined in *Exhibit B of Part 3, Section 3 – Environmental Compliance*.

Environmental Requirements – The requirements listed in §3.1 of Part 3, Section 3 – *Environmental Compliance*.

Environmental Resource - The physical and biological components, including paleontological components, of the human and natural environment.

Equitable Business Opportunity Solution (EBO) – An internet-based management control system that provides government agencies with the tools to develop, implement and monitor a Disadvantaged Business Enterprise program in accordance with 49 CFR Part 26, including all the tools necessary to set agency and contract goals, monitor non-discriminatory procurement and award processes, develop and

execute availability, utilization and disparity studies, set and monitor labor goals and provide statistical evidence to remedy discrimination as identified, and to monitor and report on participating contracts. For purposes of the Contract, Version 1.4 of EBO shall apply, except that the Authority, with notice to the Design-Builder, may choose to use a different version of EBO at its discretion.

Erosion and Sediment Control - Any action taken or item used as part of the Project, or as a separate action, to minimize the destructive effects of wind and water on surface soil.

Executive Director - The Executive Director of the Authority.

Federal-Aid - Joint cooperative construction or reconstruction of State highways and bridges or grade crossing elimination work or other work performed with monies contributed to the State by the federal government under Title 23 of the United States Code, Highways, and amendments thereto.

Federal-Aid Project - An identification applied to federally aided work for the purpose of the records of the FHWA.

Final Acceptance - The acceptance of the completed Work by the Authority in accordance with DB §109-11.4.

Final Acceptance Deadline - The date set forth in the *Agreement, Article 4 – Contract Time*, by which Design-Builder is required to achieve Final Acceptance.

Final Design - The stage of design development after Interim Design where the Design Plans and Project Specifications for a Design Unit are 100% complete.

Final Inspection – The appropriate meaning specified below:

- A) With respect to **Physical Completion**, the inspection scheduled after receipt of notification from the Design-Builder that it has completed all physical Work items, including punch list items and demolition Work, so that a certificate of Physical Completion may be issued.
- B) For **conventional buildings Work**, the inspection scheduled at the point when the Work or designated portion thereof is complete in accordance with the Contract Documents so that the owner can occupy or utilize the Work for its intended use. A copy of the Final Inspection list containing all incomplete or unsatisfactory items and the time allowed to complete the Work is required. The elements of Work to be completed for Final Inspection include:
 - 1) Complete final cleaning requirements, including touch-up painting.
 - 2) Touch up and otherwise repair and restore marred exposed finishes.
 - a) General: Provide final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and federal and local environmental and anti-pollution regulations.
 - b) Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average

commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.

- i Clean project site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
- ii Sweep paved areas broom clean.
- iii Rake grounds that are neither planted nor paved to a smooth, even-textured surface.
- iv Remove tools, construction equipment, machinery, and surplus material from project site.
- v Complete removal of temporary facilities not already removed.
- vi Remove debris from limited access spaces, including roofs, plenums, shafts, equipment vaults, manholes, attics, and similar spaces.
- vii Vacuum carpet and similar soft surfaces.
- viii Clean mirrors and glass in doors and windows.
- ix Remove labels that are not permanent.
- x Touch up and otherwise repair and restore marred, exposed finishes and surfaces. Replace finishes and surfaces that cannot be satisfactorily repaired or restored. Do not paint over "UL" and similar labels, including mechanical and electrical nameplates.
- xi Wipe surfaces of mechanical and electrical equipment, and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
- xii Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.
- xiii Replace disposable air filters and clean permanent air filters. Clean exposed surfaces of diffusers, registers, and grills.
- xiv Clean ducts, blowers, and coils.
- xv Clean light fixtures, lamps, globes, and reflectors to function with full efficiency. Replace burned-out bulbs, and those noticeably dimmed by hours of use, and defective and noisy starters in fluorescent and mercury vapor fixtures to comply with requirements for new fixtures.

Final Invoice – The invoice for final payment of the Contract Price, based on the Final Supplemental Agreement.

Final Supplemental Agreement - Agreement between the Authority and the Design-Builder, stating the total cost of the Work done by the Design-Builder. This document, which may also be referred to as a "Final Agreement," provides a final tabulation of the net increases or decreases in the Contract Price.

Firmware – The combination of a hardware device and computer instructions and/or computer data that resides as read-only software on the hardware device.

Generally Accepted Accounting Principles (U.S.) (US GAAP) - Generally accepted accounting principles in effect in the United States, including the pronouncements and guidance published in the Federal Accounting Standards Advisory Board Handbook of Accounting Standards and Other Pronouncements, as amended from time to time.

Geotechnical Engineering Bureau - The Agency employee or other designated inspection agency or representative of the Agencies, having responsibility for providing Geotechnical Engineering Services, including laboratory testing of earthwork materials.

Governmental Approval - Any approval, authorization, certification, consent, decision, exemption, filing, lease, license, permit, registration, concession, grant, franchise, waiver, variance or other approval, guidance, protocol, mitigation agreement, or memoranda of agreement/understanding, or ruling and any amendment or modification of any of them provided or required by or with any Governmental Person in order to design and construct the Project.

Governmental Person - Any federal, state, local, or foreign government; any political subdivision; or any governmental, quasi-governmental, judicial, public, or statutory instrumentality, administrative agency, authority, body, or entity other than the Authority.

Governmental Rule - Any statute, law, code, regulation, ordinance, rule, judgment, order, decree, agreement, directive, guideline, policy requirement, other governmental restriction, or any similar form of decision of, determination by, interpretation of, or administration of any of the foregoing by any Governmental Person, which is applicable to the Work or the Project, whether now or hereafter in effect. "Governmental Rule," however, excludes Governmental Approvals.

Guarantor - A parent company or other affiliate of a Principal Participant that is providing performance security for the Contract through a guaranty in the form prescribed in the RFP.

Guaranty - An instrument executed by a Guarantor in the form prescribed in the RFP, guaranteeing the Design-Builder's obligations under the Contract Documents.

HARS – The Historic Area Remediation Site identified in 40 CFR Section 228.15(d)(6), in a 15.7 square nautical mile area located approximately 3.5 nautical miles east of Highlands, New Jersey and 7.7 nautical miles south of Rockaway, Long Island, consisting of a Primary Remediation Area, a Buffer Zone, and a No Discharge Zone. References in the Contract Documents to disposal at HARS shall mean disposal at the Primary Remediation Area.

HARS Permit – A Section 103 permit that the Design-Builder will apply for, for the purpose of allowing disposal of approximately 950,000 cubic yards of eligible dredge materials at HARS and potentially allowing disposal of dredge materials from demolition at HARS.

Hazardous Materials - Any (a) substance, product, waste, pollutant, contaminant or other material of any nature whatsoever that exceeds maximum allowable concentrations for elemental metals, organic compounds or inorganic compounds, as defined by any Environmental Law; (b) substance, product, waste, pollutant, contaminant or other material of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to any Environmental Law; (c) substance, product, waste, pollutant, contaminant or other material of any nature whatsoever which may give rise to liability under clause (a) or (b) or under any statutory or common law theory based on negligence, trespass, intentional tort, nuisance, or strict liability or under any reported decisions of a state or federal court; (d) petroleum hydrocarbons excluding de minimis amounts and excluding petroleum hydrocarbon products contained within regularly operated motor vehicles; and (e) hazardous building materials including asbestos or asbestos-containing materials, lead or PCBs in structures and/or other improvements on or in the Site or in subsurface artifacts (other than mineral asbestos naturally occurring in the ground). The term “Hazardous Materials” includes Hazardous Waste and contaminated materials.

Hazardous Waste - Waste as defined in 40 CFR Part 261.

Highway Advisory Radio - NYSTA radio system used to notify and broadcast advisory messages to the motoring public over 530 AM radio band.

Hudson Valley Transportation Management Center – A multi-modal, multi-agency facility designed to integrate and manage the Intelligent Transportation System (ITS) in the lower Hudson Valley.

Incremental Costs - Those costs, if any, which the Design-Builder incurs as a result of a particular circumstance which the Design-Builder would not have incurred but for the circumstance. In determining such costs, one would determine the total cost which the Design-Builder would have incurred had the circumstance not occurred, and subtract such amount from the costs actually incurred. The difference is the “increment.” For example, if the Design-Builder originally had to relocate three water lines, and a fourth water line is discovered in the same area which can be relocated by the same crew, subject to the provision of the Contract, the Incremental Costs would be the costs of keeping the crew working the additional time to relocate the fourth water line, and would not include any portion of the expense of moving the crew to the Site in the first place.

Independent Assurance – The Agencies’ activities that are intended as an unbiased and independent evaluation of all sampling and testing procedures used in acceptance programs as provided in 23 CFR Part 637. The independent assurance program assures the sampling and testing equipment used in the acceptance program is operating correctly and remains calibrated. It involves a separate and distinct schedule of sampling, testing and observation.

Independent Referee Laboratory - The independent certified laboratory selected and retained by Agencies for resolution of disputes regarding sampling and testing results reported by the Agencies’ verification samplers and testers and the Design-Builder’s QA samplers and testers.

Indicative Plans - Those Plans that are provided as reference information indicating the nature and type of Work to be designed and constructed as part of the Project and reflecting items for which the Authority has no particular view on the specific configuration or material used in the final product. Indicative Plans do not necessarily reflect the final locations, quantities, or all elements required to complete the design.

Initial Baseline Project Schedule - The Baseline Project Schedule submitted with the Proposal.

Initial Traffic Relocation Deadline – The date specified in the *Agreement, Article 4 – Contract Time* by which Design-Builder is obligated to remove all traffic from the existing Tappan Zee Bridge.

Inspection – The act of viewing or looking carefully at construction, manufacturing, design, safety, and maintenance practices, processes, and products, including document control and Working Plan review, to ensure the practices, processes, and products comply with the requirements contained in the Contract and activities specified in the Contract, Design Plans, and/or Project Specifications.

Inspector - A common term used to describe a representative of the Design-Builder or Agencies detailed to inspect methods of construction or fabrication and/or materials, equipment for Work both on and off the Site of the Project.

Instructions to Proposers - The document included in the RFP containing directions for the preparation and submittal of proposals, as amended by any addenda thereto.

Interim Design - The stage of design development after Definitive Design where the Design Plans and Project Specifications for a Design Unit are at the 60% to 80% stage of completion.

International Accounting Standards (IAS) - International accounting standards in effect and issued by the International Accounting Standards Board, as amended from time to time.

Landscape Development - Any development or item used as part of the Project or as a separate action through the use, placement, and management of land and elements for aesthetic enhancement, such as decorative surfaces and wall faces, benches, waste receptacles, tables, etc., and plant materials consistent with a specific, approved landscape architectural Design Plan.

Landscaping - The use and placement of plant materials (trees, shrubs, vines, and certain ground covers) consistent with an approved landscape architectural Design Plan. Planting vegetation for screening and erosion control purposes does not constitute landscaping.

Land Surveyor - A Land Surveyor licensed or otherwise authorized to practice surveying under Article 145 and registered or otherwise authorized under Article 130 of the New York State Education Law.

Leadership in Energy and Environmental Design - The United States Green Building Council (USGBC) standard for sustainable building performance.

Lien - Any pledge, security interest, mortgage, deed of trust or other charge or encumbrance of any kind, or any other type of preferential arrangement (including any agreement to give any of the foregoing, any conditional sale or other title retention agreement, any lease in the nature of a security instrument, and the filing of or agreement to file any financing statement or other instrument intended to perfect a security interest).

Limits of Constructions – The Project Limits as identified on the Directive Plans in *Part 6 – RFP Plans*.

Listed Material Source - A local source of material that may be listed and described in the Plans and in the Contract for possible use on the Project.

Main Span – The bridge structure over the Federal navigation channel for the Hudson River.

Major Maintenance – Repairs to deterioration of non-replaceable components as identified in *Part 3 Section 11 – Structures* of sufficiently large scope to require the letting of a rehabilitation contract as opposed to routine and preventive repairs by Authority forces.

Management Plan – The Management Plan developed by Design-Builder as defined in *Part 3, Section 2 – Project Management*.

Materials Bureau - The Department employee or its designated inspection agency or representative, with responsibility for providing materials engineering services including laboratory testing.

Minority-Owned Business Enterprise - A business enterprise, including a sole proprietorship, partnership, or corporation that is a small business at least 51% owned by one or more minority group members and meets the definition set forth in Article 15-A of the New York State Executive Law.

Necessary Basic Project Configuration Change - Material changes in the Basic Project Configuration that are necessary to correct an error, omission, or defect in the Basic Project Configuration (with the understanding that a change shall be deemed “necessary” only if the error, omission, or defect creates a conflict with other Contract requirements or another problem which cannot reasonably be corrected without a material change in the Basic Project Configuration).

Ninety Day Schedule – The schedule submitted by the Design-Builder pursuant to DB §108-1.2.2A.

Non-Conformance Report – The written documentation of deficiencies, instances of non-compliance, errors, and/or omissions in the Work, per DB §105-16. The Non-Conformance Report is a means and method to document findings brought forth by either the Design-Builder or the Agencies at any point during the Project design or construction to identify non-conforming items that shall be documented and managed until Final Acceptance.

Notice to Proceed - Written notice to the Design-Builder to proceed with some or all of the Work as specified in the Contract including, when applicable, the start date of the Contract Time.

Option – An option exercisable by the Authority under Article 1.2 of the *Agreement* or DB §107-32.

Option Amount - The meaning set forth in the *Agreement, Article 1.2.1*.

Option Exercise Deadline - The meaning set forth in the *Agreement, Article 1.2*.

Option Proposal – The meaning set forth in the *Agreement, Article 1.2.1(1)*.

Option Proposal Notification Deadline – The meaning set forth in the *Agreement, Article 1.2.1(1)*.

Option Proposal Submission Deadline – The meaning set forth in the *Agreement, Article 1.2.1(1)*.

Order on Contract - A written order issued by the Authority in accordance with DB §104-3 or DB §109-9.

Oversight - Actions by the Agencies to satisfy themselves 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 Independent Assurance, Verification Sampling and Testing, compliant/compliance, accept/acceptance, inspect/inspection, audit, confirm, review, verify or

terms of similar import. Agencies' 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 Agencies shall be construed to relieve the Design-Builder and its organization from the responsibility and costs for meeting all Contract and regulatory requirements.

Part – Unless otherwise required by the context, a major subdivision of the Contract Documents.

Partial Suspension - Suspension of Work on some, but not all, items.

Payment Bond - The bond, in the form set forth in the RFP or as otherwise approved by the Authority, executed by the Design-Builder and its Surety, in the stated maximum amount required by the Contract, guaranteeing the payment of all monies due to persons furnishing labor or materials to the Design-Builder or its Subcontractors in the prosecution of the Work, up to such stated maximum amount.

Performance Bond - The bond, in the form set forth in the RFP or as otherwise approved by the Authority, executed by the Design-Builder and its Surety, in the stated maximum amount required by the Contract, guaranteeing performance of all Work in compliance with the requirements of the Contract Documents.

Person - Any individual, firm, corporation, company, limited liability company (LLC), joint venture, voluntary association, partnership, trust, or unincorporated organization, or combination thereof.

Physical Completion – Completion of all physical Work on the Project and Final Inspection thereof, including: (i) Substantial Completion of the Crossing, (ii) completion of demolition of the existing Tappan Zee Bridge and removal of all debris, (iii) completion and integration of all Crossing and facility security systems and training of Authority personnel in their use, (iv) completion of all construction and demolition punch list Work, (v) acceptance of the Work by third parties as required, and (vi) completion of final clean-up of the Site as required by the Contract Documents.

Physical Completion Deadline – The date specified in the *Agreement, Article 4 – Contract Time* by which Design-Builder is required to achieve Physical Completion.

Prestressed Concrete Construction Manual – The New York State Prestressed Concrete Construction Manual published by the Office of Structures Design and Construction, which is current on the date of advertisement for bids. The Prestressed Concrete Construction Manual is a mandatory supplement to the contract documents for contracts which include Prestressed Concrete Units (Structural).

Price Center - The components of the Project so designated by the Design-Builder in its Proposal or in accordance with DB §109.

Principal Participant - Any of the following entities:

- A) The Design-Builder;
- B) If the Design-Builder is a partnership, joint venture, or limited liability company, each general partner or member of the Design-Builder; and/or
- C) Each Person holding (directly or indirectly) a 15% or greater interest in the Design-Builder.

Professional Architect - A professional architect licensed or otherwise authorized to practice architecture under Article 147 and registered or otherwise authorized under Article 130 of the New York State Education Law.

Professional Engineer - A professional engineer licensed or otherwise authorized to practice engineering under Article 145 and registered or otherwise authorized under Article 130 of the New York State Education Law.

Professional Landscape Architect - A professional landscape architect licensed or otherwise authorized to practice engineering under Article 148 and registered or otherwise authorized under Article 130 of the New York State Education Law.

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 Labor Agreement - The Project Labor Agreement attached as *Appendix VI to the Agreement* and agreed to by the Design-Builder. In the event of a conflict between a provision of the Project Labor Agreement and any other of the Contract Documents, the provisions of the Project Labor Agreement shall apply to the fullest extent permitted by law.

Project Limits – As defined in §2.1 of *Appendix I to the Agreement*.

Project Requirements – All of the terms and conditions set forth in *Part 3 - Project Requirements*.

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, including the Standard Specifications, and shall provide finished products that meet or exceed the quality requirements of the Contract. Project Specifications are subject to review, consultation and written comment of the Authority's Project Manager during Design Reviews, and to a determination by the Agencies, in their sole discretion, whether the Project Specifications meet the Contract requirements.

Proposal - The proposal submitted by the Design-Builder in response to the RFP, including the clarifications thereto identified in *Part 9 – Design-Builder's Proposal*.

Proposal Date or Proposal Due Date - The date of submittal of the Proposal, as specified in the Agreement.

Proposal Price – The Contract Price stated in the *Agreement, Article 7 – Compensation*, as of the date of execution thereof.

Protect in Place - Any activity undertaken to avoid damaging a utility which does not involve removing or relocating that utility, including staking the location of a utility, avoidance of a utility's location by construction equipment, installing steel plating or concrete slabs, encasement in concrete, temporarily de-energizing power lines, and installing physical barriers. For example, temporarily lifting power lines without cutting them would be considered a method in which to Protect in Place, whereas temporarily moving power lines to another location after cutting them would be considered a Temporary Relocation. The term includes both temporary measures and permanent installations meeting the foregoing definition.

Public Information Plan – A document produced by the Authority setting out a program for public information that shall be supported by the Design-Builder, as set forth in *Part 3, Section 8 – Public Involvement*.

QA Engineering Firm – The independent engineering consultant(s) retained by Design-Builder responsible to oversee, manage, certify and perform design and construction QA activities. The QA Engineering Firm (and any firm(s) acting as a subconsultant to the QA Engineering Firm) shall not be owned by or be an affiliate of the Design-Builder, any Principal Participant, the Designer or any construction Subcontractor. The QA Engineering Firm shall be responsible for management and scheduling of all QA activities for all items of Work for this Contract.

QA Inspection – Quality Assurance inspections performed by the QA Engineering Firm in accordance with DB §§112 and 113.

QA Sampling and Testing – Sampling and testing performed by the QA Engineering Firm independently of the Design-Builder production or QC Inspectors.

QC Inspection – Quality Control inspections are performed by the Design-Builder's personnel who are responsible for assessing and adjusting design, production and construction processes so as to control the level of quality being produced in the Project. The purpose of QC Inspections is to measure those quality characteristics and to inspect those activities that affect the production at a time when corrective action can be taken to substantially decrease the likelihood that appreciable non-conforming material will be incorporated in the Project.

QC Sampling and Testing – Sampling and testing performed by the Design-Builder.

Quality – The degree to which a product or service conforms to a given requirement.

Quality Assurance - All planned and systematic actions by the QA Engineering Firm necessary to confirm QC is performed 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.

Quality Assurance Laboratory – Any testing laboratory retained by the QA Engineering Firm to perform laboratory QA testing, that complies with the requirements for Agencies certification for applicable tests.

Quality Characteristic - The characteristic of a unit or product that is actually measured to determine conformance with a given requirement. Example: measuring percent air content in concrete is a Quality Characteristic.

Quality Check Points (Hold Points) – Quality Check Points (QCP) established at various stages of construction for the Project that provide an opportunity to evaluate work for acceptability before beginning the next portion of the work.

Quality Control - The total of all activities performed by the Design-Builder, Designer, Subcontractors, producers or manufacturers 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 Plans. For construction this includes 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 Manager - The individual employed by the Design-Builder who is responsible for the overall Quality Plan and Quality Assurance activities of the Design-Builder, including the quality of management, design, and construction.

Quality Plan - The Design-Builder's plan for implementing the Design-Builder's overall Quality System and associated activities, including Design-Builder's QC/QA and procedures to assure and document quality of design and construction activities through reviews, inspections, testing, internal communications, and necessary interfaces with the Agencies and the Agencies' Oversight activities.

Quality System - The overall quality system and associated activities, including Design-Builder QC and QA activities, Agencies' Oversight and IA program and associated Quality Plan that will assure materials and workmanship incorporated into the Project are in conformity with the Contract requirements, Design Documents and Project Specifications.

Readiness for Construction - The stage of design development after Final Design where the Design Plans and Project Specifications for a Design Unit or a component thereof are 100% complete and satisfy the requirements of DB §111-11.6.

Reference – Any publication or other document, or provision(s) contained therein, to the extent that it is specifically identified as a "Reference" in the Contract Documents. The Design-Builder is not required to use References in design and construction of the Project, but may use the References as it deems appropriate.

Reference Documents - The documents provided with and so designated in the RFP. 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.

Regulatory Agencies – Those Governmental Persons involved in permits, approvals, 106 process, consultation or otherwise having jurisdiction over or involvement with any aspect of the Project.

Relocation - Each removal, relocation, abandonment, and/or protection in place (including provision of temporary services as necessary) of any and all utilities that is necessary in order to complete the Work as required by the Contract.

Request for Proposals – The written solicitation issued by the Agencies (and as amended by any addenda) resulting in selection of the Design-Builder, including the Instructions to Proposers, Contract Documents, and Reference Documents.

Request for Qualifications - The written solicitation issued by the Agencies seeking SOQs to be used to identify the shortlisted proposers that received the RFP for the Project.

Responsible Architect - The New York-registered architect designated by the Designer for each Design-Builder-designated Design Unit who is responsible for signing and sealing design reports, Design Plans, Working Plans and Project Specifications for the assigned Design Unit(s).

Responsible Engineer – The New York-licensed engineer, designated by the Designer for each Design-Builder-designated Design Unit who is responsible for signing and sealing design reports, Design Plans, Working Plans and Project Specifications for the assigned Design Unit(s).

RFP Date – The date the RFP was issued, as specified in the *Agreement*.

RFP Plans – Those plans included in *Part 6 – RFP Plans* which are, generally-speaking, incomplete plans representing the Project and its components. RFP Plans may be Administrative Plans, Directive Plans or Indicative Plans.

ROW Acquisition Schedule - The schedule for acquisition of rights of way (including fee acquisitions and easements) and other real property interests by the Authority set forth in *Part 3, Section 7.3.1 – ROW Provided by the Authority*, as the initial Acquisition Clearance and Status Report.

ROW Limits - The area within the Project Limits that is between the highway boundaries, held in trust by Authority for the People of the State of New York in either fee or easement.

Safety Plan - The plan that sets out the Design-Builder's means of complying with its obligations in relation to Project safety, which plan shall be provided and maintained in accordance with DB §107-7.5.

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

Schedule of Prices – The detailed schedule of prices to be developed and revised in accordance with DB §109-1.1.

Secretary - The Secretary of State of New York.

Section – Unless otherwise required by the context, a subdivision of the Project or a subdivision of a Part of the Contract Documents.

Security Management System – The security management system required by *Part 3, Section 20 – Security*.

Site - Those areas designated in writing by the Authority for performance of Work and such additional areas as may, from time to time, be designated in writing by the Authority for the Design-Builder's use in performance of the Work. The Site initially includes the area within the ROW Limits. For purposes of insurance (subject to any notification and other requirements imposed by the insurer(s) for approval), indemnification, safety and security requirements, and payment for use of equipment, the term "Site" also includes (a) the field office sites, (b) any property used for bonded storage of material for the Project approved by the Authority, (c) staging areas dedicated to the Project, and (d) areas where activities incidental to the Project are being performed by Design-Builder or Subcontractors, but excluding any permanent locations of Design-Builder or such Subcontractors.

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 thereon by the Authority's Project Manager.

Soil Mechanics Bureau - *See* Geotechnical Engineering Bureau.

Special Provisions - Additions and revisions to *Standard Specifications Construction and Materials*, published by the New York State Department of Transportation dated May 1, 2008 as updated, as modified by the New York State Thruway Authority's Addendum, TA (09), covering conditions applicable to this individual Project, as set forth in *Part 5 – Special Provisions*.

Stakeholder – Any Person designated by the Authority as such, including:

- A) The State, primarily represented by the Department, including its subsidiary agencies and departments;
- B) The FHWA;
- C) Other states and/or multi-state authorities directly affected by or cooperating with the development of the Project;
- D) Federal and State regulatory and permitting agencies having jurisdiction over portions of the Work;
- E) Counties, cities, towns, and villages within the State directly affected by the Project;
- F) Other public or private entities impacted or potentially impacted by the Project, such as authorities, utility owners, transit systems, and railroads; and
- G) Other entities specifically identified by the Authority.

Standards – Any publications or other documents, or provision(s) contained therein, to the extent that they are specifically identified as “Standards” in the Contract Documents. The term includes standards developed and published by the Authority, the Department, and recognized associations, societies, institutes and other entities for design and construction. Standards established by reference in the Contract Documents constitute a further elaboration of the Project requirements.

Standard Plans - Detailed Plans that depict the dimensional requirements and clearances of certain features of the Project and components, subassemblies, or systems to be incorporated into the Project, issued by the Authority or other Stakeholder, for general application and repetitive use in connection with the Project.

Standard Specifications – The *Standard Specifications Construction and Materials*, published by the New York State Department of Transportation dated May 1, 2008 as updated, excluding Part 100, as modified by the New York State Thruway Authority's Addendum, TA (09), and as further modified by *Part 5 – Special Provisions* and *Part 7 - Engineering Data*.

State - The State of New York.

Steel Construction Manual – The New York State Steel Construction Manual published by the Office of Structures Design and Construction, which is current on the date of advertisement for bids. The Steel Construction Manual is a mandatory supplement to the contract documents for contracts which require the Design-Builder to furnish or rehabilitate structural metals.

Stipend Agreement – Any agreement, in the form of Form SA, ITP Appendix D, executed by the Design-Builder and the Authority, providing for the payment of a stipend under the terms and conditions set forth therein.

Structural Tests and Special Inspections - All tests and inspections associated with materials, installation, fabrication, erection, or placement of components and connections requiring expertise to ensure compliance with approved construction documents and referenced standards, associated with Chapter 17 of the NY State Building Code. All tests and inspections are to be coordinated with the designated Code Compliance Specialist (Coordinator)/Code Compliance Manager.

Subcontract - Any agreement entered into by the Design-Builder or a Subcontractor (at any tier unless otherwise specified) for a portion of the construction or any other part of the Work in connection with, and under the terms of, the Contract.

Subcontractor - Any Person with whom the Design-Builder has entered into any Subcontract and any other Person with whom any Subcontractor has further subcontracted any part of the Work, at any tier. Suppliers and materialmen are excluded from the term. The term does not include any employee with an employment contract, or any employee organization with a collective bargaining agreement, who with the written consent of the Authority, sublets any part of the Contract.

Substantial Completion – The appropriate meaning specified below:

With respect to the **Crossing**, the term Substantial Completion means the point at which the Authority's Project Manager determines, in response to a request by the Design-Builder, that (i) the Design-Builder has completed the Crossing (except for the shared use path, punch list items related to the Crossing, final cleanup and other items which the Contract contemplates are required for Physical Completion or Final Acceptance and not for Crossing Substantial Completion), including all Work required to transition the Westbound Bridge from two-way to one-way toll traffic; (ii) Design-Builder has ensured that all construction associated with the Crossing has been performed in accordance with the requirements of the Contract Documents; (iii) Design-Builder has ensured that the Crossing may be operated without damage to the Crossing or any other property on or off the site, and without injury to any Person; (iv) Design-Builder has completed all required activities associated with installation and testing of toll collection equipment; and (v) Design-Builder has otherwise ensured that the Crossing is ready for operation such that it can be safely and effectively used by the public without further lane closures, barriers, cones, delays, disruption, or impediments, with all lanes open to toll traffic except as may be required for completion of the shared use path.

With respect to the new **Westbound Bridge**, the term Substantial Completion means the point at which the Authority's Project Manager determines, in response to a request by the Design-Builder, that (i) the Design-Builder has completed all elements of the Westbound Bridge necessary for it to be opened to two-way toll traffic; (ii) Design-Builder has ensured that all construction associated with use of the Westbound Bridge for two-way toll traffic has been performed in accordance with the requirements of the Contract Documents; (iii) Design-Builder has ensured that the Westbound Bridge may be operated for two-way toll traffic without damage to the Westbound Bridge or any other property on or off the site, and without injury to any Person; (iv) Design-Builder has completed all required activities associated with installation and testing of toll collection equipment allowing the Westbound Bridge to be opened to two-way toll traffic; (v) Design-Builder has otherwise ensured that the Westbound Bridge is ready for operation for two-way toll traffic such that it can be safely and effectively used by the public without further lane closures, barriers, cones, delays, disruption, or impediments, with all lanes open to toll traffic; and (vi) Design-Builder has completed all other measures needed to permit removal of traffic from the

existing bridge, other than those measures that the Contract Documents specify will be undertaken by the Authority.

For **conventional buildings Work**, the term “Substantial Completion means the point at which the progress of the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so that the owner can occupy or utilize the Work for its intended use. Items that need to be completed at this point include:

- A) List of Incomplete Items (Punch List)
- B) Certificates of Release
- C) Closeout documents including project record documents, operation and maintenance manuals
- D) Material submittals – including tools, spare parts, extra materials, and similar items.

Surety - The corporate body or bodies properly licensed in the State which has or have issued the Performance and/or Payment Bond.

Suspension and Debarment - The disqualification of a Person from proposing on public works projects for a period of time determined in accordance with United States Department of Transportation (USDOT) regulations.

System Specification – A top level set of requirements for a system. A System Specification may be a system/ subsystem specification, prime Item Specification, or a Critical Item Specification, or a Critical Item Development Specification.

Tangible Net Worth – With respect to any Person, the sum of the amounts described in items (A) through (C) below for such Person and its subsidiaries, determined on a consolidated basis without duplication in accordance with US GAAP or IAS:

- A) the amount of capital stock; plus
- B) the amount of surplus and retained earnings (or, in the case of a surplus or retained earnings deficit, minus the amount of such deficit); minus
- C) the sum of the following: cost of treasury shares and the book value of all assets that should be classified as intangibles (without duplication of deductions in respect of items already deducted in arriving at surplus and retained earnings) but in any event including goodwill, minority interests, research and development costs, trademarks, trade names, copyrights, patents and franchises, unamortized debt discount and expense, all reserves and any write-up in the book value of assets resulting from a revaluation thereof subsequent to the last day of the prior fiscal year used in preparing the Person’s financial statements.

Temporary approval for occupancy - A written document issued by the Authority’s Code Compliance Specialist (Coordinator)/Code Compliance Manager permitting a building or a portion thereof to be occupied for a temporary period notwithstanding the fact that construction of the building may not be complete or that violations of the code remain unresolved.

Temporary Relocation - Any interim Relocation of a utility (i.e., the installation, removal, and disposal of the interim facility) pending installation of the permanent facility in the same or a new location, and any removal and reinstallation of a utility in the same place with or without an interim Relocation.

Termini - A general term used to describe the limits of the Project, and including the beginning and end of the Project, the ROW Limits, pit sites, haul roads, and temporary and permanent construction or maintenance easements.

Thruway – The network of toll roads and bridges operated by the Authority.

Thruway Director, Office Of Construction Management - The Director, Office of Construction Management, Department of Engineering of the Authority, or a designated representative.

Thruway Division - A geographic section of the Thruway system used to designate or identify the location of the proposed work. There are four such Thruway Divisions and their limits are generally described as follows:

- A) New York Division - That portion of the Thruway South of Milepost 76.5 in Ulster County including the entire Garden State Parkway connection, the New England Thruway (1-95) from NE 0.17 through NE 15.01, the entire Cross Westchester Expressway (1-287), and all of 1-84.
- B) Albany Division - That portion of the Thruway between Milepost 76.5 in Ulster County and Milepost 197.9 in Montgomery County, including the Berkshire Spur from B 0.00 to B 24.28.
- C) Syracuse Division - That portion of the Thruway between Mileposts 197.9 in Montgomery County and Milepost 350.6 in Ontario County.
- D) Buffalo Division - That portion of the Thruway West of Milepost 350.6 including the Niagara Thruway (1-190) N 0.00 through N 21.1.

Thruway Division Construction Engineer – An employee of the Authority, under the direction of the Division Director, who has been delegated the responsibility for supervision of the Authority's Project Manager. Also known as the Assistant Division Director Engineering Services.

Thruway Division Director - The ranking staff employee of the Authority in a Thruway Division.

Thruway Division Traffic Supervisor - An employee of the Authority, under the direction of the Division Director, who has the responsibility for safety and control of all vehicular traffic on the Thruway.

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 Project Schedule submitted to the Authority.

Toll Plaza Completion – Completion by Design-Builder of the final toll plaza configuration in accordance with *Part 3, Project Requirements, Section 26 – Toll Plaza*, and taking of all other action

necessary for use of the toll plaza for combined manual and electronic toll revenue service, as specified in the *Agreement, Article 4 – Contract Time*.

Toll Plaza Completion Deadline – The date by which Design-Builder must achieve Toll Plaza Completion.

Toll Utility Building – A building adjacent to toll lanes that houses rooms for operations personnel and maintenance equipment for the toll system.

Traffic Data System – NYSTA system for detecting and classifying vehicles using inductance loops and traffic counters.

Transportation Operations Coordinating Committee -- A coalition of 16 transportation and public safety agencies in the New York/New Jersey/ Connecticut metropolitan region created in 1986 to provide a cooperative, coordinated approach to regional transportation management.

Unit Price – The price per unit of measure specified for items of Work in accordance with any unit priced Orders on Contract.

Unsuccessful Proposer's Work Product – Any technical concepts included in the proposal submitted by an unsuccessful proposer in response to the RFP or submitted by the proposer for review by the Agencies in accordance with the RFP, including any alternative technical concepts, ideas, innovation, technology, techniques, methods, processes, unique uses of commercial items, design concepts, solutions, construction means and methods, project execution approach, drawings, reports, plans and specifications and information that constitutes intellectual property in the proposal or any alternative technical concept submittal.

Utility Agreement - The Authority Utility Agreements and DB Utility Agreements.

Utility Delay – The meaning set forth in DB §102-5.3.

Utility Information - The utility-related data set forth in the Contract.

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.

Utility Standards - The standard specifications, standards of practice, and construction methods that are applicable to a Relocation pursuant to the terms and conditions of a Utility Agreement; provided that if a particular facility is not governed by a Utility Agreement or the applicable Utility Agreement does not specify applicable standards, the term “Utility Standards” shall mean the standard specifications, standards of practice, and construction methods that are customarily applied by a utility owner to its facilities, in effect as of the Proposal Date. Refer to *Part 7 - Engineering Data*, for copies of applicable Utility Standards supplied by certain of the utility owners.

Value Engineering Change Proposal - A proposal developed and documented by the Design-Builder which (A) produces a net savings to the Authority 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 Change Proposal cannot be based solely upon a change in quantities.

Verification Sampling and Testing – Sampling and testing performed by the Agencies, or by a firm retained by the Agencies, to validate the quality of the product.

Virtual Design and Construction (VDC) – The integrated use of multidisciplinary performance models for the project delivery process. The disciplines can include design, construction and project management. VDC combines engineering models of the physical facility, the project delivery process, and the organization of entities doing the work. These virtual models are linked to share data so that changes to one aspect alter dependent aspects of the related models.

Warranties - The written commitments of the Design-Builder as set forth in the Contract regarding quality and performance over a specified period of time after Physical Completion of the Project.

Westbound Bridge – The new bridge structure for westbound traffic that Design-Builder is required to complete as part of the Project.

Women-Owned Business Enterprise - Women-Owned Business Enterprise means a business enterprise, including a sole proprietorship, partnership, or corporation that is a small business at least 51% owned by one or more US citizens or permanent resident aliens who are women and meets the definition set forth in Article 15-A of the New York State Executive Law.

Work - All of the administrative, design, engineering, real property acquisition support services, utility support services, procurement, legal, professional, manufacturing, supply, installation, construction, supervision, management, testing, verification, labor, material, equipment, maintenance, warranty, documentation, and other duties and services to be furnished and provided by the Design-Builder as required by the Contract Documents, including all efforts necessary or appropriate to achieve Final Acceptance of the Project except for those efforts which the Contract Documents specify will be performed by the Authority or other Persons. In certain cases, the term is also used to mean the products of the Work.

Work Product - All data, information, documentation and other materials prepared by or on behalf of the Design-Builder and in any way related to the Project including designs, drawings, reports, schedules, studies, plans, specifications, deliverables and supporting documentation the Design-Builder may be required to submit pursuant to the Contract, engineering documents, geotechnical soils and soil boring data, analyses, reports and records, property files, agreements and documents, all documents comprising or underlying the Design-Builder's development of the Design Documents, engineers' and inspectors' diaries and reports, utility relocation plans and agreements, right-of-way record maps and surveys, and other data, analyses, studies and reports, correspondence and memoranda relevant to design or construction decisions, correspondence and memoranda relevant to operation and maintenance decisions, contracting plans, air quality monitoring data, environmental reviews, studies and reports, mitigation studies and reports, data, assessments, studies and reports regarding Hazardous Materials investigations, testing, borings, monitoring and analyses, manifests regarding handling, storage or transportation of Hazardous Materials, correspondence and agreements relating to Governmental Approvals, Orders on Contract, work authorizations, final quantities, pile driving records, records of accidents and traffic management, field test records and reports, concrete pour records, surfacing depth check records, grade and alignment books, cross-section notes, drainage notes, photographs, false work and form plans, records of construction materials, and any other documents which can be reasonably described as technical or engineering documents. Work Product expressly excludes, however, documents and information which the Design-Builder and Authority mutually agree in writing, or which a court determines, to be exempted or protected from public disclosure.

Work Zone Traffic Control Plan – The required plan for traffic control and management developed by Design-Builder.

Workforce Participation Plan – A plan prepared by Design-Builder addressing Design-Builder's and Subcontractors' workforces and equal employment opportunity goals.

Working Plans - Those plans prepared by the Design-Builder to supplement Design Plans to specify additional details and procedures for construction of the Project, including the following:

- A) Construction details;
- B) Erection plans;
- C) Fabrication plans;
- D) Transportation plans
- E) Storage plans
- F) Field design change plans;
- G) Stress sheets;
- H) Shop plans;
- I) Lift plans;
- J) Bending diagrams for reinforcing steel;
- K) Falsework plans; and
- L) Similar data required for the successful completion of the Work.

DB 101-4 OTHER DEFINITIONS

The following terms, whether lower-cased or capitalized, shall have the following meanings:

affiliate (of a designated entity) - (a) Any Person which, directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with, the designated entity or any of the members, partners or shareholders holding a significant equity interest in the designated entity; and (b) any Person for which a significant equity interest in such Person is held by (i) the designated entity, (ii) any of the designated entity's members, partners or significant shareholders or (iii) any affiliate of the designated entity 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.

approval/approve – With respect to approvals to be provided by the Authority or Agencies hereunder, the term "approval" means a written statement by the Authority's or Agencies' authorized representative, based on a review by or on behalf of the Authority or Agencies of specified Work for compliance with

Contract requirements, indicating that the specified Work has been approved. Approvals will only be given for those submittals, activities, or Work specifically identified for “approval” in the Contract Documents. The term “approve” means “provide approval.” See also DB §105-16.

award – Approval of the Contract by the Authority’s Board, the New York State Office of the Attorney General and the Office of the State Comptroller.

bridge - The term bridge shall apply to any structure, whether single or multiple span construction, with a clear span in excess of 20 feet when measurement is made horizontally along the center line of roadway from face to face of abutments or sidewalls immediately below the copings or fillets, or, if there are no copings or fillets, at 6 inches below the bridge seats or immediately under the top slab, in the case of frame structures. In the case of arches, the span shall be measured from spring line to spring line. All measurements shall include the widths of intervening piers or division walls, as well as the width of copings or fillets.

building - Any roofed structure used or intended for supporting or sheltering any use or occupancy. The word “building” shall be construed when used herein as though followed by the words “or part or parts thereof” unless the context clearly requires a different meaning. The term “building” shall include residential structures.

business – A corporation, partnership, individual, sole proprietorship, joint venture, or any other legal entity through which commercial activity is conducted.

calendar day - Every day shown on the calendar, beginning at 12:00 a.m. (midnight) Eastern Time (standard or daylight as applicable).

commissioning - A systematic quality assurance process to ensure that all highway, bridge and building systems, including mechanical, electrical, plumbing and HVAC systems, are properly integrated and perform according to the design intent and Contract requirements.

community stakeholder – The following Persons, with whom the Design-Builder will need to coordinate its activities on a regular, daily basis during performance of the Work: (i) Village of Tarrytown (Mayor, Administrator, Superintendent, Department of Public Works, Fire Chief, Village Engineer, Police Chief); (ii) Village of Sleepy Hollow (Administrator, Mayor, Chief of Police, Superintendent, Department of Public Works, Chief of EMS); (iii) Village of Irvington (Mayor, Administrator, Chief of Police, Fire Chief, Superintendent of Public Works); (iv) Village of Elmsford (Mayor, Administrator, Village Engineer, General Foreman, Highway & Sanitation Department, Commissioner of Police); (v) Town of Greenburgh (Supervisor, Town Engineer, Commissioner of Public Works); (vi) Village of Nyack (Mayor, Administrator, Village Engineer, Manager, Public Works); (vii) Village of South Nyack (Mayor, Chief of Police, Village Engineer); (viii) Grandview on Hudson (Mayor.); (ix) Town of Clarkstown (Town Supervisor, Town Engineer, Supervisor, Highway Department); (x) Town of Orangetown (Supervisor, Superintendent of Highways, Chief of Police); (xi) hospitals (Westchester Hospitals, Westchester Medical Center, Phelps Memorial Hospital, Rockland Hospitals, Nyack Hospital); and (xii) ambulance services (Tarrytown Volunteer Ambulance Corps, Nyack Community Ambulance Corps, Irvington Volunteer Ambulance Corps, Sleepy Hollow Volunteer Ambulance Corps, Dobbs Ferry Volunteer Ambulance Corps, Ardsley-Secor Volunteer Ambulance Corps, Congers Valley Cottage Ambulance Corps, and South Orangetown Ambulance Corps).

composite items - Items that consist of rock and non-rock components and are limited to unclassified excavation and trench excavation.

construction - The construction, reconstruction, alteration, conversion, repair, installation of equipment or use of buildings and structures, and requirements or standards relating to or affecting materials used in connection therewith, including provisions for safety and sanitary conditions.

construction emergency - Damage to or a malfunction in buildings or property of the State of New York caused by an unanticipated, sudden and unexpected occurrence which involves a pressing necessity for immediate repair, reconstruction or maintenance in order to permit the safe continuation of a necessary public use or function, or to protect the property of the State of New York, or the life, health or safety of any person.

construction permit - A written document issued by the Authority's Code Compliance Specialist (Coordinator)/Code Compliance Manager authorizing construction to proceed after a determination by the Code Compliance Specialist (Coordinator)/Code Compliance Manager that the Project as proposed will comply with applicable provisions of the Code.

construction zone - The area from the first traffic control sign announcing that roadwork is being performed ahead to the last sign announcing the end of the roadwork.

consultation – Discussions and meetings for the purpose of review, observation and/or inspections of the Design-Builder's Work by the Authority's representatives. The Authority shall have no duty of independent investigation or inquiry with respect to any such review, observation or inspection. See also DB §105-16.

controlling operation – An operation which at the particular time under consideration has a controlling effect on the progress of the Project as a whole.

critical path – The sequence of activities yielding the longest path in a CPM schedule. In the context of delays for which a time extension may be allowed, a delay to the critical path is deemed to occur only to the extent that the delay adversely impacts the Design-Builder's ability to complete the Work required to be performed by a Contract Deadline.

culvert - An enclosed channel open at both ends carrying water from a stream or water course through an artificial barrier such as a roadway embankment. The term culvert shall apply to any structure, whether of single or multiple span construction, with an interior width of 20 feet or less when measurement is made horizontally along the center line of roadway from face to face of abutments or sidewalls immediately below the copings or fillets, or, if there are no copings or fillets, at points 6 inches below the bridge seats or immediately under the top slab in the case of frame structures. In the case of arches, the span shall be measured from spring line to spring line. All measurements shall include the widths of intervening piers or division walls, as well as the widths of copings or fillets.

day – Calendar day unless otherwise designated.

dedicated lane - Toll lane that can be operated as an E-Z Pass®-only lane.

design – Those characteristics of a system or components that are selected by the Design-Builder in response to the applicable requirements.

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

differing site condition - Subsurface or latent physical conditions that are encountered at the Site and differ materially from the conditions indicated in the Contract, and 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. Site conditions shall be considered indicated in the Contract only to the extent specified in DB §104-5, and claims based on differing site conditions are subject to the restrictions and limitations set forth in DB §104-5.

driver feedback sign – An electronic sign that provides customers with feedback on their toll payment.

E-ZPass® – An electronic toll collection system using automatic vehicle identification.

employee - Any individual working on the Project under the direction or control of, or who receives compensation from, the Design-Builder or any Subcontractor.

equipment — All machinery, tools, and apparatus necessary for the proper construction and acceptable completion of the Work, together with the necessary supplies for upkeep and maintenance.

fabricator – Any Person with which the Design-Builder subcontracts to assemble, construct, or otherwise substantially alter material or supplies into assemblies, components, or finished items for inclusion into the Work prior to resale.

fee taking - Property which is necessary to be acquired by appropriation in fee for purposes connected with the Project.

final design - A stage of design development as described in DB §111-8.

final payment - Payment by the Authority of the final installment of the Contract Price in accordance with the Final Supplemental Agreement.

fixed quantity item - An item of Work where payment is restricted to the quantity stated. A fixed quantity item is an item of Work that does not require measurement(s) to establish the actual quantity.

float - The difference between early completion times and late completion times for activities as shown on the Baseline Project Schedule. The term includes any float contained within an activity as well as any period containing an Artificial Activity.

force account - The Basis of Payment for the directed performance of design and/or construction Work, with payment based on the actual cost of labor, equipment, and materials, and including various constant activities.

force account Work—Work performed as a result of additions or changes to the Contract, with payment based on the actual cost of labor, equipment, and materials, as specified in DB §§109-7 and 109-9.2.

foreign contractor - In the case of an individual, a person who is not a resident of the State; in the case of a partnership or joint venture, one having one or more partners or members who is not a resident of the State; and in the case of a corporation, limited liability company or other form of organization, one not organized under the laws of the State.

highway - The whole strip of land bounded by the right-of-way lines.

holiday(s) – Depending on the context, the term holiday has the following meaning:

In determining whether a particular day is considered a work day for purposes of performance of construction Work, holidays will be observed as specified in the Project Labor Agreement.

For purposes of determining constraints on closure of lanes to traffic, holidays will be as specified in *Part 3, Section 17 – Work Zone Traffic Control and Access*.

For all other purposes, including determining allowable time periods for submittals, notices, reviews, approvals and payments, the following days will be observed as holidays:

- A) New Year's Day (January 1);
- B) Martin Luther King Day (3rd Monday in January);
- C) Presidents' Day (3rd Monday in February);
- D) Memorial Day (last Monday in May);
- E) Independence Day (July 4);
- F) Labor Day (1st Monday in September);
- G) Columbus Day (2nd Monday in October);
- H) Veterans' Day (November 11);
- I) Thanksgiving Day (4th Thursday in November); and
- J) Christmas Day (December 25).

If any holiday listed in (A) through (J) above falls on a Saturday or Sunday, the previous Friday or following Monday, respectively, shall be considered a holiday.

inspection - The act of viewing or looking carefully at construction, manufacturing, design, safety, and maintenance practices, processes, and products, including document control and Working Plan review, to ensure the practices, processes, and products comply with the requirements contained in the Contract and activities specified in the Contract, Design Plans, and/or Project Specifications.

key personnel – The persons identified in DB §108-3.1 and those additional persons that may be designated as such by the Authority's Project Manager in accordance with DB §108-3.

laboratory - An AASHTO accredited testing laboratory.

laying length of pipe - Feet (laying length) of pipe shall be measured by multiplying the number of whole units by the nominal length of each unit and adding thereto the length of any fractional units incorporated in the Work. The nominal length of a unit or fractional unit shall be the inside measured length from butt end to butt end and exclusive of the bell or groove on the female end.

management - When used with respect to Hazardous Materials, sampling, stock-piling, treatment, clean-up, remediation, transportation, and/or off-site disposal of Hazardous Materials, whichever is the most cost-effective approach authorized under applicable Governmental Rules and/or Environmental Law.

manufacturer - A manufacturer is a Person that operates or maintains a factory or establishment that produces on its premises the material, equipment, or supplies obtained by the Design-Builder for incorporation into the Project.

material – When used as a noun, any substances specified for use in the construction of the Project and its appurtenances.

median - That portion of a divided highway separating the traveled way. The median includes the median shoulders.

method of measurements – With respect to unit priced Work, the method by which performance is measured for purposes of determining number of units for which payment is owing.

milepost - Location marker/delineators on the Mainline Thruway and Spurs (New England Thruway, Cross Westchester Expressway, Garden State Parkway Connection, Berkshire Spur, and the Niagara Thruway) and/or at overhead bridge sites. Milepost locations are approximate, having been initially referenced to centerline mileage, and shall not be utilized for measurement. Interchange ramps and roadways do not have location markers.

mixed mode lane – Toll lane where tolls are collected with cash or by E-ZPass®.

mobilization — The process of activating and moving resources required to perform the Work to the Site(s) where the Work will be performed. Resources include necessary personnel, equipment and supplies.

nighttime – The hours between 10:00 p.m. and 6:00 a.m. Eastern Time (standard or daylight as applicable).

non-conformance - Any condition in equipment, materials, processes or other Project elements which does not comply with required plans, specifications, codes, standards, documentation, records, procedures or Contract requirements.

open road tolling lane – Highway speed, E-ZPass® only lane.

partnering — Actions taken to assure that the Project is completed in the most efficient, timely, safe, and cost effective manner for the benefit of all concerned, through communication, organization, establishing goals, continuous improvement, problem identification, conflict resolution, managing change and other appropriate activities. The parties involved in partnering may include: the Authority; the Design-Builder; Subcontractors; suppliers; 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.

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

plan – A general term including the scheme, program or method worked out before hand to accomplish an objective, and the detailed drawings and diagrams on a plane showing an orderly arrangement of parts of the overall design or objective.

proposer – Each Person that provided a proposal in response to the RFP.

punch list – The list of Work to be completed as a condition precedent to achievement of Physical Completion, limited to items of Work necessary to correct imperfections which have no adverse effect on the safety, use or operability of the Project.

right of way - A general term denoting land, property, or interests therein (including easements), usually in a strip or parcel acquired for or devoted to a highway.

roadbed — The graded portion of a highway within the top and side slopes prepared as a foundation for the pavement structure and shoulders.

roadside - A general term including: (1) the areas between the outside edges of the shoulders and the right-of-way boundaries; (2) the unpaved median areas between inside shoulders of divided highways; and (3) areas within interchanges.

roadway - The portion of a highway included between the outside edges of the shoulders.

road section - That portion of a highway included between the top of the slope in cut and the bottom of slope in fill.

samples - Physical examples of materials, equipment or workmanship submitted to the Authority's Project Manager by the Design-Builder to establish standards by which the Work shall be judged, provided such samples meet Contract requirements.

shop drawings - Drawings, diagrams, illustrations, schedules, test data, performance charts, cuts, brochures and other data, which are prepared by the Design-Builder or any Subcontractor, manufacturer, supplier or distributor for submission to the Authority's Project Manager by the Design-Builder as an illustration of a portion of the Work.

shoulder - The portion of the roadway contiguous with the traveled way for accommodation of stopped vehicles, for emergency use, and for lateral support of base and surface courses.

specification - A written description of functional characteristics or the nature of a construction item to be procured. It may include a statement of any of the user's requirements and may provide for inspection, testing\ or preparation of a construction item before procurement.

structural steel - Shapes, plates, H-piling, sheet piling and cables.

structures - Bridges, culverts, retaining walls, noise walls, cribbing, manholes, drainage structures, endwalls, buildings, sewers, service pipes, underdrains, foundation drains, and other features which may be encountered in the Work and not otherwise classed herein.

supplier or material supplier - A Person that owns, operates, or maintains a store, warehouse, or other establishment in which the materials or supplies required for the performance of the Contract are bought, kept in stock, and regularly sold to the public in the usual course of business. A material supplier is a

Person that engages in, as its principal business, and in its own name, the purchase and sale of the products in question. A material supplier who deals in bulk items such as steel, cement, gravel, stone and petroleum products need not keep such products in stock, if it owns or operates distribution equipment. Packagers, brokers, manufacturer's representatives or other persons who arrange or expedite transactions are not material suppliers.

traveled way - The portion of the roadway for the movement of vehicles, exclusive of the shoulders. Through traveled way is the portion of the roadway for the movement of vehicles, exclusive of shoulders and auxiliary lanes.

unit price - The price established by the Contract for a specified unit quantity of Work that is measured for payment.

utility - A privately, publicly, or cooperatively owned facility (which term includes lines, systems and other facilities, and includes municipal and/or government facilities) for transmitting or distributing communications, cable television, power, electricity, gas, oil, crude products, water, steam, waste, or any other similar commodity, including any fire or police signal system as well as streetlights associated with roadways owned by local agencies. However, when used in the context of the Relocation of facilities to accommodate the Project, the term "utility" excludes (a) storm water facilities, and (b) traffic signals, ramp metering systems, flashing beacon systems, and lighting systems for the mainline Project. The necessary appurtenances to each utility facility shall be considered part of the facility, including the utility source, guide poles, feeder service lines and supports. Without limitation, any service lateral connecting directly to a utility shall be considered an appurtenance to that utility, regardless of the ownership of such service lateral. The term "utility" is sometimes used to mean "utility owner."

utility owner—The owner or operator of a utility (including Governmental Persons and other Persons).

utility work—The work necessary for Relocations, whether performed by the Design-Builder or by, or on behalf of, a utility owner, including labor, equipment and materials associated with design, design review, construction, construction management, permit processing and fees, inspection, and administrative and overhead costs; the term also includes any Betterments incorporated into a Relocation.

vendor – A manufacturer, fabricator, material or equipment supplier.

violation enforcement system – A camera system to identify vehicles in violation of toll requirements.

work day or working day - For purposes of performance of construction Work hereunder, a day on which weather and other conditions not under the control of the Design-Builder will permit construction operations to proceed for the major part of the day on the principal item or items of Work which would normally be in progress at that time, excluding any holidays and other days on which the Design-Builder is specifically prohibited from working as specified in the Project Labor Agreement. Work days may include days on which the Design-Builder is prohibited from closing a lane or lanes or impeding traffic.

For all other purposes, including determining allowable time periods for submittals, notices, reviews, approvals and payments, the term "work day" means each day, exclusive of Saturdays, Sundays and State recognized public holidays.

worker - See employee.

written comment – Comments on the Design-Builder’s Work provided by the Agencies in writing, generally provided following consultation with the Design-Builder. Such comments are not to be construed as approvals. See also DB §105-16.

DB 101-5 LANGUAGE

In the Contract Documents, where appropriate:

- A) the singular includes the plural and vice versa;
- B) references to statutes or regulations include all statutory or regulatory provisions consolidating, amending or replacing the statute or regulation referred to;
- C) the words “including,” “includes” and “include” shall be deemed to be followed by the words “without limitation”;
- D) unless otherwise indicated references to sections, appendices or schedules are to sections, appendices or schedules attached to the document in which the reference is included, and references to “Parts” are to Parts of the Contract Documents;
- E) words such as “herein,” “hereof” and “hereunder” shall refer to the entire document in which they are contained and not to any particular provision or section;
- F) words not otherwise defined which have well-known technical or construction industry meanings, are used in accordance with such recognized meanings;
- G) references to Persons include their respective permitted successors and assigns and, in the case of Governmental Persons, Persons succeeding to their respective functions and capacities;
- H) words of any gender used herein shall include each other gender where appropriate;
- I) when expressions such as "directed, authorized, permitted, approval, acceptable, or satisfactory" are used they are implicitly followed by the words "by the Authority’s authorized representative" or "to the Authority’s authorized representative";
- J) with respect to Orders on Contract, statements that the Design-Builder "may" receive or request a time extension or increase in the Contract Price shall mean that the Design-Builder's entitlement to an Order on Contract is subject to all applicable conditions and limitations contained in the Contract Documents or applicable as a matter of law with respect to the relief requested, including strict adherence to contractual notification and recordkeeping requirements, limitations on allowable costs, requirements to mitigate damages, requirements to establish that the critical path has been delayed, requirements to establish that the Design-Builder did not cause the occurrence giving rise to the cost or delay and is otherwise without fault, and requirements to otherwise provide satisfactory justification for any claims for an extension of the Contract Time and/or increase in the Contract Price;
- K) per the Interstate highway numbering system, I287/87 is a north/south facility. However, the existing bridge and the Crossing are predominantly aligned east-west. In

the Contract Documents and with reference to the highway, the terms “northbound” and “westbound” shall be taken as equivalent; and the terms “southbound” and “eastbound” shall be taken as equivalent; and

- L) when a requirement or specification is written in the passive or imperative mode, it shall be understood that “*The Design-Builder shall*” perform such work, comply with the requirements, furnish such material or take such action. In material specifications, the subject may also be the vendor supplying material, products or equipment for use on the Project.

DB 101-6 STANDARD FOR APPROVALS

In all cases where approvals, acceptances or consents are required to be provided by Authority or Design-Builder hereunder, such approvals, acceptances or consents shall not be withheld unreasonably except in cases where a different standard (such as sole discretion) is specified, and shall not be unreasonably delayed if no response time is specified. In cases where sole discretion is specified, the decision shall not be subject to dispute resolution or other legal challenge; provided, however, the issue of whether the decision was arbitrary or capricious shall be subject to dispute resolution hereunder.

DB 101-7 FORMS

All forms referenced herein are available on-line or may be obtained from the Authority.

**SECTION 102
REQUIREMENTS AND CONDITIONS**

DB 102-1 [RESERVED]

DB 102-2 NO MISUNDERSTANDING

The Design-Builder acknowledges that it examined the Contract Documents and the Site prior to submitting its Proposal 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 Design-Builder agrees that the Proposal 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 Date, and/or generally recognized as inherent in the nature of the Work, and/or for which Design-Builder has assumed the risk pursuant to the Contract Documents. The Design-Builder further acknowledges that its responsibilities under this Contract include conducting such additional geotechnical exploratory work and Site investigations as may be necessary or appropriate for design and construction of the Project.

The Authority in no way warrants or guarantees that the information made available by the Authority 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 Design-Builder.

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, including all addenda or appendices thereto, any supplemental agreements, Amendments and Orders on Contract, complement one another in the following order of precedence:

- A) Amendments, Orders on Contract and supplemental agreements;
- B) Part 1 - Agreement;
- C) Part 2 - DB Section 100 (except to the extent expressly otherwise provided in the Contract Documents);
- D) Part 3 - Project Requirements;
- E) Part 5 - Special Provisions;
- F) Part 4 - Utility Requirements;
- G) Part 7 - Engineering Data;
- H) The Directive Plans included in Part 6 - Request for Proposals (RFP) Plans;
- I) Part 8 - Special Specifications; and

J) Part 9 - Design-Builder's Proposal (except as provided below).

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 Authority 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. Additionally, subject to DB §104-4.6, where the Design-Builder's Proposal includes an approved Alternative Technical Concept, the Design-Builder's Proposal (including the approved Alternative Technical Concept) shall take precedence over the conflicting requirements of *Part 3 – Project Requirements* as specified in Section 1.8 of *Part 3, Section 1 – General*.

Except as otherwise expressly specified, whenever separate publications are referenced in the Contract Documents, it shall mean those, as amended, which are current on the RFP Date.

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

The fact that the Contract Documents may omit or misdescribe any details of any Work which are necessary to carry out the intent of the Contract Documents, or which are customarily performed, shall not relieve the Design-Builder from performing such omitted Work (no matter how extensive) or misdescribed details of the Work, and they shall be performed as if fully and correctly set forth and described in the Contract Documents, without entitlement to an Order on Contract hereunder except as specifically allowed. The Authority's answers to any questions posed during the procurement process for the Contract shall in no event be deemed part of the Contract Documents and shall not be relevant in interpreting the Contract Documents except as they may clarify provisions otherwise considered ambiguous.

If the Design-Builder becomes aware of an apparent error, omission or ambiguity in any of the Contract Documents or of an apparent conflict between (i) any of the provisions in the Contract Documents (whether expressly set forth or incorporated by reference), (ii) any of the Contract Documents, or (iii) any of the Contract Documents and the actual Site, the Design-Builder shall promptly notify the Authority's Project Manager in writing of any such error, omission, ambiguity or conflict, and shall obtain specific instructions in writing from the Authority's Project Manager before proceeding with the Work affected thereby. The Authority's Project Manager shall make a determination regarding such error, omission, ambiguity or conflict, in his/her sole discretion, and the Design-Builder shall promptly comply with such determination without entitlement to any adjustment to the Contract Price or any extension of Contract Time, except to the extent expressly provided in the Contract. The Authority's Project Manager may require the Design-Builder to modify Plans or other documents to correct the error, omission, ambiguity or conflict, as the case may be.

Failure of the Design-Builder to notify the Authority's Project Manager as required herein shall be deemed a waiver of the Design-Builder's right to claim any adjustment to the Contract Price or any extension of Contract Time for changed or extra Work, and the Design-Builder shall indemnify the Authority for any damages suffered by the Authority resulting from any such failure.

Regardless of whether the Design-Builder raises the issue, the Authority's Project Manager shall always have the right to notify the Design-Builder if the Design-Builder is interpreting a provision of the Contract Documents or Standard incorrectly and the Design-Builder shall comply with the Authority Project Manager's determination of the correct interpretation.

DB 102-3 COOPERATION BY THE DESIGN-BUILDER

The Design-Builder will be supplied with two conformed sets of the Contract, one set of which the Design-Builder shall keep available on the Work Site at all times. A set will consist of one paper hardcopy and one electronic softcopy on computer-readable media. The Design-Builder may purchase additional sets for the cost of printing, assembling, and mailing the documents.

The Design-Builder shall give its constant attention to the Work while it is in progress and shall cooperate with the Authority and its other contractors in every possible way. The Design-Builder shall place in charge a competent and reliable English speaking Design-Builder's Project Manager, who shall have authority to act for the Design-Builder, shall be capable of managing the Contract and the design and construction Work being performed, and who shall be acceptable to the Authority's Project Manager. The Design-Builder shall maintain on the Work Site or at a convenient nearby location, an office where its Project Manager can be contacted. The Design-Builder shall assure that its Project Manager attends the Project initiation meeting.

The Design-Builder shall, at all times, employ labor and equipment which shall be sufficient to prosecute the several classes of Work to full completion in the manner and time specified. All workers shall have sufficient skill and experience to properly perform the Work assigned to them. All workers engaged on special or skilled Work shall have had sufficient experience in such Work to properly and satisfactorily perform it and operate the equipment involved. Any person employed by the Design-Builder whom the Authority's Project Manager may deem unruly, disorderly, incompetent or unfit to perform the Work shall be at once discharged, and shall not be again employed. In case of a disagreement with the Design-Builder regarding the discharge of such employees, the matter may be reviewed by the Authority.

The Authority will provide an experienced Project Manager with an adequate staff to keep pace with the Design-Builder's progress and will occupy space in the Design-Builder's office (*Part 3, Section 2 - Project Management*) and in other convenient nearby locations as necessary.

The Design-Builder shall recognize the Authority's Project Manager as the Authority's representative on all matters relating to the Project.

DB 102-4 COORDINATION OF WORK

The Authority reserves the right to let other contracts in the Work area that may require coordination with the Work under this Contract. The Design-Builder acknowledges that, from the Contract Documents, it has been informed of such other contracts in the Work area. The Design-Builder has carefully reviewed the Contract Documents and all other pertinent information made available by the Authority that relate to the nature and scheduling of these other contracts that may be awarded and will submit a Baseline Project Schedule that takes into account the need to coordinate its Work with those other contractors. It is the obligation and duty of the Design-Builder under the Contract to coordinate its Work with the work of these other contractors. There may be other contractors, subcontractors, utilities, or employees of the Authority and its authorized representatives working at or adjacent to the Work Site during the performance of the Contract by the Design-Builder. The Design-Builder may not have exclusive access to or occupancy of the territory within or adjacent to the limits of the Project. To the extent indicated in the Contract Documents, the Authority may also require that certain facilities and areas be used concurrently by the Design-Builder and others, in which case the Authority will advise the Design-Builder of the schedules of others. However, the Design-Builder should anticipate that its Work may be interrupted or delayed from time to time on account of the concurrent activities of others.

The Design-Builder shall arrange the Work and shall place and dispose of the material being used so as to not unreasonably interfere with the operations of the other contractors within the Project Limits. The Design-Builder shall join its Work with that of the others in an acceptable manner and shall perform it in proper sequence to that of the others. Delays and interferences to the critical path caused by activities of other Authority contractors, which delays and/or interferences could not reasonably have been anticipated from the Contract Documents or could not have been avoided given reasonable notice, may entitle the Design-Builder to an appropriate extension of time and/or time related damages. If any part of the Design-Builder's Work depends on the work of any other contractor and/or the Authority for proper execution and/or results, that would render the Work unsuitable for proper execution and /or results, the Design-Builder shall promptly notify the Authority of any discrepancies and/or defects in said other work as are reasonably ascertainable from visual inspection of the Site prior to proceeding with its own Work, provided, however, that Design-Builder shall not be obligated to conduct testing or engineering analysis of such other work except to the extent would normally be required by a prudent contractor joining its Work to existing work in the ordinary course of business.

If the Design-Builder and another contractor are unable to agree on the sequence of work or other matters, either may petition the Authority's Project Manager for a decision resolving issues between the parties. The Authority's Project Manager shall allow a reasonable time for response by all affected parties. After review of all comments, the Authority's Project Manager shall render a decision within five days, which shall be binding on all parties.

DB 102-5 UTILITIES

DB 102-5.1 Authority Requirements for Utilities That Occupy Authority Property

Utilities that occupy Authority property are subject to Authority Occupancy and Work Permit Accommodation Guidelines (TAP-401) and the Authority's Utility Occupancy Supplement (TAP-401U) as the same may be amended from time to time. The Design-Builder shall comply with the design and construction requirements for the installation, modification, relocation, maintenance, operation and repair of all permitted facilities, including utility facilities, located over, under, along and on Authority property, as set forth in the Authority's TAP-421 publication series, as the same may be amended from time to time. All of the foregoing may be obtained from the NYSTA Division Permit Coordinator or the Real Property section of the Authority's website: www.thruway.ny.gov.

DB 102-5.2 Utility Agreements

The Authority has negotiated the Authority Utility Agreements identified in *Exhibit A to Part 4 - Utility Requirements*. The Design-Builder shall be responsible for obtaining all other agreements with all affected utilities required for Work to proceed. The Design-Builder shall enter into negotiations with each affected utility for Relocation of the utility's facilities. The Authority agrees to cooperate as reasonably requested by the Design-Builder in pursuing DB Utility Agreements, including attendance at negotiation sessions and review of DB Utility Agreements. The Design-Builder shall exercise due diligence and good faith efforts in coming to agreement with each affected utility regarding facility Relocation. If agreement cannot be reached within a reasonable time, the Design-Builder shall notify the Authority's Project Manager of the status of negotiations and outstanding issues. The Design-Builder shall remain responsible for the coordination between itself and the utility owner in order to maintain the Project schedule.

In *Part 4 - Utility Requirements*, the Authority has identified potentially affected utilities, and has indicated those utilities for which a utility owner has been identified and an Authority Utility Agreement

has been executed. Final responsibility for Relocations is indicated in the Authority Utility Agreements, and shall be indicated in the DB Utility Agreements. The Design-Builder is responsible for all coordination between itself and the utility in order to maintain its schedule and for all Relocation costs.

The Design-Builder shall make all payments owing to utility owners under the terms of the Utility Agreements excluding any amounts that the Authority has agreed to pay under the Authority Utility Agreements. The Design-Builder shall collect any reimbursement for work done on behalf of a particular utility owner directly from that utility owner, excluding reimbursements owing under the Authority Utility Agreements. If the Design-Builder determines that recorded documents require the utility owner to pay for costs of relocation of a particular facility, the Design-Builder may request the Authority to provide the benefit of such rights to the Design-Builder. Any such request shall be accompanied by documentation regarding the underlying requirements. If the Authority concurs with the Design-Builder's analysis, the Authority will reasonably assist the Design-Builder in obtaining the benefit of such rights, it being understood that such assistance will not entail the initiation of or participation in legal actions or proceedings.

If a utility owner requests the Design-Builder to design and/or construct a Betterment, or advises the Design-Builder that the utility owner intends to design and construct a Betterment, the Design-Builder shall promptly analyze the impact of such Betterment on the Baseline Project Schedule and notify the Authority if it appears the Betterment may affect the critical path. The Design-Builder shall use its best efforts to negotiate arrangements with the utility owner that avoid potential critical path impacts.

DB 102-5.2.1 Material Change in Authority Utility Agreement

DB 102-5.2.1.1 Notice of Change

If *Part 4 – Utility Provisions* includes draft terms and conditions for any Authority Utility Agreement, the Authority will deliver a complete copy of the final Authority Utility Agreement to the Design-Builder promptly following execution thereof. Any such subsequently executed Authority Utility Agreement shall automatically become a part of the Contract upon receipt thereof by the Design-Builder.

DB 102-5.2.1.2 Authority-Directed Change

Subject to the other provisions of this DB §102-5.2.1, any material change in the scope of the utility Work required by the changed terms of an executed Authority Utility Agreement shall be treated as an Authority-Directed Change. Terms differing from those specified in *Part 4 – Utility Provisions, Exhibit A*, may include (a) a change in the responsibility for performing design and construction of Relocations from the initial allocation established pursuant to *Part 4 – Utility Provisions, Exhibit A*, (b) a change in Schedule Requirements, Design-Builder Supplied Materials or Design-Builder Responsibilities established in *Part 4 – Utility Provisions, Exhibit A*, and (c) a change in the applicable Standards. The requirements and limitations set forth in DB §104-3 and DB §104-4.2 shall apply with respect to such Authority-Directed Changes, except that (a) the notification and other requirements of this DB §102-5.2.1 shall apply in lieu of the notice requirements set forth in DB §104-7, and (b) subject to the provisions of this DB §102-5.2.1, a notice given by the Design-Builder pursuant to this DB §102-5.2.1 shall be treated as a notice given in accordance with DB §104-7.

DB 102-5.2.1.3 Notice of Request for Contract Price Increase or Time Extension

Within 10 days after the Authority delivers to the Design-Builder the notification described in DB §102-5.2.1.1, Design-Builder shall notify the Authority regarding any material change, and within 20

days of said notification provide the estimated impact (if any) of any material change in the terms of an Authority Utility Agreement on the cost or schedule for performance of the Work, and whether the Design-Builder believes an Order on Contract should be issued increasing the Contract Price or extending the Contract Time. Following delivery of Design-Builder's initial notice, the Design-Builder shall consult with Authority to discuss potential methods for minimizing the impacts of the relevant Authority Utility Agreement.

DB 102-5.2.1.4 Waiver

If the Design-Builder fails to provide the 10-day notice required by DB §102-5.2.1.3, the Design-Builder shall be deemed to have waived any right to later claim any right to an Order on Contract increasing the Contract Price or extending the Contract Time pursuant to this DB §102-5.2.1 and/or DB §104-4.2, and the Design-Builder shall be precluded from any relief on account of the terms for which such notice should have been given, notwithstanding (a) any contrary provision of the Contract Documents, (b) actual notice or knowledge on the part of the Authority, and (c) any alleged lack of prejudice to the Authority from the late notice. However, the Design-Builder's failure to provide notice shall not preclude issuance of an Order on Contract to account for any reduction in Design-Builder costs or schedule for performance. If the Authority asserts that there potentially exist any cost or schedule impacts in its favor, it shall so notify the Design-Builder within 10 days following the notification described in DB §102-5.2.1.1, including an explanation of the basis for such conclusion.

DB 102-5.2.1.5 Design-Builder's Responsibility

Regardless of the agreements made with the Utilities, and except as may be otherwise provided in this DB §102-5.2.1, the Design-Builder shall continue to be the responsible party to the Authority for the timely performance of all Relocations in accordance with the requirements of the Contract Documents, and the Design-Builder is responsible for scheduling all Relocations so as to meet all applicable deadlines, without regard to whether a Relocation is performed by the Design-Builder or by the affected Utility owner (or its contractors). Accordingly, under no circumstances shall any reallocation of responsibility for Relocation work between Design-Builder and a Utility owner be considered grounds for a time extension.

DB 102-5.3 Utility Delays

The term "Utility Delay" shall mean critical path delay directly attributable to any of the following, subject to the limitations set forth below: (a) inability of Design-Builder, after diligent efforts, to reach agreement with a utility owner on a necessary Utility Agreement within a reasonable time, (b) failure by a utility owner to meet any time parameters for performance by such utility owner which are set forth in the applicable Utility Agreement, and (c) utility owner decision to implement a Betterment with respect to any its facilities requiring relocation.

With respect to any claim that a Utility Delay has occurred under item (a) of the foregoing definition, the Design-Builder shall be responsible for establishing that its estimated timeline for obtaining the Utility Agreement was reasonable and that it has acted diligently and undertaken all reasonable efforts to obtain such agreement.

With respect to any claim that a Utility Delay has occurred under item (b) of the definition of the term: (1) a Utility Delay shall not include any failure or delay that is excused under a "force majeure" provision in the applicable Utility Agreement; (2) once the Design-Builder has accepted the design furnished by a particular utility owner, any subsequent delay in the critical path due to failure of such design to comply

with the requirements of the Contract shall not constitute a Utility Delay; and (3) once the Design-Builder has accepted construction work performed by or on behalf of a particular Utility Owner, any subsequent delay in the critical path due to any failure of such construction to comply with the requirements of the Contract shall not constitute a Utility Delay.

The Design-Builder shall not be entitled to any extension of any Contract Deadline on account of any Utility Delay except as provided in this DB §102-5.3. The Design-Builder shall give written notice to the Authority of any circumstance which may lead to such a request for time extension, within five days after the Design-Builder becomes aware that such circumstance has occurred or is likely to occur.

DB 102-5.3.1 Conditions and Restrictions on Time Extensions for Utility Delay.

The Design-Builder shall not be entitled to any extension of any Contract Deadline(s) pursuant to this DB §102-5.3, and a Utility Delay shall not be counted toward the deductible period (30 days or 90 days) on the Design-Builder's delay risk set forth in this DB §102-5.3, unless all of the following conditions are satisfied:

- A) The Design-Builder has provided evidence reasonably satisfactory to the Authority that (i) the Design-Builder has fulfilled its obligation under the Contract and applicable Utility Agreement to coordinate with the utility owner to prevent or reduce such delay, and (ii) the Design-Builder has otherwise made diligent efforts to obtain the timely cooperation of the utility owner but has been unable to obtain such timely cooperation;
- B) If applicable, the Design-Builder has provided a reasonable Relocation plan to the utility owner;
- C) The Design-Builder or the utility owner has obtained, or is in a position to timely obtain, all applicable Governmental Approvals required to design and construct such Relocation; and
- D) There exist no circumstances which have delayed or are delaying the affected Relocation, other than those that fit within the definition of a Utility Delay.

The restrictions set forth in DB §104-4.2.6 shall also apply with respect to Orders on Contract relating to time extensions for Utility Delays.

DB 102-5.3.2 Time Extension for Utility Delays (Other Than Delays Due to Betterments)

The Design-Builder shall bear 100% of the risk of Utility Delays for the first 30 days, except that Utility Delays due to Betterments will be separately tracked and are subject to a separate deductible period as specified in DB §102-5.3.3. Subject to the conditions and restrictions specified in this DB §102-5.3, if aggregate Utility Delays for all utility owners (other than delays due to Betterments) exceed 30 days, then any Contract Deadline(s) affected thereby shall be extended by one day for every two days of Utility Delay beyond the initial aggregate 30 days of Utility Delay.

DB 102-5.3.3 Time Extension for Utility Delays Due to Betterments

The Design-Builder shall bear 100% of the risk of delays in the critical path due to Betterments for the first 90 days of Betterment-related Utility Delays. Subject to the conditions and restrictions specified in this DB §102-5.3, if aggregate Utility Delays for all utility owners due to Betterments exceed 90 days,

then any Contract Deadline(s) affected thereby shall be extended by one day for every two days of Utility Delay beyond the initial aggregate 90 days of Betterment-related Utility Delay.

DB 102-5.4 Reference Information

The Authority will make available to the Design-Builder upon request all information obtained from utilities, pipeline owners, and other parties that the Authority has notified concerning the proposed construction. Such information will be considered Reference Documents.

DB 102-5.5 Avoiding Relocations

Regardless of who is required to bear the cost of any proposed Relocation or to perform the Work relating to such Relocation, the location of utilities and potential impact of Relocation of such facilities shall be considered in finalizing the design of the Project, with the following goals:

- A) Avoiding relocation of utilities to the extent practicable;
- B) If relocation of a utility is not reasonably avoidable, protecting the facility in place to the extent practicable; and
- C) Otherwise minimizing the potential costs and delays relating to Relocations to the extent practicable.

The foregoing goals shall be pursued by taking into consideration the impact of Relocations on the Project as a whole, without regard to who is required to bear the cost of any proposed Relocation or to perform the Work relating to such Relocation.

DB 102-5.6 Utilities Not Covered by Utility Agreement

If public or private utility lines or pipelines or other appurtenances are encountered during the course of the Work which are not covered by an existing Utility Agreement, the Design-Builder shall immediately suspend construction operations at the site of the utility in question until such time that the Design-Builder and utility owner negotiate an agreement for the required Relocation or adjustment, or the Authority provides written authorization allowing Work to proceed without such an agreement. Subject to DB §104-4.2.1, the Design-Builder will not be allowed adjustments for delays or extra expense with respect to any such suspension.

DB 102-5.7 Compliance

All Relocations shall be accomplished in accordance with all applicable Governmental Rules, including those developed to protect archaeological sites, as well as the requirements of DB §107-15 and *Part 4 - Utility Requirements*.

DB 102-5.8 Adjacent Facilities

At points where the Design-Builder's operations are adjacent to utilities, damage to which might result in considerable expense, loss, or inconvenience, Work shall not begin until all arrangements necessary for the protection thereof have been made by the Design-Builder and the utility owner. The Design-Builder shall cooperate with all utility owners (including owners of underground or overhead utility lines and owners of utilities attached to the existing bridge) in their removal and rearrangement operations in order

that these operations may progress in a reasonable manner, that duplication of rearrangement Work may be reduced to a minimum, and that services rendered by those parties will not be unnecessarily interrupted. See also DB §107-15 addressing Work near underground facilities.

DB 102-5.9 Interruption of Service

In the event of interruption to 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 in the restoration of service. If any essential service (including water, gas, electric and telephone) is interrupted, the Design-Builder shall provide continuous repair Work until the service is restored. No Work shall be undertaken around fire hydrants until provision for service has been approved by the local fire authority.

DB 102-6 WORK AFFECTING RAILROADS

DB 102-6.1 Railroad Clearances

No temporary bridge, falsework, staging, or obstructions shall be erected over the track or tracks where the vertical underclearance is less than the height specified in *Part 3, Section 24.3.1 – Design*, over top of rail until the existing bridge warnings have been relocated or new or temporary bridge warnings are installed by the railroad company or companies which are affected and are in service.

An operated track, catenary or electrical facility is fouled when any object is brought closer than the clearances set forth by the railroad company. Vehicles or construction equipment shall be considered to be fouling the track when located in such a position that failure of same with or without load brings the equipment within the fouling limit. The Design-Builder shall so conduct its Work and handle its equipment such that no part of any material or equipment shall foul an operated track, catenary, electrical facility, or signal facility without written permission of the appropriate representative of the railroad company affected.

DB 102-6.2 Supervision and Railroad Approval

All Work on any contract affecting a railroad company's property and/or ROW facilities, including temporary track detour, shall be carried out under the joint supervision of the Authority and the railroad company in a manner satisfactory to both entities, pursuant to written agreement between the railroad company and Design-Builder. Design-Builder shall be responsible for payment of railroad flagging costs associated with the Work. Details regarding the Design-Builder's responsibilities with respect to railroads are set forth in the *Part 3, Section 24 - Railroads*.

No Work shall begin until the railroad company has been notified in writing by the Design-Builder of the anticipated date to begin Work, the anticipated type of Work, and the anticipated length of time required to complete the Work.

The Design-Builder shall obtain prior approval from the railroad company to use a railroad service road to access a site, and shall be responsible for any associated permit application and fees. The Design-Builder shall obtain the written approval of the appropriate representative(s) of the railroad company or companies affected in respect to the details and methods to be employed in constructing any structures, track detours, falsework, removal of structures, allowable track clearances, and any or all other details that may in any manner affect the operation or maintenance of any or all railroad facilities. The requirement that written approval shall be obtained from the appropriate representative(s) of the railroad company shall be complied with before the Design-Builder begins actual construction Work. The

Design-Builder acknowledges that the Proposal Price includes all the costs of these requirements, including any expense occasioned by delay or interruption of its Work by reason of the operation or maintenance of the railroad facilities.

Approval by the appropriate representative(s) of the railroad company affected does not absolve the Design-Builder from any liability resulting from its contractual operations.

A copy of the written agreements between the railroad company and the Design-Builder concerning the protection of the railroad company's property or completion of the Work shall be provided to the Authority.

DB 102-6.3 Railroad Employees

When, in the opinion of the appropriate representative of the railroad company, the Design-Builder's normal operations in progressing this Contract are such that an operated track is or might be fouled or railroad traffic endangered, the railroad company will employ protective labor, when found necessary for railroad operations. The Design-Builder shall pay for such services. All services for protective labor and similar protective service occasioned by the operation of the Design-Builder, except as noted above, shall be at the sole expense of the Design-Builder.

The Design-Builder shall, at its own expense, carry compensation and other insurance for protective labor furnished by the railroad company as specified in the Agreement.

It is agreed that the furnishing of any protective labor shall not relieve the Design-Builder from any liability of payment for any damage caused by its operations (see DB §107-26).

DB 102-6.4 Protection of Railroad Service and Facilities

The Design-Builder shall take special care and vigilance to avoid damage to the trains, tracks, or other facilities of the railroad company and shall conduct its Work so as not to interfere with the movement of trains or other operations of the railroad company. Whenever Work may affect the safety or movement of trains, the method of doing the Work shall be submitted to the appropriate representative of the railroad company affected for approval. No Work affecting safety or movement of trains shall be commenced or prosecuted until written approval of the appropriate representative of the railroad company is received. The approval of the appropriate representative of the railroad company will not release the Design-Builder from any responsibility for any damages to the railroad company caused by the acts of the Design-Builder or its employees and Subcontractors. If, during the carrying out of the Contract Work, the trains, tracks, or other facilities of the railroad company are endangered, the Design-Builder shall immediately do such Work as directed by the Authority's Project Manager to restore safe conditions and, upon failure of the Design-Builder to carry out such orders immediately, the railroad company may, with the approval of the Authority's Project Manager, take whatever steps are necessary to restore safe conditions. The cost and expense to the railroad company of restoring safe conditions or of any damage to the railroad company's trains, tracks, or other facilities caused by the Design-Builder's operations shall, when approved by the Authority's Project Manager, be considered a charge against the Design-Builder and shall be paid for by it, or upon its failure or refusal to pay such charge within a reasonable time after the railroad company submits the bill to it, the amount thereof may be deducted by the Authority from any monies due or that may become due to the Design-Builder under the Contract, and any such sum so deducted may be paid to the railroad company after an audit by the Authority of the items of such cost and expense.

In performing construction operations both on and off railroad ROW areas, the Design-Builder shall prevent the fouling of railroad track ballast with earth, mud, silt, or other foreign matter. To prevent fouling of the ballast, it may be necessary for the Design-Builder to construct temporary erosion control measures or sheeting, or provide other precautionary measures that are required.

Where, in the opinion of the railroad company, demolition work, concreting, or hauling along or across tracks will result in ballast becoming fouled, the Design-Builder shall take preventive measures to protect the entire ballast section by nailing canvas, plywood, or similar material to the ties in the entire area to be affected. The protective material shall remain in place until there is no further possibility of fouling the ballast and then be removed by the Design-Builder.

The Work required to protect the railroad track ballast shall be performed by and at the expense of the Design-Builder and under the supervision of, and to the satisfaction of, the appropriate representative of the railroad company. The railroad company will assume no responsibility for the adequacy of the Work.

In the event that the railroad track ballast does become fouled after the aforementioned protective measures are taken, the railroad company, with its own forces, shall remove and replace the fouled ballast with clean ballast. The charges for this work will be billed by the railroad company against the Design-Builder.

DB 102-6.5 Lifting

All lifting operations shall be conducted in accordance with the requirements of DB §107-7 and Design-Builder's Safety Plan. In addition, equipment used for erection or removal of structures over railroad facilities shall have a minimum lifting capacity of 150% of the lift weight (operational capacity limited to 66 2/3% of the tipping load).

DB 102-6.6 Use of Explosives

Blasting shall be conducted in such a manner as not to endanger the public or obstruct highways or endanger facilities or operation of the railroad. The Design-Builder shall furnish, while blasting, at its own cost and expense, watch persons and other protection necessary to protect the public and railroad, and shall comply with DB §107-7.14 with regard to blasting.

DB 102-6.7 [Reserved]

DB 102-6.8 Communications and Signals

The Proposal Price includes all changes in communications and signal facilities necessary to clear the Site for the structures, as well as all changes in communications and signal facilities made for the convenience of the Design-Builder.

DB 102-6.9 Design-Builder's Private Grade Crossing

If the Design-Builder elects, and the railroad company approves, to have installed for Design-Builder's use a private grade crossing at the Site of the Work, the Design-Builder shall make a formal request to the railroad company for such a crossing. After the Design-Builder has entered into an agreement with the railroad company pertaining to the size and type of crossing, the payment of the cost for installing and removing the crossing, the obtaining of the necessary insurance for the protection of the railroad company, and the agreement as to the required protection to railroad traffic when the crossing is in use,

the railroad company will be responsible for the installation and removal of the temporary crossing at the sole expense of the Design-Builder.

DB 102-6.10 Sidetrack Facilities

When sidetrack facilities are required by the Design-Builder, it shall, at its sole cost and expense, make the necessary arrangements for the use of existing sidings or tracks not in service or the construction of new sidings. The Design-Builder shall, at its sole cost and expense, restore any and all existing sidings and tracks used for sidetrack facilities to the condition existing prior to use by the Design-Builder. The construction location and use of all sidetrack facilities are to be subject to the approval of the appropriate representative of the railroad company affected.

The railroad company may move the Design-Builder's cars which are placed on existing sidings at any time to permit the placing of cars for said railroad company's business. When any turnouts from the main tracks are approved by the railroad company such turnouts will be furnished, installed, and removed by the railroad company at the expense of the Design-Builder. Any signal work and rails necessary for sidetrack facilities will be furnished, installed, and removed by the railroad company at the Design-Builder's expense.

DB 102-6.11 Railroad Use of Completed Work

The Design-Builder agrees that the railroad company affected may, prior to the completion of the Work to be performed under the Contract and the acceptance thereof, enter upon and use any portion of said Work located on railroad property without any compensation to the Design-Builder for such use and without any compensation or payment to the Design-Builder for any delay in the Work caused by such use. The taking possession and use shall not be deemed an acceptance of the Work so taken and used or any part thereof.

DB 102-6.12 Work Trains and Railroad Equipment

If the Design-Builder elects to use work trains or any railroad equipment which operates on the tracks of the railroad company, the operation of such trains and equipment is subject to any requirements determined by the appropriate representative of the railroad company affected. The cost of the services of any railroad employees required by the railroad company to operate such trains or equipment shall be paid by the Design-Builder. This shall include the cost of necessary flaggers.

DB 102-6.13 Operation of Railroad

The Design-Builder shall make every possible effort to reduce to a minimum the length of time that the railroad company will have to operate over any track detour, and to this end it shall continue full operation throughout the winter months, if directed by the Authority's Project Manager, on any and all Work necessary to permit the railroad company to restore its tracks in their permanent location as quickly as possible. The Design-Builder shall conduct its Work so that schedule speed can be maintained by the railroad at all times.

DB 102-6.14 Clean-up

Before requesting Final Acceptance of Work accomplished on property belonging to the railroad company, the Design-Builder shall obtain written release from the railroad company that the property has been cleaned, cleared, and returned to a condition acceptable to the railroad company and the Design-

Builder has removed all of the tools, implements, and other material belonging to the Design-Builder or one of its Subcontractors, employees, or agents. If after diligent effort the Design-Builder is not able to obtain a release from the railroad company, the Design-Builder will provide the Authority's Project Manager with written evidence of efforts to obtain the release, and the Authority's Project Manager will either provide the Design-Builder with a list of required additional steps to obtain the release or the release requirement will be waived.

All of the above correspondence shall be in writing.

DB 102-7 LABOR AND EMPLOYMENT

The provisions of the New York State Labor Law, as amended, shall be applicable, provided that any provisions of the New York State Labor Law that are in conflict with Federal law (including the Davis-Bacon Act and regulations promulgated thereunder, and the Federal-Aid construction contract compliance requirements contained in 23 CFR Section 635.117) are superseded. In the event that a provision of the Project Labor Agreement conflicts with any provisions of the New York State Labor Law or any applicable Federal law, the provisions of the Project Labor Agreement shall apply to the fullest extent allowed by law.

DB 102-7.1 Wages

State and Federal prevailing wage rate schedules are attached to the Agreement. The Design-Builder shall pay the higher of the two wages and supplemental (fringe) benefits. All on-site workers shall be paid prevailing wages. The Design-Builder shall ensure that workers are paid the appropriate wages and supplemental (fringe) benefits. The Design-Builder shall obtain periodic wage rate schedule updates from the NYS Department of Labor (NYSDOL). Wage rate amendments and supplements are available on the NYSDOL website at www.labor.state.ny.us. All changes or clarification of labor classification(s) and applicability of prevailing wage rates shall be obtained in writing from the Office of the Director, NYSDOL Bureau of Public Work. The cost of changes in wage rate schedules and supplements (fringes) over the Contract duration is included in the Proposal Price and each Order on Contract.

On-site Design-Builder or Subcontractor employees shall be paid prevailing wages required under the Davis-Bacon Act. "On-site" shall have the equivalent meaning as "site of the work" as defined in 29 CFR Section 5.2(1) and shall include the physical place or places where the construction called for in the Contract will remain when Work on it has been completed; and any other site where a significant portion of the construction is completed, provided that such site is established specifically for the performance of the Contract. Facilities such as job headquarters, fabrication plants, tool yards, mobile factories, batch plants, borrow pits, etc. are considered "on-site" provided that they are dedicated exclusively to the performance of the Contract and provided that they are adjacent or virtually adjacent to the physical place or places where the construction called for in the Contract will remain when Work on it has been completed. Not included in the definition of "on-site" are facilities whose location and continuance in operation are determined wholly without regard to the Contract, even where the operations for a period of time may be dedicated exclusively to the performance of the Contract.

In accordance with the New York State Labor Law, Sections 220 and 220-d:

- 1) No laborer, worker, or mechanic, in the employ of the Design-Builder, Subcontractor or other person doing or contracting to do the whole or any part of the Work contemplated by the Contract shall be permitted or required to work

more than eight hours in any one day or more than five days in any one week, except in the emergencies set forth in the Labor Law.

- 2) The wages paid for a legal day's work shall be not less than the prevailing rate of wages as defined by law.
- 3) The supplements to be provided to laborers, workmen or mechanics shall be in accordance with the prevailing practices.
- 4) The filing of payrolls in a manner consistent with subdivision 3-a of Labor Law Section 220 is a condition precedent to payment of any sums due and owing to any person for work done upon the Project.
- 5) The minimum hourly rate of wages to be paid shall be not less than that stated in the Contract Documents, and any redetermination of the prevailing rate of wages after the Contract is approved shall be deemed to be incorporated herein by reference as of the effective date of redetermination and shall form a part of these Contract Documents.
- 6) The Contract may be forfeited and no sum paid for any Work done thereunder on a second conviction for willfully paying less than: (a) the stipulated wage scale as provided in Labor Law, §220(3), as amended; or (b) the stipulated minimum hourly wage scale as provided in Labor Law, §220-d, as amended.

DB 102-7.2 Payroll Records

The Design-Builder shall furnish the Authority's Project Manager each week with its payroll records and statement of compliance with respect to the wages paid each of its employees and each Subcontractor employees (including apprentices, trainees, watch persons, and guards) engaged on the Work during the preceding weekly payroll period. Certified payrolls shall contain work class, daily and weekly number of hours worked, wage rate, deductions made and actual wages paid. Certified payrolls shall be annotated by race and gender, and shall be submitted on Form WH-347 or Form HC-231-1.

DB 102-7.3 Training

An apprentice is defined as an individual who is enrolled in an apprenticeship training program that is registered with the NYS Department of Labor. A trainee is defined as an individual who is enrolled in an On-the-Job Training (OJT) program that is approved by the Federal Highway Administration (FHWA).

A number of sources to obtain training for apprentices/trainees are available. These include:

- NYSDOL-approved apprenticeship program sponsored by a union or a temporary project level agreement with a union which has a NYSDOL approved apprenticeship program.
- A NYSDOL-approved apprenticeship program sponsored by a contractor.
- A NYSDOL-approved apprenticeship program sponsored by a contractor signatory with an apprenticeship sponsor consortium for certain services.
- An FHWA-approved OJT program (where applicable).

Approved OJT Programs are currently limited to apprenticeable occupations as determined by NYSDOL or USDOL. A list of approved OJT programs can be found in the On-the-Job Training and Apprenticeship Program Construction Catalogue which may be obtained from the Authority.

Training under Training Special Provisions, if required, will be shown in the Contract Documents. In order to fulfill training requirements required under Training Special Provisions and/or DB §102-9 Equal Employment Opportunity Requirements, training should begin as early as possible during the Contract. The Authority recommends that all bidders have an approved apprenticeship or OJT program prior to bidding.

The Design-Builder shall furnish the apprentice/trainee a copy of the program to be followed in providing the training. The Design-Builder shall provide each apprentice/trainee with a certification showing the type and length of training satisfactorily completed.

When training is required under Training Special Provisions and/or DB §102-9 Equal Employment Opportunity Requirements, the Design-Builder shall designate to the Authority's Project Manager, at the preconstruction meeting, a person (or persons) from its existing workforce as the trainer and training coordinator for any apprentice(s)/ trainee(s).

The trainer shall:

- 1) Be located on the Site generally on a daily basis; and
- 2) Be responsible for the day-to-day supervision and training of persons on the Site; and
- 3) Be responsible for the preparation and submission of a monthly training progress report, after consultation with designated apprentices/trainees.

The training coordinator shall:

- 1) Be knowledgeable about the Contract and the Apprenticeship/OJT programs to be used; and
- 2) Be responsible for ensuring on-the-job orientation of apprentice/trainees; and
- 3) Be responsible for ensuring meaningful and effective training for the duration of training.

DB 102-7.4 Training Monitoring

The Design-Builder shall use EBO to monitor training.

DB 102-7.5 Public Notices

The Design-Builder shall post, in a location accessible to all workers, a copy of the New York State Department of Labor's (NYSDOL) schedules of prevailing wages and supplements for this Project, a copy of all re-determinations of such schedules for the Project, the New York State Workers' Compensation Law Section 51 notice, all other notices required by law to be posted at the Site, NYSDOL's notice that this Project is a public work project on which each worker is entitled to receive

the prevailing wages and supplements for the occupation at which he or she is working, the notice in 23 CFR Section 635.119 concerning false statements and all other notices which the Authority's Project Manager directs the Design-Builder to post. The Design-Builder shall provide a weather-resistant surface for such notices which is satisfactory to the Authority's Project Manager. The Design-Builder shall maintain such notices in a legible manner and shall replace any notice or schedule which is damaged, defaced, illegible, or removed for any reason. The Design-Builder shall post such notices before commencing any Work on the Site and shall maintain such notices until all Work on the Site is complete.

DB 102-7.6 Federal-Aid Requirements

No procedures or requirement shall be imposed by any state which will operate to discriminate against the employment of labor from any other state, possession or territory of the United States, in the construction of a Federal-Aid Project. The selection of labor to be employed by the Design-Builder on any Federal-Aid Project shall be of its choosing.

The Design-Builder shall not use convict labor unless performed by convicts who are on parole, supervised release, or probation for construction, maintenance or any other purpose at the Site or within the Project Limits from the time of Contract award or the start of Work on force account until Final Acceptance of the Work by the Authority.

DB 102-8 DBE UTILIZATION

A Disadvantaged Business Enterprise (DBE) is a for-profit, small business concern as defined pursuant to the federal Small Business Act that is at least 51% owned by one or more individuals who are both socially and economically disadvantaged and which meets the definition set forth in 49 CFR Part 26. The Authority seeks to:

- Ensure nondiscrimination in award and administration of Authority's contracts;
- Ensure that only firms that fully meet DBE eligibility standards are permitted to participate in the Authority's DBE programs;
- Help remove barriers to the participation of DBEs in the performance of Authority's contracts;
- Create a level playing field on which DBEs can fairly compete for Authority's contracts; and
- Assist in the development of firms that can compete successfully in the construction industry outside the DBE programs.

The parties to this Contract shall take all necessary and reasonable steps in accordance with the Governmental Rules cited in this subsection to promote the objectives outlined above. The Design-Builder shall comply with the applicable Governmental Rules and the DBE requirements stated below. The Design-Builder shall not discriminate on the basis of race, color, national origin, or sex in the award and performance of Authority's contracts. The Design-Builder shall not use the requirements of these specifications to discriminate against any qualified company or group of companies. These requirements shall be made a part of all Subcontracts and agreements entered into as a result of this Contract.

DB 102-8.1 Statutory/Regulatory Authority

- A) Disadvantaged Business Enterprise (DBE) Program. The Federal statutory authority for the DBE Program is contained in the Surface Transportation Assistance Act of 1982 (Public Law 97-424, §105(f)), the Surface Transportation and Uniform Relocation Assistance Act of 1987 (Public Law 100-17, §106(c)), the Intermodal Surface Transportation Efficiency Act of 1991, and the Transportation Equity Act of the 21st Century. New York State has enacted Section 9 of the Infrastructure Investment Act, Section 85 of the New York State Highway Law and Section 428 of the New York State Transportation Law. Regulations have been promulgated under 49 CFR Part 26 and 17 NYCRR Part 35.
- B) Minority/Women's Business Enterprise (M/WBE) Program. The State statutory authority for the M/WBE Program is contained in Section 2879 of the New York Public Authorities Law, Section 428 of the New York State Transportation Law, and Article 15-A of the New York State Executive Law. Regulations have been promulgated under 5 NYCRR Part 140. The parties to this Contract shall comply with these laws, rules and regulations, to the extent applicable.

DB 102-8.2 Eligibility

Many DBE firms may also be eligible to qualify as M/WBE firms, and many M/WBE firms may be eligible to qualify as DBE firms. However, Federal-Aid contracts are governed by the requirements and provisions provided in the statutory authority for DBEs cited under DB §102-8.1 Statutory/Regulatory Authority above. DBE firms certified by any state pursuant to 49 CFR Part 26 are eligible to be counted for goal attainment. DBE firms which are certified by states other than New York shall have their certifications verified by the Authority prior to being approved to work on the Contract. DBE certification is not an endorsement of the quality or performance of the business, but simply an acknowledgment of the firm's status as a DBE. A list of certified DBE firms can be accessed via a link on the following Department website: <https://www.dot.ny.gov/main/business-center/civil-rights/general-info/dbe-certification>.

DB 102-8.3 DBE Goals and Monitoring

This is a Federal-Aid contract with a single DBE goal and only DBE attainment will be counted towards meeting that goal. However, the utilization of certified small businesses and M/WBE firms is also encouraged, and the Design-Builder shall provide monthly reports and utilization worksheets regarding utilization of such firms, separate from the reports and utilization worksheets for DBE firms.

The Authority will monitor the Design-Builder's attainments towards the DBE goal in accordance with DB §102-9.4 - Civil Rights Monitoring and Reporting. The Design-Builder shall use EBO to demonstrate compliance with DBE requirements.

The Authority has established a contract utilization goal for DBEs as specified in the Agreement. The goal remains in effect throughout the life of the Contract. In executing the Agreement, the Design-Builder declares that it subscribes to the utilization goal and shall meet the goal or demonstrate that it could not meet them despite its good faith efforts. If the Contract is awarded with DBE commitment(s) that is less than the Contract goal, the Design-Builder shall continue good faith efforts to achieve the Contract goal throughout the life of the Contract.

DB 102-8.4 Counting DBE Participation

The value of the Work performed by a DBE, including that of a DBE prime contractor, with its own equipment, with its own forces, and under its own supervision will be counted toward the goal, provided the utilization is a commercially useful function. A DBE prime contractor shall still provide opportunities for participation by other DBEs. Work performed by DBEs working for the Design-Builder will be counted as set forth below. If the Authority determines that some or all of the DBE's work does not constitute a commercially useful function, only the portion of the work considered to be a commercially useful function will be credited toward the goal.

- A) Subcontractors. 100% of the value of the Work to be performed by a DBE Subcontractor will be counted toward the DBE goal. The value of such Work includes the cost of materials and supplies purchased by the DBE, except the cost of supplies or equipment leased from the Design-Builder or its affiliates will not be counted.
- B) Manufacturers/Fabricators. 100% of the expenditure to a DBE manufacturer or fabricator will be counted towards the DBE goal.
- C) Material Suppliers. 60% of the expenditure to a DBE material supplier will be counted toward the DBE goal. Packagers, brokers, manufacturer's representatives, or other persons who arrange or expedite transactions are not material suppliers within the meaning of this paragraph.
- D) Brokers/Manufacturer's Representatives. 100% of fees or commissions charged for assistance in the procurement of the materials and supplies, or fees for transportation charges for the delivery of materials or supplies provided by a DBE broker/manufacturer's representative will be counted toward the DBE goal, provided they are determined by the Authority to be reasonable and not excessive as compared with fees customarily allowed for similar services. The cost of the materials and supplies themselves will not be counted.
- E) Services. 100% of fees or commissions charged by a DBE for providing a bona fide service, such as professional, technical, consultant, or managerial services, or for providing bonds or insurance specifically required for the performance of the Contract will be counted toward the DBE goal, provided the fee is reasonable and not excessive as compared with fees customarily allowed for similar services.
- F) Trucking Operations. The DBE trucking firm of record is the firm that is listed on the DBE Utilization Worksheet. The DBE shall own and operate a least one registered, insured, and fully operational truck used on the Contract and shall be responsible for the management and supervision of the entire trucking operation for which it is responsible on a particular contract, and there cannot be a contrived arrangement for the purpose of meeting the DBE goal. The DBE trucking firm of record shall control the day-to-day DBE trucking operations on the Contract, and shall be responsible for: (1) negotiating and executing rental/leasing agreements; (2) hiring and terminating the work force; (3) coordinating the daily trucking needs with the Design-Builder; and (4) scheduling and dispatching trucks.
 - 1) DBE Owned/Leased Trucks. 100% of the value of the trucking operations the DBE provides on the Contract using trucks it owns or leases on a long-term basis

that are registered, insured, and operated by the DBE using drivers it employs, will be counted toward the DBE goal.

- 2) **DBE Short-Term Leased Trucks.** The DBE may lease trucks on a short-term basis from another DBE, including an owner/operator who is certified as a DBE. 100% of the value of the trucking operations that the lessee DBE provides will be counted toward the DBE goal.
 - 3) **Non-DBE Trucks.** The DBE may lease trucks on a short-term basis from a non-DBE, including an owner-operator. 100% of the fee or commission the DBE receives as a result of the lease arrangement will be counted toward the DBE goal. The value of the trucking operations provided by the lessee will not be counted toward the DBE goal.
- G) **Joint Venture.** Joint ventures between DBEs and non-DBEs as Subcontractors will be counted toward the Contract DBE goal in proportion to the total dollar value of the Contract equal to the distinct, clearly defined portion of the Work of the Contract that the DBE performs with its own forces. The joint venture agreement is subject to approval by the Authority and a copy of which shall be furnished by the Design-Builder before execution of the Subcontract.

DB 102-8.5 Conditions of Participation

DBE participation will be counted toward meeting the DBE contract goal, subject to all of the following conditions:

- A) **Commercially Useful Function.** A DBE is considered to perform a commercially useful function when it is responsible for the execution of a distinct element of work on a contract and carries out its responsibilities by actually performing, managing, and supervising the work involved in accordance with normal industry practice. Regardless of whether an arrangement between the Design-Builder and the DBE represents standard industry practice, if the arrangement erodes the ownership, control or independence of the DBE or in any other way does not meet the commercially useful function requirement, that firm shall not be included in determining whether the DBE goal is met and shall not be included in DBE reports. If this occurs with respect to a firm identified as a DBE, the Design-Builder shall receive no credit toward the DBE goal and may be required to backfill the participation. A DBE does not perform a commercially useful function if its role is limited to that of an extra participant in a transaction or contract through which funds are passed in order to obtain the appearance of DBE participation. A DBE may rebut a determination by the Authority that the DBE is not performing a commercially useful function to the FHWA, but the determination may not be appealed to USDOT.
- B) **Work Force.** The DBE must employ a work force (including administrative and clerical staff) separate and apart from that employed by the Design-Builder, other Subcontractors, or their Affiliates. This does not preclude the employment by the DBE of an individual that has been previously employed by another firm involved in the Contract, provided that the individual was independently recruited by the DBE in accordance with customary industry practice. The routine transfer of work crews from another employer to the DBE shall not be allowed.

- C) Supervision. All Work performed by the DBE must be controlled and supervised by the DBE without duplication of supervisory personnel from the Design-Builder, other Subcontractors, or their Affiliates. This does not preclude routine communication between the supervisory personnel of the DBE and other supervisors necessary to coordinate the Work.
- D) Equipment. DBE Subcontractors may supplement their equipment by renting or leasing additional equipment in accordance with customary industry practice. If the DBE obtains equipment from the Design-Builder, other Subcontractors, or their Affiliates, the DBE shall provide documentation to the Authority demonstrating that similar equipment and terms could not be obtained at a lower cost from other customary sources of equipment. The required documentation shall include copies of the rental or leasing agreements, and the names, addresses, and terms quoted by other sources of equipment.

DB 102-8.6 DBE Plan and Ongoing Good Faith Efforts

The Authority expects continuing good faith efforts on the part of the Design-Builder over the course of the Contract to achieve the Project's DBE participation goal. Below are requirements and procedures consistent with the above laws and regulations and tailored to the unique aspects of design-build contracting:

- 1) The DBE participation goal for the Project is established in the Agreement;
- 2) DBEs certified by any state pursuant to 49 CFR Part 26 may be used to fulfill the DBE goal for the Contract;
- 3) As described in the ITP, each proposer is required to submit acceptable evidence of pre-Proposal good faith efforts to obtain DBE participation;
- 4) As described in the ITP, each proposer is required to submit an acceptable DBE participation schedule which includes: (a) the name of each certified DBE that will participate in the Project; and (b) the items of Work to be performed or furnished and the expected percentage of the Contract to be paid to each DBE for the Work or supply. The DBE participation schedule must be updated to reflect any changes throughout the course of the Contract;
- 5) As described in the ITP, each proposer for the Contract is required to submit a DBE Plan as part of a responsive Proposal, describing the proposer's plans to meet the Project's DBE goals, including an affirmation regarding its intention to use good faith efforts to achieve the Project's DBE participation goal. Following award of the Contract and during both the design and construction portions of the Project, Design-Builder will be required to submit documentation as specified in the DBE Plan to show that Design-Builder is meeting the DBE goal for the Project. If the DBE goal is not being met, the Design-Builder must submit satisfactory evidence that it has made good faith efforts, as specified herein, to meet the goal, and shall revise the DBE Plan as appropriate, detailing additional efforts the Design-Builder will undertake to meet its DBE commitments, and submit it to the Authority's Project Manager for consultation and written approval;

- 6) In an effort to verify compliance with DBE requirements, the Authority will evaluate throughout the course of the Project the Design-Builder's efforts in executing the DBE Plan and achieving the Project's DBE participation goal;
- 7) In determining whether the Design-Builder has complied with good faith obligations under this DB §102-8.6, the Authority will consider the quality, quantity, and intensity of the different kinds of efforts that the Design-Builder has made, and whether the Design-Builder has complied with its DBE Plan. Below is a list of the types of actions which the Authority will consider as part of the Design-Builder's good faith efforts to obtain DBE participation. It is not a mandatory checklist, nor is it intended to be exhaustive or exclusive.
 - a) The names and dates of advertisement of each newspaper, trade paper and minority-focus paper in which the Design-Builder placed requests for DBE participation (the actual advertisement and the number of times it was run shall be included);
 - b) Attendance at meetings and outreach events scheduled to inform DBEs of the Contract;
 - c) Establishment of business resource center at or near the Site for DBE/EEO coordination, outreach and support;
 - d) The names and dates of written notices to certified DBEs solicited by direct mail or other means for this Contract, and the methods used to follow up on these solicitations. The Design-Builder shall solicit with sufficient time to allow the DBEs to respond to the solicitation. The Design-Builder shall determine with certainty if the DBEs are interested by taking appropriate steps to follow up on initial solicitations;
 - e) Items of work for which the Design-Builder requested bids, proposals or materials to be supplied by DBEs and the information furnished to DBEs in a timely manner, for example plans, specifications and requirements for the Work and any breakdowns of Work or combining like or related Work into economically feasible units to facilitate DBE participation, even when the Design-Builder might prefer to perform these Work items with its own forces;
 - f) Negotiation with interested DBEs;
 - g) The names of DBEs that submitted bids or proposals for any of the Work indicated above, which were not accepted by the Design-Builder; a summary the Design-Builder's discussions and/or negotiations with them; the name of the contractor, subcontractor, consultant, sub-consultant, supplier or service provider that was selected for the Work and the reasons therefor. If the reason for the DBE rejection is price, state the rejected DBE's price bid/proposal and that of the selected contractor, subcontractor, consultant, sub-consultant, supplier or service provider;

- h) A description of the assistance the Design-Builder extended to rejected DBEs identified above to remedy bid/proposal deficiencies;
- i) Efforts to assist DBEs in obtaining bonding, lines of credit, or insurance;
- j) Procurement of additional qualified resources and expertise for monitoring and outreach efforts;
- k) Effective use of services of available minority/women community organizations, minority/women contractor groups and local/state/Federal minority/women business assistance offices;
- l) Any additional documentation that demonstrates the Design-Builder made good faith efforts, including the Design-Builder's efforts to encourage its design team consultants, subcontractors, sub-consultants and service providers to solicit DBE participation in their agreements;
- m) Securing participation by certified DBE firms for work that they are listed to perform that is in the Contract. Only DBEs certified by the NYS Unified Certification Program (NYSUCP) shall be used to fulfill the DBE goal on Federal-Aid contracts;
- n) Not rejecting DBEs as unqualified without sound reasons based on a thorough investigation of their capabilities. The fact that there may be some additional costs involved in finding and using DBEs is not in itself sufficient reason for the Design-Builder's failure to meet the Contract DBE goal, as long as such costs are reasonable. The ability or desire of the Design-Builder to perform the work of the Contract with its own organization does not relieve the Design-Builder of the responsibility to make good faith efforts. The Design-Builder is not, however, required to accept higher quotes from DBEs if the price difference is excessive or unreasonable;
- o) Keeping records of efforts to solicit and negotiate with DBEs as evidence of good faith efforts as a continuing record of solicitation activity; and
- p) Promptly executing an agreement or commitment with DBEs.

During the term of the Contract, the Design-Builder shall make good faith efforts to ensure that DBEs have maximum opportunity to successfully bid and perform on the Contract, and that the Design-Builder meets its DBE goal. Annually during the month of the original contract award, the Design-Builder shall submit current DBE utilization data, a summary of the of the work not yet completed nor subcontracted, and updated solicitation documentation showing appropriate DBEs solicited for the remaining work for formal review by the Authority.

If at any time the Authority determines that the Design-Builder has failed to undertake good faith efforts to meet the DBE goal, the Authority will, before exercising any remedies available for such failure, provide the Design-Builder an opportunity for administrative reconsideration, by an official who did not take part in the original good faith efforts determination, that the Design-Builder failed to undertake good faith efforts meet the DBE goal. As part of this reconsideration, the Design-Builder shall have the

opportunity to provide written documentation or argument and to meet in person with the Authority's reconsideration official concerning the issue of whether it has made adequate good faith efforts to meet the goal. The Agencies will send the Design-Builder a written decision on reconsideration, explaining the basis for finding that the Design-Builder did or did not make adequate good faith efforts to meet the goal.

DB 102-8.7 DBE Utilization Reporting

As stated in DB §102-8.3 above, this Contract has a single DBE goal, and only DBE attainment will be counted towards meeting that goal. However, the utilization of certified small businesses and M/WBE firms is also encouraged, and Design-Builder shall provide monthly reports to the Authority regarding such utilization, as specified in DB §108-1.3.4.

The Design-Builder shall enter all current utilization data into EBO beginning with the pre-award utilization package submittal required by ITP Section 6.2.1. Thereafter, data shall be entered each month, not later than the 15th of the following month. Data shall be current through the end of the last full payroll week for that month, or as otherwise approved by the Construction Compliance Engineer to coordinate with payment submittals.

For each DBE the Design-Builder shall explain, in writing, the scope of Work to be performed by the DBE and expressly indicate any item or component of the scope which is not completely performed by the DBE.

For each DBE trucking operation, the Design-Builder shall also indicate the type of trucking operation to be performed, the number of trucks owned/leased, the number of trucks working on-site or off-site, rate per hour/ton/load/etc., duration or amount, and total dollar value of the proposed DBE commitment. The Design-Builder shall provide copies of all lease agreements utilized by the DBE.

If the Design-Builder has met or exceeded the established DBE goal for the Contract utilizing certified DBEs it is not necessary to submit documentation of good faith efforts.

If the Design-Builder has not met the DBE goal, it shall submit the Solicitation Log, together with other documentation that substantiates good faith efforts. Such documentation shall include, at a minimum, all envelopes of solicitation inquiries that were returned as undeliverable and quotations submitted by DBEs that are not included in the DBE Schedule of Utilization with an explanation for the proposer's action in each case.

The Design-Builder shall execute Subcontracts or agreements with the DBEs for the type and amount of work identified in the approved pre-award DBE Utilization Package, and shall execute Subcontracts or agreements with DBEs selected in accordance with the DBE Plan.

DB 102-8.8 Required Records

The Design-Builder shall keep records and documents for six years following performance of this Contract to indicate compliance with this DB §102-8. These records and documents, or copies thereof, will be made available at reasonable times and places for inspection by any authorized representatives of the Authority and will be submitted to the Authority upon request, together with other compliance information which may be required.

DB 102-8.9 Non-Discrimination

The Design-Builder shall not use the requirements of this DB §102-8 to discriminate against any qualified company or group of companies.

DB 102-8.10 Reporting Violations of Program Rules

The Design-Builder is responsible for ensuring that the DBE performs a commercially useful function on the Contract as defined in DB §102-8.5(A). If the Design-Builder becomes aware of any violations of that Section, the Design-Builder is required to promptly report the violations to the Authority's Project Manager.

DB 102-8.11 Report of Payment to Subcontractors and D/M/WBEs

The Design-Builder shall report payments made to all Subcontractors and DBEs, in order to measure goal attainment and to gauge the effect of DBE goal(s) on the industry. The Design-Builder shall submit payment data for all Subcontractors and for all DBEs approved by the Authority that are owed payment or have received payment within the last month. The Subcontractor or DBE shall acknowledge payment not later than seven days after receipt. Subcontractors that are certified M/WBEs in New York State shall be identified in the reporting, but shall not be included in the measurement of DBE attainment. Payments to DBE and M/WBE Subcontractors shall be entered in EBO. EBO may also be used by the Design-Builder, at the Design-Builder's discretion, to monitor non-DBE Subcontractors.

DB 102-8.12 Revisions to DBE Utilization

The Design-Builder shall obtain Authority approval for revisions in DBE utilization prior to implementing any proposed change through submission of revised DBE Utilization Worksheet using the Authority approved civil rights reporting software.

If the reduction of the DBE's work or the removal of the DBE, including for violations of commercially useful function requirements, causes the DBE utilization to fall below the goal(s), the Design-Builder shall make good faith efforts to find another DBE to substitute for the original DBE to perform at least the same amount of work as the DBE that was terminated, to the extent needed to meet the contract goal(s).

A DBE may be substituted if the Work committed to the DBE is deleted or reduced by the Authority and enough Work remains to substitute an equal commitment amount to the affected DBE. If not enough Work remains, the Authority may relieve the Design-Builder from attaining that portion of the commitments.

In accordance with 49 CFR Section 26.53(f)(1), the Design-Builder shall not terminate a DBE listed on the approved DBE Utilization plan without the prior written consent of the Authority. This includes instances in which the Design-Builder seeks to perform work originally designated for a DBE Subcontractor with its own forces or those of an affiliate, a non-DBE firm, or with another DBE firm. The Authority will consent only if good cause exists to terminate the DBE firm. Good cause includes, at a minimum, one the following circumstances:

- The listed DBE fails or refuses to execute a written contract;
- The listed DBE fails or refuses to perform the work of its subcontract in a way consistent with normal industry standards. Provided, however, that good cause does not exist if the

failure or refusal of the DBE Subcontractor to perform its work on the subcontract results from the bad faith or discriminatory action of the Design-Builder;

- The listed DBE fails or refuses to meet the Design-Builder's reasonable, nondiscriminatory bond requirements;
- The listed DBE becomes bankrupt, insolvent, or otherwise lacks creditworthiness;
- The listed DBE is ineligible to work on public works projects because of suspension and debarment proceedings pursuant 2 CFR Parts 180, 215 and 1200 or applicable state law;
- The Authority has determined that the listed DBE is not a responsible contractor;
- The listed DBE voluntarily withdraws from the project and provides to the Authority written notice of its withdrawal;
- The listed DBE is ineligible to receive DBE credit for the type of work required;
- A DBE owner dies or becomes disabled with the result that the listed DBE is unable to complete its work on the contract;
- Other documented good cause that the Authority determines compels the termination of the DBE. Provided, that good cause does not exist if the Design-Builder seeks to terminate a DBE it relied upon to obtain the Contract so that the Design-Builder can self-perform the work for which the DBE was engaged or so that the Design-Builder can substitute another DBE or non-DBE contractor after Contract award.

Before submitting its request to terminate and/or substitute a DBE to the Authority, the Design-Builder shall give notice in writing to the DBE Subcontractor, with a copy to the Authority, of its intent to request to terminate and/or substitute, and the reason for the request.

The Design-Builder shall give the DBE five days to respond to the notice and advise the Authority and the Design-Builder of the reasons, if any, why the DBE objects to the proposed termination of its subcontract and why the Authority should not approve the Design-Builder's action. If required in a particular case as a matter of public necessity (e.g., safety), the Authority may approve a response period shorter than five days.

DB 102-9 EQUAL EMPLOYMENT OPPORTUNITY REQUIREMENTS

The Authority seeks to ensure nondiscrimination in employment under all the Authority's contracts. The Design-Builder shall comply with the following Equal Employment Opportunity (EEO) requirements. The Contract goals for minority and female participation are set forth in *Appendix IV to the Agreement*. The covered area is the county or counties in which the work is located.

Equal Employment Opportunity provisions are also found on Form FHWA 1273 Required Contract Provisions Federal-Aid Construction Contracts, a copy of which is included in *Appendix IV to the Agreement*.

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 102-9.1 Statutory/Regulatory Authority

The Federal authority for Equal Employment Opportunity provisions is contained in 23 USC Section 140(a), 23 CFR Section 230, 41 CFR Parts 60-1 and 60-4, and Executive Order 11246. State authority is contained in Section 428 of the New York State Transportation Law, Article 15-A of the New York State Executive Law, and Section 2879 of the New York Public Authorities Law and the rules promulgated thereunder, including 5 NYCRR Part 140 et seq.

DB 102-9.2 Definitions

A minority group member is defined under this subsection as someone who is, and can demonstrate membership in, one of the following groups:

- A) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
- B) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
- C) 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
- D) 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 identifications).

DB 102-9.3 Employment Goals

A goal for minorities and a separate goal for women are presented in the Contract Documents. The Design-Builder shall provide equal employment opportunity and shall take affirmative action for all minority groups, both male and female; and women, both minority and non-minority. If the Design-Builder performs work outside of the covered area, it shall apply the goals established for the county where the work is actually performed. The Authority will monitor the Design-Builder's attainments towards EEO goals in accordance with DB §102-9.4 Civil Rights Monitoring and Reporting.

The goal set for the Contract are expressed as percentages of the total hours of employment and training of minority and female utilization the Design-Builder should reasonably be able to achieve in each construction trade in which it has employees in the covered area. The Design-Builder is expected to make substantially uniform progress in meeting its goals in each trade. The hours of minority and female employment and training shall be substantially uniform throughout the length of the Contract, and in each trade, and the Design-Builder shall make a good faith effort to employ minorities and women evenly on each of its contracts. The transfer of minority or female employees, apprentices, or trainees from contractor to contractor or from contract to contract for the sole purpose of meeting the Design-Builder's goals is a violation of the Contract.

DB 102-9.4 Civil Rights Monitoring and Reporting

A) Civil Rights Officer(s)

The Design-Builder shall designate a Corporate Civil Rights Officer, a Corporate DBE Representative, and a contract site Equal Employment Opportunity (EEO) Representative who shall have the responsibility to and shall be capable of effectively administering and promoting an active Design-Builder program of equal employment opportunity and who shall be assigned adequate authority and responsibility to do so. A single individual may fulfill multiple roles. The Design-Builder shall notify the Authority within 30 days of any changes in these roles.

B) Workforce Participation Plan

At the pre-construction meeting, the Design-Builder shall submit a Workforce Participation Plan covering the Design-Builder's workforce and the workforce of all its Subcontractors, together and coordinated with the Baseline Project Schedule, that addresses the Equal Employment Opportunity goals. The Design-Builder shall not start work until the Authority and the Design-Builder have agreed upon and accepted the Workforce Participation Plan. The Design-Builder shall submit a revised plan when a significant work force build-up or reduction will substantially affect goal attainment, or when a revised schedule is requested by the Authority. Such revised Workforce Participation Plan must be agreed upon by the Authority or the original will remain in effect.

C) Equal Employment Opportunity (EEO) Monitoring and Reporting

The Design-Builder's compliance with the EEO Requirements will be based on its Employment Utilization, affirmative action steps and its good faith efforts to meet the goals. The Authority, in evaluating the Design-Builder's good faith efforts to meet the EEO goal, will first analyze the Design-Builder's goal attainment on an individual contract. If the Design-Builder is not meeting the goal for a single trade or contract, the Authority will analyze, progressively, the Design-Builder's goal attainment on all contracts held by the Design-Builder within the county and/or the State. This method of analysis shall be applied primarily but not solely to contracts with small population numbers. Other factors to be considered include the location of the contracts, the relative proximity of the contracts to each other, and the nature of the work. Compliance will be monitored using EEO.

- 1) Employee Utilization Data. The Design-Builder shall submit employee utilization data for its workforce and for each Subcontractor with a Subcontract exceeding \$10,000 to the Authority on a monthly basis showing hours worked for each payroll week, for each trade and classification, by gender and ethnicity. Employee utilization data shall include data from the start of the contract up to and including the month being reported. For the purpose of determining utilization percentages, the hours of female and minority employment shall be tabulated separately and attainment percentages calculated separately.
- 2) Federal-Aid Highway Construction Contractors Annual EEO Report. The Design-Builder shall submit all required data to produce an annual Form FHWA

1391 Federal-Aid Highway Construction Contractors Annual EEO Report to the Authority not later than the second Friday in August covering the last payroll period worked in July, for all ongoing Federal-Aid contracts. The data shall indicate the number of minority men, minority women, nonminority men, and non-minority women employees currently engaged in each trade.

- 3) Design-Builder Compliance. If the Design-Builder fails to meet the EEO goal for minorities or women, the Authority may require training of minorities and women to satisfy the employment goals. If the Design-Builder fails to meet the EEO goal or is in noncompliance with the nondiscrimination clauses, the Authority may suspend additional contract payments in accordance with the *Agreement, Article 7.3 - Reduction in Periodic Payment*, the Design-Builder may be directed to attend a hearing before the Authority, or the Authority may follow any other lawful procedure upon due notice in writing to the Design-Builder, including cancellation, termination, or suspension in whole or in part in accordance with the *Agreement, Article 8 – Authority's Right to Suspend Work and Cancel Contract*. The Design-Builder may also be referred to the U.S. Department of Labor, Office of Federal Contract Compliance Programs (OFCCP), which has the sole authority to determine compliance with Executive Order 11246 and its implementing regulations. OFCCP may declare the Design-Builder ineligible for further Federal-Aid contracts in accordance with procedures authorized in Executive Order 11246, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246, or by rule, regulation, or order of the U.S. Secretary of Labor, or as otherwise provided by law.

DB 102-9.5 Design-Builder Obligations

The Design-Builder shall comply with all provisions of Federal Executive Order 11246 and the provisions of State and Federal laws and regulations. The Design-Builder shall furnish all information and reports required by Executive Order 11246 and by rules, regulations, and orders of the Secretary of Labor or pursuant thereto, and will permit access to its books, records, and accounts by the Authority and the U.S. Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders. The Design-Builder shall develop and implement an EEO policy in accordance with Form FHWA 1273 Required Contract Provisions Federal-Aid Construction Contracts.

- A) Non-Discrimination. The Design-Builder shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, age, disability or marital status. The Design-Builder shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, national origin, age, disability or marital status. Such actions shall include 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 Design-Builder shall post in conspicuous places, available to employees and applicants for employment, notices to be provided by the Authority setting forth the provisions of this non-discrimination clause. The Design-Builder shall not use the goals or affirmative action requirements to discriminate against any person because of race, color, religion, sex, national origin, disability or marital status.

- B) Solicitations. The Design-Builder shall state in all solicitations or advertisements for employees placed by or on behalf of the Design-Builder, that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, age, disability or marital status.
- C) Collective Bargaining Agreements. The Design-Builder shall send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the Design-Builder's commitments to equal employment opportunities, and shall post copies of the notice in conspicuous places available to employees and applicants for employment. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Design-Builder has a collective bargaining agreement, to refer either minorities or women shall excuse the Design-Builder's obligations.
- D) Complaints of Alleged Discrimination. The Design-Builder shall promptly investigate all complaints of alleged discrimination made to the Design-Builder in connection with its obligations under this Contract, shall attempt to resolve such complaints, and shall take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, corrective action shall include such other persons. Upon completion of each investigation, the Design-Builder shall inform every complainant of all available avenues of appeal. The Design-Builder shall not retaliate or discriminate against any person because he or she has opposed unlawful discrimination or because he or she has filed a complaint, testified or assisted in any proceeding relating to unlawful discrimination.
- E) Non-Compliance. In the event of the Design-Builder's non-compliance with the nondiscrimination clauses of this Contract or with any of such rules, regulations, or orders, this Contract may be canceled, terminated or suspended in whole or in part and the Design-Builder may be declared ineligible for further contracts in accordance with procedures authorized in Executive Order 11246, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246, or by rule, regulation, or order of the U.S. Secretary of Labor, or as otherwise provided by law.
- F) Subcontracts/Purchase Orders. The Design-Builder shall include the provisions of DB §102-9.5 Design-Builder Obligations in every Subcontract or purchase order, so that such provisions will be binding upon each Subcontractor or vendor. In the event the Design-Builder becomes involved in, or is threatened with, litigation with a Subcontractor or vendor as a result of such direction by the Authority, the Design-Builder may request the United States to enter into such litigation to protect the interests of the United States.

DB 102-9.6 Affirmative Action Steps

The Design-Builder shall take specific affirmative actions to promote equal employment opportunity. The evaluation of the Design-Builder's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Design-Builder 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 Design-Builder's employees are assigned to work. The Design-Builder, where possible, shall assign two or more women to each construction contract. The Design-Builder shall specifically ensure that all forepersons, superintendents, and other onsite supervisory personnel are aware of and carry out the Design-Builder'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 Design-Builder 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 Design-Builder by the union or, if referred, not employed by the Design-Builder, this shall be documented in the file with the reason therefor, along with whatever additional actions the Design-Builder may have taken.
- D) Provide immediate written notification to the Authority when the union or unions with which the Design-Builder has a collective bargaining agreement has not referred to the Design-Builder a minority person or woman sent by the Design-Builder, or when the Design-Builder has other information that the union referral process has impeded the Design-Builder'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 Design-Builder's employment needs, especially those programs funded or approved by either the NYS Department of Labor or the US Department of Labor. The Design-Builder shall provide notice of these programs to the sources compiled under DB §102-9.6(B) above.
- F) Disseminate the Design-Builder's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Design-Builder 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 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 onsite supervisory personnel such as superintendents, forepersons, etc., prior to the initiation of construction work at any 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 Design-Builder'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 Design-Builder's EEO policy with other contractors and Subcontractors with whom the Design-Builder 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 Design-Builder'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 Design-Builder 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 the Design-Builder's work force.
- K) Validate all tests and other selection requirements in accordance with State and Federal laws, rules and regulations.
- L) Conduct, at least annually, an inventory and evaluation of all minority and female personnel for promotional opportunities. Encourage these employees to seek or to prepare for promotional opportunities through appropriate training, etc.
- M) Ensure that seniority practices, labor 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 Design-Builder'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 solicitations of offers for Subcontracts 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 Design-Builder's EEO policies and affirmative action obligations.

DB 102-9.7 Associations

Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations. The efforts of a contractor association, joint contractor-union,

contractor-community, or other similar group of which the Design-Builder is a member and participant, may be asserted as fulfilling one or more of its obligations, provided that the Design-Builder actively participates in the group, makes every effort to ensure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the benefits of the program are reflected in the Design-Builder's minority and female workforce participation, 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 Design-Builder. The obligation to comply, however, is the Design-Builder's and failure of such a group to fulfill an obligation shall not be a defense for the Design-Builder's noncompliance.

DB 102-9.8 Hometown Plans (Federal-Aid Contracts Only)

If Design-Builder is participating (pursuant to 41 CFR Section 60-4.5) in a Hometown Plan approved by the USDOL 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 participating in Hometown Plans shall be able to demonstrate their participation and document their compliance with the provision of the Hometown Plan. Each contractor participating in an approved plan is individually required to comply with its obligation 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 toward a goal in an approved plan does not excuse any covered contractor's failure to take good faith efforts to achieve the Plan goals and timetables.

DB 102-10 STATE AND LOCAL SALES TAX EXEMPTION

In connection with capital improvement contracts, under the New York State Tax Law, all tangible personal property which will become an integral component of a structure, building, or real property of the Authority, or any of its political subdivisions, is exempt from State and local retail sales tax and compensating use tax.

DB 102-11 WORK AFFECTING SHIPPING

Design-Builder's Work activities in, over, or adjacent to navigable waters shall be performed in accordance with all obligations and requirements set forth in *Part 3, Section 18 – Maintenance of Shipping*.

**SECTION 103
PARTNERING; PERFORMANCE SECURITY**

DB 103-1 [RESERVED]

DB 103-2 PARTNERING

It is the Authority's policy to use the principles of partnering to guide the management of Design-Build (DB) contracts and the DB program 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 Authority is to complete each project in the most efficient, timely, safe, and cost effective manner to the mutual benefit of the Design-Builder and the Authority, 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 Governmental Rules.

The Authority, with the Design-Builder, will manage the Contract in a cooperative manner utilizing the following principles of 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.

These principles are 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. The Contract Documents are intended to fairly allocate risk, resulting in a balanced contractual approach to risk-sharing.

The Authority will consider additional suggestions from the Design-Builder regarding the incorporation of partnering into the coordination and cooperation required with third parties such as Subcontractors, Suppliers, utility owners, and railroads, or as otherwise desired by the Design-Builder.

Any cost associated with effectuating partnering will be agreed to by both the Design-Builder and the Authority and will be shared equally with no change in the Contract Price. The Design-Builder shall pay all costs and submit paid invoices to the Authority for 50% reimbursement.

DB 103-3 PERFORMANCE SECURITY

At the time the Design-Builder returns the executed Contract to the Authority, the Design-Builder shall furnish performance security as specified in the Agreement.

**SECTION 104
SCOPE OF WORK**

DB 104-1 WORK REQUIRED

Refer to the Agreement for a general description of the Work required for the Project.

The Design-Builder shall be responsible for the coordination of the Work of its Subcontractors and Suppliers. Operations shall be arranged and conducted so that delays will be avoided. Where the Work of the Design-Builder or Subcontractors overlaps or dovetails with that of other contractors, materials shall be delivered and operations conducted so as to carry on the Work continuously in an efficient and workmanlike manner.

Delays or oversights on the part of the Design-Builder or Subcontractors in getting any or all of their Work done in the proper way, thereby requiring the removal and replacement of Work already in place, or in any other way delaying the Work, shall not be the basis for a claim of extra compensation. Such Work will be performed at the cost and expense of the Design-Builder.

Subject to the exceptions specified in DB §105-12 with respect to the maintenance responsibilities described therein, DB §108-9 with respect to official shutdown periods and DB §109-11.1 with respect to partial acceptance of units or portions of the Project prior to Physical Completion, the Design-Builder shall provide preventive and corrective maintenance for the entire Site until Physical Completion.

DB 104-2 INTENT OF CONTRACT

The parties intend for the Contract to be a lump-sum design-build contract obligating the Design-Builder to perform all Work necessary to complete the Project within the Contract Time, for the Contract Price, subject only to certain limited exceptions expressly set forth in the Contract. The Design-Builder will be required to coordinate its Work with the Authority's other contractors including contractors who are engaged in other Authority contracts or other Persons who are engaged in construction work in the overall vicinity of the Project.

DB 104-2.1 Description of Work

The intent of the Contract is to provide for the engineering, design, construction, and completion in every detail of the Work described, including necessary preliminary and construction surveys. The Design-Builder shall furnish all labor, material, equipment, tools, transportation, and supplies required to complete the Work in accordance with the terms of the Contract, except those materials to be furnished by the Authority in accordance with the provisions of the Contract.

The Design-Builder shall not rely on the description contained in the Contract to identify all of the Project components to be designed, constructed, and/or installed. The Design-Builder shall determine the full Scope of the Project through thorough examination of the Request for Proposals and the Project Site, and such other investigations as may be appropriate.

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 Project. A requirement occurring in any component of the Contract Documents is as binding as though occurring in all.

DB 104-2.2 Professional Licensing Laws

The Authority does not intend to contract for, pay for, or receive any design services which are in violation of any professional licensing laws, and by execution of the Contract, Design-Builder acknowledges that the Authority has no such intent. It is the intent of the parties that Design-Builder is fully responsible for furnishing the design of the Project, although the fully licensed design firm(s) or individuals designated herein will perform the design services required by the Contract Documents. Any references in the Contract Documents to Design-Builder's responsibilities or obligations to "perform" the design portions of the Work shall be deemed to mean that Design-Builder shall "furnish" the design for the Project. The terms and provisions of this DB §104-2.2 shall control and supersede every other provision of the Contract Documents with respect to this issue.

DB 104-2.3 Ownership of Work Product and Intellectual Property Licenses

Provided Authority has made payment to Design-Builder as required therefor by this Contract, all Work Product furnished by Design-Builder to Authority hereunder shall be considered property of Authority, except that all pre-existing copyrights, design rights, patents, trademarks, trade secrets and other intellectual property rights in the Work Product (collectively, "Pre-existing IP Rights") shall remain the property of Design-Builder. Design-Builder hereby grants to Authority an irrevocable license, in perpetuity and at no additional cost, to retain and use Pre-existing IP Rights for operations, maintenance and improvements to the Project, and for other purposes relating to Authority's facilities or operations. Such license includes the right to grant sublicenses to Authority's contractors and subcontractors of any tier. Subject to the foregoing, Design Documents shall become Authority's property upon preparation; shop drawings, working drawings and samples shall become Authority's property upon delivery to Authority; and other documents prepared or obtained by Design-Builder in connection with the performance of its obligations under the Contract, including studies, manuals, as-built drawings, technical and other reports and the like, shall become the property of Authority upon Design-Builder's preparation or receipt thereof. Copies of all Design Documents, shop drawings and working drawings shall be furnished to Authority upon preparation or receipt thereof by Design-Builder. Design-Builder shall maintain all other documents described in this DB §104-2.3 in accordance with DB §104-16 and as otherwise required by the Contract Documents, and shall deliver copies to Authority as required by the Contract Documents or upon request if not otherwise required to be delivered, with an indexed set delivered to Authority as a condition to Final Acceptance.

Authority hereby grants to Design-Builder a non-exclusive, royalty-free license to use intellectual property included in the Work Product in connection with Work performed hereunder and with respect to other projects undertaken by the Design-Builder, provided that said license does not apply to any Pre-existing IP Rights. Said license includes the right to grant sublicenses to Subcontractors responsible for development of said intellectual property.

DB 104-3 CONTINGENCIES, EXTRA WORK, AND DEDUCTIONS

DB 104-3.1 Right to Issue Orders on Contract

The provisions of the *Agreement, Article 5 - Alterations and Omissions* shall apply. Whenever the Authority determines that the terms of the Contract should be altered to provide for changes, contingencies, extra work or the deletion of Work as specifically contemplated in the Contract or for any other cause, an Order on Contract may be issued to the Design-Builder, who shall promptly proceed with the performance of the Work, as so modified, and the designing and furnishing of the materials and equipment necessary for its accomplishment.

No instructions, either written or verbal from any employee or agent of the Authority shall be construed as an order for changes until receipt by the Design-Builder of written notification that an Order on Contract has been approved by the Authority, or written notification from the Authority's Project Manager that changes in the Work are eligible and authorized for payment in accordance with DB §109. Otherwise, payment for any unforeseen Work shall be made only if the Design-Builder complies or has complied with all of the provisions of DB §§104-3.2, 104-4, 104-5, 104-6, 104-7, 109-9, 109-10 and 109-15.1, as applicable.

DB 104-3.2 Significant Changes in the Character of Work

If the Authority wishes to add work to this Contract that is not related to the Project, such addition shall be considered a significant change in the character of the Work. In such event an adjustment shall be made to the Contract, to be mutually agreed upon prior to the performance of the Work.

A significant change in the character of the Work shall also be deemed to occur if the Authority directs Design-Builder to delete or modify the Work such that this Contract would no longer be considered a design-build contract for the Project of the nature described in the Contract Documents. In such event, the Design-Builder shall perform the Work not terminated as directed by the Authority. If a basis for adjustment of the Contract Price cannot be agreed upon, then an adjustment shall be made in such amount as the Authority's Project Manager may determine to be fair and equitable, excluding anticipated profit for the Work that has been deleted. If deletion or modification of the Work creates float in the schedule enabling early completion, the Order on Contract may include an appropriate modification of the Contract Deadlines.

Alterations in the scope of the Work that are specifically contemplated by the Contract shall not be considered significant changes in the character of the Work. If the alterations to the scope of Work do not significantly change the character of the Work, the altered Work will be paid for as provided elsewhere in the Contract.

Design-Builder shall comply with the notice, recordkeeping and other requirements of DB §§104-4, 104-5, 104-6, 104-7, 108-6, 109-9, 109-10 and 109-15.1, as applicable, with respect to any request to adjust the Contract Price or the Contract Time due to an alleged significant change in the character of the Work. The Authority will have no liability and no adjustment will be made for any damages (i) if Design-Builder fails to comply with such requirements or (ii) which accrued more than 10 work days prior to the filing of such a notice.

DB 104-4 CHANGES IN BASIC PROJECT CONFIGURATION; UTILITY RELOCATIONS; HAZARDOUS MATERIALS; ENVIRONMENTAL MITIGATION

DB 104-4.1 Changes in Basic Project Configuration

The Authority acknowledges and agrees that the Design-Builder's Proposal was based in part on certain basic information presented by the Authority regarding the nature of the Project to be constructed. This basic information is considered the Basic Project Configuration. Except as authorized by an Order on Contract, the Design-Builder shall not make any material change in Basic Project Configuration. All changes to the Basic Project Configuration (whether material or not) ordered by the Authority will be covered by an Order on Contract, except that no Order on Contract is required for changes to the Definitive Design ordered by the Authority as part of the Definitive Design Review for the affected

Design Unit(s) under DB §111-8.1, unless and except to the extent that the directed changes require a material change in the Basic Project Configuration.

DB 104-4.1.1 Standard for Determining Materiality of Change in Basic Project Configuration

The standard for determining whether a material change in the Basic Project Configuration has occurred is set forth in the *Agreement, Appendix I, §3.1 – Standard for Determining Materiality of Change in Basic Project Configuration*. Any change in Basic Project Configuration that does not qualify as a material change under the standards set forth in said *Appendix I* shall not be considered material.

DB 104-4.1.2 Necessary Basic Project Configuration Change

Notwithstanding the fact that this Contract generally obligates the Design-Builder to undertake all Work necessary to complete the Project without changes in the Contract Price, this DB §104-4.1.2 provides for a change in the Contract Price to be made in conjunction with Necessary Basic Project Configuration Changes. This DB §104-4.1.2 shall not apply to any exercise by the Authority of any Option, which shall be governed by the provisions of the *Agreement, Article 1.2*. If any Necessary Basic Project Configuration Change increases or decreases the cost of performing the Work, then the Authority will issue an Order on Contract to adjust the Contract Price accordingly. Furthermore, if the Design-Builder commences any construction Work affected by the change prior to delivery of appropriate notice of the change to the Authority under this DB §104, the Order on Contract shall allow the Authority 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 Order on Contract shall also account for any offsets from Orders on Contract previously issued.

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

If a Necessary Basic Project Configuration Change results in a critical path delay, the Order on Contract may include an appropriate extension of time and/or time-related damages. If a Necessary Basic Project Configuration Change creates float in the schedule thus allowing accelerated completion without additional cost, the Order on Contract shall include an appropriate modification of the Contract Deadlines accelerating the time for completion.

The notice, recordkeeping and other requirements of DB §§104-7, 108-6, 109-9, 109-10 and 109-15.1 shall apply with respect to any request to adjust the Contract Price or the Contract Time due to a Necessary Basic Project Configuration Change.

DB 104-4.1.3 Relationship to VECP

If a Value Engineering Change Proposal (VECP) results in a material change in Basic Project Configuration, any cost savings from such VECP shall be shared in accordance with DB §104-13.

DB 104-4.1.4 Inaccuracies in RFP Plans

The Design-Builder shall be responsible for any cost increases and/or delays resulting from changes in requirements and obligations of the Design-Builder relating to the Project due to inaccuracies in the RFP Plans other than an error, omission, or defect in the Directive Plans constituting or requiring a material change in the Basic Project Configuration. If any such changes occur, no change in the Work shall be

deemed to have occurred and no Order on Contract will be issued for any such cost increases and/or delays, unless the change qualifies as a Necessary Basic Project Configuration Change. Accordingly, any non-material changes in the Basic Project Configuration (other than non-material Authority-Directed Changes following the Definitive Design Review) shall be the responsibility of the Design-Builder. Refer to *Agreement, Appendix I, §3.1 – Standard for Determining Materiality of Change in Basic Project Configuration* for the exclusive list of circumstances that may be considered a material change in the Basic Project Configuration.

DB 104-4.1.5 Applicability of Orders on Contract

In general, the Design-Builder may implement non-material changes in the Basic Project Configuration without an Order on Contract, unless the change involves a circumstance for which an Order on Contract is specifically required hereunder.

DB 104-4.2 Changes Applicable to Utility Relocations

The following provisions govern entitlement to Orders on Contract with respect to Relocation of utilities.

DB 104-4.2.1 Inaccuracy of Utility Information

- A) If any underground utility requiring Relocation is not indicated at all in the Contract Documents, or is materially inaccurately indicated therein (as specified in *Part 4 - Utility Requirements*), then the Design-Builder shall be entitled to an Order on Contract with respect to any increase in the Design-Builder's costs of performing the Work that is directly attributable thereto. Notwithstanding the foregoing, the Design-Builder shall be fully liable for, and no Order on Contract shall be issued under this DB §104-4.2 with respect to, any such underground utility that was known to the Design-Builder prior to the Proposal Date or that would have been known to the Design-Builder by undertaking a reasonable investigation prior to the Proposal Date, including any utility as to which surface inspection of the area would have shown its existence or the likelihood of its existence in the correct location, size, and/or material, as applicable, by reason of the existence of above-ground facilities, such as buildings, meters, junction boxes, or identifying markers.
- B) If any underground utility identified in the Contract Documents as requiring Relocation is not accurately indicated therein (as specified in *Part 4 - Utility Requirements*), and if as a result Relocation of such utility is not necessary or there is a reduction in the Relocation Work for such utility, then the Authority shall be entitled to an Order on Contract reducing the Contract Price to reflect the value of the reduction in the Work directly attributable to the correction of such inaccurate information.
- C) No change in "conflict/no conflict" status between information represented in the Contract Documents, Design Plans, and/or as-built conditions shall be grounds for an Order on Contract under this DB §104-4.2, except to the extent that the change in "conflict/no conflict" status is the result of inaccuracies (per *Part 4 - Utility Requirements*) in the locations of utilities shown in the Contract Documents for which the Design-Builder is otherwise entitled to an Order on Contract pursuant to this DB §104-4.2.

DB 104-4.2.2 Change in Allocation of Duties in Authority Utility Agreements

If an Authority Utility Agreement allocates responsibility for Relocation to the Utility Owner and provides that the utility owner is entitled to be paid its costs for Relocation, the Authority shall make such payments directly to the utility owner. If the Authority Utility Agreement allocates responsibility for Relocation to the Design-Builder, the cost of Relocation is included in the Proposal Price. Orders on Contract resulting from a reallocation of duties between the Design-Builder and the utility owner from that found in the Authority Utility Agreements shall be governed by this DB §104-4.2.2.

- A) Change in Allocation of Duties from the Utility Owner to the Design-Builder. If the Authority Utility Agreement allocates to the utility owner the responsibility to perform design and/or construction for the Relocation of a particular utility, and after the Proposal Date the Authority gives notice to the Design-Builder that all or part of such Work is being reallocated to the Design-Builder, then effective immediately upon the Design-Builder's receipt of a proceed order to that effect, the scope of the Design-Builder's duties for such utility shall be expanded to include those duties specifically reallocated to the Design-Builder as described in said notice. The Design-Builder shall be entitled to an Order on Contract increasing the Contract Price to reflect the Design-Builder's additional costs incurred which are directly attributable to such additional duties and are not subject to direct reimbursement from the utility owner. If the change in allocation of duties impacts the Baseline Project Schedule critical path, an adjustment in time will be included in the Order on Contract.

- B) Change in Allocation of Duties from the Design-Builder to the Utility Owner. If the Authority Utility Agreement allocates to the Design-Builder the responsibility to perform either design and/or construction for the Relocation of a particular utility, and after the Proposal Date the Authority gives notice to the Design-Builder that all or part of such Work is being reallocated to the utility owner, then effective immediately upon the Design-Builder's receipt of a proceed order to that effect, the scope of the Design-Builder's duties with respect to such utility shall be reduced to exclude those duties specifically reallocated to the utility owner as described in said notice. The Authority shall be entitled to issue an Order on Contract reducing the Contract Price to reflect the value of the reduction in the Work directly attributable to such reduced duties. In the event that the parties cannot negotiate such value in advance, the amount of the Order on Contract shall be an amount equal to the actual cost to the utility owner of the Work reallocated to the utility owner plus a mark-up on such costs as described in DB §109-9.2.2(A)(6). If the change in allocation of duties impacts the Baseline Project Schedule critical path, an adjustment in time may be included in the Order on Contract.

DB 104-4.2.3 Utility Delays.

If Utility Delays occur for which a time extension is allowed hereunder, the Design-Builder may receive delay damages; provided, however, that (1) the Design-Builder shall not be entitled to any delay damages with respect to delays during the delay deductible period (30 days or 90 days, as applicable), and (2) with respect to the delay period thereafter shall only receive 50% of any damages determined in accordance with DB §109-10.2. Furthermore, before the Design-Builder may make any claim for delay damages under this DB §104-4.2.3, Design-Builder shall first undertake diligent efforts to collect damages from the utility owner(s) responsible for the delay, and any amounts paid by utility owner(s) to Design-Builder on account of such delay(s) shall be credited against the Authority's share of damages otherwise payable

hereunder. Under no other circumstances will the Design-Builder be entitled to additional compensation hereunder for delays caused by utility owners.

DB 104-4.2.4 Betterments

If the Authority agrees to the addition of any Betterments to the Work with respect to facilities covered by the Authority Utility Agreements, the Authority will issue an Order on Contract pursuant to DB §104-3.1 with respect thereto. Except with respect to Betterments under the Authority Utility Agreements, the Design-Builder is responsible for obtaining payment from utility owners for any Betterments. The Design-Builder shall not be entitled to an increase in the Contract Price with respect to any Betterments except as allowed under DB §104.4.2.3 and this DB §104-4.2.4.

DB 104-4.2.5 Impact of Design Changes on Relocations

Inasmuch 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 with the overall goal of minimizing the necessity for Relocations of such utilities to the extent practicable, as specified in DB §102-5.5. If the Design-Builder elects to deviate from the design set forth in the Indicative Plans, and such deviation either (1) reduces the costs of any Relocation of a utility (including by avoiding Relocation of a utility shown as requiring Relocation in the Contract Documents), or (2) requires new Relocations or otherwise increases Relocation costs, then the following shall apply to any resulting cost increases or decreases affecting the Design-Builder and/or the Authority:

- A) The Design-Builder shall not be entitled to an Order on Contract for any such additional costs which 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 Authority for any such additional expenses which the Authority incurs, including any net increase in amounts owed by the Authority to any utility owner under an Authority Utility Agreement attributable to such design changes or any payment owing to a utility owner for work which is unusable or which must be redone as a result of such design changes; and
- C) Except as accounted for in determining the net increase in costs as specified in (B), the Design-Builder shall have no obligation to provide a credit to the Authority on account of reductions in the cost of the Work due to any such avoided or reduced Relocation.

DB 104-4.2.6 Additional Restrictions on Utility-Related Orders on Contract

Whenever the Design-Builder claims entitlement to an Order on Contract under this DB §104-4.2 or under DB §102-5.3:

- A) Avoidance of Relocations. The Design-Builder shall bear the burden of (i) proving that the Utility Relocation could not reasonably have been avoided and (ii) proving and justifying the amount of any costs and/or delays claimed by the Design-Builder, including demonstrating that the timing and nature of the investigations undertaken by the Design-Builder were appropriate and that the increased costs and/or time could not

have been avoided by more timely and appropriate investigation. No Order on Contract under this DB §104-4.2 may be made if a reasonable Site investigation and exploration during the pre-construction phase would have indicated the location of the utility and the Utility Relocation could reasonably have been avoided.

- B) Incremental Costs Only. The Order on Contract shall allow a price increase only for the Incremental Costs arising from the circumstances giving rise to such Order on Contract.
- C) Coordination Costs. In no event will the Design-Builder be awarded any increase in the Contract Price for any costs of negotiating or coordinating with utility owners.
- D) Timing of Orders on Contract. In general, the parties anticipate that Orders on Contract for utility Relocations will be executed as the changes occur. However, the Authority and Design-Builder may agree to consolidate certain changes into a single Order on Contract. The Design-Builder's mark-ups under DB §109-9.2.2(A)(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 Order on Contract.
- E) Incidental Utility Work. The Design-Builder shall not be entitled to an Order on Contract for increased costs of the Work resulting from, or for any extension of time for delays associated with, Incidental Utility Work, including any change in responsibility for Incidental Utility Work under the Authority Utility Agreements. Incidental Utility Work includes the following:
 - 1) Any Relocation of any utility service lines,
 - 2) Any Temporary Relocations of utilities implemented for the convenience of the Design-Builder's own construction operations,
 - 3) Protections in place,
 - 4) The adjustment of utility appurtenances (e.g., manholes, valve boxes, and vaults) for line and grade upon completion of roadway work,
 - 5) All work necessary to remove any utilities (whether or not in use as of the Proposal Date) in situations for which leaving the utilities in place is not feasible or not permitted, or for facilities which the Design-Builder proposes be removed to accommodate or permit construction of the Project, regardless of whether replacements for such utilities are being installed in other locations, and/or
 - 6) All work necessary to abandon in place any utility in accordance with proper procedures (e.g., flushing, capping, slurry backfill, etc.).
- F) The Design-Builder bears full responsibility for identifying conflicts between the Project and any appurtenances to utility facilities as well as service lines, and any omissions or other inaccuracies in information provided by the Authority or any other Person regarding such service lines or appurtenances shall not be considered material and shall not be grounds for an Order on Contract.

- G) Voluntary Action. If the Design-Builder elects to make payments to utility owners or to undertake any other efforts which are not required by the terms of the Contract Documents (including any agreement by the Design-Builder to make payment to a utility owner on account of a Betterment or to perform Betterment work without reimbursement from the utility owner), the Design-Builder shall not be entitled to an Order on Contract in connection therewith. The Design-Builder shall promptly notify the Authority of the terms of any such arrangements.

DB 104-4.3 Hazardous Materials Order on Contract

Except as specified in this DB §104-4.3, the Proposal Price includes all costs of management of Hazardous Materials located in, on or under the property within the Project Limits (excluding any additional parcels designated by the Design-Builder) as of the date the Authority makes such property available to Design-Builder. An Order on Contract may be issued for costs of management of such pre-existing Hazardous Materials if they are of a type, quantity or location that differs materially from the types, quantities or locations of Hazardous Materials identified in the RFP or the Contract Documents as potentially present at the Site, and for costs and expenses due to critical path delays directly attributable to discovery of such pre-existing Hazardous Materials, except to the extent that Design-Builder is responsible for such Hazardous Materials as specified in this DB §104-4.3. An Order on Contract may also be issued for costs of management of third party Hazardous Materials spills within the Project Limits.

No Order on Contract will be issued if Design-Builder had actual or constructive knowledge of such materials as of the Proposal Date, and no Order on Contract will be issued for any costs that could reasonably have been avoided if the Design-Builder could have discovered the existence of such materials through a reasonable site investigation, exploration and desktop documentary study during the pre-construction period. Furthermore, the Design-Builder bears full responsibility for all costs and expenses, including costs and expenses due to critical path delays, for any release or threatened release of Hazardous Material (i) brought onto the Site by Design-Builder or Subcontractors, or (ii) negligently removed or handled by Design-Builder or Subcontractors, regardless of the source, origin or method of deposit of such Hazardous Materials. Except with respect to Hazardous Materials that are Design-Builder's responsibility as described in the preceding sentence, Design-Builder shall not be required to execute any hazardous waste manifests as a "generator" with respect to Hazardous Materials encountered within the Project Limits, and Hazardous Materials encountered within the Project Limits shall be disposed of, if at all, utilizing an EPA identification number or other appropriate legal device obtained by, and carried in the name of, Authority or another Person designated by the Authority.

The Design-Builder shall utilize the services of previously qualified, trained, and/or appropriately certified personnel and Subcontractors for Hazardous Materials management. No training costs (or costs for physical examinations of workers) will be allowed in any Orders on Contract for Hazardous Materials management services.

DB 104-4.4 Changes in Environmental Performance Commitments

If the FEIS, Record of Decision, and secured permits and permit conditions result in changes to the scope of the Environmental Performance Commitments or the Design-Builder's obligations with respect to Environmental Approvals as set forth in §3.1(B) of Part 3, Section 3 – *Environmental Compliance*, the Design-Builder shall be entitled to a negotiated Order on Contract addressing the changes. Compensation is allowed only for the Incremental Costs associated with compliance with the new requirements, and no

additional compensation will be made for Work relating to such compliance that was included in its original scope, including any commitments made in the Proposal.

Notwithstanding the foregoing, no additional compensation will be made for modifications to Environmental Approvals or Environmental Approval applications pending as of the date of the Contract, to the extent that such modifications are for the purpose of conforming the permits to the Proposal or otherwise requested by the Design-Builder. Refer to §3.3.4, *Table 3.3.4-1 of Part 3, Section 3 – Environmental Compliance* for information regarding contemplated modifications. Furthermore, the Design-Builder will bear full responsibility for obtaining any new Environmental Approvals or changes to then existing Environmental Approvals and performance of any mitigation measures required as the result of its design decisions or construction methodologies, including reimbursement of incremental costs incurred by the Authority as a result thereof.

DB 104-4.5 Orders on Contract for Change in Law

Changes in the scope of the Work may occur as the result of a Change in Law. The Design-Builder shall notify the Authority within 10 days after the Design-Builder first discovers (or should have discovered in the exercise of reasonable prudence) that a Change in Law has occurred, providing details regarding the Governmental Rule that has changed and describing how the scope of the Work is impacted. Upon receipt of such notice the Authority shall promptly investigate the matter, and if he/she finds that a Change in Law has occurred, an equitable adjustment may be made and the Contract modified in writing accordingly, as specified herein. Design-Builder shall be entitled to compensation only for the Incremental Costs associated with the Change in Law, and shall not be entitled to additional compensation in connection with a Change in Law for any Work that was included in its original scope, including any commitments made in Design-Builder's Proposal, nor shall the Design-Builder be entitled to compensation for any change in a Governmental Rule not falling within the definition of Change in Law. An Order on Contract for a Change in Law resulting from changes to the sales and use tax exemption described in DB §102-10 shall adjust the Contract Price to account for such costs, without markup.

Notwithstanding anything to the contrary in the Contract Documents, the Design-Builder shall implement changes in Standards attributable to a Change in Law only if required to do so by the Authority by an Order on Contract. Upon receipt of notification from the Design-Builder regarding such a Change in Law, the Authority will determine whether to issue an Order on Contract implementing the change in Standards. In addition to the other limitations specified herein, with respect to Changes in Law resulting in modification of Standards, the Design-Builder shall not be entitled to any compensation for costs that could have been avoided had the Design-Builder timely notified the Authority of the Change in Law.

Design-Builder may request a time extension if the Change in Law, through no fault of Design-Builder, adversely affects the critical path, provided that no extension of time shall be allowed for delays that could have been avoided had the Design-Builder timely notified the Authority of the Change in Law.

DB 104-4.6 Alternative Technical Concepts

The Design-Builder acknowledges that, subject to the allocation of responsibilities set forth in *Part 3, Section 3 – Environmental Compliance*, any approvals from Persons other than the Authority required to implement Alternative Technical Concepts are Design-Builder's sole responsibility to obtain and may be disapproved for any reason (or for no stated reason). Design-Builder agrees that if any condition set forth in the Authority's pre-approval of an ATC has not been met as of the effective date of the Contract, the Design-Builder shall be responsible for ensuring that such condition is satisfied before implementing the

ATC. If the Design-Builder is unable to obtain any required approval, fails to satisfy any such condition, or fails in any other way to implement the approved Alternative Technical Concept, it shall provide written notice thereof to the Authority's Project Manager and shall comply with the corresponding baseline requirements (unmodified by the Alternative Technical Concept) without any increase in the Contract Price or extension of the Contract Deadlines.

The Design-Builder acknowledges and agrees that, to the extent that the Design-Builder uses any Unsuccessful Proposer's Work Product provided to Design-Builder by the Authority, the Design-Builder shall do so at the sole risk of Design-Builder, except to the extent otherwise provided in any Order on Contract authorizing a VECP based on such Unsuccessful Proposer's Work Product, and such use shall in no way confer or be deemed to confer liability upon the Authority, the Department or the unsuccessful proposer.

DB 104-5 DIFFERING SITE CONDITIONS

DB 104-5.1 Differing Site Conditions Generally

During the progress of the Work, if subsurface or latent physical conditions are encountered at the Site differing materially from those indicated by the Authority for specific locations where the Authority's tests were taken and to the degree of accuracy 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 to the Contract in writing of the specific differing conditions within 10 days of the discovery and before they are disturbed, or as soon as practicable thereafter, and before the affected Work continues.

- A) Grounds for a differing site condition claim exist when the information indicated in the geotechnical borings and/or tests provided by the Authority in *Part 7 - Engineering Data* is established to be materially inaccurate at the specific location(s) of those borings or tests, to the extent that correct boring data would have resulted in accurate assumptions regarding site conditions by the Design-Builder, and provided Design-Builder had no actual or constructive knowledge of such conditions as of the Proposal Date. Grounds for a differing site condition claim also exist if the Design-Builder's pile tests conducted within 100 feet of an Authority PIDP pile test location and using comparable pile installation equipment, pile types and pile dimensions as the PIDP demonstrates that the results of the Authority's PIDP were not representative of actual conditions in the area and the PIDP data resulted in inaccuracies in assumptions regarding site conditions made by the Design-Builder, provided that Design-Builder had no actual or constructive knowledge of such conditions as of the Proposal Date. The Authority represents that, to the best of its knowledge, the information represented by the borings and tests taken by the Authority are accurate at the location of the borings and tests to the degree of accuracy indicated in the Contract. Any extrapolation of such information to other locations by the Design-Builder shall be at the Design-Builder's risk.
- B) Grounds for a differing site condition claim also exist in the event of discovery of manmade 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 Design-Builder had no actual or constructive knowledge of such conditions as of the Proposal Date, and Design-Builder would not

have discovered the condition by making a reasonable site investigation, exploration and desktop documentary study during the pre-construction phase.

- C) Upon written notification, the Authority's Project Manager shall, within a reasonable time, investigate the conditions. If the Authority's Project Manager determines that a differing site condition exists that causes an increase in the cost required for the performance of any Work under the Contract for which a claim may be made pursuant to either (A) or (B), above, and/or has delayed a critical path, an adjustment that excludes anticipated profit but includes cost of critical path delays will be made, and the Contract will be modified in writing, in accordance with DB §109-15. The Authority's Project Manager shall notify the Design-Builder of the determination and whether or not an adjustment of the Contract is warranted.
- D) No claim of the Design-Builder under this clause shall be allowed unless the Design-Builder has given the notice required herein. If the Authority's costs are increased as a result of any delay by the Design-Builder in ascertaining conditions and providing notice, the damage that could have been mitigated by earlier notice will be calculated and any Contract adjustment will be reduced accordingly. No claim by the Design-Builder for an adjustment shall be allowed if submitted after final payment under the Contract.
- E) No claim may be made for conditions discovered during construction which might be considered unknown physical conditions at the Site of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in the Work provided for in the Contract, if a reasonable site investigation and exploration during the pre-construction phase would have indicated the condition.
- F) The Design-Builder shall bear the burden of proving that a differing site condition exists and that it could not reasonably have designed the Project or worked around the differing site condition so as to avoid additional cost by resequencing, reallocating or redeploying its forces to other portions of the Work or to other activities unrelated to the Work (with the understanding that any additional costs reasonably incurred in connection with such reallocation or redeployment are allowable). Each request for an Order on Contract based on differing site conditions shall be accompanied by a statement signed by a qualified professional setting forth all relevant assumptions made the Design-Builder with respect to the condition of the Site, justifying the basis for such assumptions and explaining exactly how the existing conditions differ from those assumptions, and stating the efforts undertaken by the Design-Builder to find alternative design or construction solutions to eliminate or minimize the problem and the associated costs.
- G) The Design-Builder's rights under this DB §104-5 do not excuse the Design-Builder from its responsibility to determine what additional geotechnical information is required to support its design and construction, to obtain such information and to ensure that such information is accurate.

The notice requirements specified herein also apply to DB §104-4.2. The notice, recordkeeping and other requirements of DB §§104-6, 104-7, 108-6, 109-9, 109-10 and 109-15 also shall apply with respect to any request to adjust the Contract Price or the Contract Time due to a differing site condition.

DB 104-5.2 Dredged Materials

Except as specified in this DB §104-5.2, all costs associated with any dredging (including costs of transportation and disposal) are included in the Contract Price.

The Design-Builder shall diligently seek to obtain a HARS Permit, either through a modification to the Authority's existing permit application or through submittal of a new permit application. The Authority will provide assistance to the Design-Builder with respect to the permit application process as is reasonably requested in writing by the Design-Builder, including assistance by Authority consultants, provided that the Authority shall not be obligated to incur any cost or expense in connection with the permit application process or testing required for the application, other than the obligation to make payments owing to Authority consultants for services they provide at the Authority's direction. If at any time the Design-Builder concludes that a HARS Permit will not result in a material benefit to the Project, the Design-Builder may cease processing the application. In such event the Design-Builder shall promptly notify the Authority in writing of its decision to stop processing the application and the rationale for such decision.

If the Design-Builder obtains a HARS Permit, the savings to the Project associated with said permit shall be shared by the parties on the same basis as for a Value Engineering Change Proposal under DB §104-13.5(A), that is, the Contract Price shall be reduced by an amount equal to the sum of: (a) 100% of costs incurred by Authority for services provided by its consultants in support of the HARS Permit application commencing November 14, 2012, plus (b) 50% of estimated net savings to the Design-Builder due to its ability to use HARS. For purposes of the calculation, the term "estimated net savings" shall mean: (i) the difference between the cost of performing the Work according to the Contract Documents without HARS disposal and the actual cost to perform the Work with HARS disposal, less (ii) the actual costs incurred by the Design-Builder on or after November 14, 2012 to obtain the HARS Permit and prepare documentation relating to the Order on Contract, less (iii) the costs in (a) above. Design-Builder's profit shall not be considered part of the cost. The parties shall establish a process for development of the Order on Contract based on the process for Orders on Contract for VECs set forth in DB §104-13.

If the Design-Builder obtains a HARS Permit, it shall comply with all requirements of said permit, and no Order on Contract will include any adjustment in time or schedule for costs or delays arising from failure of the Design-Builder or Subcontractors to comply with such permit requirements.

DB 104-6 EXTRA WORK

If the Authority directs the Design-Builder to perform any Work not included in the original scope pending issuance of an Order on Contract, the Design-Builder shall maintain a record of Work authorized but not yet incorporated in the Contract using MURK 11a (DB-C) and/or MURK 11a (DB-D), for changes under DB §§104-3.2, 104-4, 104-5 or extra Work ordered and/or agreed by the Authority.

DB 104-7 NOTICES AND RECORDKEEPING

The Design-Builder shall give the Authority written notice of Design-Builder's contentions regarding any event, matter or circumstance set forth in DB §104-3.2, 104-4, 104-5, 109-10 or 109-15 in accordance with the applicable notice requirements. To the extent that a notice period is not otherwise expressly provided in the Contract with respect to any such event, matter or circumstance, Design-Builder shall provide written notice to the Authority within 10 work days after Design-Builder has knowledge or should have had knowledge of the relevant event, matter or circumstance.

Timely provision of notice shall be a necessary requirement for consideration of any Contract adjustment as provided in this DB §104. Any failure of the Design-Builder to comply with said requirements will be grounds for denial of the claim or Dispute and the Authority does not have to show prejudice to its interest before such denial is made. In the event the Design-Builder fails to provide the required written notice within the time limit established, and/or in the event the Design-Builder fails to maintain and submit specified records, the claim or Dispute for additional compensation and/or extension of Contract Time shall be deemed waived, notwithstanding the fact that the Authority may have actual notice of the facts and circumstances which comprise such claim or Dispute and is not prejudiced by said failure.

The notice, recordkeeping and other requirements of DB §§108-6, 109-9, 109-10 and 109-15 shall apply with respect to all matters for which this DB §104 provides for issuance of an Order on Contract, in addition to the notice, recordkeeping and other requirements contained in this DB §104. The Design-Builder may not rely on any verbal or oral instructions from Authority representatives as constituting a waiver of any such requirements, other than a statement in writing signed by the Authority's Project Manager, referring to specific requirements and stating that the Authority has agreed to waive them.

The Design-Builder shall provide written notice to the Authority within 10 work days of receipt of a direction to complete work that the Design-Builder believes is not Contract Work, or that any direction of the Authority's Project Manager requires the Design-Builder to perform work that Design-Builder believes exceeds the requirements of the Contract. During the progress of such disputed work, the Design-Builder shall keep daily records in accordance with DB §109-9.2.3 - Force Account Charges for all labor, material and equipment used for disputed work. For Time Related Disputes, the Design-Builder shall comply strictly with the notice and record-keeping requirements set forth in DB §109-10.

The Design-Builder shall keep Contract records in accordance with the Manual for Uniform Record Keeping (MURK), including requirements contained in subsequent revisions of the Manual. In several instances specified herein (such as Force Account work, application for approval of Subcontractors, etc.), the Design-Builder shall furnish such data and information on forms as established in MURK.

DB 104-8 RESTRICTED USE OF HIGHWAY

The Project Site, during periods of construction, cannot be designated a "restricted highway" pursuant to Section 104A of the Highway Law and Section 1625 of the Vehicle and Traffic Law. The Design-Builder is, therefore, advised that the provisions of Section 40 I(7)(f) of the Vehicle and Traffic Law relating to registration of special purpose construction vehicles shall apply to all such vehicles engaged in Work under this Contract, whether owned, leased or rented.

DB 104-9 WORK ZONE TRAFFIC CONTROL

The Design-Builder shall develop a Work Zone Traffic Control Plan per Contract requirements and shall furnish, erect, and maintain barricades, warning signs, flaggers, and pilot cars in accordance with: the National Manual on Uniform Traffic Control Devices for Streets and Highways and the New York State Supplement 17 NYCRR Chapter V (collectively, MUTCD); the traffic control plan(s), as subject to the consultation and written comment of the Authority's Project Manager; and the requirements of the Contract Documents. Flaggers shall be provided with equipment and training pursuant to requirements of the MUTCD. The equipment used by the flaggers shall be kept clean and in good repair by the Design-Builder at the Design-Builder's expense. The Design-Builder shall take all steps necessary to either keep the existing roadway open with a minimum of inconvenience to the traveling public or provide an approved alternate route. The Design-Builder shall comply with the minimum lane availability requirements detailed in Attachment 2 of *Part 3, Section 17 – Work Zone Traffic Control and Access*.

When requested by the Design-Builder and approved by the Authority's Project Manager, or when directed by the Authority's Project Manager, Sections of the Project may be opened to traffic prior to completion of the entire Contract. Such opening shall not constitute Final Acceptance of the Work or any part thereof, or a waiver of any provisions of the Contract.

When a Section is opened in accordance with the Design-Builder's Work Zone Traffic Control Plan and/or as a result of the Design-Builder's request, the Design-Builder shall remain liable until Physical Completion of the entire Project, and damage to the highway occurring before that time shall be repaired by the Design-Builder at the Design-Builder's expense, including the removal of earth or rock slides.

The Design-Builder's equipment shall enter and leave the traveled way only in the direction of public traffic. All movements on or across the traveled way shall be performed in a manner that will not endanger the traveling public.

The Design-Builder shall maintain the pavement surface of the lanes open to traffic adjacent to the Work zone within the limits of the Project traffic control.

Refer to DB §105-12 for information regarding the respective responsibilities of the Authority and the Design-Builder for maintenance of sections of roadway open to the traveling public.

If the Design-Builder fails to furnish warning devices, take protective measures as above provided, or complete shoulder work, drainage structures, or other features of the Work, the Authority's Project Manager, at his or her discretion, will notify the Design-Builder in writing of the defects along with a reasonable period of time in which the Work must be corrected or completed. If the Design-Builder fails to make a reasonable effort, in the sole opinion of the Authority's Project Manager, toward correction in this period of time, the Authority's Project Manager may then take such steps as the Authority's Project Manager deems necessary to correct the defects, or the Authority's Project Manager may terminate the Contract for default under DB §108-8.

The Design-Builder shall be liable and agrees to pay the Authority for all costs and expenses incurred by the Authority in correcting the defect(s).

DB 104-10 WORK ZONE TRAFFIC CONTROL FOR MOBILE OPERATIONS

When shadow vehicles are required by the NYSTA Standard Drawings and Details (see *Part 5 – Special Provisions*) or MUTCD, the shadow vehicles shall meet the requirements of item 619-1.02G of *Part 8 - Special Specifications*. No separate payment will be made for shadow vehicles. The cost thereof must be included in the Price Proposal.

DB 104-11 RIGHTS IN AND USE OF MATERIALS FOUND ON THE WORK

The Design-Builder may use on the Project such suitable stone, gravel, sand, or other material as may be found in an excavation for accomplishing Work described by other items. The Design-Builder shall replace with other acceptable material, at the Design-Builder's own expense, all of the excavated material so removed which would have been used for the construction of embankments or bridge approaches or for other purposes, provided that such material is required to fulfill the intent of the Contract. No charge will be made against the Design-Builder for materials so used. The Design-Builder shall not excavate or remove material from within the ROW that is not within the grading limits as indicated by the slope and grade lines on the Design Plans, without written authorization from the Authority's Project Manager.

Unless otherwise provided, the material from existing old structures may be used temporarily by the Design-Builder in the erection of the new structure. Such materials shall not be cut or otherwise damaged, except with the written authorization of the Authority's Project Manager.

DB 104-12 SITE HOUSEKEEPING AND FINAL CLEANUP

DB 104-12.1 Site Housekeeping

The Site shall be cleaned up at the close of each work day, and be left in an orderly condition. Waste and debris shall be removed from the Site and surrounding areas cleaned of debris or waste generated from the Site. Containers shall be provided for the collection, and separation of waste and recyclable materials in accordance with applicable Governmental Rules, and garbage and other waste shall be disposed of at frequent and regular intervals. Any salvaged material not specified to be disposed of otherwise shall become the property of the Design-Builder and shall be removed from the Site.

DB 104-12.2 Final Cleanup

As a prerequisite to Physical Completion, the construction area and all other adjoining areas, other than those owned by the Design-Builder, occupied by the Design-Builder in connection with the construction Work shall be cleaned of all surplus and discarded materials, spilled materials, excess materials left deposited on the permanent Work as a result of the Design-Builder's operations, falsework, and rubbish and temporary structures and buildings, that were placed thereon by the Design-Builder. The adjoining areas mentioned above, outside the normal limits for seeding, will be reshaped, seeded and mulched, or otherwise restored as directed by the Authority's Project Manager at the Design-Builder's expense.

DB 104-13 VALUE ENGINEERING CHANGE PROPOSAL

DB 104-13.1 Purpose and Scope

It is the intent of this provision to share with the Design-Builder any substantial direct cost savings which may be generated as a result of a VECP offered by the Design-Builder and approved by the Authority. The purpose is to encourage the use of the Design-Builder's ingenuity and experience in arriving at alternative designs, methods, and procedures that result in a lower direct cost to accomplish a prescribed function with the intention of sharing in the resulting savings.

The VECP should produce direct cost savings to the Authority and the public without, in the sole judgment of the Authority, impairing essential functions and characteristics of the Project, including service life, economy of operation, ease of maintenance, desired appearance, and safety. The Design-Builder, when developing a VECP, must address Environmental Requirements and similar concerns as part of the VECP. Value Engineering Change Proposals are limited to changes that are within the design parameters, as defined by the Authority, for the Project. Value Engineering Change Proposals may be developed by the Design-Builder or may be based on proposals from the Authority or any Unsuccessful Proposer's Work Product.

The "direct cost savings" is the difference of the "construction savings" generated by implementing the VECP minus reasonable "design costs" associated with the VECP. The "construction savings" is the difference between what it would cost to complete all the Contract work without implementing the VECP and the cost to complete all the Contract work if the VECP is implemented. This includes any changes to quantities or unit prices across the entire Contract if affected by the VECP. If the estimated cost to complete all the Work without implementing the VECP differs from the estimated cost included in the

Proposal Price, supporting documentation to explain the variance shall be provided. Reimbursable “design costs” are specific to engineering changes (examples: design changes, plan sheet revisions, and quantity estimating). Expenditures toward proposal preparation (examples: scheduling, documentation, cost analysis, material research, etc.) are not reimbursable.

Indirect cost savings (time, user delay, railroad force account costs, inspection costs, etc.), although considered when reviewing the merits of the VECP, are not reimbursed. A Value Engineering Change Proposal may alter the Baseline Project Schedule and milestone dates, which, in turn, could affect time-related Contract provisions.

Value Engineering Change Proposals that reduce the time to complete the Project, and only result in indirect cost savings, may be accepted based on the mutual benefit derived. These VECPs will be evaluated in accordance with DB §104-13.6.

The provisions of this DB §104-13 will not apply unless the Design-Builder identifies the submission as a VECP.

DB 104-13.2 Submittal of Conceptual VECP

A conceptual VECP is required for all VECPs. The conceptual VECP should outline the general technical concepts associated with the VECP and the estimated direct cost savings which may result. The conceptual VECP will be reviewed by the Authority and could result in one of the following actions:

- A) Approval of the VECP;
- B) Conceptual approval, and a request for the Design-Builder to submit a formal VECP;
- C) A request for additional information; or
- D) Rejection of the VECP.

The conceptual VECP should contain sufficient information to provide concept evaluation and review. The conceptual VECP will include the following, at a minimum:

- 1) Conceptual plans;
- 2) An initial estimate of costs which should include sufficient information to determine the reasonableness of the conceptual VECP;
- 3) The most recently approved Baseline Project Schedule showing the impact of the VECP on the Baseline Project Schedule. The Baseline Project Schedule shall include the time required to: develop a formal VECP, if required; approve an Order on Contract to incorporate the required changes into the Contract; order, fabricate, and deliver long lead material; and obtain or modify any Environmental Approvals or other required approvals. In addition, the Design-Builder must indicate the latest date that the conceptual VECP and the VECP Order on Contract must be approved to not affect the currently approved Baseline Project Schedule. Should the Authority find that insufficient time is available for review and processing, it may reject the conceptual VECP solely on such basis. If the Authority fails to respond to the conceptual VECP by the date specified,

the Design-Builder will consider the VECP rejected and will have no claims against the Authority as a result thereof.

- 4) A description of any previous use or testing of the conceptual VECP on another project of the Authority or elsewhere and the conditions or results therewith. The Design-Builder shall submit the technical aspects of the conceptual VECP in sufficient detail as to enable reviewers to determine the suitability of the VECP from an engineering perspective. If the technology is new, test information must be provided to the Authority's satisfaction. If the conceptual VECP was submitted previously on another project of the Authority, indicate the date, contract number, and action taken by the Authority.

An original and three copies of the conceptual VECP must be submitted to the Authority's Project Manager, plus any additional information requested by the Authority. The Authority may accept conceptual VECPS that require Contract Time extensions if sufficient cost savings or other benefits are anticipated, at the sole discretion of the Authority. Baseline Project Schedules for these conceptual VECPS must include all of the above information plus the new anticipated Contract Deadline.

DB 104-13.3 Submittal of Formal VECP

Upon notification by the Authority's Project Manager that the conceptual VECP is approved and a formal VECP is necessary, the Design-Builder will submit an original and three copies of the following information with each formal VECP, plus any additional information requested by the Authority:

- A) A statement identifying the submittal as a cost reduction proposal of the difference between the existing Contract requirements and the proposed change and the comparative advantages and disadvantages of each, including considerations of service life, economy of operation, ease of maintenance, traffic flow, safety, desired appearance, and increase or reduction of environmental impacts;
- B) A description of the performance of the Work under the existing Contract requirements and under the proposed changes;
- C) An engineering analysis including Plans, computations, and other documents necessary for evaluation by the Authority;
- D) A listing of the Contract requirements that must be changed if the VECP is adopted, and a recommendation as to the manner in which the change(s) should be made;
- E) A detailed estimate for performing the design and construction Work under the existing Contract and for performing it under the VECP. An estimate of the cost to the Design-Builder for developing and implementing the changes must also be included;
- F) A listing of the Schedule of Prices items and schedule activities affected by the VECP; and
- G) An assessment of the effects that the adoption of the VECP will have on other costs to the Authority, including future right-of-way acquisition, maintenance, and operations.

The Design-Builder may be required to conduct a technical presentation as a part of the review process.

In preparing VECPs, the Design-Builder must perform an independent examination of the affected Work Site. The Authority shall rely exclusively upon the accuracy of the engineering data upon which the VECP is based. The Authority is not required to perform additional investigations, cross checks, or Site examinations. Adoption of a Design-Builder's VECP shall not be construed to alleviate or reduce the Design-Builder's full and absolute liability if the VECP upon implementation fails to satisfactorily perform because of the Design-Builder's use of inaccurate or incomplete engineering data or because of the Design-Builder's failure to adequately investigate and examine the affected construction Site.

DB 104-13.4 Conditions

The Design-Builder acknowledges and agrees that its Price Proposal was not based on the anticipated approval of a VECP and recognizes that any VECP may be rejected. If a VECP is rejected, the Design-Builder will be required to complete the Contract in accordance with the Contract Documents. A VECP will be considered after the Contract is awarded and only when all the following conditions are met:

- A) All VECPs, whether or not approved by the Authority for use in this Contract, apply only to this Contract and become the property of the Authority and will contain no restrictions imposed by the Design-Builder on their use or disclosure. The Authority will have the right to use, duplicate, and disclose in whole or in part any data necessary for the utilization of the VECP. The Authority retains the right to utilize any proposed VECP or part thereof on any other project without any obligation to the Design-Builder submitting the same.
- B) The approval of the conceptual VECP in no way obligates the Authority to accept the formal VECP. Furthermore, the Design-Builder shall have no claim against the Authority as a result of the rejection of any such conceptual or formal VECP.
- C) The Authority will be the sole judge as to whether a VECP qualifies for consideration and evaluation. It may reject any VECP that requires excessive time or costs for evaluation or which is not consistent with the Authority's policies for the Project.
- D) A VECP must provide the same service life or more, facilitate economy of operations and ease of maintenance, and achieve the desired appearance and safety. A VECP will not be allowed that changes the type and/or thickness of the pavement structure and material or solely substitutes one material for another. Examples of material that fall into inappropriate substitution situations are drainage pipes, bridge coatings, and pavement markings. Also, elimination of Work does not necessarily constitute a VECP.
- E) The VECP will not be experimental in nature, but must have been proven to the Authority's satisfaction under similar or acceptable conditions on another project of the Authority or at another location acceptable to the Authority.
- F) A VECP will be considered only if equivalent options are not already provided in the Contract Documents.
- G) The Authority will be the sole judge in determining if the proposed VECP will result in a sufficient amount of direct or indirect savings to offset the Authority's effort to review the VECP.

- H) If the Authority requires any additional information to evaluate the VECP, this information must be provided in a timely manner. Unless mutually agreed to otherwise, failure to do so will result in the rejection of the VECP. An incomplete or a poor quality VECP which hinders the Authority's review may also result in the rejection of the VECP.
- I) The Design-Builder shall encourage submission of VECPs from Subcontractors, provided that reimbursement is made by the Authority to the Design-Builder and that the terms of payment to the Subcontractor are satisfactorily negotiated and accepted before the VECP is submitted to the Authority. Subcontractors may not submit a VECP except through the Design-Builder.
- J) The Design-Builder will receive written notification from the Authority when the VECP is accepted. The Design-Builder will not order any materials until it has received the acceptance.

DB 104-13.5 Payment

If the Authority accepts the VECP, the changes and payment will be authorized through an Order on Contract. Reimbursement to the Design-Builder for the total cost of the revised Work will be paid in accordance with the payment provisions of DB §109. Progress payments may be made on a schedule adopted by the Authority's Project Manager.

If Authority accepts a VECP, the Contract Price shall be adjusted in accordance with the following:

- A) For VECPs which reduce the Design-Builder's costs, the Contract Price shall be reduced by an amount equal to the sum of: (a) 100% of any additional costs incurred by Authority, including the costs incurred in reviewing the VECP and any impact the VECP may have on Project revenue, but excluding the amounts due to the Design-Builder resulting from the VECP (excluding any impact on the Contract Price itself), plus (b) 50% of estimated net savings (or 75% in the case of a VECP based on any Unsuccessful Proposer's Work Product). For such VECPs, the term "estimated net savings" shall mean: (i) the difference between the cost of performing the Work according to the Contract Documents and the actual cost to perform the Work, as modified by the VECP, less (ii) the actual costs of studying and preparing the VECP as substantiated by Design-Builder and approved by Authority in writing in accordance with the change procedures set forth herein, less (iii) the costs in (a) above. Design-Builder's profit shall not be considered part of the cost.
- B) For VECPs that result in an increase in the Design-Builder's costs, the Contract Price shall be increased by an amount equal to the sum of: (a) 100% of any additional costs incurred by Design-Builder and approved by Authority plus (b) 50% of estimated net savings. For such VECPs, the term "estimated net savings" shall mean (i) the amount of any savings in Authority's costs resulting from the VECP (taking into consideration the costs incurred in reviewing the VECP and any impact the VECP may have on project revenue), less (ii) the actual costs of studying and preparing the VECP as substantiated by Design-Builder and approved by Authority in writing in accordance with the Order-on-Contract procedures set forth herein, less (iii) the costs in (a) above. Design-Builder's profit shall not be considered part of the cost.

- C) Design-Builder is not entitled to share in either collateral or future contract savings. The term “collateral savings” means those measurable net reductions in Authority’s costs of operation resulting from the VECP, including costs of maintenance by Authority or any third party, logistics, Authority-furnished property and future costs associated with the Project. The term "future contract savings" shall mean reductions in the cost of performance of future construction contracts for essentially the same item resulting from a VECP submitted by Design-Builder.
- D) In a case where a VECP involves acquisition of additional property and/or reduces Authority’s cost of property acquisition, the analysis of the VECP shall consider the additional costs or savings associated with the adjustment in the real property requirements for the Project, including the costs involved in adjusting the Governmental Approvals, Authority’s additional costs, including costs of personnel, Design-Builder’s out-of-pocket costs such as the price of the additional property, and the incremental reduction in Authority’s costs (if any) for property acquisition. The estimated net savings shall be shared between Authority and Design-Builder as described above.
- E) In the event that Design-Builder proceeds with a Design-Builder-requested Order-on-Contract that Authority believes should be characterized as a VECP, and it is later determined through the dispute resolution process that the change meets the technical qualifications for a VECP, the Contract Price shall be reduced by an amount equal to the sum of: (a) 100% of any additional costs incurred by Authority resulting from the VECP plus (b) 75% of estimated net savings.

The Authority’s Project Manager will be the sole judge of the estimated net savings in construction cost and costs incurred by the Authority resulting from the adoption of all or any portion of a VECP.

The Design-Builder’s share will be considered full compensation to the Design-Builder for effecting all changes pursuant to the Order on Contract stemming from the VECP.

In the event of the Authority’s acceptance of a direct cost savings conceptual VECP, and the Design-Builder is directed to proceed with the VECP implementation steps, and acceptance of the formal VECP is not reached, reimbursement of the implementation costs will be limited to 50%. If “advance” written acceptance is given to proceed with the Work, procure the material, and begin fabrication and rejection of the formal VECP occurs, the Work and fabrication costs will be reimbursed in accordance with DB §109. Regarding material, only those items not incorporated and unique to the Project (i.e., not restockable) will be evaluated for payment under DB §109.

There will be no reimbursement for any costs incurred prior to the acceptance of the conceptual VECP.

When multiple submittals are required to satisfy the basic information needs of the conceptual or formal VECP, and Contract Time is negatively impacted before review and subsequent approval can be given by the Authority, the VECP may be rejected. In such cases, there will be no claim by the Design-Builder for the development costs and loss of anticipated savings and/or profits.

DB 104-13.6 Time Savings

The Authority will consider VECPs that result in time savings and at the same time increases the cost of the Project. The Authority will be the sole judge as to whether the benefits of completing the Project or phase thereof before the Crossing Completion Deadline or relevant milestone offsets any increase to the

cost of the Project. These submittals, while not constituting Value Engineering (VE), shall be reviewed using the VECF acceptance process. In addition to the information required in DB §§104-13.2 and 104-13.3 above, the Design-Builder shall also provide the Authority sufficient information to enable the Authority to calculate and evaluate the cost benefit of the savings in user delay.

DB 104-14 ALTERNATIVE METHODS AND EQUIPMENT

Where particular methods or equipment are specifically required in the Contract Documents, the Design-Builder may apply in writing to the Authority's Project Manager to use alternate methods and equipment to provide the same results. Such alternates may be used only after the written acceptance of the Authority's Project Manager. When, in the opinion of the Authority's Project Manager, satisfactory results are not being obtained using the Design-Builder's alternate methods and equipment, the methods and/or equipment shall be immediately modified to produce satisfactory results.

DB 104-15 WARRANTIES AND GUARANTEES

DB 104-15.1 Warranties

The Design-Builder warrants as follows:

- A) That all design Work performed pursuant to the Contract Documents, including that done by its Subcontractors and manufacturers, shall conform to all professional engineering principles generally accepted as standards of the industry;
- B) That the Project shall be free of defects (except to the extent that such defects are inherent in prescriptive specifications included in *Parts 3* through *8* of the Contract Documents) including design defects, errors, and omissions and shall be fit for use for the intended function; and
- C) That all materials and equipment furnished under the Contract Documents shall be of good quality and new.

DB 104-15.2 Warranty Period

Warranties for all Work shall commence upon Physical Completion and shall remain in effect until two years after the date that Final Acceptance is achieved. If the Authority determines that any of the Work has not met the standards set forth in this DB §104-15 at any time during the Warranty period for such Work, then the Design-Builder shall correct such Work as specified below even if the performance of such correction Work extends beyond the stated Warranty period.

Within seven days of receipt by the Design-Builder of notice from the Authority specifying a failure of any of the Work to satisfy the Design-Builder's Warranties, or of any Subcontractor representation, warranty, guarantee, or obligation which the Design-Builder is responsible to enforce, the Design-Builder and the Authority shall mutually agree when and how the Design-Builder shall remedy such violation, provided, however, that in case of an emergency requiring immediate curative action, the Design-Builder shall implement such action as it deems necessary and shall notify the Authority of the urgency of a decision. The Design-Builder and the Authority shall agree on a remedy immediately upon notice by or to the Authority of such emergency. If the Design-Builder does not use its best efforts to proceed to effectuate such remedy within the agreed time, or if the Design-Builder and the Authority fail to reach such an agreement within such seven-day period (or immediately, in the case of emergency conditions),

then the Authority, upon notice to the Design-Builder, shall have the right to order the Design-Builder to perform the work or to perform or have performed by third parties the necessary Authority-approved remedy, and the costs thereof shall be borne by the Design-Builder.

DB 104-15.3 Subcontractor and Manufacturer Warranties

- A) Without in any way derogating the Design-Builder's own representations, Warranties, and other obligations with respect to all of the Work, the Design-Builder shall obtain from all Subcontractors and cause to be extended to the Authority appropriate representations, warranties, guarantees, and obligations with respect to design, material, workmanship, equipment, tools, and supplies furnished by such Subcontractors, including all such representations, warranties, guarantees, and obligations required to be furnished by Subcontractors pursuant to the Contract Documents. All representations, warranties, guarantees, and obligations of Subcontractors shall be written so as to survive all Authority and Design-Builder Inspections, tests, and approvals, and shall run directly to and be enforceable by the Design-Builder and/or the Authority and their respective successors and assigns. The Design-Builder hereby assigns to the Authority all of the Design-Builder's rights and interest in all extended warranties for periods exceeding the applicable Warranty period which are received by the Design-Builder from any of its Subcontractors.
- B) The Design-Builder retains responsibility for all Work performed on the Project, including all Work of Subcontractors and all materials and equipment provided by suppliers, vendors and/or manufacturers. Upon receipt from the Authority of notice of a failure of any of the Work to satisfy any Subcontractor warranty, representation, covenant, guarantee, or obligation, the Design-Builder shall be responsible for enforcing or performing any such representation, warranty, guarantee, or obligation, in addition to the Design-Builder's other obligations hereunder. The Authority's rights under this §104-15.3(B) shall commence at the time such representation, warranty, guarantee, or obligation is furnished and shall continue until the expiration of the Design-Builder's relevant Warranty (including extensions for redone Work). Until such expiration, the cost of any equipment, material, labor (including re-engineering), and/or shipping shall be for the account of the Design-Builder if such cost is covered by such a Warranty, and the Design-Builder shall be required to replace or repair defective equipment, material, or workmanship furnished by Subcontractor.

DB 104-15.4 Extension of Warranties

The Design-Builder's Warranties shall apply to all Work re-done pursuant to the terms of this Contract. The Design-Builder's Warranty for re-done elements of the Work shall extend beyond the original Warranty period if necessary to provide a two-year Warranty period following acceptance for any re-done Work.

DB 104-15.5 Non-Exclusive Remedy

The foregoing Warranties are in addition to all rights and remedies available under the Contract Documents or applicable law, and shall not limit the Design-Builder's liability or responsibility imposed by the Contract Documents or applicable law with respect to the Work, including liability for design defects, latent construction defects, strict liability, negligence, or fraud.

DB 104-15.6 Damages for Breach of Warranty

In addition to all rights and remedies available under the Contract Documents or applicable law, if the Design-Builder fails or refuses to provide the Warranty remedy described in this DB §104-15, notwithstanding a valid request by the Authority, the Design-Builder shall be liable for the cost of performance of the Warranty work by others. The Authority may also call on the Surety and/or Guarantor to perform the warranty obligations.

DB 104-15.7 Exclusions

The Warranties shall not require the Design-Builder to perform repair or replacement Work to the extent necessitated by the following:

- A) Normal wear and tear, provided that damage and/or deterioration outside allowable limits specified in the Contract Documents shall not be considered normal wear and tear;
- B) Failure to perform routine maintenance consistent with policies and/or procedures established by the Authority or other maintenance agencies, including Utility Owners, or in the absence of such policies and/or procedures, in accordance with industry standards of maintenance for similar projects in the United States;
- C) Rebellion, war, riot, act of sabotage, civil commotion, acts of vandalism, acts of terrorism, nuclear events or ionizing radiation causing direct physical damage;
- D) Wind, flood and/or earthquakes and other acts of God which exceed the severity or intensity specified in the Standards applicable to the design as specified in the Contract Documents;
- E) Fire, except when fire results from, or is exacerbated by, failure of a component otherwise covered by the Warranty provisions of this DB §104-15.7;
- F) Spill or release of hazardous or contaminated substances, unless caused by the Design-Builder's organization or otherwise considered the Design-Builder's responsibility under DB §104-4.3; and/or
- G) Street/highway traffic loadings (equivalent single axle loadings) more than 25% greater than loadings projected by the agency having jurisdiction over the facility as of the Proposal Date.

DB 104-15.8 Warranty Inspections

The Authority and the Design-Builder shall conduct joint annual Warranty Inspections of the Project commencing one year after Physical Completion. A semi-final Warranty Inspection shall also be conducted six months prior to the end of the Warranty period. The measurements and/or tests for those Warranty items that require specific measurements and/or tests, such as pavement condition and rideability, shall be taken during the scheduled joint inspections. Notwithstanding the provisions of this DB §104-15.8, the Authority may inspect any component of the Project at any time and issue notice to the Design-Builder.

The failure to conduct any inspection specified herein shall not invalidate or cancel the Warranty provisions, responsibilities or performance requirements.

DB 104-15.9 Warranty Performance Requirements

In addition to the Warranty provisions of DB §104-15, Project components shall meet the performance requirements specified in the Contract Documents.

DB 104-15.10 Other Post-Completion Obligations

As specified in the Project Requirements, the Design-Builder shall remain responsible for certain maintenance, monitoring and other obligations relating to the Project following Physical Completion, including landscape establishment work as specified in *Part 3, Section 12 – Landscape Architecture*, and ongoing mitigation and monitoring requirements as specified in *Part 3, Section 3 – Environmental Compliance*. Unless otherwise specified in the Project Requirements, these obligations shall continue until expiration of the Warranty period (as such period may be extended under DB §104-15.4).

DB 104-16 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 payrolls, accounts, correspondence, maps, photographs, or other documentary materials, regardless of physical form or characteristics, made or received by the Design-Builder in connection with the Contract. The Design-Builder shall establish a document-control system whose records 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 Contract Price including records maintained pursuant to DB §104-3 - Contingencies, Extra Work and Deductions and DB §109-10 - Dispute Resolution and Disputed Work Provisions. 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 Authority for review and audit, if deemed necessary by the Authority. In case all or part of such records are not made so available, 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 Authority, refund to the Authority the amount so disallowed.

**SECTION 105
CONTROL OF WORK**

DB 105-1 AUTHORITY'S PROJECT ORGANIZATION

As designee of the Authority, the Authority's Project Manager has immediate charge of the Project. The Authority's Project Manager is responsible for the administration and satisfactory completion of the Project. The Authority'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.

Except as otherwise expressly provided in the Contract, the Design-Builder is required to submit all issues related to the Project through the Authority's Project Manager. All communications by the Design-Builder with the Authority, written or verbal, shall be in English. All references to costs, changes, prices, etc. shall be in United States dollars. Except as otherwise expressly provided in the Contract, the Authority's Project Manager will decide all questions that may arise under the Contract, including 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 Authority'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 Order on Contract, and oversee and terminate the Contract as expressly provided in other Sections of the Contract, the Authority's Project Manager will have the authority to suspend the Work, wholly or in part, or withhold progress payments due to the following:

- 1) Conditions such that unsatisfactory Work might result;
- 2) Improper material or procedures being used;
- 3) Unsafe conditions for the workers or the general public as a result of the failure of the Design-Builder to correct those conditions;
- 4) The Design-Builder's failure to carry out provisions of the Contract;

- 5) The Design-BUILDER's failure to carry out directions of the Authority's Project Manager;
- 6) The Design-BUILDER's failure to comply with applicable Governmental Rules;
- 7) The Design-BUILDER non-conformance with the Work Zone Traffic Control (WZTC) provisions of the Contract, causing serious disruptions to traffic operations; or
- 8) The Authority's Project Manager's determination that suspension is necessary because of unsuitable weather.

The Authority's Project Manager may suspend Work if conditions exist that are potentially injurious to the Project, including Work being performed in the absence of Readiness for Construction documents and/or Work being performed in the absence of the Design-BUILDER's qualified Inspectors and/or sampling and testing personnel as specified in the Design-BUILDER's Quality Plan, and under any other circumstance expressly provided in the Contract, including DB §§107-10, 107-11.1, 107-12, 107-19 and 109-15.2(A). No additional compensation will be paid to the Design-BUILDER because of any such suspension. The Design-BUILDER shall not suspend Work without written authority from the Authority's Project Manager.

The Authority's Project Manager may also suspend the Work wholly or in part when deemed in the best interest of the Authority, including for other conditions or reasons beyond the control of the Design-BUILDER or not connected with the construction of the Project. Additional Work caused by such suspensions will be paid for by the Authority pursuant to DB §104-3.

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

DB 105-2 CHARACTER OF WORKERS AND ORDERS TO FOREMAN

See DB §102-3 for requirements concerning the character of the Design-BUILDER's workers.

Whenever the Design-BUILDER's Project Manager is not present on any part of the Work where the Authority may desire to give directions, orders will be given by the Authority's Project Manager, or the Design Compliance Engineer (DCE) or Construction Compliance Engineer (CCE), and shall be received and obeyed by the Design-BUILDER's foreman who may have charge of the particular Work in reference to which the orders are given. All foremen shall speak English.

DB 105-3 DESIGN PLANS AND WORKING PLANS

See DB §111.

DB 105-4 CONFORMITY WITH DESIGN PLANS AND PROJECT SPECIFICATIONS

All Work performed and all material furnished shall be in conformity with the lines, grades, cross sections, dimensions, and material requirements, including tolerances, shown on the Design Plans or indicated in the Project Specifications.

In the event the Authority's Project Manager finds the material, or the finished product in which the material is used, not in conformity with the Design Plans and Project Specifications, but that reasonably acceptable Work has been produced, he/she shall then make a determination if the Work may remain in

place. In this event, the Authority's Project Manager will document the basis of his/her determination by Contract modification which will provide for an appropriate adjustment in the Contract Price in accordance with DB §109-7.6.

In the event the Authority's Project Manager finds the material, the finished product in which the material is used, or the Work performed are not in conformity with the Design Plans and Project Specifications and have resulted in an inferior or unsatisfactory product, the Work or material shall be documented via a Non-Conformance Report and corrected by and at the expense of the Design-Builder. If Design-Builder fails to correct any non-conforming Work within 10 days of receipt of notice from Authority requesting correction, or if such non-conforming Work cannot be corrected within 10 days, and Design-Builder fails to (a) provide to Authority a schedule for correcting any such non-conforming work acceptable to Authority within such 10-day period, (b) commence such corrective Work within such 10-day period and (c) thereafter diligently prosecute such correction in accordance with such approved schedule to completion, then Authority may cause the non-conforming Work to be remedied or removed and replaced and may deduct the cost of doing so from any moneys due or to become due to Design-Builder and/or obtain reimbursement from Design-Builder for such cost.

DB 105-5 PROJECT RECORDS

The Authority's Project Manager is required to keep his/her Project records in accordance with the requirements in the Contract Documents. In several instances (such as force account Work or application for approval of Subcontractors) the Design-Builder shall furnish such data and information on the forms as set up in the Contract. The Authority's Project Manager will furnish the appropriate forms. See also DB §104-16 - Retention of Records.

DB 105-6 COORDINATION WITH THIRD PARTIES

The Design-Builder shall coordinate all design and construction, including that of any Subcontractors, with other designers, contractors, the utility owners, governmental agencies, Authority's personnel, and operating personnel concerning Site access, establishment and use of temporary facilities, work schedules, and all other elements of the specified Work, which require interfacing with others. The Design-Builder shall coordinate with the railroad company in carrying out railroad force account Work. When the Work of the Design-Builder or Subcontractor dovetails with the railroad force account Work, the material shall be delivered and the operations conducted so as to carry on the Work continuously in an efficient and skillful order.

The Authority shall have the right, at any time, to contract for and perform other work on, adjacent to, near, over or under the Work covered by this Contract. In addition, other work may be performed under the jurisdiction of another department or State agency. In such cases, when a dispute arises among contractors, the Authority will decide which agency will have jurisdiction over said dispute. The Design-Builder shall cooperate fully with such other contractors and carefully fit its own work to such other work as may be directed by the Authority.

Any delays in performance of the Work or the need to oversee and coordinate with work performed by others, including removal and replacement of Work already in place if needed, will not be the basis for a claim for extra compensation. Such Work shall be done at the cost and expense of the Design-Builder or Subcontractor, as applicable.

The Design-Builder and each other contractor shall assume all liability, financial or otherwise, in connection with their respective contracts, and shall protect and save the Authority harmless from any and

all damages or claims that may arise because of inconvenience, delay, or loss experienced by the Design-Builder or other contractors because of the presence and operations of other contractors working within the limits of this Project.

See also Part 5 - Special Provisions, Special Provision 5.4 - List of Ongoing Contracts at the Project Site.

DB 105-7 TERMINATION FOR CONVENIENCE

DB 105-7.1 Notice of Termination

The Authority may, by written notice, terminate the Contract or any portion thereof after determining that for reasons beyond the control of either party hereto it is not feasible to proceed with or complete the Work originally contracted for, or that continuation of the Work is not otherwise in the Authority's best interest, and that termination would therefore be in the public interest. Such reasons for termination may include Executive Orders of the President relating to the prosecution of war or national defense; a national emergency which creates a serious shortage of material; orders from duly constituted authorities relating to energy conservation; restraining orders or injunctions obtained by third-party citizen action resulting from national or local laws or regulations, where the issuance of such order or injunction is primarily caused by acts or omissions of persons or agencies other than the Design-Builder; where the orderly progression of the Project is interfered with or delayed by acts or omissions of persons or agencies other than the Design-Builder; or any other circumstance in which the Authority determines that it is in the Authority's best interest to terminate the Agreement. The Design-Builder acknowledges and agrees that the issuance of such notice by the Authority shall be conclusive as to its necessity. Termination (or partial termination) of the Contract shall not relieve any Surety of its obligation for any claims arising out of the Work performed.

DB 105-7.2 Design-Builder's Responsibilities Upon Termination

After receipt of a Notice of Termination, and except as otherwise directed by Authority, Design-Builder shall immediately proceed as follows, regardless of any delay in determining or adjusting any amounts due under this DB §105-7.

- A) Stop Work as specified in the notice;
- B) Communicate such notice to all affected Subcontractors and suppliers and that their Subcontracts and supply agreements are not to be further performed unless otherwise authorized in writing by Authority;
- C) Place no further Subcontracts or orders for materials, services or facilities, except as necessary to complete the continued portion of the Work, if any, or for mitigation of damages;
- D) Terminate all Subcontracts to the extent that they relate to the Work terminated unless directed by Authority to assign all of the right, title and interest of Design-Builder under one or more such Subcontracts, in which case Design-Builder shall assign the Subcontracts identified by Authority and terminate all remaining Subcontracts;
- E) Subject to the prior approval of Authority, settle all outstanding liabilities and claims arising out of such termination of Subcontracts;

- F) Provide Authority with an inventory list of all materials previously produced, purchased or ordered from suppliers for use in the Work and not yet used in the Work, including its storage location, as well as any documentation or other property required to be delivered hereunder which is either in the process of development or previously completed but not yet delivered to Authority, and such other information as Authority may request; and transfer title and deliver to Authority, in the manner, at the times, and as and to the extent, if any, directed by Authority (i) fabricated or unfabricated parts, the Work in process, completed Work, supplies and other material produced or acquired for the Work terminated; and (ii) the Design Documents, working drawings and all other completed or partially completed drawings (including plans, elevations, sections, details and diagrams), specifications, records, samples, information and other property that would have been required to be furnished to Authority if the Work had been completed;
- G) Complete performance in accordance with the Contract Documents of all Work not terminated;
- H) Take all action that may be necessary, or that Authority may direct, for the safety, protection and preservation of (i) the public, including public and private vehicular movement, (ii) the Work and (iii) the equipment, machinery, materials and property related to the Contract Documents that is in the possession of Design-Builder and in which Authority has or may acquire an interest;
- I) As authorized by Authority in writing, use its best efforts to sell, in a manner, at the times, to the extent, and at the price or prices directed or authorized by Authority, any property of the types referred to in DB §105-7.2(F); provided, however, that Design-Builder (i) is not required to extend credit to any purchaser, and (ii) may acquire the property under the conditions prescribed and at prices approved by Authority. The proceeds of any transfer or disposition will be applied to reduce any payments to be made by Authority under the Contract Documents or paid in any other manner directed by Authority;
- J) If requested by Authority, withdraw from the portions of the Site designated by Authority and remove such materials, equipment, tools and instruments used by, and any debris or waste materials generated by, Design-Builder and any Subcontractor in the performance of the Work as Authority may direct; and
- K) Take other actions directed by Authority.

DB 105-7.3 Responsibility After Notice of Termination

Design-Builder shall continue to be responsible for damage to materials after issuance of the Notice of Termination, except as follows:

- A) Design-Builder's responsibility for damage to materials for which partial payment has been made as provided herein shall terminate when Authority certifies that those materials have been stored in the manner and at the locations directed by Authority.
- B) Design-Builder's responsibility for damage to materials purchased by Authority subsequent to the issuance of the notice that the Contract is to be terminated shall terminate when title and delivery of those materials has been taken by Authority.

- C) Immediately after Authority determines that Design-Builder has completed the Work directed to be completed prior to termination and such other work as may have been ordered to secure the Project for termination, Design-Builder will no longer be required to provide for continuing safety, security and maintenance at the Site.

DB 105-7.4 Negotiated Termination Settlement

DB 105-7.4.1 Settlement Proposal

After receipt of a Notice of Termination, Design-Builder shall submit a final termination settlement proposal to Authority in the form and with the certification prescribed by Authority. Design-Builder shall submit the proposal promptly, but no later than 60 days from the effective date of termination, unless Design-Builder has requested a time extension in writing within such 60-day period and Authority has agreed in writing to allow such an extension. Authority will then review Design-Builder's termination settlement proposal and will act upon it, return it with comments or reject it. If Design-Builder fails to submit the proposal within the time allowed, Authority may determine, on the basis of information available to it, the amount, if any, due Design-Builder because of the termination and shall pay Design-Builder the amount so determined. Design-Builder agrees to make all records available to the extent deemed necessary by Authority to verify the costs in Design-Builder's settlement proposal.

DB 105-7.4.2 Negotiated Settlement Amount

Design-Builder and Authority may agree, as provided in DB §105-7.4.1, upon the whole or any part of the amount or amounts to be paid to Design-Builder by reason of the total or partial termination of Work pursuant to this DB §105-7. Such negotiated settlement may include a reasonable allowance for profit solely on Work which has been completed as of the termination date and subsequently accepted by Authority. Upon determination of the settlement amount, the Contract will be amended accordingly, and Design-Builder will be paid the agreed amount. Nothing in DB §105-7.5, prescribing the amount to be paid to Design-Builder in the event that Design-Builder and Authority fail to agree upon the whole amount to be paid to Design-Builder by reason of the termination of Work pursuant to this DB §105, shall be deemed to limit, restrict or otherwise determine or affect the amount(s) which may be agreed upon to be paid to Design-Builder pursuant to this DB §105-7.4.2. Authority's execution and delivery of any settlement agreement shall not affect any of its rights under the Contract Documents with respect to completed Work, relieve Design-Builder from its obligations with respect thereto, including Warranties, or affect Design-Builder's rights under the Contract Bonds as to such completed or non-terminated Work.

DB 105-7.5 Determination of Settlement Amount If Negotiations Fail

If Design-Builder and Authority fail to agree, as provided in DB §105-7.4.2, upon the whole amount to be paid to Design-Builder by reason of the termination of Work pursuant to this DB §105-7, the amount payable (exclusive of interest charges) shall be determined by Authority in accordance with the following, but without duplication of any amounts agreed upon in accordance with DB §105-7.4.

DB 105-7.5.1 Payment Amount

Subject to the limit on Authority expenditures set forth in DB §109-7.3, Authority will pay Design-Builder the sum of the following amounts for Work performed prior to the effective date of the Notice of Termination, as such amounts are determined by Authority:

- A) Design-Builder's actual reasonable out-of-pocket cost (without profit, and including equipment costs only to the extent permitted by DB §109-9) for all Work performed other than unit priced Work. Costs to be reimbursed include mobilization, demobilization and work done to secure the Project for termination, including reasonable overhead and accounting for any refunds payable with respect to insurance premiums, deposits or similar items, as established to Authority's satisfaction. In determining the reasonable cost, deductions will be made for the cost of materials to be retained by Design-Builder, amounts realized by the sale of materials and for other appropriate credits. Deductions will also be made for the cost of damaged materials. When, in the opinion of Authority, the cost of an item of Work is excessively high due to costs incurred to remedy or replace defective or rejected Work, the reasonable cost to be allowed will be the estimated reasonable cost of performing that Work in compliance with the requirements of the Contract Documents and the excessive actual cost will be disallowed.
- B) As profit on clause (a) above, a sum determined by Authority to be fair and reasonable; provided, however, that if it appears that Design-Builder would have sustained a loss, no profit shall be included or allowed under this DB §105-7.5.1 and an appropriate adjustment shall be made in the settlement amount.
- C) The cost of settling and paying claims arising out of the termination of Work under Subcontracts and supply agreements as provided in Section DB §105-7.2(E), exclusive of the amounts paid or payable on account of supplies or materials delivered or services furnished by the Subcontractor or supplier prior to the effective date of the Notice of Termination under the Contract, which amounts shall be included in the cost on account of which payment is made under clause (A) above.
- D) The reasonable out-of-pocket cost (including reasonable overhead) of the preservation and protection of property incurred pursuant to DB §105-7.2(H) and any other reasonable out-of-pocket cost (including overhead) incidental to termination of Work under the Contract, including the reasonable cost to Design-Builder of handling material returned to the supplier, delivered to Authority or otherwise disposed of as directed by Authority, and including a reasonable allowance for Design-Builder's administrative costs in determining the amount due to Design-Builder as the result of the termination of Work under the Contract.
- E) For unit priced Work, payment will be made for the actual number of units of Work completed at the Contract unit prices.

DB 105-7.5.2 Maximum Compensation

Design-Builder acknowledges and agrees that it shall not be entitled to any compensation in excess of the value of the Work performed (determined as provided in DB §105-7.5.1) plus its settlement costs, and that items such as lost or anticipated profits, unabsorbed overhead and opportunity costs shall not be recoverable by it upon termination of the Contract. However, the total amount to be paid to Design-Builder for Work performed prior to the termination may not exceed the total amounts payable for such Work set forth in the PPS-C for the terminated Work, less the amount of payments previously made and less the portion of such amount allocable to Work not terminated. In addition, the costs identified in DB §105-7.5.1(B), (C), (D) and (E) will be allowed as described therein. Furthermore, if any refund is payable with respect to insurance or bond premiums, deposits or similar items which were previously

passed through to Authority by Design-Builder, such refund shall be paid directly to Authority or otherwise credited to Authority.

DB 105-7.5.3 Excluded Items

Except for normal spoilage, and except to the extent that Authority will have otherwise expressly assumed the risk of loss, there will be excluded from the amounts payable to Design-Builder under DB §105-7.5.1, the fair value, as determined by Authority, of equipment, machinery, materials and property which is destroyed, lost, stolen or damaged so as to become undeliverable to Authority, or to a buyer pursuant to DB §105-7.2(I). The amount set forth in the Proposal by Design-Builder for the Work terminated shall be a factor to be analyzed in determining the value of the Work terminated.

DB 105-7.5.4 Payment of Termination Amount

Upon determination of the amount of the termination payment, the Contract shall be amended to reflect the agreed termination payment, and Design-Builder shall be paid the agreed amount.

DB 105-7.6 Partial Termination

If a termination hereunder is partial, the portion of the Contract Price allocable to the remainder of the Work shall be adjusted as appropriate to account for the change in the overall scope of the Project.

DB 105-7.7 Reduction in Amount of Claim

The amount otherwise due Design-Builder under this DB §105-7 shall be reduced by (a) all unliquidated advance or other payments made to or on behalf of Design-Builder applicable to the terminated portion of the Contract, (b) the amount of any claim which Authority may have against Design-Builder or any Subcontractor or supplier in connection with the Contract Documents, (c) the agreed price for, or the proceeds of the sale of, any property, materials, supplies or other things acquired by Design-Builder or sold, pursuant to the provisions of this DB §105-7, and not otherwise recovered by or credited to Authority, (d) amounts that Authority deems advisable to retain to cover any existing or threatened claims, Liens and stop notices relating to the Project, including claims by utility owners, (e) the cost of repairing any non-conforming Work and (f) any amounts due or payable by Design-Builder to Authority.

DB 105-7.8 Partial Payments

Authority may, from time to time, under such terms and conditions as it may prescribe and in its sole discretion, make partial payments on account against costs incurred by Design-Builder in connection with the terminated portion of the Contract, whenever in the opinion of Authority the aggregate of such payments shall be within the amount to which Design-Builder will be entitled under this DB §105-7. If the total of such payments is in excess of the amount finally agreed or determined to be due under this DB §105-7, such excess shall be payable by Design-Builder to Authority upon demand.

DB 105-7.9 Subcontracts

Design-Builder shall insert in all Subcontracts and supply agreements a requirement that the Subcontractor or supplier shall stop Work on the date and to the extent specified in a Notice of Termination from Authority in accordance with this DB §105-7, and shall require Subcontractors to insert the same provision in each Subcontract and supply agreement at all tiers.

For the purposes of DB §105-7.4.2 and DB §105-7.5, upon termination under DB §105-7.2(D) of Work under any Subcontract or supply agreement, Design-Builder will not be entitled to reimbursement for that portion of the termination settlement with any such Subcontractor or supplier which constitutes anticipatory or unearned profit on Work not performed, or which constitutes consequential damages on account of the termination or partial termination.

DB 105-7.10 No Unearned Profits or Consequential Damages

Under no circumstances shall Design-Builder be entitled to anticipatory or unearned profits or consequential or other damages as a result of a termination or partial termination under this DB §105-7. The payment to Design-Builder determined in accordance with this DB §105-7 constitutes Design-Builder's sole and exclusive remedy for a termination under this DB §105-7.

DB 105-7.11 No Waiver

Termination for convenience shall not result in a forfeiture by Authority of damages it may be entitled to in connection with any default, except to the extent that settlement of such damages was included in the calculation of the compensation owing Design-Builder upon the termination for convenience.

DB 105-7.12 Dispute Resolution

Any failure of the parties to agree on amounts due under this DB §105-7 shall be a Dispute to be resolved in accordance with DB §109-10.

DB 105-7.13 Allowability of Costs

All costs claimed by Design-Builder under this DB §105-7 shall, at a minimum, be allowable, allocable and reasonable in accordance with the cost principles and procedures of 48 CFR Part 31.

DB 105-7.14 Termination Prior To Issuance of NTP

Notwithstanding anything to the contrary contained herein, in the event that Authority terminates the Contract prior to issuance of NTP, Design-Builder's sole compensation hereunder shall be payment of the amount that it is entitled to receive pursuant to and in accordance with the terms and conditions of the Stipend Agreement, provided that the Design-Builder shall have executed such agreement and delivered it to Authority in accordance with the RFP. Design-Builder acknowledges that Authority has no obligation to make any payment to Design-Builder in excess of the amount to which the Design-Builder would be entitled pursuant to the Stipend Agreement if the Contract is terminated prior to issuance of NTP. If Design-Builder performs any Work prior to issuance of NTP, it does so at its own risk.

DB 105-8 STAKEOUT

The Design-Builder shall furnish, incidental to the cost of other work items, all stakes, templates, standard subgrade testers, straight edges, approved paint and marking devices, and such temporary structures as may be necessary for marking and maintaining points and lines for the Work, and is to give the Authority's Project Manager such facilities, labor, and material for giving the lines and points as he/she may require.

All property lines and survey monuments which may be disturbed during construction shall be properly tied to fixed points before being disturbed and properly re-set by the Design-Builder upon the completion

of the Work. Field location notes shall be recorded and made available to the Authority's Project Manager upon request at no additional cost to the Authority.

All survey control and boundary location work shall be performed in accordance with the Department's Land Surveying Standards and Procedures Manual under the direction of a Land Surveyor. All survey work performed for Quality Control and Quality Assurance should utilize (1) similar levels of measurement precision and methods to perform positional measurements, (2) the same control network from which measurements are made, and (3) the same survey measurement procedures to ensure consistency of results.

Terrain features are measured and positioned by various methods relative to the contract control network established for each contract. The precision with which an instrument or equipment positions a point is related to the quality of the method by which measurements are made, and the ability to duplicate the same measurement. The local accuracy of a located point is the closeness of the measured or computed value to a standard or accepted value (actual spatial position on the earth). Positional tolerance is the allowable spatial difference between making measurements by two different methods or by the same method at separate times, all of which have the same level of precision.

Horizontal coordinates and vertical elevations of existing features provided as part of the Contract are located in the field based on accuracies achievable for each positional point relative to the contract control. Positional accuracies are directly related to the strength of the contract control network, the methods used to make the measurements, the precision of the instruments used to measure to the feature, and how definable the feature is which is being located. Point feature locations represent a single position (for example: property line marker, sign post, utility pole, or fire hydrant) and can be re-identified or verified in the field to within a small variation (high confidence level) from where they were initially positioned. Linear feature locations define the alignment of that feature. That alignment can be verified to within a specific tolerance depending on the spacing or frequency at which the points were originally measured to define that alignment. Straight or uniformly curved linear features (for example: curbline, edge of roadway, or edge of sidewalk) which can be easily defined in the field should have a relatively small positional variation from their designed location when compared to a verified field location. Irregular shaped or not as clearly defined linear features (for example: break lines, ditchlines, treelines, or environmental area perimeters) which are sometimes difficult to define or delineate precisely in the field, could have a larger variation from where they were initially positioned when compared to a field-verified location.

Digital terrain model (DTM) surfaces, when provided by the Authority, are made up of a combination of point and linear features. The precision of a data collection instrument does not necessarily indicate what positional tolerance should be expected of any feature verified from an existing DTM. The location or elevation of a feature selected from a DTM surface can, at best, be determined by interpolating the horizontal position or elevation between previously located points. The verification of any specific elevation on the DTM surface is directly related to: (1) the spacing of collected data or breaklines used to produce that surface; (2) the uniformity of the surface being measured; (3) the steepness of the slope of that surface; and (4) how obscured the surface is from the measuring technique used to originally locate the surface. Standardized procedures for determining the spacing/frequency of point and linear features (including break lines), are critical to providing consistent results. Standardized procedures for determining feature locations are described in NYSDOT's "Land Surveying Standards and Procedures Manual" and "Specifications for Photogrammetric Stereocompilation."

Verification of the positional tolerance of the DTM surface elevation requires a comparison of the original collected point data with recollected point data measured at the same horizontal locations. Field

comparisons to interpolated DTM surfaces or recreated surface information (from other information sources) shall not be used for verification of the positional tolerance of a feature. Comparisons of remeasured point data can only be made with the original collected point data, not to interpolated positions. Measurements for verification of DTM point data shall also be made from the same contract control network, and by instruments capable of an equal or greater precision.

DB 105-9 INSPECTION

The Design-Builder shall have the responsibility for QC and QA inspection of all Work. See DB §§111, 112 and 113 for the specific Design-Builder QC and QA Inspection and QC and QA responsibilities.

DB 105-9.1 Authority and Duties of Agencies' Oversight Staff

The Agencies' Construction Compliance Engineer, Construction Compliance Monitors, and associated construction staff shall be authorized to inspect all 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 Construction Compliance Engineer, Construction Compliance Monitors and associated construction inspectors may be Agency employees or agents acting for the Agencies. Inspection shall include the Design-Builder's compliance with applicable safety requirements set forth in DB §107-7. The Construction Compliance Engineer, Construction Compliance Monitors and associated staff are not authorized to either alter or waive requirements of the Contract Documents or to issue instructions contrary to the Design Plans and Project Specifications without written approval of the Authority's Project Manager or to act as foreman for the Design-Builder. A Non-Conformance Report will be issued for unacceptable Work or material, as set forth in DB § 105-9.3. Oversight is for the sole benefit of the Agencies and does not:

- A) Relieve the Design-Builder of responsibility for providing adequate QC and QA measures;
- B) Relieve the Design-Builder of responsibility for damage to or loss of the material/Work before Physical Completion;
- C) Obligate the Authority to determine that Substantial Completion of the Crossing, the Westbound Bridge or any other Section of the Project, Physical Completion or Final Acceptance have occurred; or
- D) Affect the continuing rights of the Authority hereunder.

DB 105-9.2 Authority's Inspection of Work

All material and each part or detail of the Work may be subject to Inspection by the Construction Compliance Engineer, Construction Compliance Monitors and associated staff and the Authority's Project Manager. The Authority's Project Manager and Agency staff shall be allowed full access to the Work and shall be furnished with necessary information and assistance by the Design-Builder to make a complete and detailed Inspection.

If the Authority'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 §§104-3 and 109-9. But, if the Work so exposed or examined proves unacceptable, or if the Design-Builder failed to document its Work according to the requirements of the Quality Plan, 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. Furthermore, any Work done or materials used without adequate notice to and opportunity for prior inspection by the Authority and others as specified herein may be ordered uncovered, removed or restored at the Design-Builder's cost, even if the Work proves acceptable after uncovering. Except with respect to Work done or materials used as described in the foregoing sentence, if Work exposed or examined under this DB §105-9.2 is in conformance with the requirements of the Contract Documents, then any delay in the critical path from uncovering, removing and restoring Work shall be considered an Authority-Caused Delay, and an Order on Contract may be issued to the Design-Builder for the cost of such efforts and recovery of any delay to any critical path occasioned thereby.

The Design-Builder shall provide at least a 24-hour notice, or such other notice to which the parties have agreed, before beginning Work on any item and before resumption of Work on an item after an extended suspension.

When a 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. Such inspection shall in no sense make the 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.

The above paragraphs shall not apply to pavement or sub-base rejected as a result of core tests. Work so rejected shall be removed and replaced at the expense of the Design-Builder.

The Design-Builder shall transmit a copy of any audit or inspection report conducted by SSPC, OSHA, or EPA to the Authority's Project Manager within seven days of receiving such a report. If any Subcontractor responsible for painting structural steel has been disciplined by SSPC or placed on warning, probation, suspended or revoked status from the Painting Contractor Certification Program during the past 24 months, the Design-Builder shall provide a written explanation of the cause for such action, the corrective measures enacted, and the Subcontractor's PCCP status.

DB 105-9.3 Correction of Unacceptable Work

All Work which does not conform to the requirements of the Contract shall be considered unacceptable unless otherwise determined acceptable under the provisions in DB §105-4.

Unacceptable Work, whether caused by poor workmanship, defective material, damage through carelessness, or any other cause found to exist prior to the Final Acceptance of the Work shall be documented via a Non-Conformance Report and corrected in a manner acceptable to the Agencies irrespective of the presence of, or lack of, a CCM or a representative of the Agencies at the time the Work was originally completed. The fact that Agency representatives may have previously overlooked such defective Work shall not constitute an approval or acceptance of any part of it.

DB 105-10 CONSTRUCTION EQUIPMENT

Construction equipment or vehicles delivering material or traveling to a Project from outside the Project Limits shall have all required permits issued through the established Department vehicle permit system in accordance with Section 385 of the New York State Vehicle and Traffic Law or 23 USC Section 127 for Federal-Aid Projects on the Interstate system. The permit will indicate the limits within which such

equipment with over-legal gross weights or axle loadings may operate, the frequency of such passages, and all other limiting factors.

Construction equipment or vehicles operating within the Project Limits having gross weights or axle loadings within the legal limits set by Section 385 of the New York State Vehicle and Traffic Law (or 23 USC Section 127 for Federal-Aid Projects on the Interstate system) may operate without specific approval.

Prior to use of construction equipment vehicles with over-legal gross weights or axle loadings on any structure, on any new pavement, or on any resurfaced pavement within the Project Limits, the Design-Builder shall submit a written request to the Authority's Project Manager. The request shall be accompanied, upon request, by an appropriate analysis performed by a Professional Engineer, including the pertinent equipment data, and shall demonstrate that the operations will not result in detrimental effects on the highway or structure.

Use of over-weight construction equipment or vehicles on portions of the Project other than listed above shall be subject to the Approval of the Authority's Project Manager. If it is determined that the use of construction equipment or vehicles is having a detrimental effect or will result in detrimental effects on the finished highway, the Authority's Project Manager will so notify the Design-Builder to modify or cease the operations.

Only New York State legal loads are allowed on the Thruway. Special Hauling Permits, required for special or occasional overweight and/or oversize loads exceeding NYS legal limits, are issued at the discretion of the Authority and only under special conditions and for use at designated times and locations.

Application should be made to the New York State Thruway Authority Special Hauling Unit, Albany Headquarters, and [REDACTED] at least 72 hours in advance. The Special Hauling Unit will fax the Design-Builder a NYS Thruway Special Hauling Permit Application. The Design-Builder must complete the application and fax it to the Authority's Special Hauling Unit at [REDACTED]. The fax should include a cover sheet with the following information:

- Contract Number
- Contract award date and relevant Completion Deadlines
- Thruway entry and exit points

The Special Hauling Unit will review the information for accuracy. If the application is approved, the special hauling permit will be assigned a number and any applicable restrictions will be noted. The permit will be faxed to the Design-Builder along with a cover letter addressed to the attention of "Toll Personnel." The cover letter must accompany the Special Hauling Permit when presented at the tollbooth by the Design-Builder's driver.

No fee will be charged for Special Hauling Permits.

Any changes to the permit will require notification and approval of the local Division Traffic Office. This Office may be reached by calling [REDACTED] and asking for the Traffic Duty Officer. This office is open 24 hours a day, 7 days a week.

Design approval of any shop drawing (e.g. steel erection procedures) does not constitute approval of a Special Hauling Permit. Notice of movement of any permitted oversized and/or overweight vehicle must be given at least 24 hours in advance of the scheduled move. Receipt of an Authority issued Special Hauling Permit does not constitute issuance of a permit for highways under NYSDOT or other jurisdictions, and vice versa.

DB 105-11 WINTER EARTHWORK OPERATIONS

Construction operations requiring soil compaction shall not be performed from November 1 to April 1 except with the written permission of, and under such special conditions and restriction as may be imposed by, the Authority's Project Manager. In all work incorporated into the final product, the Design-Builder shall not place material that is frozen, or place fill material on frozen ground regardless of the date.

DB 105-12 MAINTENANCE DURING CONSTRUCTION

The Design-Builder shall maintain the Work during and after construction until Physical Completion, except as may be provided elsewhere in the Contract Documents and as specifically described in Table 105-12, Maintenance Jurisdiction, below. The maintenance shall constitute continuous and effective Work prosecuted day by day, with adequate equipment and forces such that the roadway or structures are kept in satisfactory condition at all times.

In the case of a contract for the placing of a course upon a course or subgrade previously constructed, the Design-Builder shall maintain the previous course or subgrade during all construction operations, including when the plan calls for placing traffic on the unfinished roadway. The Work does not include maintenance of the existing Tappan Zee Bridge until all traffic is removed from the existing Tappan Zee Bridge. Authority will continue to maintain the existing Tappan Zee Bridge, at Authority's cost and expense, until such time as traffic is permanently removed from the existing Tappan Zee Bridge. Design-Builder shall assume responsibility for maintenance of the existing Tappan Zee Bridge upon permanent removal of the traffic from the existing Tappan Zee Bridge, and shall continue such maintenance until demolition of the existing Tappan Zee Bridge is complete.

All costs of maintenance Work during and after construction until Physical Completion are included in the Proposal Price and the Design-Builder will not be paid an additional amount for such Work.

Table 105-12
MAINTENANCE JURISDICTION

The responsibilities for maintenance jurisdiction of the Design-Builder and the Authority shall be allocated as follows:

Type of Work	Design-Builder	Authority	Other Person
A) Removal of snow and ice	a. Staging areas. b. Temporary Design-Builder access roads. c. Roadways and lanes not open to public traffic.	a. Thruway Mainline/ramps. b. Authority maintenance facilities. c. Authority access roads.	a. River Road. b. South Broadway (Rockland and Westchester).

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Type of Work	Design-Builder	Authority	Other Person
B) Highways	<p>a. Temporary roads, shoulders, pavement striping, roadside safety elements and appurtenances constructed or installed by the Design-Builder.</p> <p>b. Until Physical Completion, all permanent roads, shoulders, sign structures, walls, roadside safety elements and appurtenances constructed or installed by the Design-Builder.</p>	<p>a. Existing road surface, railings, signs, sign structures for Thruway mainline and ramps in use by public traffic.</p> <p>b. Roadside safety.</p> <p>c. Striping.</p> <p>d. At Physical Completion, Authority will assume responsibility for maintenance of all permanent roads, shoulders, sign structures, walls, roadside safety elements and appurtenances constructed or installed by Design-Builder.</p>	<p>a. River Road.</p> <p>b. South Broadway (Rockland and Westchester). (Note that portions of these roads are not incorporated into the Project.)</p>
C) Existing Governor Malcolm Wilson Tappan Zee Bridge	<p>a. All elements of the existing Tappan Zee bridge after the existing Tappan Zee bridge has been fully closed to public traffic.</p> <p>b. Any temporary component incorporated into the existing Tappan Zee bridge to facilitate the Project shall be the responsibility of the Design-Builder at all times regardless of whether the existing Tappan Zee bridge is being utilized by public traffic or not.</p>	<p>a. All structural elements of existing Tappan Zee bridge until such time as the existing Tappan Zee Bridge has been fully and permanently closed to public traffic.</p> <p>b. Road surface, railings, joints, communication facilities, lighting until such time as the existing Tappan Zee Bridge has been fully and permanently closed to public traffic</p>	<p>Fiber line on existing north fascia maintained by G4S (Refer to <i>Part 4, Utility Requirements</i>).</p>
D) New Crossing	<p>a. Maintenance of all elements of the new Crossing shall be the responsibility of the</p>	<p>a. The Authority will assume responsibility for maintenance of the new Crossing at</p>	<p>Fiber line on new Crossing maintained by G4S. (Refer to <i>Part 4, Utility Requirements</i>.)</p>

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Type of Work	Design-Builder	Authority	Other Person
	Design-Builder until Physical Completion.	Physical Completion.	
E) ITS and utility elements	<ul style="list-style-type: none"> a. Repairs to any ITS and utility element damaged or altered by the Design-Builder's operations. b. Relocation of any existing ITS and utility elements that are in conflict with the Design-Builder's Work. c. Any necessary repairs and maintenance to any relocated ITS and utility elements until Physical Completion. 	<ul style="list-style-type: none"> a. Except as expressly allocated to Design-Builder or others in this Row E, all maintenance and repair of all existing ITS will be the responsibility of the Authority. Existing utilities will be responsibility of the relevant utility owners. 	<ul style="list-style-type: none"> a. Except as expressly allocated to the Design-Builder in this Row E, all maintenance and repair of all existing utilities will be the responsibility of the relevant utility owners. b. [REDACTED] Fiber and potential Cell Tower clients maintain own lines (repair of damage caused by Design-Builder will be at Design-Builder's cost). (See <i>Part 4, Utility Requirements</i>.)
F) Authority Facilities	<ul style="list-style-type: none"> a. Maintenance and repair of any portion of an existing Authority facility that is modified by the Design-Builder during the course of the Project. b. Maintenance and repair of any temporary facility established by the Design-Builder for use by the Authority. c. Until Physical Completion, maintenance and repair of any new permanent facility established by the Design-Builder for use by the Authority. 	<ul style="list-style-type: none"> a. Except as expressly allocated to Design-Builder in this Row F, all existing Authority facilities will be responsibility of Authority. 	-

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Type of Work	Design-Builder	Authority	Other Person
G) Toll plaza (toll collection equipment)	a. All temporary or permanent toll collection equipment installed by the Design-Builder.	a. All existing toll collection equipment. b. All temporary or permanent toll collection equipment installed by the Authority.	-
H) Local roadways and sidewalks (other than those listed in Rows A and B of this Table)	a. All facilities constructed or modified by the Design-Builder, until Physical Completion.	a. None.	a. Existing facilities until removed or modified by the Design-Builder. b. After Physical Completion
I) Environmental requirements	As specified in DB §104-15.10		
J) Landscape establishment	As specified in DB §104-15.10		

DB 105-13 FAILURE TO MAINTAIN ROADWAY OR STRUCTURE

If the Design-Builder, at any time, fails to comply with the provisions of DB §105-11 or DB §105-12, the Authority's Project Manager will immediately notify the Design-Builder of such noncompliance. If the Design-Builder fails to commence to remedy unsatisfactory maintenance immediately after receipt of such notice and prosecute the remedial action with diligence, the Authority's Project Manager may immediately proceed to maintain the Project, and the entire cost of the maintenance will be deducted from monies due or to become due to the Design-Builder.

DB 105-14 DISPUTE RESOLUTION AND DISPUTED WORK PROVISIONS

See DB §109-10.

DB 105-15 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 CCM or 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 Authority's Project Manager.

DB 105-16 CONSULTATION AND WRITTEN COMMENT, APPROVALS, AND NON-CONFORMANCE REPORTS

Except for items specifically designated for "approval" in the Contract Documents, the Design-Builder shall be responsible for determining how to address written comments and other input received from the Agencies during the consultation process concerning reviews, observations and/or inspections regarding Design Documents, Working Plans, other required submittals and construction means and methods.

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 Authority's Project Manager regarding its disposition of all such comments. Any issues raised during consultation and written comment by the Agencies, if not properly addressed by the Design-Builder, could affect the Authority's Final Acceptance of the Project.

Deficiencies, non-compliance, errors, and/or omissions will be documented by the Agencies 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. The Design-Builder shall not be relieved of its obligation to comply with the Contract requirements by any failure by the Agencies to issue an NCR or by any acceptance of Work by the Agencies, and the Authority shall not be deemed to have waived its right to bring a claim concerning deficiencies, non-compliance, errors or omissions by any failure to issue an NCR or by any acceptance of Work.

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

Consultation and written comments or Approval by the Agencies 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 Quality Control and Quality Assurance 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 105-17 MEETINGS

The Design-Builder shall participate in meetings as indicated in this DB §105-17. The party leading the meeting shall record minutes of all meetings and distribute them within five 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 on the minutes until the required action is completed and/or the issue is resolved.

DB 105-17.1 Pre-Work Conference

The Authority's Project Manager will consult with the Design-Builder and arrange and lead a meeting promptly after issuance of NTP.

The Design-Builder shall be represented by all appointed key personnel. See DB §108-3 for information regarding the Design-Builder's key personnel.

The meeting will take place at a location determined by the Authority's Project Manager in the Project vicinity.

The agenda of the meeting shall include the following items:

- A) Submission of executed bonds, guarantees, Warranties, and insurance policies and certificates, if not already provided;
- B) Planned activity for the first 60 days after NTP;
- C) Submission of the list of intended Subcontractors;
- D) Submission of the Plans required under the Contract; and
- E) Submission of all software anticipated to be used on the Project, including a file naming convention.

The Authority's Project Manager or the Design-Builder may add other items to this agenda.

DB 105-17.2 Value Engineering and Proposal Concepts Evaluation Meetings

The Authority's Project Manager will consult with the Design-Builder and arrange and lead meetings within 30 days of NTP to complete the following:

- A) Review initial Value Engineering Change Proposals (VECPs) (see DB §104-13) submitted by the Authority or the Design-Builder; and
- B) Discuss the concepts and ideas contained in other Proposals that may be incorporated into the Contract.

If requested by the Authority's Project Manager, the Design-Builder shall prepare an estimate of effects (time and cost) for VECPs or to incorporate concepts included in other Proposals into the Contract.

Attendance at the meetings and the preparation of the estimate of effects shall not entitle Design-Builder to any increase in the Contract Price.

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

DB 105-17.3 Design Mobilization Meeting

The Design-Builder's Project Manager will consult with the Authority's Project Manager and will arrange and lead a meeting at the Designer-Builder's Project office prior to the Design-Builder's initiating design Work. The Design-Builder's key personnel who will be responsible for activities on the agenda shall attend the meeting.

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

- A) Organization for design;

- B) Review of qualifications of design QC and QA staff;
- C) Design workshop agenda (see DB §111-14);
- D) Location of design personnel;
- E) Design schedule and time allocations for Design Reviews; and
- F) Design Quality Control and Quality Assurance.

DB 105-17.4 Site Mobilization Meeting

The Design-Builders Project Manager will consult with the Authority's Project Manager and arrange and lead a meeting at the Design-Builders office prior to the Design-Builders occupying any part of the Site. The Design-Builders key personnel who will be responsible for activities on the agenda shall attend the meeting.

The agenda shall be developed in consultation between the Authority's Project Manager and the Design-Builders and prepared by the Design-Builders and shall include the following items:

- A) Use of premises by the Authority and the Design-Builders;
- B) Authority's requirements;
- C) Temporary utilities and facilities;
- D) Security and "housekeeping";
- E) Right-of-way and construction survey;
- F) Schedule for establishing Work areas, temporary facilities, and facilities and equipment for Authority's staff;
- G) Temporary works; and
- H) Plans for early construction, if any.

DB 105-17.5 Progress Meetings

Progress meetings shall be held at least weekly throughout the duration of the Project. The Design-Builders shall prepare (1) a meeting agenda in consultation with the Authority's Project Manager and (2) a current summary of all issues (including reference to the relevant version of any report, schedule or other document) to be included in the next monthly progress report with respect to each item listed in DB §108-1.3, and distribute copies of the meeting agenda, the issues summary and draft minutes of the previous meeting to all planned participants at least five days prior to the meeting. The Design-Builders shall lead the meetings.

The Design-Builders key personnel shall attend the progress meetings.

A typical agenda shall include the following items:

- A) Confirmation of minutes of the previous meeting and matters arising at the previous meeting;
- B) 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) Schedule updates (monthly);
- K) Work Zone Traffic Control;
- L) Status of Orders on Contract, if any;
- M) Utilization of DBEs, M/WBEs and other small businesses; and
- N) Public Involvement Plan.

DB 105-17.6 Special Meetings

The Authority's Project Manager may require special meetings at any time and that all or specified Design-Builder key personnel attend.

**SECTION 106
CONTROL OF MATERIAL**

DB 106-1 SOURCE OF SUPPLY AND QUALITY REQUIREMENTS

All material used in the Work shall meet the quality requirements described in item 700 of *Part 8 - Special Specifications*, unless the same are altered by Special Provision, by the Design-Builder's Proposal, or elsewhere in the Contract. To the extent the information is known as of the date NTP is issued, the Design-Builder shall, within 30 days of NTP, document, in writing, in the QC documentation file with a copy to the Design-Builder's Construction QA Manager and the Agencies' Construction Compliance Engineer, the sources of supply and kinds of material that will be used in the Work. The documentation shall be updated as the Design-Builder updates its sources of supply, and a copy of the updated documentation shall be provided to the Construction Compliance Engineer.

As soon as the information is known to the Design-Builder, it shall notify the Construction QA Manager and the Construction Compliance Engineer of the name and address of the fabricator of all structural steel/structural precast concrete. This notification shall list the specific shop or shops in which the steel/structural precast concrete will be fabricated. It shall be the responsibility of the Design-Builder to advise the Construction QA Manager and the Construction Compliance Engineer of the sources of proposed material sufficiently in advance of their use to allow the Authority to conduct quality verification activities in a timely manner.

The Design-Builder shall place in the QC documentation file, with a copy to the Construction QA Manager and the Construction Compliance Engineer, an MSDS meeting current requirements of 29 CFR Sections 1910-1200 and 29 CFR Section 1926 for material to be used in the Work before each material is first used in the Project. The requirement to provide an MSDS shall apply to all material to which workers are exposed, to the extent that 29 CFR Section 1926.59 requires an MSDS for that material. This applies to the material brought to the job Site to be incorporated into the Work, as well as to all material that is encountered at the job Site as a result of the use or incorporation of the other material.

All costs of exploring and developing sources shall be borne by the Design-Builder. When the Design-Builder elects to develop new, noncommercial material sources, the requirements for environmental acceptability shall apply, and the Design-Builder shall conduct, document in the QC documentation file, and submit to the Construction QA Manager and the Construction Compliance Engineer, all Environmental Resource studies and Cultural Resource studies in accordance with DB §107-9. If the Design-Builder purchases material, the requirements for environmental acceptability shall not apply. However, if the Design-Builder negotiates with an owner of a commercial source to establish a material source within the boundaries of an existing commercial source, and if the Design-Builder obtains the material from the source with the Design-Builder's employees, then the environmental acceptability requirements identified for a noncommercial source shall apply. If the Design-Builder purchases material from a material source established for another project by another contractor working under contract to the Authority, and if the material source must be expanded beyond the area where Environmental Resource and Cultural Resource approvals have previously been obtained pursuant to DB §107-9, then the requirements for environmental acceptability shall apply to the additional area and the requirements of DB §107-9 must be completed.

In documenting Contract compliance, the Design-Builder shall include in the QC documentation file the following for each material source of supply:

- A) Location;
- B) All lease agreements, purchase orders, or pit agreements made between parties involved with the pit owner or Supplier and the Design-Builder;
- C) Environmental acceptability. Environmental acceptability includes completing the Environmental Resource and Cultural Resource requirements of DB §107-9, including the Authority's written Cultural Resource approval. The Construction Compliance Engineer shall notify the Design-Builder when the requirements under DB §107-9 have been met. It may take 30 days from the date copies of documentation are delivered to the Construction Compliance Engineer to obtain such notice. The requirements of DB §104-4 shall apply if the time needed to obtain regulatory approval exceeds statutory requirements.
- D) Plans for restoration after use of acceptable standards of contouring and revegetation; and
- E) Laboratory testing.

DB 106-2 SUPPLIER PLANT INSPECTION

Under QC/QA, the Design-Builder is responsible for Inspection of material at the source, which is included in the Quality Plan. As part of the Oversight activities, the Construction Compliance Engineer will conduct Verification Sampling and Testing activities at the source. The following conditions shall be met at the Supplier plant to conduct Oversight activities:

- A) The Construction Compliance Engineer shall have the cooperation and assistance of the Design-Builder's Quality Manager and the producer with which the Design-Builder has contracted for material;
- B) The Construction Compliance Engineer shall have full entry at all reasonable times to such parts of the plant (inclusive of all documentation related to product quality) as may concern the manufacture or production of the material being furnished;
- C) When required by the Construction Compliance Engineer, the Design-Builder shall arrange for such facilities as are necessary to adequately inspect the production or fabrication of the material; and
- D) Adequate safety measures shall be provided and maintained.

As part its quality activities, the Agencies reserve the right to retest any material before or during incorporation into the Work which had been tested by the Design-Builder at the source of supply, after the same has been delivered, and to provide consultation and written comments and/or Non-Conformance Reports on any material that, when retested, does not meet the requirements of this Contract.

DB 106-3 SAMPLES, TESTS, AND CITED SPECIFICATIONS

All material and products proposed to be used in construction shall be inspected, sampled, and tested by the Design-Builder for QC and QA, as described in DB §112 and Appendix 112A and as indicated by the Contract Documents. Whenever the Contract Documents provide for "certification or Approved List" as

a basis of Acceptance, the Agencies reserve the right to conduct Verification Sampling and Testing of material in any shipment prior to incorporation in the Work.

Test specimens shall be removed from sampled items, prepared for testing, and shipped to the Design-Builder's laboratory in accordance with the Quality Plan. The cost of all samples, and any other expenses incurred in making material or products ready for Inspection, sampling, and/or testing are included in the Proposal Price. Where testing methods are not described in the Contract Documents, details of test methods may be obtained from the Authority.

The expense of all Design-Builder performed reviews, QC/QA inspections, sampling, and testing shall be borne by the Design-Builder.

The expense of all Oversight performed in the 48 contiguous states of the US and the provinces of Canada, including the shipment of samples by the most economical means, shall be paid for by the Authority unless specifically excluded elsewhere in the Contract Documents. The expense of all Oversight of qualification of plants and manufacturers or fabricators, performed in conjunction with the QC/QA activities of the Design-Builder, outside of the contiguous 48 states of the US and the provinces of Canada shall be borne by the Design-Builder, and the Design-Builder shall provide the Construction Compliance Engineer sufficient notification of the planned inspections. These expenses shall include the costs of wages and benefits, travel, meals, lodging, communication, and all other direct costs of reviews, Inspection, sampling, and testing paid by the Authority to perform these services using Agency employees or designated representatives under contract to the Agencies. These expenses, which exclude the costs of tests performed in the Agencies' laboratory, shall be taken into account by the Design-Builder in the preparation of its Proposal. Reimbursement to the Authority shall be made in the form of a deduction from payments due the Design-Builder. The shipment of samples to the Agencies' laboratory from outside of the 48 contiguous states of the US and the provinces of Canada shall be a direct cost borne by the Design-Builder and all such shipments shall be made under provisions established by the Authority to ensure identity and security of the sample. The location of Inspection, sampling, and/or testing material and products manufactured, produced, and/or fabricated outside of the contiguous 48 states of the US and the provinces of Canada shall be performed at the site of manufacture, production, and/or fabrication or at a Site within the contiguous 48 states of the US and the provinces of Canada, designated by the Design-Builder and approved by the Authority.

Material and products manufactured, produced, and/or fabricated outside of the contiguous 48 states of the US and the provinces of Canada and designated in the Quality Plan to require QC/QA inspection, sampling, and/or testing at the site of manufacture, production, and/or fabrication shall be subject to qualification of the plant and manufacturer or fabricator prior to the required QC/QA inspection, sampling, and/or testing during manufacture, production, and/or fabrication. The Design-Builder shall be responsible for activities, including Inspection and documentation, necessary for qualification. These materials and products include fabricated structural steel for bridges, precast concrete slabs, beams and piles, and any other item specified in the Contract Documents and/or Quality Plan to require such services outside of the contiguous 48 states of the US and the provinces of Canada. The Design-Builder shall notify the Authority at least 60 days in advance of beginning the Work in any mill, plant, shop, or other manufacturing location to allow time for scheduling the Oversight activities of qualification Inspection and subsequent Inspection, sampling, and/or testing during the Work. See also DB §106-12 for other requirements that apply to structural steel.

Material and products manufactured, produced, and/or fabricated outside of the contiguous 48 states of the US and the provinces of Canada whose conformance with the requirements of the Contract Documents may be determined, in the judgment of the Design-Builder, with concurrence of the

Construction Compliance Engineer, by visual Inspection and tests of specimens may be presented within the contiguous 48 states in specifically defined lot quantities for QC and QA, as required, Inspection, sampling, and testing subsequent to manufacture, production, and/or fabrication. Such material or products shall be inspected not less than 30 days prior to their intended shipment to the Project. All communications with the Design-Builder and the Authority, written or verbal, shall be in English. The instructions for the use of all material and products, as well as all identifying information required by the Contract Documents (i.e., labels, tags, and certifications) shall be in English. Mechanical property measurements, dimensions, and all other numerical data shall be presented in U.S. customary units, but they may also include SI units consisting of meters, kilograms, and seconds, as a second set of measurements. Shop drawings prepared for bridge rehabilitations, however, may include both SI Units and U.S. Customary Units. Submissions in dual units shall be completely dimensioned in both systems. The U.S. Customary Units will take precedence and reviews will be based on these units. U.S. Customary Units should be the units listed first, and the SI Units should be included within parenthesis. Failure to adhere to this convention may result in the rejection of the drawing. All references to costs, charges, and prices shall be in US dollars.

Documents which are relevant to the production and acceptance of hot mix asphalt (HMA) and Portland cement concrete (PCC) mixtures shall be submitted in US Customary Units only. This refers to mix design forms, production monitoring (QC) forms, acceptance (QA) forms, batching tickets, delivery tickets, and all other mix design and production related documents.

No material shall be used until the Design-Builder has provided documentation to the QC/QA documentation file that the material meets Contract requirements and such material shall be used only so long as the quality continues to meet Contract requirements. The acceptance at any time of any materials shall not bar future rejection of such materials if subsequently found to be defective in quality or uniformity.

The Design-Builder shall furnish the names of companies from which it purchases material which is inspected at manufacturing plants with the item number, the contract number, and the destination for each shipment of material so ordered. If any part of the Contract is sublet, the Subcontractor shall also conform to the foregoing requirements.

Unless otherwise designated, when a reference is made in the Contract Documents to a specification or test designation either of the AASHTO, ASTM, federal specifications, or any other recognized non-proprietary national organization, it shall mean the specification or test method (including Provisional AASHTO and Tentative ASTM) which is current on the RFP Date.

Where plant Inspection is not maintained by the Agencies, the method and procedure for QC and QA sampling, inspecting, and reporting shall conform to that established by the Agencies in DB §112 and its Appendices. The US Standard Screen Sieves meeting ASTM E11 (AASHTO M 92), shall be used on all material requiring gradation tests.

DB 106-4 CERTIFICATE OF COMPLIANCE

The Design-Builder, as part of QC/QA activities and documentation, shall provide material certificates of compliance in the QC documentation file covering material for all Contract Items. The Design-Builder shall meet the requirements of DB §112-12.

As part of the material certification, the Design-Builder's Construction QA Manager, Construction QC Manager or Engineer of Record will be certifying compliance with the following statements:

- A) That the material described on the document complies with the requirements defined in the Contract;
- B) That mill test reports, manufacturers' certificates of compliance, and other pertinent documents are made available to Authority's personnel upon request; and
- C) That, when required, all manufacturing processes associated with the production of steel and iron material complies with DB §106-12, or that special waivers have been granted.

Electric items meeting UL approval, and underground utility material meeting ASTM or AWWA specifications, and so certified or stamped on the product, will require no further certification, unless requested in writing by the Construction Compliance Engineer.

A Certificate of Compliance shall be furnished for steel and iron materials. The certificates, in addition to certifying that the materials comply with the specifications, shall specifically certify that all manufacturing process for the materials occurred in the United States, except as for the exceptions permitted under DB §106-12.

Certifications for metal products, when required, shall include a statement that the material was melted and manufactured in the United States except as provided in Section 165 of the Surface Transportation Assistance Act of 1982, as amended by Sections 1041(a) and 1048(a) of the Intermodal Surface Transportation Efficiency Act of 1991 with regard to the furnishing and coating of iron and steel products. A nationwide waiver for this provision has been granted for pig iron and processed, pelletized, and reduced iron ore.

Material that appears on the Department's "Approved List" (see DB §112-10) will require the manufacturer's certification, literature, and shop drawings before fabrication and installation.

Manufacturer's certifications and documents prepared for general use, such as catalog cuts and manufacturer's directions, shall use US Customary units, or if both US Customary and SI measurement units are shown, the US Customary units will be the primary units. In drawings and documents containing dual units, the US Customary units will be the primary units, and the US Customary units will be the units reviewed. Design-Builder shall be responsible for all annotations on the source documents, conversions between the measurement systems and all errors resulting therefrom.

Some standard specifications reference a manufacturer's certification as evidence of acceptability of specific materials or products. A manufacturer's certification can only be properly executed by the manufacturer or producer of the material or product. When manufactured products are subsequently provided by a material supplier other than the manufacturer, a material supplier's certification shall be provided in addition to the manufacturer's certification.

When shipments are made directly by the manufacturer or producer, the manufacturer's certification shall include the components outlined below. When shipments are made by a material supplier, a material supplier's certification shall accompany the manufacturer's certification, and shall include the essential components outlined below:

- A) Name of the company and address of its manufacturing or producing facility.

- B) Generic name of the material or product and the Standard Specifications §700 Materials designation number.
- C) Sufficient detail to describe the quantity contained in the shipment, the contract number and a date of shipment. A material supplier's certification shall clearly indicate that the shipment is all or a portion of the quantity detailed on the accompanying manufacturer's certification.
- D) The certification shall definitively state that the material contained in the shipment meets the requirements of a specific Department specification or a specific specification or standard of another agency (i.e., ASTM, AASHTO, AWWA, etc.). If the material in the shipment contains steel and/or iron, the certification shall definitively state that the material is or is not of domestic origin. An acceptable statement is: "Conforms (or Does not conform) to the requirements of DB §106-12 Buy America." If the product supplied has been altered subsequent to the certification by the manufacturer, the material supplier's certification shall definitively state that the material or product contained in the shipment meets the requirements of a specific NYSDOT standard specification or a specific specification or standard of another agency.
- E) The certification shall be signed by a person authorized to legally bind the company, as indicated by statement or title/position. Notarization of the signature is not required.

Material that is not permanently incorporated into the Project will not require a certificate of compliance, unless otherwise stated in the Contract. The Design-Builder shall supply material meeting the requirements of the Contract Documents even though a material certificate of compliance is not required.

The Design-Builder may furnish material purchased in bulk or left over from previous projects by documenting in the QC documentation file material certificates of compliance for the current Project.

All material damaged in transit or during handling shall be replaced or repaired by the Design-Builder at no additional cost to the Authority.

DB 106-5 PLANT ACCEPTED MATERIAL

Any material which has been plant inspected and accepted by the Construction QA Manager for this Contract shall not be shipped to other Work unless authorized by the Authority.

DB 106-6 REJECTION

Material, which has either been rejected on the results of Design-Builder QC tests, QA or QA Sampling and Testing or as the result of Oversight or Verification Sampling and Testing and resulting Non-Conformance Report, will not be re-sampled or re-tested unless otherwise agreed to by the Authority. Rejected material shall be removed immediately from the Site of the Work by the Design-Builder at its expense unless otherwise agreed to by the Construction Compliance Engineer. No rejected material, the defects of which have been subsequently corrected, shall be used until agreed to in writing by the Authority.

DB 106-7 STORAGE OF MATERIALS

Material shall be so stored as to ensure the preservation of its quality and fitness for the Work. Stored material, even though accepted before storage, shall be inspected prior to its use in the Work and shall meet the requirements of the Contract at the time of its use.

The Design-Builder shall be responsible for the protection of the stored material and for the replacement or repair of material affected by inadequate protection. Upon written approval of the Construction Compliance Engineer, portions of the ROW may be used for storage purposes and for the placing of the Design-Builder's plant and plant equipment. However, additional space must be provided by the Design-Builder at its sole expense and liability. The Design-Builder, at its own expense, shall restore the storage sites to their original condition.

DB 106-8 TRANSPORTATION OF MATERIAL

Railroad cars, barges, and other containers used for the transportation of material shall be clean when any material is deposited therein.

All material shall be handled in such a manner as to preserve its quality and fitness for the Work. Aggregates shall be transported from the storage site to the Work Site in vehicles constructed and operated to prevent loss or segregation of material after loading so there will be no inconsistencies in the material intended for incorporation in the Work as loaded and actually received at the place of operations. All material shall be transported in such a manner as to fully comply with all State and federal regulations, including the prevention of leakage or scattering of material or damage to material in any fashion.

DB 106-9 AUTHORITY-FURNISHED MATERIAL

The Design-Builder shall furnish all material required to complete the Work, except those items specified to be furnished by the Authority.

Material furnished by the Authority will be delivered or made available to the Design-Builder at the times specified in the Contract.

The cost of handling and placing all material after it is delivered to the Design-Builder shall be considered as included in the Price Center for the item in connection with which it is used. The Design-Builder will be held responsible for all material delivered to the Design-Builder, and deductions will be made from monies due to the Design-Builder to make good on shortages and deficiencies from any cause whatsoever, for damage which may occur after such delivery, and for demurrage charges.

DB 106-10 RECYCLED MATERIALS

Design-Builder is encouraged to provide reused or recycled materials to the maximum extent possible. Recycled materials currently approved by the Authority include glass, recycled asphalt pavement (RAP), recycled Portland cement concrete aggregate (RCA), blast furnace slag, fly ash, microsilica, waste stream plastics and tires.

In order to be considered for use by the Authority, recycled or waste material must exhibit the desired engineering characteristics, consistently satisfy specification requirements, provide an acceptable level of performance, be economically competitive with available materials, and not be harmful to the

environment. If waste materials are proposed to be used, Design-Builder may need to obtain a beneficial use determination (BUD) from the NYS Department of Environmental Conservation prior to its use as specified in 6 NYCRR 360-1.15. The beneficial use determination, testing evaluation and approval of unapproved waste materials can be a very long term process over multiple years, and should not be expected to be completed for any given contract.

DB 106-11 FIELD LABORATORY AND FIELD OFFICES

The Design-Builder may furnish field QC/QA laboratories and field offices in accordance with the Quality Plan as approved by the Agencies. The Design-Builder shall provide a separate field verification laboratory in accordance with Standard Specifications § 637-2.02, Field Laboratory, and *Part 3, Project Requirements, Section 2.4.1 – Facilities for the Authority* for the exclusive use by the Agencies. All laboratories and tests used in the acceptance decision shall be performed by qualified laboratories. The Agencies shall have access to the laboratories as and when requested to observe Supplier's testing and documentation. Independent verification testing may be performed at the Agencies' field laboratory or any laboratory of their choosing.

DB 106-12 BUY AMERICA

DB 106-12.1 General Buy America Bid Requirement and Definition

In accordance with 41 USC Section 8301 et seq., 23 CFR Section 635.410, Section 146 of the New York State Finance Law, as amended, and Section 2603-a of the Public Authorities Law, permanently incorporated steel and/or iron material shall be domestically produced regardless of the percentage they comprise in a manufactured product or form they take.

To qualify as domestic, all manufacturing processes, including manufacture, fabrication, grinding, drilling, welding, finishing, coating, and assembly of any product containing steel and/or iron material must have been performed in the United States (US). To further define the coverage, a domestic product is a manufactured construction material that was produced in one of the 50 states, District of Columbia, Puerto Rico, or territories and possessions of the US. Raw materials used in the steel and/or iron material may be imported. Raw materials are materials such as iron ore, limestone, and waste products, which are used in the manufacturing process to produce the steel and/or iron material products. Waste products would include scrap (i.e., steel no longer useful in its present form from old automobiles, machinery, pipe, and railroad tracks). Also steel trimmings from mills or product manufacturing are considered waste. Extracting, crushing, and handling the raw material which is customary to prepare them for transporting are exempt from Buy America requirements. The use of foreign source steel or iron billets is not acceptable under this DB §106-12. FHWA has determined that "green wire/rod" (used in the manufacturing of filler material used in welding steel) must meet the Buy America provisions.

Notwithstanding the foregoing, the Design-Builder may permanently incorporate into the Work under this Contract a minimal amount of foreign steel and/or iron material if the combined cost of such material does not exceed 0.1% of the total Contract Price or \$2,500.00, whichever is greater. The combined cost of foreign steel and/or iron material will be that shown to be the value of the steel and/or iron products as they are delivered to the Project, documented by invoice or bill of sale to Design-Builder.

DB 106-12.2 Control of Material

All items, regardless of origin, shall comply with the requirements found in the Contract Documents. In the event the Contract is awarded based on using only domestic steel and/or iron material, the Design-

Builder must supply only domestic steel and/or iron material and will be paid based on the Contract Price based on using only domestic steel and/or iron material. The Design-Builder will be responsible for ensuring that the domestic steel and/or iron material is supplied in conformance with the above referenced laws. Such responsibility extends to informing all affected Subcontractors and Suppliers of the requirements set forth in this DB §106-12 and ascertaining that steel and/or iron material being supplied is in conformance with the requirements of the Contract Documents.

DB 106-12.3 Buy America Waivers

The Authority may request waivers to the requirements of this DB §106-12 from FHWA if it can be demonstrated that the use of domestic steel and/or iron material would be inconsistent with the public interest, such material and products are not produced in the US in sufficient and reasonably available quantities and of satisfactory quality

Provided one or more of the above requirements are met, the Design-Builder may submit a request for a waiver to the Authority's Project Manager with a copy to the Construction Compliance Engineer. The request shall include copies of all documentation verifying the unavailability of the material or product and or justification of the application for a waiver.

Any final approval of the waiver request will be made by FHWA and concurred with by the Authority.

SECTION 107
LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC

DB 107-1 LAWS, PERMITS, AND LICENSES

The Design-Builder shall conduct its operations in compliance with all applicable Governmental Rules and the lawful direction of the officers, agents or representatives of the United States, the State of New York, counties, cities, towns and villages, as applicable. The Design-Builder shall protect and indemnify the Authority and/or the State of New York, any municipality in which the Work is being performed; and/or any public benefit corporation, railroad, or public utility whose property or facilities are affected by the Work, against claims or liability arising from or based on the violation of such Governmental Rules, whether by the Design-Builder itself or its Subcontractors. The Design-Builder shall procure all licenses and permits necessitated by the Design-Builder's operations. All costs due to compliance with the above-described laws, regulations, and ordinances shall be included in the Contract Price unless otherwise provided for in the Contract.

Prior to the commencement of any construction Work on this Project, the Design-Builder shall contact the municipal or State agency responsible for air, noise, and water quality control regulations to determine the standards that shall be adhered to during construction operations.

- A) **Invasive Species.** Federal and State agencies have promulgated regulations regarding invasive plant species, agricultural insects and diseases. The Design-Builder shall thoroughly clean all construction equipment and vehicles operating in infested areas prior to moving to non-infested areas in accordance with Federal and State Department of Agriculture regulations for plant pest control.
- B) **Independent Contractor.** The relationship of Design-Builder to the Authority is that of an independent contractor, and the Design-Builder, in accordance with its status as such contractor, agrees that it will conduct itself consistent with such status, that it will neither hold itself out as nor claim to be an officer or employee of the Authority by reason hereof, and that it will not, by reason hereof, make any claim, demand or application to or for any right or privilege applicable to an officer or employee of the Authority, including workers' compensation coverage, unemployment insurance benefits, social security coverage, or retirement membership or credit.
- C) **Cooperation with Investigations.** The Design-Builder hereby agrees to the provisions of Section 2875 of the Public Authorities Law, which require that upon the refusal of a person, when called before a grand jury, head of a State department, temporary State commission or other State agency, or the organized crime task force in the NYS Department of Law, which is empowered to compel the attendance of witnesses and examine them under oath, to testify in an investigation, concerning any transaction or contract had with the State, any political subdivision thereof, a public authority or with any public department, agency or official of the State or of any political subdivision thereof or of a public authority, to sign a waiver of immunity against subsequent criminal prosecution or to answer any relevant question concerning such transaction or contract;
 - 1) Such person, and any firm, partnership or corporation of which he is a member, partner, director or officer shall be disqualified from thereafter selling to or

submitting bids to or receiving awards from or entering into any contracts with any public authority or official thereof, for goods, work or services, for a period of five years after such refusal, and;

- 2) Any and all contracts made with any public authority or official thereof, since the effective date of this law, by such person, and by any firm, partnership or corporation of which he is a member, partner, director or officer may be canceled or terminated by the public authority without incurring any penalty or damages on account of such cancellation or termination, but any moneys owing by the public authority for goods delivered or work done prior to the cancellation or termination shall be paid.

- D) **Archaeological Salvage.** Whenever, during the course of construction, historical or prehistoric objects or human remains are encountered, such objects shall not be destroyed or moved. The Design-Builder shall stop work to avoid disturbing such areas and notify the Authority's Project Manager immediately. The Authority's Project Manager will notify the appropriate Authority personnel and other authorities and arrange to have an immediate inspection of the site conducted. Removal or salvage of archaeological objects, other than Environmental Resources or Cultural Resources that are identified in the RFP or the Contract Documents, will be considered extra Work. Such work will be limited to that performed within the right of way, and at any location under direct control of the Design-Builder used as a source of approved borrow material or a spoil disposal area. See DB §107-9.3.

DB 107-2 RESTORATION OF SURFACES OPENED BY PERMIT

The right to construct or reconstruct utility services in the highway or to grant permits for the same, at any time, is hereby expressly reserved by the Authority for the proper authorities of the municipality or county in which the Work is done, and the Design-Builder shall not be entitled to damages for the digging up on the highway.

Individuals, firms, or corporations wishing to make an opening in the highway surface must secure a permit from the Authority. The Design-Builder shall allow parties bearing said permits, and only those parties, to make openings in the highway.

When ordered by the Authority's Project Manager, the Design-Builder shall make, in an acceptable manner, all necessary repairs due to such openings and such necessary Work will be paid for as provided in DB §§104-3 and 109-9.

DB 107-3 PATENTED DEVICES, MATERIAL, AND PROCESSES

It is mutually understood and agreed that the Contract Price is to include all royalties and costs arising from patents, trademarks, and copyrights in any way involved in the Work. Whenever the Design-Builder is required or desires to use any design, device, material, or process covered by letters, patent, or copyright, the Design-Builder shall indemnify and save harmless the Authority from any and all claims for infringement by reason of the use of any such patented design, device, material, or process to be performed under the Contract, and shall indemnify the Authority for any costs, expenses, and damages which it may be obliged to pay by reason of any such infringement at any time during the prosecution of, or after the completion of, the Work.

DB 107-4 FEDERAL-AID

The Design-Builder shall conform in all respects in accordance with the true intent and meaning of each and all of the federal requirements contained in the Contract Documents. When any of such federal provisions may be in conflict with any other provisions of the Contract, the federal provisions shall prevail and take precedence and be of force over and against any said conflicting provisions of said Contract. See DB §102-2.

Any Work performed under a Federal-Aid contract shall be subject to inspection by the appropriate federal agency. Such inspection shall in no sense make the federal government a party to this Contract and will in no way interfere with the rights of either party hereunder.

DB 107-5 COMPLIANCE WITH PAYMENT OF TAXES

The Design-Builder is required to observe and comply with all laws regarding the payment of taxes imposed by the State or by other lawful political entities.

The Design-Builder provided to the Authority its federal tax identification number prior to award of the Contract in accordance with the ITP.

DB 107-6 SANITARY CODE

The Design-Builder shall comply with the provisions of the State sanitary code relating to camps and obtain from the local health officers permits for the construction, maintenance, and operation of labor camps, if used.

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

DB 107-7 SAFETY AND HEALTH REQUIREMENTS

The Design-Builder shall perform all Work in the Contract in a skillful manner with due regard to the safety and health of its employees and of the public. The Design-Builder shall comply with 29 CFR Section 1926 regarding the safety and protection of persons employed in construction and demolition Work.

No employee may use, distribute, dispense, possess or manufacture any alcoholic beverages, illegal drugs or any other intoxicating substance on the Site. Design-Builder's written policy shall require that employees not report to work under the influence of drugs or alcohol, nor be impaired or unable to function at the workplace as a result of consuming alcohol or other intoxicants. While prescription drugs are not prohibited, they should not render an employee unfit for duty. Design-Builder employees that are suspected of using drugs or alcohol, or who are suspected to be under the influence of such substances, shall be reported to the Authority's Project Manager. Any Design-Builder or Subcontractor employees who are under the influence of drugs or alcohol may be deemed incompetent, and are subject to dismissal in accordance with DB §105-2 Character of Workers and Orders to Foreman.

DB 107-7.1 Occupational Safety and Health

In accordance with OSHA regulations, the Design-Builder's employees shall be required to wear protective helmets (hard hats) when there is a possible danger of head injury from impact, from falling or flying objects, or from electrical shock and burns. Additionally, all employees working within an active highway ROW must wear protective helmets at all times. Helmets are not required for employees within a completely enclosed cab constructed of steel frame and glass or inside an automobile. Helmets must meet current OSHA standards for impact, electrical shock, and burn protection. For purposes of this DB §107-7, the Design-Builder's employees will be considered to include all personnel on the Project Site under the direction of the Design-Builder, whether such individuals are employed by the Design-Builder, a Subcontractor, vendor or other Person.

It shall be the responsibility of the Design-Builder to perform all necessary planning, supervision, and training activities to ensure that all of the requirements of 29 CFR Section 1926 are fully met for all workers employed in the construction of the Project. The Design-Builder shall provide to the Authority prior to the start of Work satisfactory evidence that all current requirements of 29 CFR Section 1926 will be adequately addressed.

DB 107-7.2 Safety and Protection

- A) The Design-Builder shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. It shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to, the following:
 - 1) All employees on the Work and all other persons who may be affected thereby;
 - 2) All the Work and all equipment and material to be incorporated therein, whether in storage on or off the Site; and
 - 3) Other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, and utilities, except as designated for relocation, removal, or replacement as part of the Work.
- B) Immediate action shall be taken after an accident to correct the work methods and conditions that are the apparent cause of the accident.
- C) The Design-Builder's duties and responsibilities for the safety and protection of the Work shall continue until Physical Completion occurs. The Design-Builder shall coordinate its Work with the Authority's safety staff.
- D) The Design-Builder shall comply with the following:
 - 1) Conduct the Work with due regard for the protection of public and private property and the health, welfare, mobility, safety, and convenience of the public, particularly with regard to disabled persons and pedestrians;
 - 2) When the Work involves use of public ways, provide necessary flaggers and traffic control devices and install and maintain means of reasonable access to all fire hydrants, service stations, warehouses, stores, houses, garages, and other

property. Private residential driveways shall be closed only within the specified constraints and requirements for notice contained in the Contract Documents;

- 3) Allow the public's travel over any public highway, street, or sidewalk without obstruction or interference except as specified in the Contract Documents. Do not obstruct drainage in roads or natural or constructed drainage ways;
- 4) Comply with all instructions received from the Authority or local authorities regarding protection of public and private property and the health, welfare, mobility, public safety, and convenience of the public;
- 5) Provide reasonable access to the Work area at all times for emergency traffic, such as police, fire, and ambulance units; and
- 6) Give notice and describe upcoming construction to agencies, owners, tenants, and residents in accordance with the Contract Documents.

DB 107-7.3 Emergencies and Accident Reporting

In emergencies affecting the safety of persons or the Work or property at the Site or adjacent thereto, the Design-Builder, without special instruction or authorization from the Authority, is obligated to act at its discretion to prevent threatened damage, injury, or loss. The Design-Builder shall give the Authority prompt written notice of any significant changes in the Work or deviations from the Contract Documents caused thereby.

The Design-Builder shall immediately notify the Authority verbally of any accident or incident that results in the death of a worker, motorist or pedestrian. The Design-Builder shall notify the Authority in writing within 24 hours, with the details relative to any accident or incident occurring within the Project Limits or directly related to construction activity or involving any worker employed on the Contract or delivering materials, equipment or supplies to the Contract, if:

- The accident or incident (1) results in the death of a worker, or (2) requires that a worker is hospitalized overnight for treatment of the injury, or (3) results in 3 or more personal injuries; or
- The accident or incident involved a utility (overhead or underground); or
- The accident or incident involved a motorist or pedestrian; or
- The incident was a near miss; or
- The accident otherwise meets the notification requirements of OSHA.

The Authority's Project Manager will provide the Design-Builder with a copy of the Authority's accident report for any accident occurring within the Project Limits or involving the Design-Builder's personnel, equipment or operations.

Any action by the Design-Builder that presents a potentially imminent danger of injury to the public, a worker, or the inspection staff or others may be halted immediately by the Authority's Project Manager, and additional operations may also be stopped as a result of such action, in accordance with DB §105-1.

The Design-Builder's personnel shall have local emergency numbers readily available at all times. These numbers shall include local utility, police/fire and medical assistance. In the event of an emergency, the Design-Builder shall evacuate all employees and endangered persons from the immediate vicinity to the best of the Design-Builder's ability.

DB 107-7.4 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 for the duration of 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 107-7.5 Design-Builder's Safety Plan

The Design-Builder shall submit a written Project-specific Safety Plan which 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 Authority for review and approval. Before the Work begins, and periodically throughout the Project, the Design-Builder's Project supervision staff shall meet with the Authority's Project Manager to review and discuss the status of safety issues on the Project. An appropriate notice shall be posted at the job Site that the Project's Safety Plan is available for examination by any worker employed on the Project.

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 Authority 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;
- G) Liaison with the Authority's safety monitoring staff; and
- H) 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 §107-7 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 107-7.6 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. An appropriate notice shall be posted on the Project Site that the Project Safety and Health Plan is available for examination by any worker employed on the Project. The Safety Plan shall include the following items:

- A) Policy statement indicating the Design-Builder's commitment to safety, stating goals for OSHA recordable and lost-time incidence rates;
- B) Identification of Authority's 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 employee safety education and training plan for required training for all workers, including a separate program and Hazardous Materials communications Plan for workers involved with Hazardous Materials remediation, required toolbox meetings, and required posting of information, Hazard Communication Training (29 CFR Section 1926.59), Safety Training and Education (29 CFR Section 1926.21), and other training required by 29 CFR Section 1926;
- 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, identification of restricted areas and measures to barricade, fence, cover and otherwise prevent access to such areas, fall protection, working over water, electrical safety, drilling, lifting, and other items;
- F) Industrial hygiene, including respiratory protection, noise, Hazardous Materials, MSDS, and lists of hazardous chemicals present;
- G) Fire protection and prevention (including provisions prohibiting the storage of any flammable materials beneath, or within the proximity of any structure, at any time);
- 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;
- M) Procedures for compelling worker compliance with health and safety requirements; and
- N) Procedures to address distraught, emotionally disturbed persons and/or homeless persons.

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 the requirements of this DB §107-7.6. The Design-Builder shall provide to the Authority a Safety Plan covering all Work to be done by a specific Subcontractor prior to that Subcontractor starting Work. As an alternative, 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 Safety Plan. Submission of the required Safety Plan by the Design-Builder and its acceptance by the Authority 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.

In accordance with the New York State Labor Law §220-h, all laborers, workers, and mechanics shall be certified prior to performing any work on the Contract as having successfully completed a course in construction safety and health approved by the US Department of Labor's Occupational Safety and Health Administration (OSHA) that is at least 10 hours in duration. The Design-Builder shall attach proof of completion to first certified payroll for initial workers, and to subsequent payrolls for new or additional workers. The Design-Builder shall clearly indicate on subsequent payrolls any workers not previously employed on that Contract. If no proof of completion has been submitted for a worker listed on a certified payroll, the Authority's Project Manager will alert the Design-Builder to this fact. If the Design-Builder cannot provide proof of completion and the worker continues to work, the Authority will notify the Design-Builder in writing with a copy to the NYSDOL by e-mail at PWAsk@labor.state.ny.us.

DB 107-7.7 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 Authority's Project Manager for written acceptance, based on the Design-Builder's Safety Plan information contained in its Proposal along with the incorporated comments of the Authority'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 Authority's Project Manager;

- B) The CCE;
- C) The Authority's safety monitoring coordinator;
- D) The Design-Builder's Project Manager;
- E) The Design-Builder's safety manager;
- F) Subcontractors of any tier, including labor-only Subcontractors; and
- G) The Design-Builder's Quality Manager.

Other controlled copies shall be distributed as determined by the Design-Builder and the Authority'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 107-7.8 Revisions to the Safety Plan and Procedures

The Authority'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 Authority's Project Manager, issue such revision within 30 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 Authority's Project Manager and hazard analysis reviews. Within seven days of finishing this review, the Design-Builder shall issue a review report to the Authority's Project Manager, giving the conclusions of the review and identifying the revisions to be made to the Safety Plan.

Within 30 days of the issue of the review report, the Design-Builder shall issue a revised Safety Plan for review and written Approval by the Authority's Project Manager.

DB 107-7.9 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 107-7.10 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, or a principal of its organization who shall be responsible and directly accountable to the Authority 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 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 Authority's Project Manager. The Safety Manager shall be suitably qualified and experienced as identified in DB §108-3.1. 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 Authority's Project Manager. The Design-Builder shall nominate any replacement at the same time consent is sought.

If the Safety Manager is removed under DB §102-3, a suitably qualified and immediately available replacement shall be proposed to the Authority's Project Manager within 14 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 Authority'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 Authority'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 §107-7 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 Authority's consent. If the Authority'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. Subcontractors shall not perform work at the Site unless the specified safety supervisors are on the Site.

The Design-Builder shall provide sufficient licensed EMTs to provide adequate emergency medical care to personnel working on the Site. The Design-Builder shall also provide appropriate medical treatment facilities and an appropriate emergency response vehicle to meet the needs of the Project.

DB 107-7.11 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 107-7.12 Health and Safety Inspections

The Design-Builder shall notify the Authority's Project Manager of any Inspections to be conducted on the Project by USDOL, OSHA, NYSDOL, or other health and safety agencies, and of any resulting closing conference, and provide the Authority's Project Manager with the opportunity to be present at such Inspections and closing conference. The Design-Builder shall notify the Authority in writing of the results of any health and safety Inspections conducted on the Project by representatives of USDOL, OSHA, NYSDOL, or other health and safety agencies, within one work day of the completion of the closing conference resulting from such Inspections. If any citations are issued for alleged violations of 29 CFR Section 1926, a copy shall be provided to the Authority's Project Manager within one work day of their receipt by the Design-Builder, and a copy of the final disposition of such citations shall also be provided to the Authority's Project Manager within one work day of their receipt by the Design-Builder. In addition, the Design-Builder shall notify the Authority in writing within 24 hours of the details relative to any accident or incident occurring at the Site involving any worker employed under the Contract or delivering material, equipment, or supplies to the Project, provided that the following criteria are met:

- A) The accident or incident occurs within the confines of the Project; and
- B) The accident or incident results in the death of the worker, or requires that the worker is hospitalized overnight for treatment of the injury; or

- C) The accident otherwise meets the notification requirements of OSHA.

DB 107-7.13 Reports

The Design-Builder shall submit a safety report in form acceptable to the Authority with each monthly progress report (DB §108-1.3).

DB 107-7.14 Drilling and Blasting

A Project meeting relative to the method, manner, and procedure of blasting operations shall be held at the Site with the Authority's Project Manager, the Design-Builder, the Project's blasting contractor or Subcontractor, and representatives of all interested agencies including a Department engineering geologist, at least 10 days prior to the commencement of drilling and blasting operations.

Whenever explosives are used, they shall be of such character and strength and in such amounts as are permitted by the State and local laws and ordinances and all respective agencies having jurisdiction over them. The right is reserved for the Authority's Project Manager and those agencies to specify the maximum size of the charges.

Blasting shall be done only at such time as the Authority's Project Manager and those agencies shall approve and under such restrictions as they may impose.

If a blast causes injury, damage to property, adverse effects upon traffic, or causes gases to migrate and/or accumulate in a potentially harmful manner, all blasting operations shall cease pending review of the procedures. The review will be conducted by the Authority's Project Manager in conjunction with an Engineering Geologist to ensure that proper procedures and practices were used to determine if the approved procedures need to be revised. Should the findings of the review indicate the injury, damage, traffic delay, or migration/accumulation of gases was attributed to improper blasting operations, the blaster of record may be removed at the Authority's option.

The Design-Builder shall employ only experienced supervisors and workers in the handling, loading, and firing of the explosives. The Design-Builder shall meet all the requirements of 12 NYCRR 23 and 12 NYCRR 39 and 29 CFR Section 1926, and Design-Builder's attention also is directed to the requirements of Industrial Code Rule 39 of NYSDOL's Board of Standards and Appeals, the applicable sections of the New York State Labor Law (including Section 452 through 460), which, together with the conditions indicated herein, shall provide for the possession, handling, use, storage, and transportation of all explosives used at the Site.



See also Part 3, Section 3- Environmental Compliance and Part 3, Section 10 – Geotechnics.

DB 107-7.15 Explosives in Demolition

Demolition Work shall not be performed by the use of explosives unless approved by the Authority's Project Manager.

DB 107-7.16 Excavation or Blasting Near Combustible Gas Pipes

- A) No Person shall discharge explosives in the ground, nor shall any person other than a State, county, city, town, or village employee regularly engaged in the maintenance and repair thereof excavate in any then existing street, highway, or public place, unless notice thereof in writing shall have been given at least 72 hours in advance to the Person, corporation, or municipality engaged in the distribution of gas, electricity, steam, or water, or the provision of telephone or telegraph service in such territory. The person having direction or control of such Work shall give such notice and, further, he/she shall ascertain whether there is, within [REDACTED] in such street, highway or public place, or in the case of a proposed discharge of explosives, within a radius of [REDACTED] of such discharge, any pipe of any other Person, corporation, or municipality conveying combustible gas, and if there be any such pipe he/she shall also give such notice to any such other Person, corporation, or municipality. Notwithstanding the foregoing, in any emergency involving danger to life, health, or property, it shall be lawful to excavate without using explosives if the notices prescribed herein are given as soon as reasonably possible, and to discharge explosives to protect a Person or Persons from an immediate and substantial danger of death or serious personal injury if such notices are given before any such discharge is undertaken. Any such Work shall be performed in such manner as to avoid damage to any utility facilities.
- B) If, in the course of any such excavation, blasting, or other Work, damage or the potential thereof is occasioned to any utility facility used in the transmission or distribution of gas, electricity, water, steam, telephone, or telegraph, whether by direct contact, undermining of soil or other support thereof, or otherwise, the Person having direction or control of such Work shall promptly take all reasonable measures necessary to protect individuals and the public from loss or the potential thereof and shall immediately notify the utility owner of such damage or potential damage to its facilities. Neglect on the part of the Person having direction or control of such Work and responsible for any damage or potential damage to such facilities (1) to take such safety precautionary measures as are necessary or reasonably required promptly or (2) to immediately notify the affected utility owner of damage or potential damage to its facilities, occasioned by such Person or under its direction or control, shall be a violation of this DB §107-16. Nothing herein contained shall preclude or prevent recovery of monetary damages by the affected utility owner or by any other Person suffering damage from the disruption of utility services occasioned by excavation, blasting, or other Work in the vicinity thereof.
- C) Pursuant to the Laws of New York, Chapter 957, the New York State Public Service Commissioner has the power, through Inspectors or duly authorized employees of his/her department, to examine and inspect excavation and demolition methods used by any Person within [REDACTED] in any direction of an underground pipeline used for conveying natural gas and to order compliance with the standards for excavation and demolition near underground gas pipelines contained in regulations issued or applied pursuant to Section 119-b of the New York State Public Service Law and 16 NYCRR 753.

The Design-Builder shall provide the New York State Public Service Commission's Inspector access to the Project.

DB 107-7.17 Guarding and Protection

The Design-Builder shall be responsible for guarding and protecting open and unattended excavations and other potentially hazardous locations in and adjacent to areas lawfully frequented by any person. Such guarding and protection shall consist of any one, or a combination of, the following:

- A) A substantial fence or barricade, not less than [REDACTED] in height and mounted on satisfactory supports spaced at intervals of not more than [REDACTED]. Warning signs reading "DANGER-KEEP OUT" shall be mounted on the fence or barricade, as required by the Authority's Project Manager, at no more than 100 foot intervals. The signs shall be a minimum of 24 inches wide by 16 inches high. The lower portion of the sign shall be white and shall bear the words "KEEP OUT" in 5 inch black letters. The upper portion shall be predominantly red with 5 inch white lettering spelling out the word "DANGER." The lettering shall be enclosed by an approximately elliptical, white ring and the entire sign bordered in black. All barricades and warning signs shall be furnished, erected, relocated, maintained, and removed as required.
- B) A [REDACTED] extension of the trench sheeting above the ground surface adjacent to the excavation.
- C) A substantial covering over an excavation. Where it is possible that vehicles will move over such covering, the covering shall be of sufficient strength to withstand the loading.

DB 107-7.18 Emergency Call-Out List

The Design-Builder shall provide the Authority, at the time of the site mobilization meeting, with a list ("Call Out List") of a minimum of four responsible personnel, available on a 24-hour basis, for call out if conditions arise that require the Design-Builder's attention at the Site. In addition to providing on and off hours phone numbers, all persons on the Call Out List shall be equipped with telephone call activated paging devices which display the call back number, or other approved paging devices. Any person on the Call Out List shall have the authority to promptly call out personnel and resources necessary to respond to an emergency and protect the public. The Call Out List shall also include field office and main office telephone numbers and be updated as changes occur.

DB 107-7.19 Equipment Involving Radioactive Materials

The use of equipment involving radioactive materials, including, nuclear density gauges, shall adhere to all applicable regulations, including US Nuclear Regulatory Commission regulations, related USDOT regulations concerning transportation of radioactive material, and 12 NYCRR 38. As a part of the Safety Plan, the Design-Builder shall include in its submittal to the Authority's Project Manager a section regarding radiation safety if such equipment will be used on the Project. The Safety Plan shall address in detail transportation and storage of the equipment and operating and emergency procedures. It shall provide the name and address of the Design-Builder's radiation safety officer. A copy of the owner's license to possess the radiation source, issued by NYSDOL shall also be provided. All operators of the equipment shall be certified by a gauge manufacturer as to having completed training on the safe use of the equipment. A copy of the certification shall be provided to the Authority's Project Manager for each operator prior to their Work on the Project.

DB 107-8.2 Site Security Plan



DB 107-9 ENVIRONMENTAL AND CULTURAL RESOURCES

Before construction, the Authority shall obtain the Environmental Resource and Cultural Resource approvals for the Project area included in the Contract Documents. Special Environmental Resource and Cultural Resource requirements developed to protect resources shall be described in the Contract Documents. The Design-Builder shall abide by all Environmental and Cultural Resource management requirements. The Authority's Project Manager and environmental staff are available to assist the Design-Builder in the area of Environmental Resource and Cultural Resource management.

DB 107-9.1 Environmental and Cultural Resource Discoveries

If the Design-Builder encounters an Environmental Resource or Cultural Resource that is not included in the Contract Documents, the Design-Builder shall terminate all further operation in the immediate area until the Authority's Project Manager determines that appropriate environmental staff of the Authority and regulatory authorities have had the opportunity to review the location and complete appropriate mitigation actions. This termination shall not preclude continuation of the Work in other areas.

DB 107-9.2 Responsibility for Damage to Environmental and Cultural Resources

The Design-Builder shall repair, at its expense, all damage to Environmental Resources or Cultural Resources caused by failure to abide by requirements included in the Contract Documents to protect resources identified during the Environmental Resources and Cultural Resources evaluation. The extent of such an action shall be determined in coordination with the Design-Builder, Authority's representatives, and the regulatory authorities with management jurisdiction over the subject resources.

The Design-Builder shall be responsible for time and cost impacts of any delays resulting from the Design-Builder's non-compliance with Governmental Rules or other Contract requirements related to Environmental Resources and Cultural Resources issues.

DB 107-9.3 The Design-Builder's Responsibility for Environmental and Cultural Resources Approval

Before beginning soil-disturbing activities at areas such as camp sites, plant sites, crusher sites, stockpile sites, equipment yards, borrow pits, and surfacing pits, as well as for any construction area obtained by the Design-Builder that is not included in the Contract Documents, the Design-Builder shall employ a qualified environmental scientist and Cultural Resource professional to conduct an Environmental

Resources and Cultural Resources study. The environmental scientist and Cultural Resource professional must have appropriate resource study permits and meet the professional qualifications established by regulatory authorities to conduct the required studies. The documentation prepared must meet the standards of the Authority and regulatory authorities. The documentation must also meet the standards of State, tribal, or federal land managing agencies if the proposed activity is located on land under their jurisdiction. The studies are required regardless of land ownership, and they must be in conformance with the requirements included in NEPA and the National Historic Preservation Act.

The Cultural Resources review must meet standards established by the State Historic Preservation Officer (the Commissioner of Parks, Recreation and Historic Preservation) and, if applicable, the appropriate land-managing agency. A State, tribal, or federal agency with jurisdiction over the property may also establish other Environmental Resources and Cultural Resources study requirements. The documentation prepared for the Environmental Resources and Cultural Resources studies shall be submitted to the Authority's Project Manager and, if required, to other regulatory authorities with jurisdiction over the land or resources that are present. Copies shall also be submitted to the Authority's appropriate environmental staff. The Authority's environmental staff shall submit the Cultural Resources studies to SHPO (the New York State Office of Parks, Recreation and Historic Preservation). The Design-Builder shall complete any other coordination required by Environmental Requirements. The Authority's Project Manager shall notify the Design-Builder when Cultural Resources approval from the Authority's environmental staff and SHPO has been obtained. The coordination may take 30 days from the date it is delivered to the Authority's environmental staff.

The Authority shall be responsible for any costs and expenses due to critical path delays directly attributable to discovery of Environmental Resources or Cultural Resources that are not identified in the RFP or the Contract Documents. The Design-Builder is responsible for all costs and expenses, including costs and expenses due to critical path delays, for all Environmental Resources or Cultural Resources that are identified in the RFP or the Contract Documents.

Approval of the State, tribal, or federal land-managing agency, if applicable, and coordination with regulatory authorities and the State Historic Preservation Officer must be completed before the Design-Builder initiates any soil-disturbing activities at the locations subject to this requirement. In addition, the Design-Builder shall abide by all Environmental Resource and Cultural Resource requirements for protection of resources identified during the Environmental Resources and Cultural Resources studies.

- A) Previously completed Environmental Resources and Cultural Resources investigations. Environmental Resources and Cultural Resources investigations previously completed by others for the same location to be used by the Design-Builder can be used for the Environmental Resources and Cultural Resources requirements described in this DB §107-9.3 so long as those previously completed investigations meet the standards identified here. The Design-Builder shall obtain copies of the Environmental Resources and Cultural Resources documentation and submit them to the Authority's Project Manager and, if required to do so, to other regulatory authorities with jurisdiction over the land or resources that are present. Copies shall also be submitted to the appropriate environmental staff of the Authority. The Authority's environmental staff and the Authority's Project Manager shall determine if the documentation meets the standards identified in this DB §107-9.3 and is acceptable. If the previously completed studies do not meet the Referenced Standards, then new Environmental Resources and Cultural Resources studies must be completed.

- B) Parking Equipment in Highway ROW. Environmental Resources and Cultural Resources inventories may not be completed by the Authority for some projects when construction is confined to the existing paved surface of the road. In these situations, as shall be noted in the Contract Documents, and the Design-Builder shall identify all locations along the Project corridor where equipment shall be parked during construction. The Environmental Resources and Cultural Resources requirements of this DB §107-9.3 must be completed by the Design-Builder if any of the designated locations are in areas where previously undisturbed soils are present.

See also Part 3, Section 3 – *Environmental Compliance* for a discussion of the Design-Builder's role in environmental compliance and monitoring.

DB 107-10 SOIL EROSION

The Design-Builder shall schedule and conduct its Work to minimize soil erosion and to minimize silting and muddying of streams, rivers, irrigation systems, impoundments (lakes and reservoirs), and lands adjacent to or affected by the Work. Construction of drainage facilities and performance of other Work which will contribute to the control of erosion and sedimentation shall be carried out in conjunction with earthwork operations or as soon thereafter as practicable. The area of bare soil exposed at any one time by construction operations shall be kept to a minimum. Prior to the start of the applicable construction, the Design-Builder shall submit to the Authority's Project Manager for acceptance schedules for accomplishment of temporary and permanent erosion control Work as are applicable for clearing and grubbing, grading, bridges and other structures at watercourses, construction, and paving. In addition, it shall also submit for acceptance at the same time its proposed method of erosion control on haul roads and borrow pits and its plan for disposal of surplus excavated material. No Work shall be started until the erosion control schedules and methods of operation have been accepted by the Authority's Project Manager. If conditions change during construction, the Design-Builder may be required to submit a revised schedule for acceptance as directed by the Authority's Project Manager. Whenever the Design-Builder's operations, carried out in accordance with the accepted erosion control schedule, result in a situation where appropriate temporary erosion control measures are not shown on the Design Plans, the Design-Builder shall conduct the Work in accordance with the provisions in *item 209 of Part 8 - Special Specifications*. In carrying out the control measures under this DB §107-10, the Design-Builder will be guided by, but not limited to, the following controls:

- A) Erosion and Sediment Control of borrow areas, spoil areas and construction roads shall be conducted both during and after completion of the work, to minimize soil erosion and not cause or contribute to a violation of water quality standards and prevent sedimentation on lands adjacent to or affected by the work. The Design-Builder shall submit grading Plans for all borrow pits or areas or spoil or waste areas to the Authority's Project Manager for acceptance prior to the start of Work on, or the use of, such areas. The grading Plans shall indicate the sequence of operations, temporary slopes, and other factors which may have an influence on erosion control;
- B) When Work areas, borrow areas, spoil areas or gravel pits are located in or adjacent to waterways or impoundments, such areas shall be separated from the rest of the waterway or impoundment by a dike or other barrier to prevent sediment from entering a flowing waterway or impoundment. Care shall be taken during the construction and removal of such barriers so as not to cause turbidity or sedimentation; and

- C) Water from aggregate washing or other operations containing sediment shall be treated by filtration, settling basin, or other means sufficient to reduce the turbidity or sedimentation of receiving waterways, turbid wash or pump discharges shall not be allowed to enter waterways or impoundments.

No payment will be made for any labor, material, or equipment needed for soil erosion abatement as described above.

When it becomes necessary, the Authority's Project Manager will inform the Design-Builder of unsatisfactory construction procedures and operations insofar as erosion control is concerned. If the unsatisfactory construction procedures and operations are not corrected promptly, the Authority's Project Manager may suspend the performance of any or all of other construction until the unsatisfactory condition has been corrected.

DB 107-11 WATER QUALITY

DB 107-11.1 General Water Quality Requirements

The Authority shall apply for and obtain any and all permits required for construction involving waters of the US as defined by the US Army Corps of Engineers. It shall be assumed that construction affecting a live stream shall require a permit from the US Army Corps of Engineers. All construction activities occurring within regulated waters of the US shall be completed in full compliance with the permit obtained for said construction, and the Design-Builder shall be fully liable for all consequences arising as a result of the Design-Builder's failure to comply with all requirements and conditions of the permit.

All Work in the vicinity of live streams, water impoundments, wetlands, or irrigation supplies shall be completed in such a manner as to minimize vegetation removal, soil disturbance, and erosion. Crossing of live streams with heavy equipment shall be minimized, as determined by the Authority's Project Manager. Therefore, temporary bridges or other structures shall be used wherever an appreciable number of waterway crossings are necessary. Unless otherwise accepted in writing by the Authority's Project Manager, mechanized equipment shall not be operated in live waterways.

All waterways shall be cleared as soon as practicable of falsework, piling, debris, or other obstructions placed during construction operations and which are not a part of the finished Work.

Ditches which are filled, or partly inoperative, shall be cleaned and made operative before the Design-Builder stops Work for any day, and shall be maintained in a condition satisfactory to the Authority's Project Manager for the duration of the Contract.

Equipment refueling and maintenance and concrete dumping in the vicinity of water courses is strictly prohibited. These activities shall be performed in proper containment areas. Pollutants such as fuels, lubricants, bitumens, raw sewage, and other harmful materials shall not be discharged into or near waterways and impoundments or into natural or manmade channels leading to them.

The Design-Builder is responsible for compliance with applicable Clean Water Act permits and regulations, all applicable regulations of fish and wildlife agencies, and statutes relating to the prevention and abatement of pollution.

No payment will be made for any labor, material, or equipment needed for water pollution abatement as described above.

When it becomes necessary, the Authority's Project Manager will inform the Design-Builder of unsatisfactory construction procedures and operations insofar as water pollution abatement is concerned. If the unsatisfactory construction procedures and operations are not corrected promptly, the Authority's Project Manager may suspend the performance of any or all of other construction until the unsatisfactory condition has been corrected.

DB 107-11.2 Protection of Streams, Lakes, and Reservoirs and the NPDES

The Design-Builder shall be responsible for obtaining and complying with the requirements of NPDES and SPDES permits. In carrying out Work along or adjacent to live streams, the Design-Builder shall comply with the regulations and requirements of the relevant regulatory authorities as set forth in the Plans, *Part 3, Section 3 – Environmental Compliance* and *Part 3, Section 23 – Drainage and Stormwater*.

DB 107-12 AIR QUALITY AND DUST ABATEMENT

The Design-Builder shall schedule and conduct activities to minimize impacts to air quality and to prevent hazardous or objectionable air quality conditions within the Project Limits and in areas adjacent to or affected by the Work. The Authority's Project Manager will suspend the performance of any construction activity that creates hazardous or objectionable air quality conditions until the unsatisfactory condition has been corrected.

- A) Dust
The Design-Builder shall apply pro-active measures to prevent discharge of dust into the atmosphere that unreasonably interferes with the comfortable enjoyment of life and property or is harmful to plants or animals.
- B) Burning
Any material generated by any activity for the development, modification, and construction of any transportation facility shall not be burned on the Project Site. This shall include products of land clearing and demolition.
- C) Prevention
The Design-Builder shall employ appropriate protection techniques and/or systems to prevent hazardous or objectionable air quality conditions, particularly when conducting drilling, cutting, grinding, abrasive blasting, or similar operations that impact air quality.

DB 107-13 NOISE ABATEMENT

In urban or populated rural areas where quiet conditions normally prevail, no equipment that emits noise above 70 DBA measured at an offset distance of 50 feet, if the work is on land, and at the nearest point of the shoreline, if the work is in the water, shall be operated during nighttime hours unless such Work is otherwise specified in the Contract Documents. The Authority's Project Manager may authorize nighttime Work under special circumstances or emergency conditions.

DB 107-14 CONSTRUCTION AND DEMOLITION DEBRIS

The New York State Department of Environmental Conservation regulates solid waste management facilities under 6 NYCRR 360-1. Its various subparts define solid waste, including construction and demolition debris, and regulate the disposal of those wastes.

In accordance with 6 NYCRR 360-7, the disposal of the below specified construction and demolition wastes in landfills outside of Nassau and Suffolk Counties is exempt from regulation under 6 NYCRR 360-1. If operation are undertaken only between the hours of sunrise and sunset, and no fee or other form of consideration is required for the privilege of using the facility for disposal purposes, the following are exempt from regulation:

- A) A site at which only recognizable uncontaminated concrete, asphalt pavement, brick, soil, or stone is placed; or
- B) A landfill for the disposal of trees, stumps, wood chips, and yard waste when the generation and disposal of such waste occur on properties under the same ownership and control.

The wastes listed above are considered to be uncontaminated when they have not come in contact with a Hazardous Waste, industrial waste, or petroleum product through a spill or other occurrence. Wastes may be presumed uncontaminated absent records, existing data, or knowledge or observation to the contrary. The term soil specifically includes uncontaminated soil material generated by the cleaning of ditches, drainage, culverts, storm sewers, catch basins, and related appurtenances and sweeping streets. Reinforcing steel embedded in concrete is considered an incidental metal and is included within the definition of concrete.

Exempt wastes, as noted above, which have been generated on the Project Site by the Work under this Contract may be buried on the Project Site on property owned by the Authority in accordance with the requirements of Standard Specifications §203-3.08, Disposal of Surplus Excavated Materials or Standard Specifications §203-3.10, Embankments, and DB §107-21.2. Exempt waste shall not be pulverized, shredded, or otherwise processed such that the individual waste components are rendered unrecognizable. Vegetative wastes shall be segregated from other exempt wastes when buried. All on-site disposal shall be subject to the Authority's Project Manager's approval of location, final condition, and appearance.

Payment for the proper disposal of waste generated by the Work under this Contract is included in the appropriate Price Centers. The absence or unavailability of disposal sites on the Project shall not be the basis of a claim for extra compensation by the Design-Builder for the necessary and appropriate off-site disposal of exempt wastes.

Disposal of all construction and demolition debris other than the exempt wastes listed above shall occur off-site at a disposal facility authorized to accept such waste for disposal pursuant to 6 NYCRR 360. Off-site disposal of exempt wastes shall be carried out in accordance with 6 NYCRR 360.

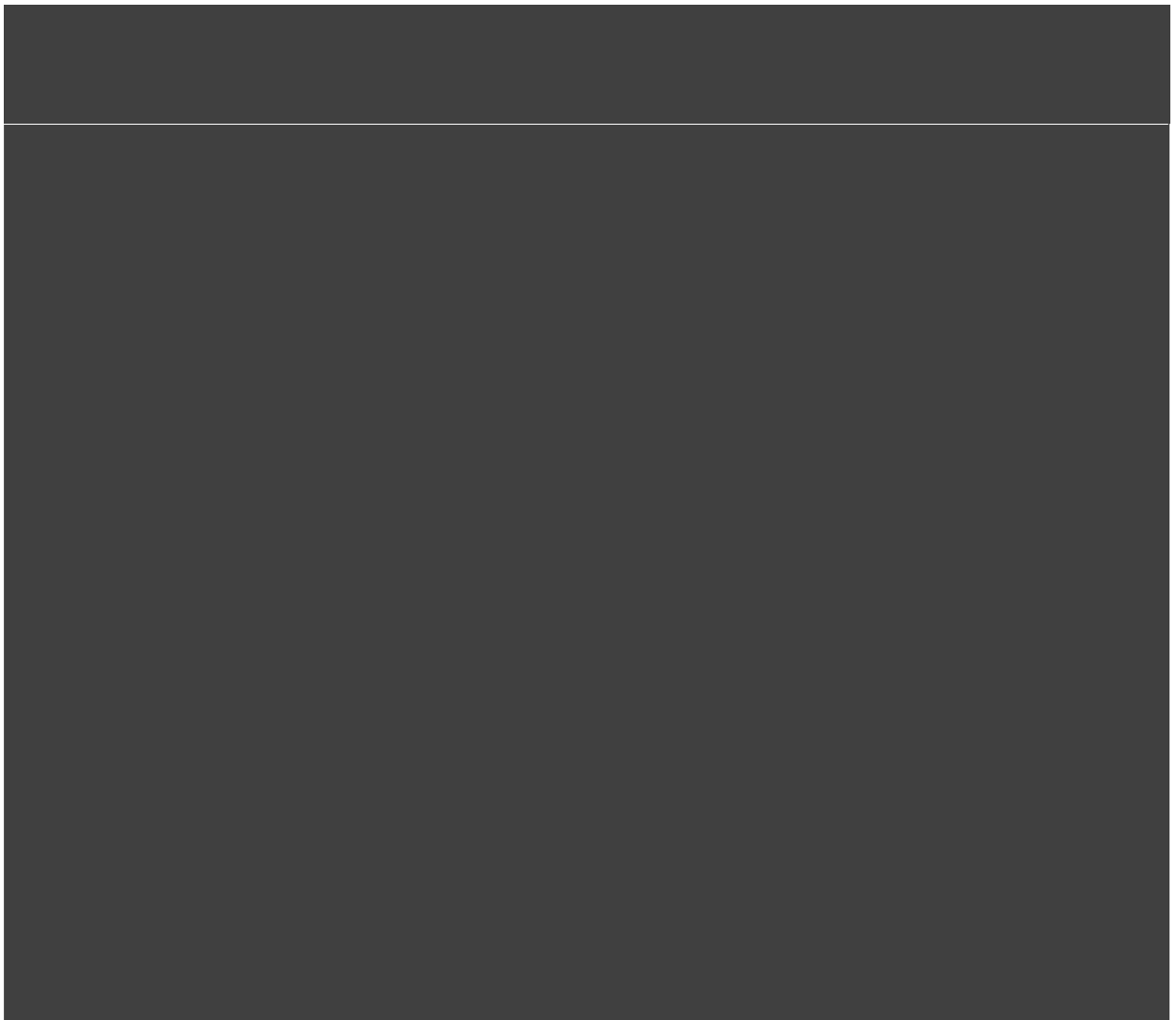
Nothing herein is intended to prevent the Design-Builder from removing material to off-site locations for speculative accumulation, beneficial use, recovery, or recycling purposes if such activities are consistent with all applicable federal, State, and local laws and regulations.

DB 107-15 CONSTRUCTION, EXCAVATION, AND DEMOLITION CONTRACTS AT OR NEAR UNDERGROUND FACILITIES

All costs associated with verification of the location of underground facilities pursuant to 16 NYCRR 753, as amended, are included in the Contract Price. The Design-Builder shall provide access to Public Service Commission personnel to examine and inspect excavation and demolition methods used within 15 feet in any direction of any underground facility.

- A) The Design-Builder shall provide to the Authority's Project Manager, in writing, the information provided to the One-Call notification system, or the utility if it is not a Once-Call notification system member, and the control number issued for each call placed to request designation of underground facilities. The Design-Builder shall protect and preserve designations until no longer required for safe Work near the underground facility.
- B) The Design-Builder shall identify and provide to all Work Site supervisors and equipment operators a list of emergency telephone numbers for each utility having facilities within the Project Limits. Supervisors shall periodically review the location of underground facilities with all workers who are subject to exposure, including new employees. If the Design-Builder fails to notify the One-Call notification system or a non-member utility prior to excavation or activity listed above, a stop work order will be issued in accordance with the provisions of DB §109-15.2. Prior to lifting the stop work order, the Authority will consider convening a show cause meeting, at its convenience, to consider worker dismissal in accordance with DB §102-3 or Contract termination in accordance with *Agreement, Article 8 - Right To Suspend Work and Cancel Contract*, and DB §105-7.
- C) **Verification**
Pursuant to 16 NYCRR 753, the Design-Builder shall verify precise location, size, depth, and direction of run of an underground facility or its encasement, by hand shovel or vacuum excavation, prior to the use of powered equipment or the installation of any proposed Work, including the projected line of a trenchless installation such as boring or drilling, within the tolerance zone. Powered equipment may be used to remove pavement or masonry within the tolerance zone, but only to the depth of such pavement or masonry. Powered equipment shall not be used within 4 inches of the verified location of an underground facility.
- D) **Contact or Damage**
- E) Pursuant to 16 NYCRR 753, the Design-Builder shall, in the event of contact or damage to an underground facility, immediately notify the utility and the Authority's Project Manager, suspend excavation or demolition in the immediate vicinity of the contacted or damaged facility, and take such emergency actions as are warranted to protect all endangered persons to the best of its ability.
- F) **Pressure Pipes**
- G) Pressure pipes shall not be pressurized without being adequately restrained against movement and no personnel shall be allowed in a trench or area containing a pressure pipe during initial pressurization until the pipe has been fully pressurized. Particular attention shall be paid to fittings and bends that create a thrust, which, if improperly restrained, may cause the pipe joints to separate and injure nearby personnel.





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 Authority'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 Authority shall be responsible for any costs and expenses due to critical path delays directly attributable to any new discovery of Hazardous Materials that are of a type, quantity or location that differs materially from the types, quantities or locations of Hazardous Materials identified in the RFP or the Contract Documents as potentially present at the Site and that Design-Builder is not otherwise responsible for as provided in DB § 104-4.3 and this DB §107-16. The Design-Builder is responsible for all costs and expenses, including costs and expenses due to critical path delays, for any release or threatened release of Hazardous Material (i) which was brought onto the Site by Design-Builder or

Subcontractors, or (ii) which was negligently removed or handled by Design-Builder or Subcontractors, regardless of the source, origin or method of deposit of such Hazardous Materials. Except with respect to Hazardous Materials as described in the preceding sentence, Design-Builder shall not be required to execute any hazardous waste manifests as a “generator,” and Hazardous Materials encountered in the performance of the Work shall be disposed of, if at all, utilizing an EPA identification number or other appropriate legal device obtained by, and carried in the name of, Authority or another Person designated by Authority.

DB 107-17 PRIME COAT, TACK COAT, AND SOIL STERILANTS

Application of prime coat, tack coat, and soil sterilants in roadway surfacing must avoid soils outside the roadway prism. Contamination must be carefully avoided in irrigation supplies, wetlands, water impoundments, and live streams.

DB 107-18 STATE AND FEDERAL LAND-MANAGING AGENCIES

In carrying out Work within or adjacent to State or federal lands and forests, the Design-Builder shall comply with all regulations of the State or federal authority having jurisdiction governing the protection of these areas, and shall observe all sanitary laws and regulations. The Design-Builder shall keep the areas in an orderly condition, dispose of all refuse, and obtain permits for the construction and maintenance of all construction camps, stores, warehouses, residences, latrines, cesspools, septic tanks, and other structures in accordance with the requirements of the applicable federal or State regulations.

DB 107-19 PREVENTION OF FOREST AND GRASS FIRES

The Design-Builder shall take all responsible precaution to prevent and suppress forest and grass fires and shall require all employees and Subcontractors, both independently and at the request of the appropriate officials, to perform all actions reasonably within their power to prevent and suppress and to assist in preventing and suppressing forest fires and to make every possible effort to notify a forest official at the earliest possible moment of the location and extent of any fire seen by them. The Design-Builder shall take the necessary steps to prevent and control fires in areas where severe fire hazards exist and, when required in the Contract, furnish and maintain firefighting equipment and tools as required by the agency having jurisdiction. The Design-Builder shall comply with fire regulations applicable to the area where the Design-Builder is working and shall suspend fire-hazardous operations when necessary, at the direction of the Authority’s Project Manager and pursuant to DB §109-15.2.

DB 107-20 MINIMIZATION OF SOIL DISTURBANCE

The Design-Builder shall ensure that damage to, or removal of, vegetation and trees shall be kept to a minimum and that no extraneous clearing, grubbing, land disturbance, or excavations shall take place. The Design-Builder shall bear the full cost of vegetation remediation necessary due to the Design-Builder’s action.

DB 107-21 PROTECTION AND RESTORATION OF PROPERTY AND LANDSCAPE

The Design-Builder shall be responsible for the preservation of all public and private property. The Design-Builder shall protect carefully from disturbance or damage all land, governmental survey monuments, and property markers until the Authority’s Project Manager has witnessed or otherwise referenced their location, and the Design-Builder shall not remove any monuments or markers until so directed.

The Design-Builder shall be responsible for all damage or injury to property of any character during the prosecution of the Work resulting from any act, omission, neglect, or misconduct in the Design-Builder's manner or method of executing the Work, or at any time due to defective Work or material, and said responsibility will not be released until Physical Completion, except as otherwise specified in DB §105-12 with respect to the maintenance responsibilities described therein, DB §108-9 with respect to official shutdown periods and DB §109-11.1 with respect to partial acceptance of units or portions of the Project prior to Physical Completion. When or where direct or indirect damage or injury is done to public or private property by or on account of any act, omission, neglect, or misconduct in the execution of the Work or in consequence of the non-execution thereof by the Design-Builder, the Design-Builder shall restore, at its own expense, such property to a condition similar or equal to that existing before such damage or injury was done by repairing, rebuilding, or otherwise restoring as may be directed, or the Design-Builder shall make good such damage or injury in an acceptable manner.

DB 107-21.1 Restoration of Disturbed Areas Outside the ROW

All areas outside of the ROW, except as noted in the following text, disturbed, used by, or serving as a source of material for the Design-Builder shall be restored to a pleasing and acceptable condition as specified and as satisfactory to the Authority's Project Manager. The Design-Builder shall obtain the written acceptance of the Authority's Project Manager for the use of any specific area before any Work in such area is begun, except as noted in the following text. Where deemed necessary by the Authority's Project Manager, the Design-Builder shall submit, as part of the request for acceptance, a grading plan showing the proposed final grading of the area. Acceptance shall not be given if, in the opinion of the Authority's Project Manager, the area is not suited to acceptable restoration or if serious or permanent ecological damage is foreseeable. This requirement applies to areas such as, but not limited to, borrow pits or areas, spoil or waste areas, haul roads, storage areas, batching areas, equipment storage areas, shop areas, and all similar areas. This does not apply to areas which have been or are being used by the Design-Builder as its established and permanent headquarters and equipment pool sites or to commercial borrow sources, commercial gravel pits, commercial quarries, public disposal areas, and all similar areas.

In accordance with the New York State Mined Land Reclamation Law (Article 23, Title 27 of the New York State Environmental Conservation Law) all borrow pits and aggregate sources outside of the ROW, where more than 1,000 tons or 750 cubic yards, whichever is less, of minerals are removed from the earth within any 12 successive calendar months, require mining permits obtained from the NYS Department of Environmental Conservation. When such permit is required, the Design-Builder, in addition to complying with all restoration requirements for all areas as stated below, may be required by the Authority's Project Manager to meet any standard contained in the New York State Mined Land Reclamation Rules and Regulations (6 NYCRR 420 et seq.). In general, the restoration shall include the following:

- A) The removal of all equipment and parts, junk, rubbish, excess material, and debris of all kind;
- B) Clean-up as required; grading as shown, if a grading Plan has been prepared; or grading so as to blend into the surrounding ground forms to the satisfaction of the Authority's Project Manager;
- C) Scarification of storage yards, batching sites, and haul roads to the depth determined by the Authority's Project Manager as necessary to support vegetation;

- D) The removal and re-grading of temporary roads or areas as required by the Authority's Project Manager;
- E) The repair or removal of damaged trees and the fertilizing, seeding, and mulching of the areas as provided for in the Contract or as directed by the Authority's Project Manager; and
- F) Grading the slopes of excavated areas to a stable condition, but in no case shall earth cut faces be left steeper than one vertical on one and one-half horizontal. All rock cut slopes shall be scaled to remove any loose or unstable rock.

Areas within sight of the finished highway or any other highway will require particular attention insofar as the above features are concerned. It is the intent to have all such areas present a pleasing appearance to travelers on any highway.

Where borrow pits result in the formation of ponds or low areas intermittently filled with water, the Design-Builder shall furnish the Authority's Project Manager with a copy of its agreement with the landowner permitting the use of such areas. If such an area is within sight of any highway, the Authority's Project Manager's written acceptance must be obtained prior to the removal of any borrow from such a location. If such acceptance is not granted, material for use under this Contract or for any other Authority contract may not be removed from the area. In the event the Design-Builder removes material from such an area without the written acceptance of the Authority's Project Manager, payment will not be made for any item of Work in which the material has been used. Grading Plans may be required for such areas and due consideration given to the appearance of the areas if they are visible from any highway. All of this restoration shall be accomplished as a condition to Physical Completion, except that the Work of restoring the Design-Builder's work areas (storage, batching, equipment, and shop areas) may be done after Final Acceptance.

In the event the Design-Builder carries on any operation on the referenced areas without written acceptance of the Authority's Project Manager, no payment will be made for any item in the Contract involved in any way with any operation on the unaccepted area.

DB 107-21.2 Restoration of Disturbed Areas Within the ROW

All disturbed areas within the ROW but outside of the Work limits shall be restored to a pleasing and acceptable condition as specified and as satisfactory to the Authority's Project Manager. For the purposes of this DB §107-21.2, the Work limits shall include the road section plus a reasonable work area at top of cut and toe of fill as determined by the Authority's Project Manager. Disturbed earth areas within the Work limits shall be graded in a manner approved by the Authority's Project Manager and seeded as specified for standard turf establishment.

The Design-Builder shall obtain the written permission of the Authority's Project Manager before beginning the use of any area within the ROW but outside the Work limits as noted in the preceding paragraph through modification of the contract limits by Order on Contract or the issuance of a highway work permit. Where deemed necessary by the Authority's Project Manager, the Design-Builder shall submit, as part of the request for permission, a grading Plan showing the proposed final grading of the area. If, in the opinion of the Authority's Project Manager, the area is not adaptable to acceptable restoration or if serious or permanent environmental damage is foreseeable, permission shall not be given. This DB §107-21.2 applies to areas such as, but not limited to, borrow pits or areas, spoil or waste areas,

haul roads, storage areas, batching areas, water points, equipment storage areas, shop areas, and similar areas. In general, the restoration shall include the following:

- A) The removal of all equipment and parts, junk, rubbish, excess material, and debris of all kind;
- B) Clean up as required; grading as shown, if a grading Plan has been prepared; or grading so as to blend into the surrounding ground forms to the satisfaction of the Authority's Project Manager;
- C) Scarification of storage yards, batching sites, and haul roads to the depth of the compaction as determined by the Authority's Project Manager;
- D) The removal of pavement or granular surfacing from temporary roads or areas as required by the Authority's Project Manager; and
- E) The repair or removal of damaged trees and the fertilizing, turf establishment, and mulching of the areas as provided for in the Contract or as directed by the Authority's Project Manager.

Areas within sight of the finished highway or any other highway will require particular attention insofar as the above features are concerned. It is the intent to have all such areas present a pleasing appearance to travelers on any highway.

All of this restoration shall be accomplished as a condition to Physical Completion except that restoration of the Design-Builder's work areas (storage, batching, equipment, and shop areas) may be done after the Final Acceptance of the Contract.

Design-builder shall be responsible for all costs of restoration of disturbed areas which extend beyond the Work limits.

Any damage to delineators, milemarkers, and safety appurtenances to remain caused by the Design-Builder's operations shall be repaired or the item replaced at no expense to the Authority. Any delineators, milemarkers or safety appurtenances which have been moved to facilitate any operation shall be reset in their original location.

DB 107-22 ACQUISITION AND CONVEYANCE OF REAL PROPERTY

DB 107-22.1 Right of Way

The Authority has identified property to be used for the Project, the boundaries of which are depicted in the Contract Documents. The Agencies will acquire ROW, including easements and other property rights, as specified in *Part 3, Section 7.3.1 – ROW Provided by the Authority*, in accordance with the ROW Acquisition Schedule. The Authority will staff a ROW team that will be available to acquire ROW and deal with all ROW issues that may arise. Upon issuance of the Environmental Approvals and authorization from the appropriate State and federal agencies, the Authority will begin acquisition of ROW, including easements and other property rights, based on approved maps.

The Design-Builder shall have access to properties as shown in the ROW Acquisition Schedule once a notice of availability is issued unless otherwise agreed to in writing between the Design-Builder and the Authority.

The Design-Builder shall not negotiate with any owner(s) to obtain early possession of property within the limits of any parcels scheduled for acquisition by the Authority or intended to be used for permanent improvements. If the Design-Builder intends to request the Authority to acquire such parcel, the Design-Builder shall not negotiate with the owner(s) of such interests.

- A) The Design-Builder shall cooperate with the Authority 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 Definitive Design Review for any affected Project component.
- B) The Design-Builder shall coordinate with the Authority 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 107-22.2 Authority's Responsibilities

In addition to Authority's responsibilities identified in DB §107-22.1, the Authority will keep a current status record of ROW acquisitions on updates to the ROW Acquisition Schedule.

DB 107-22.3 ROW Coordination

Within 30 days of NTP, the Design-Builder will meet with the Authority to discuss the following:

- A) Identification and evaluation of the status of all required ROW parcels (title certification, vested, paid or deposit made, relocation complete, availability) and
- B) The Design-Builder's preferred priorities for acquisition of outstanding ROW which the Authority may accommodate as feasible.

Subsequent status updates will be provided via the Authority's Acquisition and Clearance Status Report. The Design-Builder shall not enter onto parcels until the Authority has issued a notice of availability.

DB 107-22.4 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 provide justification of the need for such additional or modified ROW, indicate the limits of affected parcels, and request the Authority to prepare new or revised surveys, legal descriptions, and ROW maps. The Authority 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 Authority determines that the acquisition is appropriate and required for the Project, the Authority will acquire the ROW in accordance with Authority's procedures, subject to the conditions specified in this DB §107-22 regarding allocation of time and cost responsibilities.

DB 107-22.5 Delay in Acquisition

The Design-Builder shall meet with the Authority to review ROW acquisition status at progress meetings. The Authority will notify the Design-Builder of any anticipated delay in acquisitions to enable the Design-Builder to undertake appropriate efforts to reschedule its activities to accommodate the delay and reduce impacts to schedule and cost. In the event that the Design-Builder determines that the critical path may be affected, the Design-Builder shall notify the Authority immediately, and in no event later than 24 hours after making such determination, and shall coordinate with the Authority to ascertain the best course of action to avoid such delay through alternative design or construction methods or revisions to the Design-Builder's Baseline Project 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, provided that the Design-Builder shall consult with Authority regarding its workaround plans, and shall in no event take any actions that might jeopardize the safety of the property owners or restrict access to the properties. If Authority fails to provide access by the scheduled dates through no fault of the Design-Builder, delaying the critical path, the Design-Builder may be entitled to delay damages for the schedule delay to the extent provided in DB §109-15.1.

DB 107-22.6 Precedence of ROW Acquisition Schedule

The Baseline Project Schedule and the design of the Project furnished by the Design-Builder shall not require the Authority to acquire any real property except in accordance with the ROW Acquisition Schedule or as agreed by the Authority and the Design-Builder.

DB 107-22.7 ROW 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 107-22.8 Encroachments

The Authority will aggressively pursue removal of encroachments located within the existing ROW on or before issuance of Notice to Proceed.

The Design-Builder shall notify the Authority of any encroachments that are in the way of construction upon their discovery.

Upon written notification by the Authority, the Design-Builder will remove any encroachments that are in the way of construction in accordance with the Authority'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 §104-3, and the Design-Builder may be entitled to additional compensation and/or time.

DB 107-22.9 Temporary Property Interests

The Design-Builder shall be solely responsible for acquisition of any temporary interests in property outside of the ROW Limits. Temporary interests may include rights to use property required for borrow pits, staging areas and storage, as well as any property outside the ROW Limits needed for any temporary facilities being constructed by the Design-Builder. The Design-Builder shall pay the purchase price for all such property interests directly.

The Authority shall have no obligation to acquire temporary interests in property, but may, in its sole discretion, agree to do so following receipt of request from the Design-Builder. If the Authority agrees to undertake any such acquisition, any delay beyond the anticipated time for acquisition shall not be considered grounds for an equitable adjustment except to the extent that the delay was directly attributable to actions taken by the Authority, or its failure to act in a timely manner.

The Design-Builder shall promptly notify the Authority of all temporary interests in property that they or any of their Subcontractors acquire in the vicinity of the Project.

DB 107-22.10 Optional Access to Existing Facilities

Design-Builder shall have the option to take possession of the site on the east side of the river where the Authority has existing facilities. Design-Builder shall provide Authority with at least 190 days' prior written notice of Design-Builder's intent to exercise such option, in which case the Design-Builder shall provide temporary facilities for use by the Authority and New York State Police (NYSP) before Design-Builder may take possession of such site. Such temporary facilities shall meet all requirements set forth in *Part 3, Section 19 - Maintenance Facilities, Section 30 - State Police Facilities, and Section 31 - Buildings*, as determined by Authority, in its sole discretion, and Design-Builder shall be responsible for all of the Authority's and the NYSP's respective costs associated with such relocation. Access to the water from such area will involve construction of ramps over railroad property. The Design-Builder shall be responsible for obtaining all permits and approvals required to obtain access over railroad property, including completing any required application and hearing processes for such permits and approvals, and no adjustment to the Contract Price or extension of the Contract Time will be allowed for any resulting delay or failure to obtain such permits and approvals.

DB 107-22.11 Option Concerning Potential Property Acquisitions

DB 107-22.11.1 DB Property Acquisition Option

The Design-Builder is interested in acquiring one or more residential properties in the vicinity of the Project (each referred to in this DB §107-22.11 as a "Property") for use by employees of Design-Builder or Subcontractors working on the Project. The parties shall consult regarding possible parcels to acquire. Once a list of Properties has been established, the Authority shall have the option to facilitate the Design-Builder's acquisition of one or more of the Properties (the "DB Property Acquisition Option"). Authority may exercise the DB Property Acquisition Option by delivering one or more written notice(s) to that effect (each referred to in this DB §107-22.11 as a "Notice") to the Design-Builder no later than four months from the Authority's issuance of the Notice to Proceed. If this DB Property Acquisition Option is exercised, the following terms shall apply.

- A) Immediately upon the Authority's exercise of the DB Property Acquisition Option, the Design-Builder shall order a title search of each Property specified in the relevant Notice and shall promptly deliver to the Authority a title report, together with copies of

all encumbrances, agreements, easements, rights and reservations identified in the report, with respect to each such Property.

- B) The Design-Builder shall arrange to have each of the Properties specified in the Notice be appraised for sale in order to determine its fair market value not later than 30 days following the date of the Notice. The appraisals shall be performed by an independent appraiser to be mutually agreed upon by the Parties and in accordance with an agreement and terms approved by the Authority. The Design-Builder shall be responsible for the cost of the appraisal(s). The Design-Builder shall submit each appraisal to the Authority for approval. Upon completion and approval of the appraisals, the Design-Builder shall make a written offer (in a manner and form to be approved by the Authority and consistent with any applicable legal requirements) to the owner of each Property (referred to in this DB §107-22.11 as an “Owner”) to acquire fee title to such Property at the fair market value for such Property. Without limiting the foregoing, the offer shall make clear that it is contingent on conveyance of title free and clear of all encumbrances, agreements, easements, rights and reservations other than those approved in writing by the Design-Builder and the Authority. The Design-Builder shall consult with the Authority prior to delivering comments on title exceptions and shall disapprove all exceptions other than those approved by the Authority in writing.
- C) If the Design-Builder’s offer to purchase any Property is rejected by any Owner, the Design-Builder shall have no further obligation with respect to the acquisition of such Property.
- D) If the Design-Builder’s offer is accepted by any Owner, the Design-Builder shall acquire fee title to such Property, within a reasonable period, but in no event later than 90 days prior to the planned commencement of construction in any area adjacent to the Properties, as specified in the Contract. The Design-Builder shall be solely responsible for the purchase price of the Property and all other costs and expenses of acquisition. The Design-Builder shall purchase an ALTA Owner’s Policy of title insurance, with standard endorsements, insuring Design-Builder’s fee simple interest in the Property, in form and substance acceptable to Design-Builder and approved by Authority. Following acquisition of any Property, the Design-Builder shall utilize such Property solely for residential purposes by employees of the Design-Builder or its Subcontractors and otherwise in accordance with applicable Governmental Rules including zoning requirements. The Design-Builder shall be required to use such Properties and shall not leave them vacant for any extended period of time.
- E) During the period of Design-Builder’s ownership of any Property, Design-Builder shall be responsible for all taxes and assessments on such Property and shall maintain property insurance on such Property in an amount not less than the acquisition price of such Property. Design-Builder shall maintain the Property so it remains in the same or better condition as existed as of the date of its acquisition. Design-Builder shall not (i) alter the exterior character of any Property acquired if such Property has been identified as historically significant, (ii) modify the use as to which any Property is currently employed, or (iii) take or permit any action that would impair the value or utility of any Property acquired. Design-Builder shall not mortgage or pledge its interest in the Property as security for any debt or obligation of Design-Builder, and shall not permit any lien or encumbrance against the Property. If any such lien or encumbrance is

placed against the Property, Design-Builder shall promptly, at its sole cost and expense, take such steps as are reasonably necessary to contest or remove any such lien or encumbrance.

DB 107-22.11.2 Authority Acquisition Option

Upon Final Acceptance or upon any earlier termination of the Agreement for any reason, the Authority shall have the option to acquire fee title to any or all acquired Properties from Design-Builder at the amount paid by Design-Builder for each Property (referred to in this DB §107-22.11 as an “Authority Acquisition Option”).

- A) The Authority shall notify Design-Builder in writing within 30 days of Final Acceptance or any earlier termination of the Agreement of its decision whether or not it will exercise the Authority Acquisition Option. If the Authority exercises such option as to any Property, the parties shall negotiate in good faith regarding the additional terms for such purchase.
- B) If the Authority notifies Design-Builder that it will not exercise the Authority Acquisition Option with respect to any Property, Design-Builder shall have the right to require the Authority to acquire such Property for an amount equal to the acquisition price paid by Design-Builder for such Property by delivering written notice of same to the Authority within 30 days of Authority’s notification that it will not exercise the Authority Acquisition Option. The Authority’s obligations with respect to acquisition of any such Property shall be subject to Design-Builder having fulfilled its obligations as set forth in this DB §107-22.11, including those set forth in DB §§107-22.11.1(D) and 107-22.11.1(E), subject to Design-Builder’s right to cure within a reasonable time period any default in such obligations as to which the Authority has given written notice.
- C) Title shall be conveyed free and clear of all encumbrances, agreements, easements, rights and reservations other than those previously approved in writing by the Authority pursuant to DB §107-22.11.1(B). Design-Builder shall not encumber the property or remove any encumbrances upon transfer of the Property to the Authority.
- D) The Authority shall have the right to assign the Authority Acquisition Option for any Property or Properties to any other state or local Governmental Person at the Authority’s sole discretion.

DB 107-22.11.3 Removal of Property

The Authority, by written notice to Design-Builder, shall have the right to terminate the DB Property Acquisition Option in its entirety at any time prior to Design-Builder’s making an offer of purchase with respect to Property.

DB 107-23 PERSONAL LIABILITY OF PUBLIC OFFICIALS

In carrying out the provisions of the Contract Documents or in exercising powers or authority granted to them by or within the scope of this Contract, there shall be no liability upon the Authority, the Department, the Authority’s Project Manager, or any of their authorized representatives, either personally

or as officials of the Authority or Department, it being understood that in such matters they act solely as agents and representatives of the Authority or Department.

DB 107-24 NO THIRD-PARTY LIABILITY

It is specifically agreed between the parties executing this Contract that it is not intended by the provisions of the Contract to make anyone a third-party beneficiary of the Contract or to authorize anyone not a party to this Contract to maintain an action for damage pursuant to the terms or provisions of this Contract.

DB 107-25 [RESERVED]

DB 107-26 DAMAGE

Design-Builder shall have the charge and care of all aspects of the Project other than the existing Governor Malcolm Wilson Tappan Zee Bridge (refer to the following sentences for information regarding the Design-Builder's obligations with respect to the existing bridge), and shall take every precaution against injury or damage to any part thereof by the action of the elements or from other causes, whether arising from the execution of or the non-execution of the Work at all times until Physical Completion. Commencing on the date on which all traffic is removed from the existing Tappan Zee Bridge and until the bridge is demolished, Design-Builder shall have the charge and care of, and shall take every precaution against injury or damage to, the existing Tappan Zee Bridge by the action of the elements or from other causes, whether arising from the execution of or the non-execution of the Work. The foregoing shall not be deemed to relieve the Design-Builder of responsibility for any property damage to the existing bridge caused by Design-Builder's construction activities before the date on which all traffic is removed from the existing bridge. The Design-Builder shall rebuild, repair, restore, and make good all injuries or damages to portions of the Work occasioned by the above causes before Physical Completion and shall also rebuild, repair, restore and make good all injuries or damages to the existing bridge occasioned by the above causes during the period after all traffic is removed from the existing bridge until the bridge is demolished, to the extent required to protect the safety of marine traffic and prevent damage to the Work and third parties. The Design-Builder shall bear the expense thereof except as provided in DB §§104-3, 107-26.1, 107-26.2, 109-9 and 109-11.1.

DB 107-26.1 Damage by Public Traffic

Payment shall be made to the Design-Builder for repair or replacement of any permanent element of the highway which is completed to the stage of serving its intended function and is subsequently damaged by accident by public traffic. The Design-Builder must supply satisfactory evidence that such damage was caused by a public traffic accident and not by vandalism or by the Design-Builder's equipment. Satisfactory evidence shall generally be limited to the following: accident reports filed with the New York State Department of Motor Vehicles, police agencies, or insurance companies; statements by reliable, unbiased eye witnesses; and identification of the vehicle involved in the accident. Physical evidence that the damage was caused by a motor vehicle (such as tire marks or broken headlight glass) will not be sufficient unless it can be shown that the damage was not caused by the Design-Builder's vehicles or by vandalism.

Repair or replacement Work caused by a public accident for which there is an identified Unit Price will be paid for at the Unit Price for that item. All other repair or replacement Work caused by a public accident will be paid for at an agreed price or by means of force account. Payment will not be made for repair or replacement Work in any way connected with untimely failure of any portion of the highway under public

traffic. The determination regarding whether an untimely failure has occurred shall be made by the Authority's Project Manager, taking into consideration the normal life and the amount of normal wear of the element involved. This provision does not relieve the Design-Builder of the responsibility of WZTC for the Project or the responsibility of having a wholly complete and acceptable job at the time of Physical Completion and Final Inspection of the entire Project. Payment for such damage shall be made only after the Design-Builder has demonstrated to the satisfaction of the Authority's Project Manager that it has made every reasonable effort to collect the costs from the person or persons responsible for damage.

The Design-Builder shall be responsible for damages resulting from faulty designs as shown by the Design Plans and Project Specifications.

DB 107-26.2 Delays and Damage by Occurrence

In the event that damage to the Work in progress is caused by an event which constitutes an "occurrence," as hereinafter defined, and to the extent that such damage has been determined by the Authority to be beyond that which may be anticipated from heavy storms, and also to the extent that such damage is not reimbursable by insurance carried by the Design-Builder, the Design-Builder may apply in writing to the Authority for the Authority to pay or participate in the cost of repairing the damage to the Work from such cause or, in lieu thereof, and at the sole discretion of the Authority, terminate the Contract and relieve the Design-Builder of further obligation to perform the Work. "Occurrence" shall include only those floods, droughts, tidal waves, fires, hurricanes, earthquakes, windstorms or other storms, landslides, or other catastrophes when such occurrences or conditions and effects have been proclaimed a disaster or state of emergency by the President of the United States, the Governor of the State of New York, the Federal Highway Administrator, or the chief executive of a County or City, or acts of terrorism, nuclear events or ionizing radiation causing direct physical damage, unless such damage is caused by the Design-Builder's action or inaction or the Design-Builder's means and methods of construction.

DB 107-26.3 Application by Design-Builder

The Design-Builder's written request for the Authority to pay or participate in the cost of rebuilding, repairing, restoring, or otherwise remedying such damage that has been determined by the Authority to be beyond that which may be anticipated from heavy storms to the Work shall be submitted to and approved by the Authority's Project Manager before performing any Work other than emergency Work, including emergency Work necessary to provide for passage of public traffic.

DB 107-26.4 [Reserved]

DB 107-26.5 Maximum Loads

See DB §105-10 for information on construction equipment and maximum allowable loads.

DB 107-27 LIABILITY AND OBLIGATION TO INDEMNIFY

DB 107-27.1 Liability and Obligation to Indemnify by the Design-Builder

Design-Builder shall be responsible for all damage to life and property due to negligent or otherwise tortious acts, errors or omissions of Design-Builder in connection with its services under the Contract Documents. To the fullest extent permitted by law: (a) the Design-Builder shall indemnify and save harmless the Authority and/or the State of New York, any municipality in which the Work is being performed; and/or any public benefit corporation, railroad or public utility whose property or facilities are

affected by the Work from suits, claims, actions, damages, and costs of every name and description resulting from the Work under this Contract and until the Final Acceptance thereof, or during the period that the Warranty Work is being performed under this Contract until it is accepted; (b) with respect to personal injury or property damage occurring after Final Acceptance and not covered by the indemnity in clause 107-27.1(a), the Design-Builder shall indemnify and save harmless the Authority and/or the State of New York, any municipality in which the Work is being performed; and/or any public benefit corporation, railroad or public utility from suits, claims, actions, damages, and costs of every name and description resulting from negligent or otherwise tortious acts, errors or omissions of Design-Builder in connection with its services under the Contract Documents; and (c) the Design-Builder shall indemnify and save harmless the Agencies' Inspector from suits, claims, actions, damages, and costs involving personal injury and property damage resulting from the Design-Builder's Work under the Contract during its prosecution and until the Final Acceptance thereof. The Authority may retain such monies from the amount due the Design-Builder as may be necessary to satisfy any claim for damages recovered against the Authority; any municipality in which the Work is being performed; any public benefit corporation, railroad, or public utility whose property or facilities are affected by the Work; or the Agencies' Inspectors. The Design-Builder's obligation under this paragraph shall not be deemed waived by the failure of the Authority to retain the whole or any part of such monies due the Design-Builder, or where such suit, action, damages, and/or costs have not been resolved or determined prior to release of any monies to the Design-Builder under the Contract. Such obligation shall not be deemed limited or discharged by the enumeration or procurement of any insurance for liability for damages imposed by law upon the Design-Builder, Subcontractors, the Authority, the State, any municipality in which the Work is being performed, any public benefit corporation, railroad, or public utility whose property or facilities are affected by the Work, or any Agency consultants or contractors working relative to the Project. The Design-Builder has the obligation, at its own expense, for the defense of any action or proceeding which may be brought against the parties specified in this DB §107-27.1. This obligation shall include the cost of attorney fees, disbursements, costs, and other expenses incurred in connection with such action or proceeding. The provisions of this DB §107-27.1 shall survive the expiration or termination of the Contract.

Without limiting the generality of the foregoing, Design-Builder's obligation to indemnify, save harmless and release the Persons identified in this DB §107-27.1 specifically includes any suits, claims, actions, damages, and costs of every name and description resulting from any spill or release or threatened spill or release of a Hazardous Material (i) attributable to the negligence, willful misconduct or breach of contract by Design-Builder, its Subcontractors or agents, or (ii) which was brought onto the Site by Design-Builder or any of its Subcontractors or agents.

Such obligation does not extend to those suits, actions, damages, and costs of every name which arise out of the sole negligence of the Authority, the State of New York, any municipality in which the Work is being performed, any public benefit corporation, railroad, or public utility whose property or facilities are affected by the Work of the Project, or any Agency consultants or contractors working relative to the Project, their agents, or their employees.

The requirement to provide an indemnity as specified in this DB §107 is intended to provide protection to the Authority with respect to third party claims associated with the event giving rise to the indemnification obligation, and is not intended to provide the Authority with an alternative cause of action against the Design-Builder for damages incurred directly by the Authority with respect to the event giving rise to the indemnification obligation.

DB 107-27.2 Indemnification by Authority

It is not the intention of the parties that the Design-Builder be exposed to any liability under Governmental Rules concerning liability for Hazardous Materials arising solely out of the non-negligent performance by the Design-Builder and Subcontractors in management of pre-existing contamination, whether known or unknown, within the Project Limits. Accordingly, the Authority shall indemnify, save harmless and release the Design-Builder from any and all third party claims (including claims for response and remediation costs, administrative costs, fines, charges, penalties, attorneys' fees and cost recovery or similar actions) arising out of the presence, release, or threatened release of Hazardous Materials on or from the area within the Project Limits, but specifically excluding those conditions for which the Design-Builder has agreed to be responsible as described in DB §§ 104-4.3 and 107-16 from any obligation by the Authority to indemnify, save harmless and release the Design-Builder.

DB 107-27.3 CERCLA Agreement

Without limiting their generality, the indemnities set forth in this DB §107-27 are intended to operate as agreements pursuant to Section 107(e) of the Comprehensive Environmental Response, Compensation and Liability Act, 42 U. S. C. Section 9607(e), to insure, protect, hold harmless and indemnify the indemnified parties identified herein.

DB 107-28 NO WAIVER OF LEGAL RIGHTS

Final Acceptance shall not preclude or prevent the Authority from correcting any measurement, estimate, certificate, or price reduction made before or after completion of the Work, nor shall the Authority be precluded or prevented from recovering from the Design-Builder, its Surety, or both such overpayment as it may sustain. A waiver on the part of the Authority of a breach 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 Authority for latent defects, fraud, or such gross mistakes as may amount to fraud.

DB 107-29 COMMENCEMENT OF ACTION ON AUTHORITY PUBLIC WORKS CONTRACTS

The time within which an action under this Contract against the Design-Builder must be commenced shall be computed from the date on which Physical Completion is achieved, as determined in accordance with the procedure set forth in DB §109-11.3; provided that the time for an action relating to the Design-Builder's post-completion obligations shall be computed from the end of the warranty period specified in DB §104-15.2.

DB 107-30 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 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 Authority'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 Authority'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.

There should be an interval of no more than 10 work days between receipt of a written claim by the Design-Builder and receipt by the carrier. The Design-Builder and/or the insurance carrier are expected to investigate, determine and adjust such claims promptly and fairly with notice to the Authority's Project Manager. The Authority's Project Manager will monitor claims by the public. If the Design-Builder fails to provide satisfactory resolution through a timely claims adjustment process or denies the claim without proper cause and justification, the Authority may invoke the *Agreement, Article 7.3 - Reduction in Periodic Payment*, or may utilize other remedies.

DB 107-31 RELEASE TO PERFORM CONTRACT WORK ON PRIVATE LAND

DB 107-31.1 Use of Adjacent Land for Contract Work.

The Design-Builder shall not enter upon any parcel until the Authority has the legal, physical possession and payment has been made or deposited as stated in DB §107-22 Acquisition and Conveyance of Real Property. Releases may be used for Work outside of the existing right-of-way that minimizes the construction impacts of the Project on a property owner and is not essential for the construction of the Project. Work performed under a release may include: plantings; unsound and hazardous tree removal; minor grading; and reconnection of private driveways, walkways and utilities.

The Authority will secure all releases prior to the Design-Builder performing Work on private parcels. The Design-Builder may not secure releases for the Work. If a release is not obtained, the Design-Builder shall not enter upon the parcel and the Work will be removed from the Contract.

Any damage resulting from the Design-Builder's Work on private property shall be satisfactorily repaired or items replaced at the Design-Builder's expense.

The Authority's Project Manager will coordinate with the property owner to determine the disposition of removed trees in accordance with applicable Governmental Rules, which may require chipping or other disposal in accordance with *item 201 of Part 8 - Special Specifications*.

DB 107-31.2 Use of Adjacent Land for Design-Builder Staging, Access and Office Space

A release letter is not used for property rights outside of the ROW Limits acquired by the Design-Builder (e.g., rental of property for equipment staging, office space or material storage). The Design-Builder is responsible to the landowner and the Design-Builder shall acquire the property rights, etc. prior to entering private land.

DB 107-32 COMMUNITY BENEFITS PROGRAM

The Authority shall have the option (the "Community Benefits Option") to implement a Community Benefits Program ("Program") whereby payments will be made to third parties to fund certain community benefits or initiatives that are not otherwise required to be provided by the Design-Builder pursuant to the Contract or otherwise required of the Design-Builder or the Authority as a matter of legal obligation. Said option may be exercised by written notice to that effect, delivered to the Design-Builder no later than four months from the Authority's issuance of the Notice to Proceed.

The Program will be administered in a manner and consistent with guidelines and procedures to be established by the Authority in consultation with the Design-Builder; provided that no Program funds may be allocated or committed by the Design-Builder without the consent of the Authority, including its approval of the terms of any agreement between the Design-Builder and a recipient of Program funds. Decisions on specific uses of Program funds will be made by the Authority on a case by case basis after consulting with the Design-Builder, and shall take into account the limitations of the amount of funds available for the Program and the views of interested Stakeholders (including FHWA), with the objective of achieving mutual agreement by the Authority and Design-Builder on the best use of Program funds based on the interests of the Project and relevant Stakeholders. If no consensus can be achieved the Authority shall have final authority to determine how to use the Program funds subject to the requirement to obtain concurrence from FHWA that the proposed expenditures are consistent with applicable federal law. Any such concurrence by FHWA shall not be deemed to be a determination by FHWA that such expenditure is eligible for federal reimbursement.

The Community Benefits Option, if exercised, shall be funded in the amount of \$10 million by the Authority (such amount being additional to the lump sum price described in the *Agreement, Article 7.1*) and \$10 million by the Design-Builder (such amount to be funded by Design-Builder without any increase in the Contract Price). The administrative process for the Program shall include procedures for segregation of funds such that approved expenditures can be traced to the Authority's contribution or to the Design Builder's contribution or to a combination of both. If the administrative process requires the Design-Builder to make authorized payments to third party governmental or not-for-profit entities, the Design-Builder will bill the Authority, and the Authority will reimburse the Design-Builder, for the Authority's 50% share.

If Program commitments as of the time of Final Acceptance are less than \$20 million, then any such savings shall be shared equally between the parties.

The Program shall be implemented through grants, awards or other mechanisms which do not require that the Design-Builder or the Authority assume liabilities with respect to the receipt or expenditure of funds by the grantee (other than the actual payment of funds up to the committed amount) and except as may

otherwise be specifically agreed by both the Authority and the Design-Builder. Any agreement with a Program fund recipient shall include provisions requiring documentation reasonably acceptable to the Authority and the Design-Builder as to the use and actual disbursement of Program funds. To the extent that any proposed expenditure of Program funds requires environmental review, such review shall be arranged by the Authority at the Authority's expense and undertaken in accordance with applicable law. No grants or awards utilizing Authority funds shall be made for a purpose which would not be authorized if made directly by the Authority consistent with its powers under the New York State Public Authorities Law or which would otherwise be prohibited by applicable Governmental Rules. The Authority and the Design-Builder shall each bear their own internal administrative costs in connection with the implementation of the Program. Any third party costs incurred by the Authority in connection with required environmental review shall be reimbursable from Program funds.

**SECTION 108
PROSECUTION AND PROGRESS**

DB 108-1 START AND PROGRESS OF WORK

DB 108-1.1 Compliance with the Schedule

The Design-Builder shall provide sufficient resources and prosecute the Work with such diligence as to ensure completion of the Project within the Contract Time. Any additional or unanticipated costs required to meet the schedule shall be solely the Design-Builder's obligation, unless addressed in other provisions of the Contract.

DB 108-1.2 Baseline Project Schedule

The Design-Builder shall provide and maintain a progress schedule using Oracle/Primavera scheduling software hosted on third-party network servers. This progress schedule shall be prepared using the critical-path method (CPM) and based on the principles in the latest edition of the *Construction Planning and Scheduling Manual* published by the Associated General Contractors of America, except where superseded by the Contract Documents. The Design-Builder and the Authority shall use this schedule to manage the Work, including the activities of Subcontractors, fabricators, the Authority, other involved Governmental Persons, other entities such as utilities and municipalities, and all other relevant parties.

Award of the Contract shall not be construed to imply approval of the activities, sequence, durations or logic set forth in the Initial Baseline Project Schedule, or to relieve the Design-Builder of providing sufficient materials, equipment, and labor to guarantee completion of the Project in accordance with the Contract (including the Contract Deadlines set forth in the Agreement, Article 4), nor shall acceptance of the Ninety Day Schedule and/or Baseline Project Schedule by the Authority's Project Manager be construed to imply approval of activities, sequence, durations or logic set forth in said schedules or to relieve the Design-Builder of providing sufficient materials, equipment, and labor to guarantee completion of the Project in accordance with the Contract. Acceptance shall not be construed to modify or amend the Agreement or the date(s) of completion therein.

Failure by the Design-Builder to include in the Baseline Project Schedule any element of Work required for the performance of the Contract shall not excuse the Design-Builder from completing all Work required within the completion date(s) specified in the Contract, notwithstanding acceptance of the schedule by the Authority's Project Manager.

Float contained in the Baseline Project Schedule is not for the exclusive use and benefit of either the Authority or the Design-Builder.

In developing the schedule, with respect to any submittals requiring a response from the Authority for which the Contract Documents do not specify a time for the Authority's response, the Design-Builder shall include a reasonable time for the Authority to provide a response.

The provisions in §8.3 of Part 8 *Special Specifications (Item 639.1022 01 – CPM Progress Schedule)* shall apply except to the extent that they are superseded by the schedule provisions herein.

DB 108-1.2.1 Schedule Requirements

The Design-Builder shall develop, update, and revise the Baseline Project Schedule using Primavera P6 software (or newer release) accessible remotely via an internet portal, with third-party hosting services provided by a firm certified by Oracle/Primavera to host this software. (For purposes of illustration, LoadSpring Solutions or a similarly qualified company will be considered to fulfill this requirement.) The Design-Builder shall arrange for this hosting service, and shall obtain approval in writing from the Authority regarding the proposed host and other arrangements prior to start-up of services. The Authority or its representative shall have full access to and administrative control of the Project schedule, with up to 12 user accounts furnished for Authority personnel. The Design-Builder shall be designated as a user.

All costs related to developing, updating, hosting, and maintaining the Baseline Project Schedule shall be solely the Design-Builder's obligation and will be at no additional cost to the Authority unless specifically provided for in other Contract provisions.

The Design-Builder's Baseline Project Schedule shall meet the following requirements:

A) Baseline Project Schedule Format

The levels (nodes) of the Work Breakdown Structure of the Baseline Project Schedule shall include the following:

Level 1 - The Project level;

Level 2 - This level shall have four nodes (design, preconstruction, construction, and post-construction);

Level 3 - The node for design activities shall have sub-nodes for each Design Unit. The node for preconstruction activities shall have at least two sub-nodes (shop drawings and procurement/fabrication); the node for construction activities shall be divided into nodes for various phases of construction work; and the node for post-construction activities requires no sub-nodes;

Level 4 - The nodes for each Design Unit shall have sub-nodes for each stage of design development. The nodes for phases of construction activities shall include sub-nodes for the various stages of work;

Level 5 - The nodes for stages of work shall include sub-nodes for the various Project features; and

Level 6 - The nodes for Project features shall be broken into their components: e.g., a bridge into components such as piles, substructure, and superstructure; and a highway segment into components such as pavement, drainage, earthwork, lighting, traffic signals, etc.

B) Project Calendars

The Design-Builder shall:

- 1) Use clearly-defined calendars that account for expected seasonal weather conditions (including winter shutdown periods) and Environmental Requirements, for the planning and scheduling of activities;
- 2) Provide the work days per week, holidays, the number of shifts per day, and the number of hours per shift by using the calendar modifier in the P6 software; and

- 3) Incorporate any seasonal restrictions on Work within calendars assigned to activities.

Holidays and non-Work days shall be established in coordination with the Authority's Project Manager.

C) Activities Data

- 1) Activity Number – Each activity shall have a unique identification number.
- 2) Activity Description – Each activity shall be clearly described. Use of descriptions referring to percent of a multi-element item (i.e., construct deck 50%) will not be acceptable. Separate activities shall represent different elements of multi-element activities (i.e., construct forms, install rebar, and place concrete). Multiple activities with the same work title shall include a location description.
- 3) Activity Duration – The Design-Builder shall subdivide the Work into activities having durations no longer than 15 work days each. Exceptions will be reviewed by the Authority's Project Manager. If requested by the Authority's Project Manager, the Design-Builder shall furnish production rates, overtime assumptions, or other information needed to justify the reasonableness of activity time durations.
- 4) Expected seasonal weather conditions, such as precipitation and temperature, shall be included by the Design-Builder in the scheduling of activities.
- 5) Activity Codes – Activities shall be coded to allow for the following summaries:
 - a) Primary responsible party for the each activity, e.g., Design-Builder, Subcontractor, Authority, or utility owner;
 - b) Phase/stage during which each activity is planned to be accomplished, including design; and
 - c) Area/location, e.g., bridges, ramps, and mainline station.
- 6) Activity Constraints – The Design-Builder shall not constrain the start or completion of any activity unless required by the Contract or allowed by the Authority's Project Manager.
- 7) Activity Relationships – Other than the first and last activities in the schedule, open-ended activities are not permitted. Lag time may not exceed 10 days, and the Design-Builder shall not use negative lag times.

DB 108-1.2.2 Schedule Submittals

A) Ninety-Day Schedule

- 1) Within 15 days following NTP, the Design-Builder shall submit to the Authority's Project Manager a Ninety Day Schedule, which shall include (i) a detailed schedule for all activities in the first 90 days of Work, (ii) a baseline schedule for design activities throughout the entire Project, and (iii) a generalized schedule for the balance of the Work. The detailed portion of this schedule shall meet the requirements of DB §108-1.2.1. The Ninety Day Schedule shall be consistent with the Contract Deadlines included in the *Agreement, Article 4* and the Initial Baseline Project Schedule submitted with the Proposal, unless otherwise agreed by the Authority.
- 2) The Ninety Day Schedule will be reviewed by the Authority's Project Manager and revised by the Design-Builder to incorporate the Authority's Project Manager's comments. Upon acceptance by the Authority's Project Manager, the Ninety Day Schedule shall be used for all Project scheduling activities, and updated monthly until acceptance of the Baseline Project Schedule.

B) Baseline Project Schedule

- 1) Within 45 days following NTP, the Design-Builder shall prepare and submit a Baseline Project Schedule for the entire Project to the Authority's Project Manager for review and approval. The Baseline Project Schedule must be consistent with the Contract Deadlines included in the *Agreement, Article 4*, unless otherwise agreed by the Authority.
- 2) The Baseline Project Schedule shall show the order in which the Design-Builder proposes to carry on the Work, the date on which it will start the major items of work (including all planning and design functions, mobilization, permits, exploratory work and soil borings, excavation, drainage, paving, structures, foundations, mobilization, soil erosion and sediment control, etc.) and the critical features (including procurement of materials, plant and equipment) and the contemplated dates for completing the same. The purpose of the Baseline Project Schedule is to ensure adequate design, planning and execution of the Work and to evaluate the progress of the Work.
- 3) The Design-Builder will incorporate into this schedule all Project Work, including the placement of orders and anticipated delivery dates for significant materials and equipment, Subcontractor activities, activities assigned to the Authority and other outside agencies (such as Design Reviews and permit reviews), and related utility work or work by other contractors within or near the Project Limits.

C) Review of the Baseline Project Schedule

The Design-Builder shall submit printed and electronic copies of the schedule in the quantity and format specified by the Authority's Project Manager.

The Authority's Project Manager will review the Baseline Project Schedule and then hold a discussion meeting with the Design-Builder. Within two weeks of this meeting, the Design-Builder shall adjust the Baseline Project Schedule to resolve any issues

noted by the Authority's Project Manager. The Design-Builder shall submit for review the revised schedule materials as described above.

Upon completion of the final review by the Authority's Project Manager, the Design-Builder shall incorporate the final revisions and submit printed and electronic copies of the Baseline Project Schedule within one week of the Design-Builder's receipt of the revisions.

D) Changes to the Accepted Baseline Project Schedule

The Baseline Project Schedule shall accurately reflect the manner in which the Design-Builder intends to proceed with the Project and shall incorporate the impact of delays and Orders on Contract when these factors can be accurately determined. All changes to the schedule, e.g., the addition of activities, changes in logic, or changes in activity durations, shall be identified in the monthly narrative report for review by the Authority's Project Manager.

E) Schedule Updates

1) Monthly Progress Reports

The Design-Builder shall update the Baseline Project Schedule on a monthly basis. Each update shall show actual dates of activities started and completed, the percent of Work completed to date on each activity started but not yet completed, and the procurement status of critical materials. The updated schedule data shall be submitted to the Authority's Project Manager electronically and on printed charts in the format specified by the Authority's Project Manager, along with a narrative report per DB §108-1.3.1.

2) Monthly Schedule Meetings

The Authority's Project Manager shall conduct a monthly schedule review meeting, which shall serve as a forum to discuss slippages, remedies, revisions, and other relevant issues. The Design-Builder's appropriate design, construction, and scheduling personnel shall attend.

DB 108-1.3 Monthly Progress Report

The Design-Builder shall submit a monthly progress report with each payment request, consisting of the following:

- A) A progress narrative (DB §108-1.3.1);
- B) Quality certifications (DB §108-1.3.2);
- C) A safety report (DB §107-7.13);
- D) A security report (DB §107-8.3);
- E) A monthly Baseline Project Schedule update (DB §108-1.2.2(E));

- F) An Order-on-Contract status report (DB §108-1.3.3);
- G) A monthly Subcontract report (DB §108-1.3.4);
- H) Form AAP 21c, Design-Builder Report of Contract Payments, for each Subcontractor;
- I) Form AC 2947, Prime Contractor's Certification;
- J) Quantity calculations for any unit priced items (DB §109-6.2);
- K) Updated Contract Submittals List (CSL) (DB §108-1.3.5);
- L) A summary of hazardous and contaminated substance activities (DB §108-1.3.6); and
- M) Statement of equipment, materials and labor used (DB §108-1.3.7).

DB 108-1.3.1 Progress Narrative

The Design-Builder shall prepare and submit a monthly progress narrative. The progress narrative shall summarize the following information, at a minimum:

- A) Start and finish dates for major design, procurement and construction activities, as well as contractual milestones;
- B) Comparison of actual progress to anticipated progress, and any major changes in the Work;
- C) Explanation of any critical-path changes since the previous schedule submission;
- D) Explanation of any delays to long-lead-time procurement activities;
- E) Other near-critical schedule issues and proposed resolutions; current and anticipated delaying factors and their estimated impact on other activities and contractual milestones; and an explanation of any corrective actions taken or proposed;
- F) Quality Control and Quality Assurance efforts, including results of any Design Reviews and/or quality audits; and
- G) Issues which may need the Authority's Project Manager's attention or action for the next month, including Design Reviews.
- H) If the Work falls behind the Baseline Project Schedule such that the scheduled completion of the Work is beyond the Contract Time, the Design-Builder shall take such actions as necessary to improve its progress and shall indicate what measures it will take in the next 30 days to put the Work back on schedule so as to meet all milestone dates specified in the Contract, as well as the Crossing Completion Deadline. In preparing the revised schedule, the Design-Builder shall consider increasing its work force, construction plant and equipment, the number of work shifts, etc. If the Authority's Project Manager finds the proposed schedule not acceptable, he/she may require the Design-Builder to submit a new schedule.

- I) If the Design-Builder fails to submit an acceptable Baseline Project Schedule, update or revision within the time period described or any revision or update when required, the Authority's Project Manager may withhold approval of Contract payments pursuant to the *Agreement, Article 7.3 - Reduction in Periodic Payment* until such time as the Design-Builder submits the required schedule.

DB 108-1.3.2 Quality Certifications

The Design-Builder shall submit monthly a certificate signed by the Design Quality Assurance Manager and the Construction Quality Assurance 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, and vendors has been checked and/or inspected by the Design-Builder's QC and QA staff, that all documentation regarding this QC and QA effort is in place, 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 108-1.3.3 Order on Contract Status Report

The Design-Builder shall provide a report of outstanding Order on Contract requests containing the following:

- A) The Design-Builder's and Authority's Order on Contract 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 108-1.3.4 Subcontract Report

As part of the monthly progress report, the Design-Builder shall submit a Subcontract report providing the Authority with an updated list of Subcontractors (design and construction, at all tiers, including labor only). The Design-Builder shall specifically identify DBEs in the report. The location where the Subcontractors worked shall also 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), 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. The report shall show the total number of Subcontracts and the total value of Subcontracts awarded to DBE firms to date.

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.

The monthly progress report shall also include a separate report relating to utilization of certified M/WBE firms and other small businesses, on a form approved by the Authority. The report shall identify each small business Subcontractors and Suppliers (at all tiers) by name and function, state whether such Person is an MBE or WBE, state the original Subcontract amount and value of modifications to date, and state the payments made to each such Person for the current period and total cumulative payments to date.

DB 108-1.3.5 Contract Submittals List

Within 30 days of NTP, the Design-Builder shall prepare and submit to the Authority's Project Manager a contract submittals list in the format shown on Form 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 §108-1.3). 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 108-1.3.6 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 108-1.3.7 Statement of Materials and Labor Used (Federal-Aid Projects Only)

The Design-Builder shall submit Form FHWA-47M monthly reflecting the cumulative amount of materials and labor used. A final statement representing the total of all materials and labor used shall be submitted with the As-Built Plans (see DB §109-11.3).

DB 108-1.4 Resumption of Work

If the prosecution of the Work is discontinued for any reason, the Design-Builder shall notify the Authority's Project Manager, in writing, at least 48 hours in advance of resuming operations.

DB 108-2 NOTICE TO PROCEED

The NTP will stipulate the date on which it is expected the Design-Builder will begin the design and construction and from which date the Contract Time will be charged. The NTP shall be issued within 30 days after Authority's award of the Contract unless otherwise agreed to by the parties.

DB 108-3 KEY PERSONNEL

The positions listed in DB §108-3.1 shall be the Design-Builder's key personnel for the Project. The Design-Builder shall provide personnel that meet these minimum requirements. At this time the Authority has approved the individuals initially designated in Design-Builder's Proposal.

The Design-Builder's Project Manager shall be the Design-Builder's representative and single point of contact.

The Authority'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.

DB 108-3.1 Positions

- A) **Project Executive:** Shall be designated at the discretion of the Design-Builder and must have the authority to represent, make decisions for, and oversee the performance of, the Design-Builder. It is preferred that the Project Executive has demonstrated a minimum of 20 years experience in construction and management-of-construction of bridge and/or major transportation and infrastructure projects that included work of a similar scope, nature, and complexity as included in this Project and has Design-Build experience. It is preferred, but not required, that this individual be licensed as a Professional Engineer in the State of New York;
- B) **Project Manager:** Shall have a minimum of 20 years demonstrated experience in construction and management-of-construction of bridge and major transportation and infrastructure projects with similar size, type of work, and complexity as this Project, including projects with environmental sensitivity, compressed timelines, and community information requirements. Such experience in construction and management-of-construction shall include at least one bridge construction project having a construction value in excess of \$500,000,000. The Project Manager, who shall have Design-Build and extensive project management experience, can hold only this one Key Personnel position. It is preferred, but not required, that this individual be licensed as a Professional Engineer in the State of New York;
- C) **Deputy Project Manager:** Shall have a minimum of 15 years demonstrated experience in bridge and/or major infrastructure construction experience as a project manager, deputy project manager or lead superintendent, and experience as a project manager, deputy project manager or lead superintendent with at least one bridge or major infrastructure construction project having a construction value in excess of \$500,000,000. It is preferred, but not required, that this individual be licensed as a Professional Engineer in the State of New York.
- D) **Design Manager:** Shall be licensed as a Professional Engineer in the State of New York, shall be an owner or employee of the Designer and shall have a minimum of 15 years demonstrated experience in managing design for multi-disciplinary infrastructure, highway and bridge projects of similar scope and complexity as this Project. The Design Manager, who shall have Design-Build experience, shall have specific experience with highway design, bridge design (preferably including steel and concrete superstructures, continuous multi-span bridges, and curved bridges), complex

foundations, designs in environmentally-sensitive areas (natural and community), earth retaining structures and drainage structures, on projects of similar size and type;

- E) **Bridge (Main Span) Lead Designer:** Shall be licensed as a Professional Engineer in the State of New York and shall have demonstrated at least 15 years experience in bridge design, including steel and concrete superstructures, continuous multi-span bridges, and long (>1000 feet) spans;
- F) **Bridge (Approaches) Lead Designer:** Shall be a licensed Professional Engineer in the State of New York and shall have demonstrated at least 15 years experience in bridge design, including steel and concrete superstructures, continuous multi-span bridges, and curved bridges and approaches thereto;
- G) **Foundations Lead Designer:** Shall be a licensed Professional Engineer in the State of New York and shall have demonstrated at least 15 years experience in foundation design, including deep foundations, high capacity foundations, seismic design of piles, long span bridge foundations, in-water foundations.
- H) **Lead Demolition Engineer:** Shall have a minimum of 15 years demonstrated experience in the development of demolition plans and demolition sequencing of large structures, including demonstrated experience for in-water foundations, viaducts and large bridges. Experience related to sequenced unloading of large bridges is particularly valuable.
- I) **Lead Architectural Designer:** Shall be a licensed architect registered in New York State with at least 15 years demonstrated experience as a bridge architectural designer, including experience as lead architect, with a record of successful collaboration with bridge engineers on three or more major bridge projects of comparable scale, prominence, and complexity.
- J) **Environmental Compliance Manager:** Shall have a minimum of 10 years demonstrated experience in the environmental permitting process and associated requirements, environmental design, and construction management and compliance on large, complex transportation projects in environmentally-sensitive areas with associated complex environmental permitting requirements and commitments. This experience shall be in relation to federal permitting requirements and environmental regulatory agencies and shall preferably also include experience of New York State permitting requirements. The Environmental Compliance Manager shall have experience in managing others in environmental activities, with highway and bridge engineering drawings and concepts, and working cooperatively and effectively with design engineers, and construction staff. The Environmental Compliance Manager also shall have experience in erosion and sediment control, protection of endangered species, river resources, dredging materials and wetlands;
- K) **Construction Manager:** Shall have a minimum of 15 years demonstrated construction experience in civil works projects with experience in managing the site work of large, complex bridge and highway construction projects including in-water foundations. Experience shall include work of the nature anticipated in the Project, and should include Design-Build contracts, public and environmental sensitivity, utility relocation, and maintenance of traffic flows;

- L) **Quality Manager:** Shall have demonstrated experience in highway and bridge design and/or major infrastructure construction with at least 10 years experience in quality assurance and quality control activities, including preparation and implementation of Quality Plans and procedures for design and/or construction. The Quality Manager can hold only this key personnel position. The Quality Manager shall have experience of quality systems based on ISO 9001, and shall preferably have experience with the quality systems of both the New York State Department of Transportation and the Authority.
- M) **Safety Manager:** Shall report directly to the Project Manager and shall be available to the site for the duration of the Project. The Safety Manager shall have the authority to stop Work when unsafe conditions are present. The Safety Manager shall have not less than 15 years of experience in the management of complex infrastructure projects, which shall include at least 5 years of major construction management of major bridges, must be familiar with FHWA work zone safety regulations and must have at least 10 years of experience working with roadway work zone safety and OSHA regulation.

DB 108-3.2 Directory

Within 15 days after NTP, the Design-Builder shall submit to the Authority'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 fax numbers, and cellular and/or pager numbers of key personnel. The Design-Builder shall provide information sufficient for the Authority to contact any of the key personnel on a 24-hour basis for the duration of the Contract.

The Authority's Project Manager shall provide a directory of the Authority's Project staff to the Design-Builder.

DB 108-3.3 Availability of Key Personnel

Key personnel shall be located in the Project vicinity for the duration of the Contract except for the following positions:

- A) The Project Executive and Quality Manager shall be available and present as necessary to fulfill their Project responsibilities;
- B) The Design Manager and Design Quality Control Manager shall be present through the completion of final design and shall be available as necessary for design changes and other design services during and after construction, including preparation of As-Built Plans; and
- C) The Construction Manager and Construction Quality Control Manager shall be present whenever construction activities are being actively pursued.

If any of the other key personnel are to be absent from the Project vicinity for more than one week, the Design-Builder shall designate a deputy to represent the absent key personnel and inform the Authority's Project Manager accordingly.

DB 108-3.4 Changes in Key Personnel

The Authority shall have the right to approve the replacement by the Design-BUILDER of any individual in a key personnel position identified in DB §108.3.1. Replacement personnel must have equal or better qualifications than the key personnel identified in the Proposal. Before assigning a new individual to any of the key personnel positions, the Design-BUILDER shall notify the Authority 30 days in advance of any proposed assignment, shall introduce the individual to appropriate the Authority representatives and shall provide the Authority with a resume and any other information about the individual reasonably requested by the Authority. The Authority's Project Manager may require written justification explaining the replacement of any key personnel. If after being notified thereof, the Authority within 15 days following Design-BUILDER's notice, notifies Design-BUILDER that it objects in good faith to the proposed assignment, stating the grounds of that objection, then the Design-BUILDER agrees to discuss such objection with the Authority and attempt to resolve the Authority's concerns within five days. The Authority's Project Manager shall be the sole judge as to whether replacement staff members are acceptable. If the Authority's concerns cannot be addressed to its reasonable satisfaction, the Authority may notify Design-BUILDER that the individual is not approved and Design-BUILDER shall not assign the individual to that position and shall within 30 days propose to the Authority the assignment of another individual of suitable ability, experience and qualifications in accordance with the same procedure described above. The Design-BUILDER acknowledges that the discretionary reassignment of an individual considered as key personnel to another project of the Design Builder or a Principal Participant of the Design-BUILDER will not constitute adequate written justification.

The Authority recognizes that just as the Authority views the individuals chosen by the Design Builder for the key personnel positions as important to the success of the Project from the Authority's viewpoint, so too does the Design-BUILDER given that the Design Builder has carefully chosen those persons given the importance of those positions to the Design-BUILDER's successful performance of its obligations. However, the Authority shall have the right to require the Design-BUILDER to replace key personnel who the Authority judges in good faith, based upon actual performance, to be not sufficiently qualified or competent to perform the duties of their position in an acceptable manner or to be careless, unprofessional, abusive, delinquent in attendance, unable to lawfully perform the position or not to possess the education, experience and credentials as represented in the resume and information originally provided. Before a written request is issued, it will be discussed by the Authority's Project Manager or his or her representative and the Project Executive. Upon receipt of a written request from the Authority, the Design-BUILDER shall be required to propose a new individual in accordance with the preceding paragraph, and upon approval of the new individual, proceed with the replacement in a manner which does not degrade the quality of the Work. The replacement request will include the desired replacement date of not less than 30 days from the date of notice and the reason for the request.

DB 108-4 WORK REQUIRED TO MEET CONTRACT DEADLINES AND CLOSING

Unless an extended time for completion has been granted, all Work required to meet each of the Contract Deadlines shall be accomplished on or before applicable deadline, and the Work shall be completed on the intermediate phases as required to provide the number of open traffic lanes specified by the dates specified in the Agreement. In order to comply with this requirement, the Design-BUILDER must employ sufficient forces of labor, materials, and equipment to progress the Work in an expeditious manner. The Design-BUILDER's attention is directed to the fact that multi-shift operations may be required. Also, the Design-BUILDER may elect to work at night in order to complete Work by the specified phase or project completion dates. If night Work operations are requested, the Design-BUILDER shall seek the Authority's guidance. Unless otherwise stated in the Contract Documents, when electing to work at night, Work shall be in accordance with *item 619-3.19 - Nighttime Operations of Part 8 – Special Specifications*. The cost

of furnishing any or all labor, protective measures, lighting and equipment necessary to accomplish the nighttime Work operations to the satisfaction of the Authority's Project Manager is included in the Proposal Price and each Order on Contract.

DB 108-5 LIQUIDATED DAMAGES

Liquidated damages will be assessed against the Design-Builder under the circumstances specified in the *Agreement, Articles 4 and 13*, and in this DB §108-5. Liquidated damages will be assessed not as a penalty, but as liquidated damages; provided, however, that due account shall be taken of any adjustments of the Contract Time for completion of the Work as provided for elsewhere in DB §100.

Design-Builder shall pay liquidated damages to compensate the public for detriment experienced by the public with respect to:

- A) failure to remove all traffic from the existing Tappan Zee Bridge by the Initial Traffic Relocation Deadline,
- B) failure to complete the final toll plaza configuration in accordance with *Part 3, Project Requirements, Section 26 – Toll Plaza*, and take all other action necessary for use of the toll plaza for combined manual and electronic toll revenue service by the Toll Plaza Completion Deadline,
- C) failure to achieve Crossing Substantial Completion and move all traffic to the final configuration, including landings, by the Crossing Completion Deadline,
- D) failure to achieve Physical Completion by the Physical Completion Deadline,
- E) failure to achieve Final Acceptance by the Final Acceptance Deadline,
- F) failure to keep lanes open as specified in the *Agreement, Articles 4.6 and 13*, and
- G) failure to maintain the Authority's capability to collect cash and electronic tolls at the Project's toll plaza.

Liquidated damages shall be paid in the amounts specified in the *Agreement, Article 13 – Liquidated Damages*. Design-Builder acknowledges and agrees that the liquidated damages are intended to constitute compensation solely for Design-Builder's failure to meet the deadlines and obligations described in clauses (A) – (G) of this DB §108-5, and shall not excuse Design-Builder from liability for any other breach of Contract requirements, including any failure of the Work to conform to applicable requirements. It is understood and agreed by Design-Builder that any liquidated damages payable in accordance with the Agreement and this DB §108-5 are in the nature of liquidated damages and not a penalty and that such sums are reasonable under the circumstances existing as of the date of execution and delivery of this Contract.

Authority shall have the right to deduct any amount owed by Design-Builder to Authority under the Contract Documents, including liquidated damages, from any amounts owed by Authority to Design-Builder. Permitting or requiring Design-Builder to continue and finish the Work or any part thereof after the dates on which liquidated damages begin to accrue pursuant to the Agreement and this DB §108-5.

Liquidated damages, to the extent not paid as provided above, shall be payable by Design-Builder to Authority within 10 days after Design-Builder's receipt of an invoice therefor from Authority.

In addition to other remedies, certain Project Requirements may stipulate that liquidated damages be deducted from any money due the Design-Builder, not as a penalty but as liquidated damages, until the violation or violations are corrected to the satisfaction of the Authority's Project Manager.

DB 108-6 EXTENSIONS OF CONTRACT TIME

If at any time prior to the expiration of the Contract Time as specified or as extended in accordance with the provisions of this DB §108-6, the Design-Builder finds it impossible for reasons beyond its control to complete the Work within said Contract Time, the Design-Builder may make a written request to the Authority's Project Manager for an extension of time setting forth therein the reasons which the Design-Builder believes will justify the granting of the request and meeting all requirements of DB §109-10, which notice shall be delivered within 10 work days after it first has knowledge or should have had knowledge of the event, matter or circumstance giving rise to the delay in completion, or within such shorter period as may be specified in the Contract with respect to specific types of events, matters and circumstances. If the Authority's Project Manager finds that a delay in the critical path has occurred that is directly attributable to any of the following events, the Authority's Project Manager may extend the Contract Time in such amount as the conditions justify, provided such event and the delay resulting from the event are beyond the control, and without the fault, of the Design-Builder:

- A) Authority-Caused Delays;
- B) Delays caused by third parties (including railroads but excluding utility owners) present on the Site or of other contractors or personnel employed by the Authority on the Site, excluding any delays that could reasonably be anticipated from the Contract Documents or that are ordinarily encountered or generally recognized as inherent in the Work;
- C) Delays due to the act, or failure to act, of any public or governmental body or railroad, transportation company or corporation (excluding utility owners), including delay in issuance of approvals or permits, or imposition of unanticipated restrictions in such approvals or permits, but excluding any such delay that is attributable to the Design-Builder's ATCs or its means and methods of construction, and excluding any such delay arising from or related to any violation of a permit condition by the Design-Builder or its Subcontractors;
- D) Delays due to the existence of utility facilities for which an Order on Contract is allowed under DB §104-4.2, and Utility Delays as specified in DB §102-5.3, subject to the conditions and restrictions specified therein;
- E) Delays due to restraining orders, injunctions, or judgments issued by a court not caused by the Design-Builder's ATCs or its means and methods of construction;
- F) Delays due to any industry-wide labor boycotts, strikes, picketing, or similar situations, as differentiated from jurisdictional disputes or labor actions affecting a single or small group of Subcontractors or suppliers;

- G) Delays due to any industry-wide shortages of supplies or material required by the Contract, as differentiated from delays in delivery by a specific or small group of suppliers;
- H) Delays due to unusually severe storms of extended duration or impact, other than heavy storms or climatic conditions which could generally be anticipated by the Design-Builder, as well as floods, droughts, tidal waves, fires, hurricanes, earthquakes, landslides, or other catastrophes;
- I) The time required to restore the Work to its original state where damage to the Work occurred from causes beyond the control of the Design-Builder;
- J) Discovery of Hazardous Materials of a type, quantity or location that differs materially from the type, quantity or location of Hazardous Materials identified in the RFP or the Contract Documents as potentially present at the Site, to the extent allowed under DB §104-4.3 and for which the Design-Builder is not otherwise responsible under DB §§ 104-4.3 and 107-16;
- K) Discovery of Environmental Resources or Cultural Resources not identified in the RFP or the Contract Documents, to the extent allowed under DB §107-9.3;
- L) Differing site conditions, subject to the limitations specified in DB §104-5;
- M) Significant changes in the character of the Work, to the extent allowed under DB §104-3.2, and Necessary Basic Configuration Changes, to the extent allowed under DB §104-4.1.2;
- N) Changes in the scope of Work occurring as a result of a Change in Law, to the extent allowed under DB §104-4.5; or
- O) Any situation which was beyond the contemplation of the parties at the time of entering into the Contract.

The Contract Time, as extended, shall then be in full force and effect as though it were the original Contract Time. The notice, recordkeeping and other requirements of DB §§102-5.3, 104-4, 104-5 and 104-6 and the *Agreement, Article 1.2*, as applicable, and DB §§104-7 and 109-10.1(H)(1)-(3), shall apply with respect to any request to adjust the Contract Time. The Authority will have no liability and no adjustment will be made for any damages which accrued more than 10 days prior to the filing of such a notice.

In all cases where an extension of time is warranted under this DB §108-6, the extension shall be negotiated and addressed in an Order on Contract. Delays incurred by seasonal and weather limitations, localized labor actions and shortages of supplies or materials, and other situations which should be anticipated are not eligible for extensions.

In cases where the Work has been unduly delayed by the Design-Builder because of unwarranted reasons, inefficient operation, or for any other reason for which the Authority determines the Design-Builder to be liable, no time extension will be allowed. Reasonable time necessary for Design Reviews, for changes or additions to the Work to meet field conditions which do not adversely affect the Design-Builder's ability to meet the Contract Deadlines, for delays incurred by seasonal and weather limitations, for localized

labor actions and shortages of supplies or material, and for other situations which should be anticipated are neither compensatory nor eligible for extensions of any Contract Deadlines, except as expressly authorized hereunder. Design-Builder agrees to make no monetary request for, and has included in its Proposal Price, any extra/additional costs, any delays, inefficiencies or interferences in the performance of the Contract caused by or attributable to the reasons described in this paragraph.

The adjustment to the Contract Deadlines allowed under this DB §108-6 constitutes Design-Builder's sole and exclusive remedy for such delays, except for the compensation allowed for certain types of delays pursuant to DB §§109-10 or 109-15.1.

DB 108-7 SUBCONTRACTING OR ASSIGNING THE CONTRACT

Unless indicated otherwise in the Project Labor Agreement, the Design-Builder shall perform Work with a value of at least 30% of the Contract Price with its own forces. Work performed by Design-Builder's joint venture members and their affiliates is considered work with the Design-Builder's own force.

At the pre-work conference, the Design-Builder shall submit a list of intended Subcontractors and vendors. In addition, the Design-Builder will be required to update the list of Subcontractors and vendors as the Work progresses so that the Authority will have, at all times, a current and accurate list of Subcontractors along with the Work that they perform and vendors along with the items that they supply. The required forms for the submission of Subcontractor information will be supplied by the Authority.

In the solicitation of Subcontractors and vendors to perform Work under this Contract, prior to entering into any commitments for subcontracting or for purchase or leasing of supplies, material or equipment, the Design-Builder shall refer to the following, then current publication to solicit participation of DBEs, MBEs, or WBEs. The Design-Builder is required to consider Subcontractors from the list of certified DBE firms that can be accessed via a link on the following Department website: <https://www.dot.ny.gov/main/business-center/civil-rights/general-info/dbe-certification>. The Design-Builder shall also consider subcontractors from the Directory of Minority and Women's Business Enterprises published by the New York State Department of Economic Development. Requests for acceptance of Subcontractors shall be submitted to the Authority's Project Manager on the appropriate form. Subcontractors will not be approved by the Authority until such time as they are registered with the New York State Department of State.

Pursuant to 23 CFR Section 635.116, the Authority cannot impose minimum subcontracting requirements or goals other than those necessary to meet the self performance criteria or the DBE program requirement, as found at DB §102-9.

The Design-Builder shall not enter into any Subcontract, nor allow any of its Subcontractors to enter into a Subcontract, without first notifying the Authority of the proposed Subcontractor and proposed scope of work to be performed by the Subcontractor, at least 10 days in advance of execution and delivery of the Subcontract. Each of the Subcontracts listed in the notice may be executed and delivered upon expiration of said 10-day period unless the Authority, during said period, delivered a written objection to the Design-Builder regarding that Subcontract. The Authority's failure to object to a Subcontract shall not be construed to relieve the Design-Builder or Surety of any responsibility for the fulfilling of all the requirements of the Contract.

Violations of the foregoing may result in no payment by the Authority for the related Work.

All Subcontracts, supply and equipment contracts shall incorporate the provisions of DB §109-10 - Dispute Resolution and Disputed Work Provisions. If such Subcontracts or supply or equipment contracts do not contain similar provisions, then the Authority's payments to the Design-Builder for such Subcontract or supply or equipment work shall be limited to only that which are provided by the provisions of this subsection as if it were in effect for such Subcontract or supply or equipment contract. All subcontracts, supply or equipment contracts shall incorporate all of the provisions of Form FHWA-1273, Required Contract Provisions Federal-Aid Construction Contracts. The provisions of Form FHWA-1273 shall be directly incorporated into each Subcontract, and may not be incorporated by reference. All Subcontracts also shall incorporate the provisions of DB §104-7 - Notices and Recordkeeping, DB §105-5 - Project Records, DB §105-6 - Coordination with Third Parties, DB §105-7 - Termination for Convenience, DB §107-7.5 - Design-Builder's Safety Plan, DB §107-7.6 - Contents of Safety Plan, DB §109-9.2.2 - Force Account Charges and DB §109-9.2.3 - Force Account Report, DB §109-15.2 - Suspensions of Work Ordered by Authority's Project Manager, DB §102-9.5 Design-Builder Obligations, DB §104-16 - Retention of Records, and DB §110-8 - Subcontractor and Vendor Pricing Documents.

The Design-Builder shall incorporate by reference or otherwise include these General Provisions in every Subcontract and shall require that the same reference or inclusion be contained in every Subcontract entered into by any Subcontractors. Each Subcontract shall provide that, pursuant to terms in form and substance satisfactory to the Authority: (a) the Authority is a third-party beneficiary of the Subcontract and shall have the right to enforce all of the terms of the Subcontract for its own benefit; and (b) all guarantees and warranties, express or implied, shall inure to the benefit of the Authority and its successors and assigns as well as Design-Builder.

The Design-Builder shall allow the Authority access to all Subcontracts, supply and equipment contracts at all tiers and records regarding the same, and shall provide copies of each such agreement to the Authority within 10 days of execution thereof.

The intent of this DB §108-7 shall not be circumvented by the Design-Builder by placing a Subcontractor's employees directly on the Design-Builder's payroll. If a person or group of people generally operated as an independent contractor, the Authority will treat them as independent contractors for purposes of this DB §108-7.

The Design-Builder's and its Surety's liability under this Contract and the bonds shall not be waived or in any way diminished by subcontracting or other assignment of interest under the Contract.

The Design-Builder shall pay all Subcontractors their respective Subcontract amounts for undisputed acceptable Work within seven days of receiving payment from the Authority. Failure by the Design-Builder to pay any Subcontractor within seven days of receipt of payment from the Authority for Work performed that is accepted by the Authority could result in the withholding of future payments by the Authority. The Design-Builder shall maintain an accounting system acceptable to the Authority to track payments made by the Authority to the Design-Builder and payments made by the Design-Builder to each Subcontractor, manufacturer, fabricator or supplier by item and by date. The Design-Builder shall submit reports on payments made to Subcontractors as required by the Authority. If it is determined by the Authority that a Subcontractor has not received payment due and owing in accordance with this DB §108-7 and applicable law, the Authority may direct the Design-Builder to make such payment. Any such direction by the Authority is a lawful direction. While such direction is not complied with, the Design-Builder shall not be entitled to have any payment made on account of Work done. Within seven days of the receipt of payment from the Design-Builder, the Subcontractor shall pay each of its Subcontractors in the same manner as the Design-Builder has paid the Subcontractor. Nothing provided herein shall create

any obligation on the part of the Authority to pay or to see to the payment of any moneys to any Subcontractor from Design-Builder nor shall anything provided herein serve to create any relationship in contract or otherwise, implied or expressed, between the Subcontractor and the Authority.

DB 108-8 DEFAULT OF THE CONTRACT

The Design-Builder may be declared to be in default of the Contract if any of the following occurs:

- A) The Design-Builder fails to begin the Work under the Contract within the time specified in the NTP;
- B) The Design-Builder fails to perform the Work with sufficient resources (supervision, workers, equipment, and material) to assure the prompt completion of said Work;
- C) The Design-Builder performs the Work unsuitably or neglects or refuses to remove such material or to redo such Work as may be rejected as unacceptable and unsuitable;
- D) The Design-Builder discontinues the prosecution of the Work;
- E) The Design-Builder fails to resume Work which has been discontinued within a reasonable time after notice to do so;
- F) The Design-Builder becomes insolvent, is declared bankrupt, or commits any acts of bankruptcy or insolvency;
- G) An involuntary case is commenced against the Design-Builder seeking liquidation, reorganization, dissolution, winding up, a composition or arrangement with creditors, a readjustment of debts or other relief with respect to the Design-Builder or the Design-Builder's debts under any U.S. or foreign bankruptcy, insolvency or other similar law now or hereafter in effect; seeking the appointment of a trustee, receiver, liquidator, custodian or other similar official of the Design-Builder or any substantial part of the Design-Builder's assets; seeking the issuance of a writ of attachment, execution, or similar process; or seeking like relief, and such involuntary case shall not be contested by the Design-Builder in good faith or shall remain undismissed and unstayed for a period of 60 days;
- H) The Design-Builder allows a final judgment in a suit filed in connection with this Contract to stand against it unsatisfied for a period of 30 days;
- I) The Design-Builder makes an assignment for the benefit of creditors, without prior approval of the New York State Comptroller and the Authority;
- J) The Design-Builder fails to provide and maintain any performance or payment security or insurance as required hereunder;
- K) Any representation or warranty made by the Design-Builder in the Contract Documents (including representations in the SOQ or Proposal) or any certificate, schedule, instrument or other document delivered by the Design-Builder pursuant to the Contract Documents or ITP shall have been false or materially misleading when made, including any failure to discuss an organizational conflict of interest as required by the ITP;

- L) Design-Builder is a party to fraud; or
- M) For any other cause, except as provided in the Contract, the Design-Builder fails to carry on the Work in an acceptable manner.

The Design-Builder also may be declared in default of the Contract if any of the following occurs with respect to any Guarantor or any Principal Participant with an equity interest in the Design-Builder:

- N) Such Person becomes insolvent, is declared bankrupt, or commits any acts of bankruptcy or insolvency;
- O) Such Person makes an assignment for the benefit of creditors without prior approval of the New York State Comptroller and the Authority;
- P) An involuntary case is commenced against such Person seeking liquidation, reorganization, dissolution, winding up, a composition or arrangement with creditors, a readjustment of debts or other relief with respect to such Person or its debts under any U.S. or foreign bankruptcy, insolvency or other similar law now or hereafter in effect; seeking the appointment of a trustee, receiver, liquidator, custodian or other similar official of such Person or any substantial part of such Person's assets; seeking the issuance of a writ of attachment, execution, or similar process; or seeking like relief, and such involuntary case shall not be contested by such Person in good faith or shall remain undismissed and unstayed for a period of 60 days; or
- Q) Such Person revokes or attempts to revoke its obligations under the Guaranty or any statement of joint and several liability, or otherwise takes the position that such obligations are no longer in full force and effect or are unenforceable.

The Authority's Project Manager will give notice in writing to the Design-Builder and its Surety of such delay, neglect, or apparent default and will specify those provisions that have been violated and the corrective measure to be taken. With respect to any occurrences involving impaired creditworthiness of Design-Builder, Principal Participants and/or Guarantors, the Authority may require the Design-Builder to provide additional performance security satisfactory to the Authority in its sole discretion.

If the Design-Builder or its Surety, within a period of 15 days after such notice, does not proceed in accordance therewith, then the Authority shall, upon written notification from the Authority's Project Manager of the fact of such delay, neglect, or apparent default, and the Design-Builder's failure to comply with such notice, have full power and authority without violating the Contract to declare the Design-Builder in default and take the prosecution of the Work out of the hands of the Design-Builder and demand compliance by the Surety of the terms, conditions, and obligations contained in the Performance Bond executed by the Design-Builder and its Surety; provided, however, that if such breach by its nature cannot be cured within 15 days, Authority agrees not to declare the Design-Builder in default provided that Design-Builder commences such cure within such 15 day period and thereafter diligently prosecutes such cure to completion, further provided, however, that in no event will such cure period exceed 60 days in total. Notwithstanding the foregoing, no such notice and opportunity to cure is required for any breach which by its nature cannot be cured. Design-Builder hereby acknowledges and agrees that the events described in DB §108-8(K) and (L) are not curable. With regard to the events described in DB §108-8(N) through (Q), Authority will not declare Design-Builder to be in default if, within the 15-day cure period, Design-Builder provides satisfactory assurance to Authority that such event will not adversely impact Design-Builder's performance of all of its obligations under the Contract

Documents, including providing additional performance security acceptable to Authority in its sole discretion. The foregoing cure rights shall not affect the Authority's right to collect liquidated damages for failure meet a Contract Deadline.

Notwithstanding the foregoing, if Authority believes a condition affecting the Project poses an immediate and imminent danger to public health or safety, Authority may, without notice and without awaiting lapse of any cure period, rectify the condition at Design-Builder's cost, and so long as Authority undertakes such action in good faith, such action shall not expose Authority to liability to Design-Builder and shall not entitle Design-Builder to any other remedy, it being acknowledged that Authority has a paramount public interest in providing and maintaining safe public use of and access to the Project. Authority shall be deemed to have acted in good faith regarding the existence of such danger in the absence of clear and convincing evidence that the danger did not exist.

Upon the default of the Design-Builder as set forth above, the Surety shall take charge of said Work and complete the Contract at its own expense pursuant to the terms of this Contract, receiving, however, any balance of funds due and owing the Design-Builder under the Contract. In the event the Surety fails to so take charge of the Project upon the demand of the Authority to do so, the Authority may undertake to complete the Project with its own forces or may procure a competing contractor to finish the Work. All costs and charges thereby incurred by the Authority, together with the cost of completing the Work under an alternative contract, will be deducted from the Contract funds which are due or may become due to the defaulting Design-Builder. If such expense exceeds the sum that would have been payable under the Contract, then the defaulting Design-Builder shall be liable for the amount of such excess expense, and the Surety shall be jointly and severally liable for the amount of such excess expense up to the stated maximum amount of the Performance Bond.

DB 108-9 OFFICIAL SHUT-DOWN PERIOD

An official shutdown period may be shown in the Contract Documents, or be part of the Design-Builder's alternative scheduling, or part of an application for an extension of Contract Time into the next construction season.

This shutdown shall be a period estimated to be a minimum of two months or longer, generally between November and April, during which all field construction activities shall be suspended (only field office work is permitted). During an official shutdown period, unless otherwise shown on the Contract Documents, the Design-Builder shall ensure that the traveled way shall:

- 1) Have full lane and shoulder capacity restored, without crossovers, lane restrictions or diversions. Shoulders shall be paved.
- 2) Be smooth, free from defect or distress, and free of surface irregularities and depressions that hold or retain water.
- 3) Be well drained with all drainage facilities and ditches fully open and operative to adequately drain the traveled way and the remainder of the right-of-way areas.
- 4) Be fully delineated by pavement markings, signs, delineators, and guiding devices. Use of cones, barrels, or barricades for delineation during an official shutdown during winter months is unacceptable unless required in the Contract Documents.

- 5) Have roadside obstacles and hazards protected by either intact existing or newly constructed safety appurtenances.
- 6) Materials or equipment shall not be left in front of or within the deflection distance behind guide rail and safety appurtenances so as to compromise their performance.

NOTE: All the above being provided for the safety and convenience of the traveling public during the shutdown period, also:

- 7) All temporary or permanent erosion control shall be in place for any disturbed areas; any seeded areas mulched with cellulose mulch that have not established a vegetative cover shall be protected by the addition of a layer of hay mulch.
- 8) The work site shall be in a clean and orderly condition, and all rubbish, unusable and waste material resulting from operations shall be removed from the site.
- 9) Recycled and/or virgin bulk or other materials awaiting installation shall be properly stored, stockpiled, and sited or protected so that they shall not constitute a traffic hazard nor interfere with drainage courses.

During an official shutdown period, the Authority will assume responsibility for minor roadway surface maintenance, snow and ice control, and respond to all incidents within the Site just as is done outside of the Site. However, repair of major failures in the traveled way and any activities related to work performed or completed by the Design-Builder shall remain the Design-Builder's responsibility. The establishment of an official shutdown period shall not be cause for change in the Design-Builder's insurance requirements nor shall there be any change in liability for the Design-Builder's actions or negligence. The start of an official shutdown period shall be subject to a field acceptance by the Authority's Project Manager assuring that the traveled way, within the Project Limits, will safely carry traffic throughout the shutdown period and the Site is in proper condition to be left unattended for the shutdown period.

DB 108-10 WORK DURING OFFICIAL SHUTDOWN PERIODS

Unless otherwise specified, if traffic is not returned to its normal lanes in accordance with DB §108-9 by the 30th day of November, the Design-Builder shall not cease Work on any items required for the safe return of traffic to its normal lanes in preparation for an official shutdown and the onset of winter weather conditions and Authority snow and ice control maintenance. In addition, the Design-Builder shall take all measures available, both ordinary and extraordinary (e.g., temporary surfacing, use of winter concreting methods, erection of heated work enclosures, use of precast concrete elements, etc.) to progress stage/phase/contract completion, until Thruway or local traffic is returned to its normal lanes and an official shutdown is able to be instituted. Any additional efforts or temporary works as may be necessary are solely the Design-Builder's responsibility; they shall be subject to approval by, and performed at no additional cost to, the Authority.

Although an official shutdown period is defined as a period during which all field construction activities are suspended, the performance of specific work may be allowed or even required during such periods by the Baseline Project Schedule and Suspension of Work sections or by Design-Builder request, as approved by the Chief Engineer. During this time, the Design-Builder shall not interfere with the operations of the Authority, and all Thruway or local traffic must be safely maintained by the Design-

Builder (see §108-09) in its normal lanes, and all conditions for the official shutdown shall be maintained at all times. No lane closures or other interference with traffic may be instituted during an official shutdown period without the advance permission of the Chief Engineer.

If, in the opinion of the Authority, the Design-Builder or any Subcontractor fails to adhere fully to any of the Contract requirements assuring that the traveled way within the Project Limits can safely carry traffic, a deduction for violation of these Contract requirements shall be made in accordance with DB §109-5.3.

In making application for any waiver of specifications or Contract requirements, the Design-Builder agrees that any waiver granted by the Authority is exclusively for the Authority's benefit and purposes, and is subject to revocation without requirement for advance notice or statement of cause. Also, approval or disapproval of requests for waivers will be transmitted without statement of reason or cause, and shall not be subject to administrative review or appeal under the Contract. Any additional efforts or temporary works, as may be necessary to progress Work during an official shutdown period, are solely the Design-Builder's responsibility; they shall be subject to approval by, and performed at no additional cost to, the Authority.

SECTION 109
PRICE, PROGRESS, AND PAYMENT

This DB §109 describes the pricing concept, specifies the means of determining the Work progress, and establishes the procedures for requesting and making payments.

DB 109-1 PRICING CONCEPT

Under the Price Center concept, the Project is divided into sections (*see* ITP Form SP) within which Price Centers are identified. The values assigned to these Price Centers in the Design-Builder's Proposal form the framework for requesting progress payments during performance of the Work, and the sum of these values is the Contract Price.

DB 109-1.1 Schedule of Prices

ITP Form SP identifies the Price Centers used by the Design-Builder for Proposal development. This form is included in Appendix XII to the *Agreement* and is the basis of the detailed Schedule of Prices. To develop this Schedule of Prices, the Design-Builder shall divide the Price Centers and values into further detail sufficient to serve as the basis for periodic payments, such that the total value of each Price Center's subsections sums to the corresponding Price Center value presented in the Proposal. The Design-Builder shall provide a Schedule of Prices which is acceptable to the Authority prior to delivery of the second application for periodic payment.

The Schedule of Prices shall be revised as necessary to reflect changes in Contract Price made through Orders on Contract in accordance with DB §109-4. The Price Center for mobilization (which includes compensation for bond and insurance premiums and may also be used to pay any forward price agreement premiums) shall not exceed 8% of the Contract Price.

DB 109-1.2 Contract Periodic Payment Schedule

The initial Project cash-flow curve (Contract Periodic Payment Schedule (PPS-C)), which distributes the Contract Price across the duration of the Project, is based on the initial cash-flow curve (Proposal Periodic Payment Schedule, ITP Form PPS-P) submitted with the Design-Builder's Proposal, and is attached as Appendix XI to the *Agreement*. The PPS-C may be modified only in accordance with DB §109-4.

The cumulative value of the PPS-C for each month represents the cumulative maximum amount for which the Design-Builder may request payment in that month. The maximum cumulative payment value for the month of Final Acceptance equals the Contract Price, which is also equal to the sum of Price Center values on ITP Form SP.

The Contract Periodic Payment Schedule shall be revised to reflect changes in the Contract Price made through Orders on Contract in accordance with DB §109-4.

DB 109-2 MEASUREMENT/DETERMINING PROGRESS

Unless specified otherwise in the Contract Documents, there will be no measurement of quantities to determine payment due.

For Price Centers and/or Orders on Contract paid on a force account basis, the Design-Builder shall substantiate progress with submittal of statements specified in DB §109-9.2.2.

For Orders on Contract paid on a Unit Price basis, the Design-Builder shall substantiate progress with submittal of invoice documents specified in DB §109-9.2.1.

For all Work paid on a lump-sum basis, periodic payments shall be determined as percentages of items on the Schedule of Prices, comprising the Work completed since the Design-Builder's immediately prior request for payment. The Design-Builder shall present a method for determining these percentages which is acceptable to the Authority.

DB 109-2.1 Price Centers Associated with Project Management

Table 109-1 provides guidance for assessing the satisfaction of other Price Center requirements associated with continuing activities.

TABLE 109-1

PRICE CENTER REQUIREMENTS FOR CONTINUING ACTIVITIES

ACTIVITY	REQUIREMENT/STANDARD
Project Management and Construction Management	Monthly progress reports prepared and submitted in accordance with DB §108-1.3; Key personnel are on Site and meet qualifications requirements of DB §108-3.1; Meetings conducted and attended, and minutes prepared in accordance with DB §105-17; Baseline Project Schedule submitted and maintained in accordance with DB §108-1; Required notices given to the Authority's Project Manager in timely manner; and Contract submittal list submitted and updated in accordance with DB §108-1.3.5.
Quality Control/Quality Assurance of Management and Construction	Quality Plan and updates submitted and receive Authority's Project Manager's written acknowledgement in accordance with DB §113. Management and construction activities conducted in accordance with the Quality Plan; Sampling and testing conducted in accordance with DB §105-3; and Documentation prepared and maintained in accordance with DB §112-11.
Security	Site Security Plan and updates submitted and Authority's Project Manager's written acknowledgement of Plan received in accordance with DB §107-8.2; and Security facilities maintained and security services provided in accordance with the Site Security Plan.
Facilities and equipment provided for Authority	Facilities and equipment provided, maintained, and cleaned, and Utilities provided and paid for, in accordance with <i>item 637 of Part 5-Special Provisions</i> and <i>item 637 of Part 8-Special Specifications</i> .
Safety	Safety Plan and updates submitted and received Authority's Project Manager's written acknowledgement in accordance with DB §107-7.5; and Construction Work conducted in accordance with DB §107-7 and the Safety Plan, including submittal of required reports.
Design-Builder's temporary facilities and Site maintenance	Site and facilities maintained in accordance with DB §107.

DB 109-2.2 Price Centers Associated with Engineering and Design

Price Center requirements for engineering and design activities are met when the requirements for preconstruction engineering, design and design management, and design QC and QA, including Design Reviews, have been achieved for the applicable Design Unit including the specified reports, documentation and QC and QA records, the certifications of the Designer and the Design Quality Assurance Manager, and the Authority's Project Manager's written acknowledgement. In the case of design studies and/or reports, the requirement is met when the Authority'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 §111-3) as agreed between the Design-Builder and the Authority's Project Manager.

DB 109-2.3 Price Center Associated with Hazardous Materials Management

The Design-Builder shall present a method for determining progress percentages for Hazardous Materials management activities which is acceptable to the Authority, and progress shall be measured in accordance with the approved method.

DB 109-2.4 Price Centers Associated with Construction

Payment requirements for construction activities are met when the Work is constructed in accordance with Contract requirements, including QC, QA and Environmental Requirements and accepted by the Authority's Project Manager.

DB 109-2.5 Unit Priced Orders On Contract

In computing amounts in estimates for Work done under Unit Prices pursuant to an Order on Contract, 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 as determined as per DB §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 [RESERVED]

DB 109-4 CHANGES TO CONTRACT PRICE

The Contract Price shall be increased or decreased only by an Order on Contract issued in accordance with DB §104-3 and DB §109-9.

The Design-Builder shall revise the Schedule of Prices and Contract Periodic Payment Schedule in accordance with the terms of an Order on Contract and submit the revisions to the Authority's Project Manager for written approval. Orders on Contract may be included in existing or new Price Centers.

DB 109-5 CONTRACT PAYMENTS

Sections 70, 71, and 79-a of the New York State Lien Law apply to funds received by a Design-Builder for a public improvement. These provisions declare that the funds received by the Design-Builder shall

constitute trust funds in the hands of the Design-Builder and shall be applied first to the payment of certain claims.

In accordance with the *Agreement, Article 7 - Compensation*, payments to the Design-Builder for Work satisfactorily performed will be made monthly.

This Contract may be funded by monies from other governmental or non-governmental entities which may include municipalities, Counties, towns, villages, or authorities. If the Contract is funded by monies from the Department, separate payment may be made by both the State and the Authority.

No certificate approving or authorizing the first partial payment or, in the event there shall be no first partial payment, no certificate approving or authorizing any final payment, shall be made to a foreign contractor unless such foreign contractor has furnished satisfactory proof that all taxes due by such foreign contractor under the provisions of Articles 9, 9A, 16, and 16A of the New York State Tax Law have been paid. The certificate of the State Tax Commission to the effect that all such taxes have been paid shall be conclusive proof of the payment of such taxes.

DB 109-5.1 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 109-5.2 Payment Concept

The Design-Builder will be paid monthly based on the percentages and amounts shown on the Schedule of Prices, except for Work performed under other specified means, such as Unit Prices and/or force account (see DB §§109-6.2 and 109-9.2.2), and except as provided in DB §109-7.1.

Requirements relating to requests for payment for the Work are set forth in DB §109-6.

The Contract Periodic Payment Schedule sets out the maximum cumulative amount each month for which the Design-Builder may apply for payment.

DB 109-5.3 Progress Payments

Unless otherwise specified in the Contract, no payment will be made for Work that is not completed in accordance with the Contract requirements.

DB 109-5.4 No Payment on Design-Builder's Non-Compliance

The following submittals covering the current payment period must be submitted to and checked by the Authority's Project Manager for his/her certification that payment can be made:

- A) If Form AAP-21c is not being used, a notarized Affidavit of Payment to Subcontractors, NYSTA Form TA 44118 (or notarized NYS HC 258 form); required for every invoice after the Design-Builder has received its first payment.
- B) Certified payrolls for the Design-Builder and each Subcontractor.

Processing of progress payments is contingent upon Design-Builder documentation of compliance with all Contract requirements. Forms listed below may be required and shall cover the period since the last reporting period. Specific forms and schedule will be stipulated at the pre-award or pre-construction meeting: TA 1017-9 Employment Utilization Reports (Contractor, Each Sub, Composite; No Negative Reports Required), TA 1023-9 Subcontractor Payment, and TA 1046-9 Weekly Training Progress Report. In addition the following reporting shall reflect up-to-date status: TA 1022-9 DBE Utilization, TA 1024-9 Workforce and Training Utilization Plan, TA 1041-9 Training Report, TA 1058 Actual Utilization Plan for all Subcontractors, TA 1064-9 Contractor's Annual EEO Report.

No completed element of work will be included in the progress payment unless all required documentation for its installation is received in a timely fashion. Failure by a Subcontractor to provide certified payrolls and/or required documentation for the performance of their work will make that work ineligible for inclusion in the Design-Builder's progress payment.

No direct payment will be made for any of the work described and specified under the caption "GENERAL NOTES" or for any work described and specified under the caption "SPECIAL NOTES" unless specifically stated in the note. The cost thereof shall be included in the prices developed for the various Price Centers.

The Department of Engineering has determined that it will require an audit period of 30 days for all progress billings. All payments made under this Contract will be processed in conformation with Public Authorities Law Section 2880, as detailed in 21 NYCRR Part 109 (Prompt Payment), which requires the Authority to make payment on highway construction projects within certain time frames. If the Authority unjustifiably fails to pay within the prescribed time, it may be required to pay interest for each day in excess of the prescribed time.

DB 109-6 REQUESTS FOR PERIODIC PAYMENT

The Design-Builder shall submit all requests for periodic payment to the Authority's Project Manager with the monthly progress report (see DB §108-1.3) signed by the Design-Builder's Project Manager or Deputy Project Manager, except that the Final Invoice must be signed by the Design-Builder's Project Executive. The Design-Builder shall submit the request by the fifth day of each month (if a holiday, the next work day) or other mutually agreed date.

The Design-Builder's Project Manager or Deputy Project Manager and the Design-Builder's Quality Manager shall sign the draft request for payment, which will have no effect until countersigned by the Authority's Project Manager pursuant to DB §109-7.

DB 109-6.1 Payment Requests with the Monthly Progress Report

Each application for Periodic Payment shall contain the following:

- A) The amount claimed to be payable using the Schedule of Prices, setting out the percentage and amount of each Price Center component claimed, including amounts due under force account and/or Orders on Contract; and
- B) Any other amount claimed to be payable or deducted pursuant to a determination of the Authority's Project Manager, identifying the relevant determination.

DB 109-6.2 Unit Price Work

If any Work is performed on a Unit Price basis, the Design-Builder shall perform the Work in accordance with the requirements set forth in the Order on Contract for such Work.

DB 109-6.3 Partial Payment for Material Delivered to the Site

Upon application by the Design-Builder, using Form 109-6A, and approval by the Authority's Project Manager, appropriate elements in the Schedule of Prices may be sub-divided to enable payments for the actual cost of certain material to be made to the Design-Builder prior to incorporation of such material in the permanent Work. To be eligible for partial payment, material must meet all of the following conditions:

- A) Be included on the List of Materials in this DB §109-6.3;
- B) Be material that will be incorporated into permanent Work;
- C) Be in a condition which is ready for on-site installation without further fabrication or processing;
- D) Be delivered and stored at the Site of the Work or at a site and in a manner approved by the Authority's Project Manager; and
- E) Be material which will be stored a minimum of 60 days.

With application for partial payments, the Design-Builder shall provide documentation as follows:

- 1) Bill(s) of sale or vouchers indicating the actual dollar value paid by the Design-Builder for the material as stored;
- 2) Certification of (Form 109-6B) showing that title to the material, without encumbrances, is in the name of the Design-Builder and that title is warranted to the Authority;
- 3) Documented evidence of acceptability of the material; and
- 4) If the material is stored on private property, a release and waiver covering such material (Form 109-6C), and providing access to the storage site, which release and waiver shall be executed by the property owner in favor of the Authority or its agents.

When applying for partial payment of products which are claimed to be in short supply or unique to an individual project, the Design-Builder shall include documentation supporting that claim, to the satisfaction of the Authority's Project Manager. The amount of partial payments shall not exceed the total invoice amount for stored material, nor shall the partial payment for material relating to any Contract Work component exceed 85% of the Schedule of Prices value for that component. The quantity of material for which payments are made shall not exceed the estimated quantity for that item. The making of partial payments shall not be deemed to be acceptance of material, nor shall it relieve the Design-Builder of responsibility for such material. The Design-Builder shall be responsible for assuring that only those materials which comply with the requirements of the Contract Documents are incorporated into the Project. All costs associated with handling, transportation, and storage of material, including any storage

site rental, security, and weather protection, shall be borne by the Design-Builder and included in the prices proposed for the Contract Work. Any material, other than that which is determined by the Authority's Project Manager to be unique to the Project, which are not incorporated into the Work, shall remain the property of the Design-Builder.

Partial payments made for such unused material shall be withdrawn with no further obligation by the Authority.

LIST OF MATERIALS

- a. Iron, steel, and aluminum products (including all metal components of railings and bridge superstructures);
- b. Precast and prestressed concrete products;
- c. Pipe and underdrain products;
- d. Concrete and stone curb or masonry products;
- e. Concrete, steel, and timber piles and appurtenances;
- f. Timber products;
- g. Traffic signal, traffic control, signing, and lighting components;
- h. Cable, wire, and conduit;
- i. Impact attenuator components;
- j. Material in short supply; or
- k. Material manufactured to meet specific, unique requirements of the Project (to be determined by the Authority's Project Manager).

DB 109-6.4 Equipment Used to Construct the Project

The Authority shall not pay for direct or indirect costs of equipment used to construct the Project. The Design-Builder shall allocate costs for equipment and operation of such equipment, whether new, used, or rented, as part of the activities with which the equipment is associated.

DB 109-6.5 Non-Revenue Pass Plates

Non-revenue pass plates will be furnished for the use of the Design-Builder's and approved Subcontractors' equipment and vehicles. Pass plates for Suppliers' vehicles will be issued only to allow deliveries to the Project. In no case will free passage on the Thruway be granted beyond the interchanges bracketing the Project, regardless of whether the Design-Builder's place of business is beyond those interchanges. The use of these pass plates shall be in accordance with the conditions of the individual authorization. General conditions are given below:

- A) Pass plates are not for commuting and no privately owned vehicles shall be parked on the Thruway. For purposes of this DB §109-6.5, a privately owned vehicle is defined as any vehicle not covered by the Design-Builder's insurance.
- B) Pass plates shall be used on work days only.

- C) Pass plates shall be presented to the toll collector whenever entering a toll lane. Unmanned emergency lanes at toll plazas will not be opened to permit unrestricted entry or exit by Design-Builder's or Subcontractor's vehicles.
- D) The Design-Builder shall maintain a log identifying the vehicle to which each pass plate is assigned.
- E) Pass plates shall remain with the assigned vehicles at all times while the vehicle is on the Thruway. Under no circumstances shall the Design-Builder leave pass plates at the Toll Plaza.
- F) Vehicles leaving the Thruway beyond the pass plate limits without a pass plate or entering or leaving the Thruway at a toll station beyond the pass plate limitations will be charged for the trip in accordance with the normal toll rates and regulations. The Design-Builder will not be reimbursed for tolls after pass plates have been issued.
- G) The Design-Builder will be held responsible for the use and return of all pass plates. The Design-Builder shall report any lost or stolen pass plates to the Authority's Project Manager stating the specific pass plate lost or stolen and shall be responsible for any unauthorized use of the pass plate prior to such notification.
- H) The misuse of the pass plates will constitute cause for revocation of this privilege and the Design-Builder will not be reimbursed for tolls. In accepting pass plates the Design-Builder agrees that revocation for reasons of misuse shall not constitute grounds for claim.
- I) As a condition to Physical Completion, the Design-Builder shall return all pass plates issued for the Project or shall account for all unreturned pass plates by identifying the vehicles to which the pass plates were last issued. Certification of Physical Completion cannot be processed until all pass plates have been accounted for. When an uncompleted work agreement is entered into, pass plates must be accounted for prior to return of the deposit.
- J) An administrative charge of \$50.00 will be deducted from monies owed to the Design-Builder for each pass plate not returned to the Authority upon Physical Completion.

Design-Builder should make a written request to the Authority's Project Manager for the number of pass plates required for the Project upon receipt of notification of the pre-award conference. Additional pass plates will be available later upon request.

DB 109-7 REVIEW AND PROCESSING OF REQUESTS FOR PERIODIC PAYMENT

Upon receipt of a request for periodic payment, the Authority's Project Manager will proceed in accordance with this DB §109-7. Any adjustments by the Authority'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 payment certificate 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 109-7.1 Payment Limitations; Partial Suspension of Payments; Stipend Credit

- A) Fifty percent of the mobilization Price Center may be invoiced following issuance of the Notice to Proceed, with an additional 25% invoiced four months after issuance of the Notice to Proceed, and the remaining 25% invoiced eight months after issuance of the Notice to Proceed. There will be no advance payments or payments for mobilization except as specified in the Schedule of Prices.
- B) The Authority will not pay for construction Work, including Work being paid on a force account basis, unless the following conditions are met:
 - 1) Design Plans and Project Specifications that have been released for construction per DB §111-11, are on site for the Work being constructed;
 - 2) Design Plans and Project Specifications have been checked and reviewed in accordance with DB §111-11 and design documentation maintained in accordance with DB §111-16;
 - 3) Construction Work has been inspected and sampling and testing conducted in accordance with DB §112;
 - 4) Items covered by Non-Conformance Reports issued by the Authority, the Design Quality Assurance Manager or Construction Quality Assurance Manager are corrected and/or resolved to the satisfaction of the Authority; and
 - 5) Construction documentation is completed and records and reports submitted and/or retained in accordance with DB §112.
- C) No payment will be made under Price Centers or Orders on Contract being paid on a force account basis for design or construction Work necessitated to correct deficiencies noted on a non-conformance report. The Design-Builder shall clearly delineate in its records and on the force account report (see DB §109-9.2), personnel and equipment used on any corrective force account Work on such deficiencies.
- D) Any payment previously made by the Authority to the Design-Builder pursuant to the Stipend Agreement shall be credited as a payment under the Contract, offsetting the first payment(s) otherwise owing under the Contract.

DB 109-7.2 Certification for Periodic Payment

Within 14 days of receipt of a request in accordance with DB §109-6, the Authority's Project Manager shall issue to the Authority, with a copy to the Design-Builder, a periodic payment certificate (Form CONR30b-DB) showing the amount the Authority's Project Manager considers payable by the Authority 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 Schedule of Prices; and
- B) The amounts determined by the Authority'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 Order on Contract; 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 revision of the Schedule of Prices under DB §§109-1.1 and 109-4;

less:

- C) Any amounts certified for payment on certificates previously issued; and
- D) Any amounts recoverable from the Design-Builder in accordance with the Contract, including any amount withheld 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 Project Schedule that the Authority's Project Manager has accepted.

At the same time, the Authority's Project Manager shall countersign the application for payment based on the draft submitted by the Design-Builder pursuant to DB §109-6, amended as necessary, certifying the progress which the Authority's Project Manager considers the Design-Builder to have achieved. The Authority's Project Manager shall have power to omit from any such certificate the value of any Work which, in the view of the Authority's Project Manager, fails to fully comply with all applicable Contract requirements. The Authority's Project Manager may by any certificate delete, correct, or modify any sum or statement of fact previously certified by him or her.

DB 109-7.3 Cap on Periodic Payment

At no time shall the Design-Builder's cumulative total progress payments exceed the cumulative total expenditure shown on the Contract Periodic Payment Schedule. The initial PPS-C described in DB §109-1.2 hereto is subject to revision from time to time as appropriate to account for any changes in the Contract Price as evidenced by Orders on Contract.

DB 109-7.4 Payment by Authority

Within 30 days after receipt by the Authority of an acceptable request for periodic payment (such acceptability as determined by the Authority), the Authority will pay the Design-Builder the amount of the request approved for payment by the Authority's Project Manager and less any amounts that the Authority is otherwise entitled to withhold. In no event shall the Authority have any obligation to pay the Design-Builder any amount which would result in payment for any activity in excess of the value shown on the PPS-C.

DB 109-7.5 [Reserved]

DB 109-7.6 Pay Adjustment for Non-Conforming Work

In accordance with DB §109-7.1(B)(4), a portion of the payment otherwise due for an item of Work may be withheld while a Non-Conformance Report is outstanding for that item.

The Authority may, at its sole discretion, agree to permit deficient Work to remain in place without requiring it to be fully corrected, in which case Authority shall be entitled to reimbursement of a portion of the Contract Price in an amount equal to the greater of the amount deemed appropriate by Authority to provide compensation for future maintenance and/or other costs relating to the deficient Work, or 100% of Design-Builder's cost savings associated with its failure to perform the Work in accordance with Contract requirements. Such reimbursement shall be payable to Authority within 10 days after Design-Builder's receipt of an invoice therefor. Design-Builder acknowledges and agrees that Authority shall have sole discretion in determining the amount payable in connection with the deficient Work. No agreement by the Authority to allow deficient Work to remain in place shall relieve the Design-Builder of its Warranty obligations under the Contract.

DB 109-8 [RESERVED]

DB 109-9 EXTRA WORK, FORCE ACCOUNT WORK, AND RECORD KEEPING

DB 109-9.1 Contract Item Changes

The Authority 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. In general, adjustments to the Contract Price or other commercial terms of the Contract shall be based on negotiations between the Design-Builder and the Authority, except that if all of the Work in a Price Center is deleted, the total Price Center amount shall be deducted from the Contract Price. The foregoing shall not affect Authority's rights under the *Agreement, Article 1.2*, with respect to determination of Option Amounts or to order new items of Work based upon pricing established pursuant to DB § 109-9.2.

DB 109-9.2 New Item Charges

DB 109-9.2.1 Agreed Prices

Subject to *the Agreement, Article 1.2*, with respect to determination of Option Amounts, agreed prices for new items of Work may be incorporated in the Order on Contract as the Authority may deem them to be just and fair and beneficial to the Authority. These prices must be supported by a complete price analysis in the Order on Contract, or if approved by the Authority'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 §109-9.2.2 unless some other basis is approved by the Authority. Agreed prices may be lump sum or unit priced. Agreed price submissions by the Design-Builder must be accepted in writing prior to the commencement of work. In the event the prices have not been accepted, the Design-Builder shall comply with the recordkeeping provisions contained in DB §109-9.2.3.

DB 109-9.2.2 Force Account Charges

- A) Design-Builder Charges. Where there are no applicable Unit Prices for extra Work ordered and agreed prices cannot be readily established or substantiated, the Design-Builder shall be paid the actual, verifiable and reasonable cost of the items listed below. The Design-Builder shall maintain and submit force account records in accordance with DB §109-9.2.3 – Force Account Reports.

- 1) Necessary construction and non-construction labor costs including supplemental benefit payments. Each class of labor shall be billed separately at actual payroll rates. Average rates based on different classes of labor will not be accepted.
- 2) Necessary material (including transportation to the Site). Material is all product incorporated in the temporary or permanent Work. The following items consumed in progressing the Work are also considered to be material for which reimbursement with an allowance for profit and overhead will be made. The items are oxygen, acetylene, propane, welding rods, grinding wheels, saw blades, hammer and drill bits, drill steel, and tooth-bits. Separate reimbursement will not be made for all other products which may be consumed in progressing the Work and reimbursement for these items is considered to be included in the reimbursement for overhead. Material used, if acquired by direct purchase, must be documented by bills or acceptable invoices. All prices on used material incorporated in either temporary or permanent Work shall be billed at a fair value, less than the original cost when new. A reasonable salvage credit shall be given for substantial salvageable material recovered. Salvage value of substantial material recovered shall be determined by the Authority's Project Manager in coordination with the Design-Builder.
- 3) Necessary payroll taxes and insurance payments and other such reasonable charges that are paid by the Design-Builder pursuant to the Project Labor Agreement.
- 4) Sales taxes, if any, required to be paid on material not permanently incorporated into the Work under an Order on Contract.
- 5) Equipment, truck, and plant rentals, other than small tools. The Design-Builder shall be reimbursed for the number of hours that the equipment, truck, or plant is actually used on a specified force account job. Equipment used by the Design-Builder shall be specifically described by the manufacturer, model number, and date of manufacture 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 rate than the equipment suitable for the Work, payment will be made at the rate applicable to the suitable equipment. The equipment actually used and the suitable equipment upon which the rental rate is based will be recorded as a part of the record for force account Work. The Authority's Project Manager shall 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 will likewise be related to the suitable equipment.
 - a) Design-Builder Owned Equipment, Trucks, and Plant - The Design-Builder shall be reimbursed for its ownership costs and for its operating costs for self owned equipment at the rates listed in "Rental Rate Blue Book for Construction Equipment" published by Primedia Information, Inc. (hereafter referred to as the Blue Book) in effect at the time the work is performed, applied in the following manner:
 - i **Ownership Costs** - The rates for ownership costs reimburse the Design-Builder for all non-operating costs of owning the equipment,

truck, or plant, including depreciation on the original purchase, insurance, applicable taxes, interest on investment, storage, overhead, repairs, moving the equipment onto and away from the Project or Work Site, and profit. Reimbursement will be made for the hours of actual use as described below. Equipment required to be present, but idle, will be paid at 50% of the first shift hourly rate:

- Less than eight hours of actual use, the product of the actual number of hours used or fraction thereof multiplied by the hourly rate, or the daily rate, whichever is less;
 - Between eight hours and 40 hours of actual use, the product of the actual number of hours used divided by eight multiplied by the daily rate, or the weekly rate, whichever is less;
 - Between 40 and 176 hours of actual use, the product of the actual number of hours used divided by 40 multiplied by the weekly rate;
 - Over 176 hours of actual use, the product of the actual number of hours used divided by 176 multiplied by the monthly rate.
- ii **Operating Costs** - The rate for operating costs includes fuel, lubricants, other operating expendables, and preventative and field maintenance. Operating cost does not include the operator's wages. The Design-Builder shall be reimbursed the product of the number of hours of actual use multiplied by the estimated operating cost per hour.
- iii **Rates** - The rates used shall be those in effect at the time the force account Work is done as reflected in the then current publication of "Equipment Rental Rates." When force account type analysis is used to establish agreed prices the rates used shall be those in effect when the agreed price is developed by the Design-Builder and submitted to the Authority's Project Manager.
- iv **Area Adjustment Factor** - The geographic area adjustment factor shown on the map at the beginning of each section of "Equipment Rental Rates" shall not be applied to the equipment rates subsequently listed in each section, and shall not be used as a basis for payment.
- v **Non-Established Rates** - In the event that a rate is not established in "Equipment Rental Rates" for a particular piece of equipment, truck, or plant, the Authority shall establish rates for ownership costs and operating costs for that piece of equipment, truck, or plant that is consistent with its cost and expected life.

- b) Rented Equipment, Trucks, and Plant - In the event that the Design-Builder does not own a specific type of equipment and must obtain it by rental, it shall be paid the actual rental rate for the equipment for the time that the equipment is used to accomplish the Work or is required by the Authority's Project Manager to be present, not to exceed the adjusted rental rate in "Equipment Rental Rates" plus the reasonable cost of moving the equipment onto and away from the Project Site.

The Design-Builder shall also be reimbursed for the operating cost of the equipment unless reflected in the rental price. Such operating cost shall be determined in the same manner as specified for Design-Builder owned equipment above.

In the event that area practice dictates the rental of equipment with an operator or dictates the rental of fully fueled and maintained equipment, truck, or plants, payment will be made on the basis of an invoice for the rental of the equipment with an operator or for fully fueled and/or maintained equipment, trucks, or plants including all costs incidental to its use, including costs of moving to and from the Site, provided the rate is substantiated by area practice.

- c) Maximum Amount Payable - The maximum amount of reimbursement for the ownership costs of Design-Builder owned equipment, trucks, or plant, or the rental cost of rented, equipment, trucks, or plant, is limited to the original purchase price of the equipment, truck, or plant for any force account Work as listed in the Green Guide for Construction Equipment published by Equipment Watch. In the specific event when the ownership or rental reimbursement is limited by the original purchase price, the Design-Builder shall, nevertheless, be reimbursed for the operating cost per hour for each hour of actual use.
- 6) Overhead. For construction labor, overhead will be computed at 10% of items §109-9.2.2(A)(1) Labor (but not including the premium portion of overtime) and §109-9.2.2(A)(2) Materials, and will be defined to include the following:
 - a) Additional premiums for bonds and additional premiums for insurance required by the State other than Workers Compensation Insurance and Commercial General Liability Insurance; and
 - b) All salary and expenses of executive officers, supervising officers/employees, superintendents, and clerical or administrative employees, including payroll taxes, unemployment insurance, workers compensation insurance, and charges that are paid by the Design-Builder to or on behalf of those employees pursuant to written agreement with its employee(s) and/or labor organizations.
 - c) Minor equipment such as small tools, including shovels, picks, axes, saws, bars, sledges, lanterns, jacks, etc., and other miscellaneous supplies and services.

- d) Design-Builder's field office rental, utility charges, potable water, sanitation, cleaning, computers, CADD equipment, drafting equipment, reproduction costs, etc.
 - e) For professional services (including design, utility coordination, permits, professional environmental services and similar aspects of the Work but excluding Work subject to prevailing wage requirements), whether provided by Design-Builder or a Subcontractor, overhead will equal the sum of (1) actual wages (i.e. the base wage paid to the employee exclusive of fringe benefits), plus (2) a labor surcharge of 140% on such amount, which shall constitute full compensation for all state and federal payroll, unemployment and other taxes, workers' compensation, fringe benefits (including health insurance, retirement plans, vacation, sick leave and bonuses) and all other payments made to, or on behalf of, the workers, in excess of actual wages, as well as for overhead including bond and insurance premiums. Overhead shall not be paid on the premium portion of overtime.
- 7) Profit. Profit will be computed at 10% of items §109-9.2.2(A)(1) Labor (but not including the premium portion of overtime) and §109-9.2.2(A)(2) Materials.
- B) Subcontractor Charges. When the Work is performed by a Subcontractor, the Design-Builder shall be paid the actual and reasonable cost of such subcontracted Work as outlined above in DB §109-9.2.2(A) items 1 through 7, plus an additional overhead of 5% of the cost of items §109-9.2.2(A)(1) Labor and §109-9.2.2(A)(2) Materials.
- C) Service Charges. When Work is performed by, and a fee is paid to, a third party service provider, the Design-Builder shall be paid the actual cost of the service charges plus a maximum 5% for Contract supervision, overhead, and profit. This 5% shall be applied once to the service fee regardless of the firm making direct payments to the service provider. For the purposes of this DB §109-9.2.2(C), "service charges" shall be considered to include testing fees, dumping fees, utility charges, and other items not accounted for through the charges for labor, equipment, and material in paragraphs A) and B) of this DB §109-9.2.2. For Work reimbursed under force account procedures, service charge schedules shall be approved by the Authority's Project Manager.

DB 109-9.2.3 Force Account Report

Payment for force account Work will be made on the basis of the following reports.

- A) The Design-Builder will deliver to the Authority's Project Manager a daily summary of force account Work done on the Contract using Forms MURK 11b (DB-C) and/or MURK 11b (DB-D). This summary will be delivered to the Authority's Project Manager not later than closing time on the day following that for which the Work is reported. If the Authority's Project Manager disagrees with the accuracy, applicability, or reasonableness of any portion of a Design-Builder's submission, he/she shall promptly notify the Design-Builder. The Authority's Project Manager will make any notations, remarks or comments on the records that may assist in final payments and then sign and date to indicate receipt, but not necessarily concurrence.

The summary shall contain the following:

- 1) A list of materials used indicating the amount and nature of each material. The cost (if known) should also be included. This must be documented later by proper receipts.
 - 2) A list of equipment used indicating the number of hours used and the kind, type, and size of equipment.
 - 3) A list of personnel (design and construction) by name, including the hours worked, the labor classification at which they were used on the force account Work, and the location of the Work.
 - 4) A statement of the Work accomplished by force account for that day.
 - a) This summary will be dated and signed by the Design-Builder's authorized representative and the Authority's Project Manager.
 - b) The contract number and other identification as well as the name of the Design-Builder shall appear on the statement.
- B) Within five days after the end of each pay period, the Design-Builder shall deliver to the Authority's Project Manager a force account summary of labor used on the Work, using MURK 12c (DB-C) and MURK 12c (DB-D), which shall include the following:
- 1) For construction labor and non-construction labor employed by construction firms, the name, hourly rate of pay, hours worked, fringe benefits, and/or other items as shown on the actual payroll.
 - 2) For other non-construction labor, the name, rate of pay, and the hours worked.
- C) On completion of the specific force account Work, the Design-Builder shall, within 10 days, deliver to the Authority's Project Manager a force account summation, using MURK 13d (DB-C) and MURK 13d (DB-D), wherein all material, equipment, and labor charges are shown and totaled together with such other expenditures as are concerned with the force account item. This summation shall be dated and signed by the Design-Builder's authorized representative and the Authority's Project Manager.
- D) In the event the Design-Builder fails to deliver the required force account documentation to the Authority's Project Manager within the time period specified in DB §109-9.2.3(B), and as a result the Order on Contract for the force account Work is not fully approved at the date of Final Acceptance, the payment due date will be extended by the number of days of delay in issuance of the force account Order on Contract attributable to the Design-Builder's late force account submissions.

DB 109-10 DISPUTE RESOLUTION AND DISPUTED WORK PROVISIONS

It is the goal of the Authority to resolve Disputes that may arise under the Contract in a timely, just, and fair manner consistent with the terms of the Contract. Towards this goal, the Authority is specifying these dispute resolution and disputed Work provisions which the Design-Builder shall be required to follow

prior to commencement of any court action or proceeding relating to any Dispute. The dispute resolution process may be undertaken at any time from the Contract award to the submission of the Final Invoice for payment by the Comptroller. The process recognizes and will take into consideration the risks and controls inherent in construction which the Design-Builder or the Authority has agreed to assume pursuant to the terms of the Contract. The Design-Builder shall continue the work during the pendency of the Dispute.

Disputes of any nature shall be made in strict accordance with the Contract provisions, including the recordkeeping provisions of DB §§104-7, 109-9, 109-10 and 109-15. Strict compliance with all Contract notice provisions, including DB §§104-7, 109-9, 109-10 and 109-15, shall be a condition precedent to bringing of any dispute resolution proceeding, including the administrative process provided by the Contract provisions and any court action or proceeding. If the Design-Builder fails to strictly comply with either the notice or the recordkeeping provisions, any claim of the Design-Builder with respect thereto shall be deemed waived, and the Authority shall not have to show prejudice to its interest before such denial is made. Timely notice and recordkeeping affords the Authority the opportunity to initiate measures, including modification of specifications or deletion of portions of the work, in order to mitigate damages to all parties and/or to agree to terms and conditions for timely payment for any eligible additional costs. The Design-Builder is encouraged, when initiating a Dispute, to provide information concerning measures that may be taken to mitigate the damages.

If the Design-Builder is of the opinion that any work directed by the Authority's Project Manager to be completed as Contract Work is extra work and not Contract Work, or that any order of the Authority's Project Manager exceeds the requirements of the provisions of the Contract, the Design-Builder shall provide the Authority written notice and maintain records in accordance with DB §104-7, Notice and Recordkeeping. After submitting the required notice, the Design-Builder shall complete its Dispute submission as soon as such information is ascertainable by the Design-Builder.

- A) **Determined to Be Contract Work.** If the Authority determines that the disputed work is Contract Work and not extra work, or that the direction given to the Design-Builder and protested was proper, the Authority will direct the Design-Builder to continue the disputed work and the Design-Builder shall promptly comply. The Design-Builder's right to further pursue a Dispute for extra compensation or damages will not be affected in any way by the Design-Builder complying with the directions of the Authority to proceed with the work, provided the Design-Builder continues to keep and furnish the Authority with required records.
- B) **Determined to Be Extra Work.** If the Authority, determines that the disputed work is extra work and not Contract Work, or that a direction given to the Design-Builder and protested was not proper, then a Contract adjustment will be made. Compensation will be made for such work in accordance with DB §109-9 Extra Work, Force Account and Recordkeeping. The Design-Builder shall continue to maintain force account records until receipt of the Order-on-Contract approved by the Office of the State Comptroller. Documented, additional, actual and reasonable costs incurred by the Design-Builder pursuant to following a written order to perform work (that was subsequently contained in an Order-on-Contract which was disapproved) will be considered reimbursable. Eligibility for additional compensation shall cease upon notification of the disapproval of an Order-on-Contract.

DB 109-10.1 Time Related Disputes

With respect to Time Related Disputes, the Design-Builder will only be eligible for extra compensation for expenses or costs which are identified as compensable under DB §109-15.1 Compensable Delays and Changed Conditions. In the event any legal action is instituted against the Authority by the Design-Builder due to any such dispute for additional compensation, whether due to time related dispute, delay, acceleration, breach of contract, or otherwise, the Authority's liability will be limited to those items which are specifically identified as compensable under §109-10.2A Recoverable Contractor Costs. Nothing in this subsection is intended to create any liability of the Authority not existing at common law or pursuant to the terms of this contract or to prevent the Design-Builder from filing a claim in the New York State Court of Claims after the dispute resolution procedure enumerated in DB §109-10.7 has been complied with. The remedies contained herein are exclusive.

Whenever the Design-Builder believes that it is or will be entitled to additional compensation for Time Related Disputes, whether due to delay, extra Work, disputed Work, breach of the Contract, or other causes, the Design-Builder shall follow the procedures set forth in this DB §109-10.1. All Subcontracts or supply or equipment contracts shall incorporate the provisions of this DB §109-10.1. If such Subcontracts or supply or equipment contracts do not have similar provisions, then the Authority payments to the Design-Builder for such Subcontract or supply or equipment shall be limited to only those payments that would be allowed under the provisions of this DB §109-10.1 as if it were in effect for such Subcontract or supply or equipment contract.

- A) This DB §109-10.1 is intended to cover all such events which include termination for convenience (DB §105-7), major deductions or increases in scope of Work, and suspension of Work (DB §105-1), as well as actions, forces, or factors, whether they be termed "delay," "disruption," "interference," "inefficiencies," "impedance," "hindrance," "acceleration," or otherwise.
- B) Strict compliance with the notice provisions and the record keeping provisions of this DB §109-10.1 shall be an essential condition precedent under the Contract to any recovery of time related damages by the Design-Builder whether it be under the Contract provisions, court actions and proceedings, or otherwise.
- C) Except for situations that come within the terms of DB §109-15, within 10 work days after the Design-Builder has knowledge or should have had knowledge of an event, matter, or occasion that will result in time related damages, the Design-Builder must provide the Authority's Project Manager with written notice of a Dispute for time related damages.
- D) The Authority shall have no liability and no adjustment will be made for any time related damages which accrued more than 10 work days prior to the filing of such a notice with the Authority's Project Manager. Failure of the Design-Builder to give such written notice in a timely fashion will be grounds for denial of the Dispute and the Authority does not have to show prejudice to its interest before such denial is made, in the event the Design-Builder fails to provide the required written notice within the 10 work day period. In the event the Design-Builder fails to maintain and submit such specified records, the Design-Builder hereby agrees to waive the Dispute for compensation, notwithstanding the fact that the Authority may have actual notice of the facts and circumstances which comprise such Dispute and is not prejudiced by said failure.

- E) The Design-Builder may not maintain a Dispute for costs associated with acceleration of the Work unless the Authority has given prior express written direction by the Authority's Project Manager to the Design-Builder to accelerate its effort. The Design-Builder shall always have the basic obligation to complete the Work in the time frames set forth in the Contract. For purposes of this DB §109-10.1, lack of express written direction on the part of the Authority shall never be construed as assent. If the Design-Builder does accelerate its Work efforts pursuant to a written order or express written Approval by the Authority's Project Manager, the Design-Builder shall be compensated for its effort in the same manner and as limited by DB §109-10.2. Any claim for a "constructive acceleration" is subject to the requirements of this DB §109-10.1.
- F) As directed by the Authority's Project Manager, the Work shall continue during the pendency of the Dispute.
- G) If time related damages are presumed to have been incurred, and after giving the Authority notice of a Dispute for time related damages, the Design-Builder must keep daily records, certified by the Design-Builder's Design Quality Assurance Manager and/or the Construction Quality Assurance Manager, of all labor, material, and equipment costs and hours incurred for the affected operations, including overhead costs. These daily records must identify each operation affected and the specific locations where Work is affected. Costs that are incurred on a monthly or similar basis, such as field office expense, shall be submitted within one week following the week of receipt of invoices pertaining thereto. On a weekly basis, beginning the week following the date of giving notice of a Dispute for time related damages, the Design-Builder shall meet with the Authority's Project Manager and present the daily records for the preceding week. If the Authority's Project Manager disagrees with the accuracy, applicability, or reasonableness of any portion of the Design-Builder's submission, he/she shall promptly notify the Design-Builder who shall correct its records. If there is a Dispute as to records, the Design-Builder must follow the requirements of DB §109-10.4. Lack of substantial compliance with the requirements to hold monthly meetings or present its records will constitute a waiver by the Design-Builder of said Dispute for time related damages.
- H) After giving notice of a Dispute for time related damages, the Design-Builder shall prepare and submit to the Authority's Project Manager, weekly written reports until complete resolution of the Dispute, which shall be available at the next scheduled job meeting, providing the following information:
 - 1) Potential effect to the Design-Builder's schedule caused by the Time Related Dispute;
 - 2) Identification of all operations that have been affected or delayed, or are or may be affected or delayed;
 - 3) Explanation of how the Authority's act or omission affected or delayed each operation and estimation of how much more time is required to complete the Project;
 - 4) Itemization of all extra costs being incurred, including the following:

- a) An explanation as to how those extra costs relate to the effect or delay and how they are being calculated and measured;
 - b) Identification of all Project employees for whom costs are being compiled; and
 - c) Identification of all manufacturer's numbers of all items of equipment for which costs are being compiled.
- I) In addition, after submitting the required notice specified in this DB §109-10.1, the Design-Builder shall complete its Dispute submission by complying with DB §109-10.8, when such information is ascertainable by the Design-Builder, and DB §109-10.9.
- J) Following receipt of the materials described above, the Authority's Project Manager shall make the initial determination in writing on the Dispute.
- K) If the Design-Builder accepts the Authority's Project Manager's determination, including deemed acceptance due to failure to proceed in accordance with DB §109-10.6, the Authority's Project Manager will process an Order on Contract, as appropriate, to implement his or her determination. The Authority's Project Manager will notify the Design-Builder in writing of the date upon which the Authority has approved the Order on Contract.

See DB §§109-10.6 and 109-10.7 for the process to be followed in the event that the Design-Builder does not accept the determination made by the Authority's Project Manager. If the Design-Builder fails to proceed in accordance with DB §109-10.6, it shall be conclusively deemed to have accepted the determination made by the Authority's Project Manager.

DB 109-10.2 Time Related Dispute Compensation

- A) Recoverable Contractor Costs. Only the following elements will be recoverable by the Design-Builder as time related dispute compensation, and will only be recoverable provided that they are actual and reasonable. Any such adjustment will be made via Order on Contract. Escalated costs will include unanticipated higher or lower costs attributable, with appropriate credits, to the performance of Work or portions of Work in an extended time period due to extenuating circumstances beyond the control of the Design-Builder. Extra Work required due to a time related dispute shall be accounted for and reimbursed in accordance with DB §109-9.2.2 Force Account Charges, less any appropriate credit.
- 1) Labor. Documented escalated labor costs determined in accordance with DB §109-9.2.2.A.1;
 - 2) Materials. Documented escalated material costs determined in accordance with DB §109-9.2.2.A.2;
 - 3) Equipment. Documented escalated equipment costs less appropriate credits, determined in accordance with DB §109-9.2.2.A.5. The ownership cost for idle equipment will be 50% of the rate set forth in §109-9.2.2.A.5. Idle time shall not

exceed 8 hours per day, 40 hours per week, or the annual usage hours established in the "Blue Book." No operating costs will be paid for idle equipment;

- 4) **Field Office Costs.** Fees paid to service provider(s) for required field office rental, utility charges, potable water, sanitation, cleaning, etc. The Design-Builder will be paid the actual cost of the service fee plus 5% for contract supervision, overhead and profit. This 5% will be applied once to the service fee regardless of the firm making direct payments to the service provider;
 - 5) **Extended Contract Site Overhead.** Documented additional or escalated contract site overhead costs during the extended period, including superintendent, office engineer and clerical staff, but not including working foremen;
 - 6) **Home Office Overhead.** Home office overhead equal to 10% of the total of items DB §109-9.2.2A.1 and DB §109-9.2.2A.2;
 - 7) **Profit.** Profit of 10% of the total of items (1), (2), (3), and (4), above, except no profit or anticipated profits will be allowed when any of the following sections apply: (a) DB §104-3.2 Significant Changes in Character of the Work; (b) DB §104-4 Changes in Basic Project Configuration; Utility Relocations; Hazardous Materials; Environmental Mitigation; (c) DB §104-5 Differing Site Conditions; or (d) §109-15.2 Suspensions of Work Ordered by the Authority's Project Manager;
 - 8) **Insurance and Bond Costs.** Documented additional or escalated premiums on bonds and insurance for the extended period;
- B) **Recoverable Subcontractor Costs.** When the Work is performed by a Subcontractor, the Design-Builder shall be paid the actual and reasonable cost of such subcontracted Work as outlined above in (1) through (7) and an additional overhead of 5% of the Subcontractor costs outlined in (1) through (3) above
- C) **Non-Recoverable Costs.** The parties agree that, in any Dispute for time related damages, the Authority will have no liability for the following items and the Design-Builder further agrees it shall make no claim for the following items:
- 1) Overhead in excess of that provided in DB §§109-10.2(A)(4), 109-10.2(A)(5), 109-10.2(A)(6) and 109-10.2(B);
 - 2) Profit, in excess of that provided in DB §§109-10.2(A)(4), 109-10.2(A)(7) and 109-10.2(B);
 - 3) Loss of anticipated or unanticipated profit;
 - 4) Labor inefficiencies and loss of productivity;
 - 5) Consequential damages, including interest which is paid on such monies; loss of bonding capacity, bidding opportunities, interest on investment; or any resultant insolvency;

- 6) Indirect costs or expenses of any nature;
 - 7) Direct or indirect costs attributable to performance of the Work where the Design-Builder, because of situations or conditions within its control, has not progressed in a manner satisfactory to the Authority's Project Manager; and
 - 8) Attorney's fees and dispute or claims preparation expenses;
 - 9) Joint venture costs and expenses.
- D) Remedies Exclusive. With respect to Time Related Dispute compensation provisions, the parties agree that the Authority shall have no liability to the Design-Builder for expenses, costs, or items of damage other than those which are specifically identified as payable under DB §109-10.2. In the event any legal action is instituted against the Authority by the Design-Builder on account of any such dispute for additional compensation, whether on account of Time Related Dispute, delay, acceleration, breach of contract, or otherwise, the Design-Builder agrees that the Authority's liability will be limited to those items which are specifically identified as compensable under this DB §109-10.2. The Design-Builder further agrees to make no claim for expenses other than those which are specifically identified as compensable under DB §109-10.2(A) or (B). Nothing in this DB §109-10.2 is intended to create any liability of the Authority not existing at common law or pursuant to the terms of this Contract or to prevent the Design-Builder from filing a claim in the New York State Court of Claims after the dispute resolution procedure enumerated in DB §109-10.7 has been complied with.

DB 109-10.3 Reserved

DB 109-10.4 Disputed Work

If the Design-Builder is of the opinion that any Work ordered by the Authority's Project Manager to be done as Contract Work is extra Work and not Contract Work, or that any order of the Authority's Project Manager exceeds the Work requirements of the provisions of the Contract, the Design-Builder shall promptly, within 10 work days of receipt of the order or direction, notify the Authority's Project Manager in writing of its contentions thereto. The Design-Builder must progress the Work as required and ordered. In addition, after submitting the required notice specified in this DB §109-10.4, the Design-Builder shall complete its Dispute submission by complying with DB §109-10.8, when such information is ascertainable by the Design-Builder, and DB §109-10.9. This DB §109-10.4 shall cover all such applicable extra Work under DB §109-15.

Following receipt of such notification, the Authority's Project Manager shall determine whether such Work is extra Work in accordance with DB §104-3. If the Authority's Project Manager determines that the Work in question is Contract Work and not extra Work or that the order complained of is proper, he/she shall direct the Design-Builder to continue the disputed Work and the Design-Builder must promptly comply.

The Design-Builder's right to pursue a Dispute under this DB §109-10.4 for extra compensation or damages will not be affected in any way by the Design-Builder's complying with the directions of the Authority to proceed with the Work, provided the Design-Builder continues to keep and furnish the Authority's Project Manager with force account reports as specified in DB §109-9.2.3.

If the Authority's Project Manager determines that such Work is extra Work and not Contract Work or that the order complained of is not proper, then the Authority's Project Manager shall have prepared, if necessary, an Order on Contract covering such Work as soon as is practical after the determination is made. Payment will be made for such Work via agreed price or force account pursuant to DB §109-9.2.2. The Authority's Project Manager will notify the Design-Builder in writing of the date upon which the Authority has approved the Order on Contract. Performance of Work until receipt of the Order on Contract by the Design-Builder shall be considered disputed Work. The Design-Builder must progress the Work of the Contract, including the Work covered by any such Order on Contract, as directed by the Authority's Project Manager.

During the progress of any disputed Work, the Design-Builder and Authority's Project Manager shall keep daily records and make reports of all labor, material, and equipment used in connection with such Work and the cost thereof as specified in DB §109-9.2.2.

Adjustments to Contract items, adjustments to the time of performance, or the addition of new items to the Contract necessitated by such determination may be made up until the time the Final Supplemental Agreement is submitted for payment to the Comptroller, provided that all the requirements of DB §§109-9 and 104-3 are complied with. In addition, if the Authority's Project Manager issues written notification under DB §104-3.1 that changes in the Work are eligible and authorized for payment, any documented, additional, actual, and reasonable costs incurred by the Design-Builder pursuant thereto will be reimbursable even if the Authority fails to issue a subsequent Order on Contract with respect to such Work. This Work will be considered disputed Work for which the Design-Builder will be compensated. Eligibility for compensation shall cease upon notification that the Authority will not issue the Order on Contract. Failure by the Design-Builder to promptly notify, in writing, the Authority's Project Manager, as provided in this DB §109-10.4, of its contentions relative to any Dispute, or any failure to maintain and furnish force account reports for disputed Work, shall constitute a waiver of the disputed Work.

See DB §§109-10.6 and 109-10.7 for the process to be followed in the event that the Design-Builder does not accept the determination made by the Authority's Project Manager. If the Design-Builder fails to proceed in accordance with DB §109-10.6, it shall be conclusively deemed to have accepted the determination made by the Authority's Project Manager.

DB 109-10.5 Auditing of Records

The Design-Builder must have the following records available for audit at any time following the filing of a Dispute, whether or not such Dispute is part of a suit pending in the courts of this State, and upon request shall provide a true and complete copy of any and all such records to the Authority. If a Dispute is filed on behalf of a Subcontractor or Supplier, such Subcontractor or Supplier must also have the following records available for audit any time following the filing of such Dispute, whether or not such Dispute is part of a suit pending in the courts of this State. The audit may be performed by employees of the Authority or by an independent auditor appointed by the Authority. The audit may begin on 10 work days' notice to the Design-Builder, Subcontractor, or Supplier as is appropriate. The Design-Builder, Subcontractor, or Supplier shall cooperate with the auditors. The Authority will maintain the audit, its backup, reports, schedules, and conclusions as confidential material. Failure of the Design-Builder, Subcontractor, or Supplier to maintain and retain sufficient records shall constitute a waiver of that portion of such Dispute that cannot be verified and shall bar recovery.

Without limiting the generality of the foregoing, the auditors shall have available to them, and the Design-Builder agrees to provide access to, the following documents:

- A) Daily time sheets, job superintendent diaries or log sheets, and foreman's daily reports.
- B) Union agreements and reports, if any.
- C) Insurance policies, welfare and benefits records, or plans for union and non-union personnel.
- D) Payroll register.
- E) Individual employee earnings records.
- F) Payroll tax returns.
- G) Material invoices, purchase orders, and all material and supply acquisition contracts.
- H) Material cost distribution work sheet.
- I) Equipment records (list of company equipment, rates, depreciation schedules, daily equipment reports or logs, fueling logs or records, equipment lease/purchase agreements, and equipment purchase invoices).
- J) Vendor rental agreements and Subcontractor invoices, agreements, and back charge records.
- K) Subcontractor payment certificates.
- L) Canceled checks (payroll and vendors).
- M) Job cost ledger or report.
- N) Job payroll ledger, petty cash journal, and supporting vouchers.
- O) General ledger, general journal (if used), and all subsidiary ledgers and journals together with all supporting documentation pertinent to entries made in these ledgers and journals.
- P) Cash receipts, cash disbursements journal, and purchase journal.
- Q) Audited and unaudited financial statements for all years reflecting the operation on this Project.
- R) Depreciation records on all company equipment whether such records are maintained by the company involved, its accountant, or others.
- S) If a source other than depreciation records is used to develop costs for the Design-Builders internal purposes in establishing the actual cost of owning and operating equipment, all such other source documents.
- T) All documents which reflect the Design-Builders actual overhead during the years this Project was being performed.

- U) All documents related to the preparation of the Design-Builder's Proposal including the final calculations on which the Proposal was based.
- V) All documents related to each Dispute together with all documents which support the amount of damages as to each Dispute.
- W) Work sheets used to prepare the Dispute establishing the cost components for items of the Dispute including, labor, benefits and insurance, material, equipment, and Subcontractors and all documents which establish the time periods, the individuals involved, and the hours and rates for the individuals.

In the event the Design-Builder fails to substantially furnish the above required reports and accounting records, such failure shall constitute a waiver of the Dispute for additional payment.

DB 109-10.6 Disputes Not Resolved by the Determination of Authority's Project Manager

If the Design-Builder considers a Dispute unresolved after receipt of the determination from the Authority's Project Manager under DB §109-10.1 or 109-10.4, or if it disagrees with the Option Amount specified in any Order on Contract issued by the Authority under the *Agreement, Article 1.2.3(2)*, or any time extension specified in any Order on Contract issued by the Authority under the *Agreement, Article 1.2.3(3)*, the Design-Builder may notify the Authority's Director of Office of Construction Management in writing of its position relative to the Dispute, within 10 work days after receipt of the determination from the Authority's Project Manager. The Director of Office of Construction Management shall then make a determination in writing on the Dispute after consideration of all records pertaining to the Dispute and the decision of the Authority's Project Manager. The Director of Office of Construction Management shall not be bound by the decision of the Authority's Project Manager.

If the Design-Builder considers the issue still unresolved, it shall, within 10 work days after receipt of the determination from the Authority's Director of Office of Construction Management, notify the Authority in writing of its position relative to the Dispute. Such notice shall be delivered to the Chief Engineer, with copies to the Authority's Project Manager and Director of Office of Construction Management. For Disputes with a value of at least \$100 million or three percent of the total Contract Price, whichever is higher, a copy shall also be delivered to the Executive Director.

If no such notice is timely delivered, the Dispute shall be considered as conclusively resolved by the determination of the Authority's Director of Office of Construction Management. In such event, an Order on Contract will be issued, as appropriate, to implement the determination of the Director of Office of Construction Management, as soon as is practical after the determination is made. Payment will be made for such Work via agreed price or force account pursuant to DB §109-9.2.2. The Authority's Project Manager will notify the Design-Builder in writing of the date upon which the Authority has approved the Order on Contract. Performance of Work until receipt of the Order on Contract by the Design-Builder shall be considered disputed Work. The Design-Builder must progress the Work of the Contract, including the Work covered by any such Order on Contract, as directed by the Authority's Project Manager.

DB 109-10.7 Disputes Not Resolved by Director of Office of Construction Management

In the event that a Dispute with a value of at least \$100 million or three percent of the total Contract Price is still unresolved following a determination by the Director of Office of Construction Management, after all of the Work that is the subject of the Dispute is substantially completed, the Design-Builder may bring

the Dispute to the Executive Director for determination by delivering a further written notice requesting same within 10 work days after the subject Work is substantially completed. In making a determination, the Executive Director shall seek the advice of an advisory committee consisting of the Commissioner or duly-appointed designee, New York Division Administrator of the FHWA or duly-appointed designee, and a member of the construction industry chosen by the Executive Director. The advisory committee shall make a recommendation after considering all records pertaining to the Dispute. In its discretion, the advisory committee may conduct an oral hearing in order to hear the positions of the Authority and Design-Builder. At such oral hearing, both the Authority and Design-Builder shall have an equal opportunity to present their respective positions to the advisory committee. Each party shall also have the opportunity for one rebuttal limited to the scope of the opposing party's presentation. Each party shall be represented by an authorized representative and may have the opportunity to have experts participate on its behalf if permitted by the advisory committee.

The Executive Director shall provide a written determination to the Design-Builder within 30 days of receiving the recommendation of the advisory committee. The Executive Director shall not be bound by the recommendation of the advisory committee. Any determination made by the Executive Director in favor of the Authority is subject to reconsideration and shall not be considered the Authority's final and binding decision.

If the Executive Director makes a determination in favor of the Design-Builder, the decision will be considered binding as to entitlement, but his or her determination regarding the amount authorized will be considered non-binding and subject to the Authority's final and binding decision, issued as specified below. In such event an interim Order on Contract will be issued and payment made thereon in accordance with the Contract, provided that the Authority shall not make any payments to the Design-Builder in excess of the Contract Price (excluding any increases due to interim Orders on Contract) unless payment of such excess amounts shall have been approved in writing by the Surety on each Performance Bond and Payment Bond.

If as of the date of Final Acceptance, any Disputes remain unresolved, such Disputes shall be considered by the Authority's Chief Engineer and General Counsel or their designees following Final Acceptance, as part of an administrative settlement process reach a final and binding decision regarding these Disputes, interim payments made pursuant to an Order on Contract as a result of a determination made by the Executive Director as described above, and any other matters of equity that do not necessarily fit neatly within the bounds of the Disputed Work clauses of this DB Section 100. The Design-Builder shall be required to submit to the Chief Engineer and General Counsel a list of Disputes to be considered at this meeting and shall present information on each issue on the agenda. Design-Builder's presentations should include any new facts and findings, and should focus on the reasons why the Design-Builder believes Disputed Work determinations at the previous levels were not justified. Any subsequent Contract modification is subject to approval by the State Comptroller. The Design-Builder will be notified of the Authority's final and binding decision in writing.

The Design-Builder shall be required to exhaust its administrative remedies under this DB §109-10, including the steps enumerated in DB §§109-10.1, 109-10.4 and 109-10.6, as well as obtaining a final and binding decision from the Authority under this DB §109-10.7, before commencing any court action or proceeding, and shall affirmatively plead compliance with this condition precedent in any complaint or petition.

DB 109-10.8 Required Content of Dispute Submission

All Disputes must be submitted in writing to the Authority's Project Manager, and must be in sufficient detail to enable the Authority's Project Manager to ascertain the basis and the amount of each Dispute. As a minimum, the following information must be provided when such information is ascertainable by the Design-Builder:

A) Time Related Dispute Submissions.

- 1) A description of the operations that were delayed, the reasons for the delay, and how they were delayed, including the report of all scheduling experts or other consultants, if any.
- 2) An as-built chart, critical path method scheme meeting the requirements of the Contract scheduling requirements, and any other appropriate diagrams or charts depicting in graphic form how the operations were or are presumed to be adversely affected.
- 3) The date on which actions resulting in the Dispute occurred or conditions resulting in the Dispute became evident.
- 4) A copy of the notice of Dispute required per DB §109-10.1(C) for the specific Dispute by the Design-Builder.
- 5) To the extent known, the name, function, and activity of each official, employee, or agent of the Authority involved in, or knowledgeable about, facts that gave rise to such Dispute.
- 6) The name, function, and activity of each Design-Builder or Subcontractor official or employee involved in, or knowledgeable about, facts that gave rise to such Dispute.
- 7) The identification of any pertinent documents, and the substance of any material oral communication relating to such Dispute.
- 8) A statement as to whether the additional compensation or extension of time, if requested, is based on the provisions of the Contract or is an alleged breach of the Contract.
- 9) The amount of additional compensation sought and a breakdown of that amount into the categories specified as payable under DB §109-10.2 above.
- 10) If an extension of time is also requested, the specific days for which it is sought and the basis for such request as determined by an analysis of the Baseline Project Schedule.

B) For Other Disputes Including Acceleration Disputes.

- 1) A detailed factual statement of the Dispute providing all necessary dates, locations, and items of Work affected by the Dispute.

- 2) The date on which actions resulting in the Dispute occurred or conditions resulting in the Dispute became evident.
- 3) A copy of the notice of dispute required for the specific Dispute by the Contract pursuant to DB §109-10.4.
- 4) The name, function, and activity of each official, employee, or agent of the Authority involved in, or knowledgeable about, facts that gave rise to such Dispute.
- 5) The name, function, and activity of each Design-Builder or Subcontractor official, employee, or agent involved in or knowledgeable about facts that gave rise to such Dispute.
- 6) The specific provisions of the Contract which support the Dispute and a statement of the reasons why such provisions support the Dispute.
- 7) The identification of any pertinent documents and the substance of any material oral communications relating to such Dispute.
- 8) A statement as to whether the additional compensation or extension of time requested is based on the provisions of the Contract or an alleged breach of the Contract.
- 9) If an extension of time is also requested, the specific days for which it is sought and the basis for such request as determined by an analysis of the construction schedule.
- 10) The amount of additional compensation sought and a breakdown of that amount shall conform to the requirements of DB §109-10.2.

DB 109-10.9 Required Certification of Disputes

When submitting any Dispute over \$50,000, the Design-Builder must certify in writing, under oath, and in accordance with the formalities required by the Contract, as to the following:

- A) That supporting data is accurate and complete to the Design-Builder's best knowledge and belief; and
- B) That the amount of the Dispute and the Dispute itself accurately reflects what the Design-Builder in good faith believes to be the Authority's liability.
- C) If the Design-Builder is an individual, the certification shall be executed by that individual.
- D) If the Design-Builder is not an individual, the certification shall be executed by the following:
 - 1) A senior company official in charge at the Design-Builder's plant or location involved; or

- 2) An officer or general partner of the Design-Builder having overall responsibility for the conduct of the Design-Builder's affairs.

DB 109-11 ACCEPTANCE AND SUBSTANTIAL COMPLETION

DB 109-11.1 Partial Acceptance of Units or Portions of the Project

If at any time during the prosecution of the Project the Design-Builder satisfactorily completes a unit or portion of the Project, such as maintenance facilities, the Design-Builder may request the Authority's Project Manager to make a detailed Inspection of that unit to determine whether it is substantially complete. A copy of the detailed Inspection list will be furnished to the Design-Builder. When this Inspection progresses over any length of time, copies of the list will be furnished as the Inspection progresses so that the Design-Builder may proceed with the required Work without delay. If the Authority's Project Manager finds upon Inspection that the unit has been satisfactorily completed in compliance with the Contract, the Authority's Project Manager may issue a notice of Substantial Completion.

Following Substantial Completion of any unit, the Authority may accept that unit as being completed, and relieve the Design-Builder of maintenance responsibility with respect to such unit. Such agreement shall in no way void or alter the terms of this Contract. The Design-Builder will remain responsible for correction of any defects discovered prior to Physical Completion of the Work, and will also remain responsible for Warranties with respect to such Work hereunder. Devices intended to be used for traffic safety and control that are permanently installed in their final position with all ancillary components and being used by the traveling public shall be accepted when installed in accordance with the Design Plans and Project Specifications, prior to completion of the remaining Work on the job.

Permanently installed items accepted on this basis are limited to guardrails, impact attenuators, traffic signal systems, signs, lighting, raised pavement markers, concrete wall barriers, concrete bridge parapets, bridge railings, guard cable, guardrail anchorages, permanent pavement markings, and fencing. All required performance tests and guarantees shall remain applicable.

The Design-Builder shall erect the items in a logical sequence and time frame within the life of the Project, and items constructed prematurely will not be accepted until such time in the life of the Project that the device becomes effective for its intended use.

If the Authority accepts any items for maintenance prior to Physical Completion, and such items are thereafter damaged, stolen or vandalized by the public, such items will be repaired or replaced either by the Authority or by the Design-Builder pursuant to Order on Contract issued under DB §104-3. If the damage to such an item requires only partial repair or replacement and the Work is to be done by the Design-Builder, payment shall be made as provided in DB §109-9.2. Items damaged due to negligence of the Design-Builder shall be repaired or replaced at no cost to the Authority.

DB 109-11.2 Substantial Completion of Westbound Bridge and Crossing

Design-Builder shall notify the Authority in writing when all of the elements of Substantial Completion of the Westbound Bridge or the Crossing (as applicable) have occurred and the Design-Builder considers that the Westbound Bridge or Crossing (as applicable) is substantially complete.

Prior to receiving a certificate of Substantial Completion, the Design-Builder must complete any specified training for the Authority's personnel.

Within seven days of receipt of the Design-Builder's written application for a certificate of Substantial Completion, the Authority's Project Manager, in the company of the Design-Builder, will inspect the Westbound Bridge or Crossing, as applicable. During the Inspection, the Work will be examined and QC/QA and close out status of Non-Conformance Report QA documentation will be reviewed. The Authority's Project Manager will prepare a written list of outstanding items, if any, to be completed or corrected before issuance of the certificate of Westbound Bridge Substantial Completion or Crossing Substantial Completion, as applicable, and a separate written list of items to be completed or corrected, specifying whether such items are required to be completed by a subsequent Contract Deadline. The list shall be included in the QA/QC documentation with an agreed date of correction for each deficiency.

If there are no outstanding items to be completed or corrected before Substantial Completion, the Design-Builder shall, following Inspection:

- A) Submit to the Authority's Project Manager special guarantees, warranties, maintenance agreements, 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 Authority's Project Manager.

The Design-Builder shall complete or correct the outstanding items, if any, to be done before issuance of the certificate of Substantial Completion and request re-inspection by the Authority's Project Manager in writing.

Within seven days of the Design-Builder's request for re-inspections, the Authority's Project Manager will re-inspect the Project and issue a certificate of Substantial Completion if the outstanding items noted for Substantial Completion during the Inspection are completed or corrected.

DB 109-11.3 Physical Completion

Design-Builder shall notify Authority in writing when all physical Work on the Project has been completed, including:

- A) Substantial Completion of the Crossing,
- B) completion of demolition of the existing Tappan Zee Bridge and removal of all debris.
- C) completion of all construction and demolition punch list Work,
- D) delivery of all special tools, equipment, furnishings and supplies purchased by and/or used by Design-Builder as provided in the Contract Documents, free and clear of Liens;
- E) Design-Builder has satisfied all conditions to acceptance and has obtained all design and construction approvals by local agencies, utility owners and other third parties with an ownership interest or having jurisdiction over facilities developed hereunder; and
- F) removal of all of Design-Builder's and Subcontractors' personnel, supplies, equipment, waste materials, rubbish and temporary facilities from the Site, and restoration and

repair of all damage or injury arising from such removal to the satisfaction of the Authority, so that the Site is in good working order and condition;

- G) completion of final clean-up of the Site as required by the Contract Documents.

Upon receipt of the notice, the Authority will perform Final Inspection as described below. Should the Authority identify any defects or deficiencies in the Work, Design-Builder shall immediately remedy such defects or deficiencies at no additional cost. Upon full compliance with items (A) through (G) listed above, the Authority will give Design-Builder written notice of the date of Physical Completion.

Authority will not make the Final Inspection until the physical Work required by the Contract, including Final Cleanup and all extra Work ordered by Authority, has been completed.

Items in the Contract will only be accepted, in place, at the time of the Final Inspection by the Authority, providing they were of satisfactory quality at the time of construction and are still of satisfactory quality at the time of Physical Completion. The following inspections will be made as a condition to Physical Completion:

- 1) **Final Inspection:** Final Inspection will be scheduled to inspect or review all portions of the Project to verify that all physical Work items have been completed.

The Design-Builder shall submit the final tabulation of materials and labor used on Form FHWA-47M prior to Final Inspection (See DB §108-1.3.8). Upon receipt of notice of Physical Completion and verification that all required items have been submitted, the Design-Builder will be advised of the date and time of final inspection. A copy of the final inspection list containing all incomplete or unsatisfactory items and the time allowed to complete the Work will be furnished to the Design-Builder.

- 2) **Joint Inspection for Physical Completion:** The joint inspection for physical completion will be made by the Authority's Project Manager accompanied by the Design-Builder and the representatives from the Authority to verify completion of the exception items listed in the final inspection list.

DB 109-11.4 Final Acceptance

Promptly after Physical Completion has occurred, Design-Builder shall perform all remaining Work required hereunder and satisfy all of its other obligations under the Contract Documents, including:

- A) Design Acceptance;
- B) Delivery of all Design Documents, right-of-way record maps, surveys, material certifications, test data and other deliverables required under the Contract Documents, including as-built plans of the following types in electronic format on digital media and one reproducible hard copy set:
- i. Plan and profile sheets;
 - ii. Plan and profile sheets;
 - iii. Signing and striping;

- iv. Pavement typical sections
 - v. All bridge plans
 - vi. Retaining structure plans
 - vii. Utility Relocation plans
 - viii. Drainage structure plans;
 - ix. Cross sections in areas with retaining structures and/or cuts and/or fills in excess of [REDACTED]; and
 - x. Plans of consolidated access points.
- C) Delivery of all certifications from Design-Builder's Design Manager, Project Manager and Quality Manager required under the Contract Documents;
- D) Delivery of all written warranties required under the Contract Documents;
- E) Delivery of all manuals required under the Contract Documents;
- F) All of Design-Builder's other obligations under the Contract Documents (other than obligations which by their nature are required to be performed after Final Acceptance as determined by the Authority) have been satisfied in full or waived in writing by the Authority; and
- G) Design-Builder has identified a single point of contact to address the Warranty requirements hereunder throughout the duration of the Warranty period.

DB 109-12 FINAL PAYMENT

The provisions of the *Agreement, Article 12 - Insurance* shall apply. All payments made under this Contract will be processed in accordance with the New York State Public Authorities Law §2880, as detailed in 21 NYCRR Part 109 (Prompt Payment) per DB §109-06. The Department of Engineering has determined that it will require an audit period of 60 days for approval of the Final Invoice or such longer time period as the Authority's Project Manager reasonably determines is required in accordance with 21 NYCRR Section 109.3(f)12. In order for the Authority to process the Final Supplemental Agreement and the final payment in an expeditious manner, Design-Builder is advised of the following general procedure:

Following the completion of all required work and a final inspection by the Authority, the Design-Builder shall be responsible for providing the following documents and submissions to the Authority's Project Manager. The Design-Builder shall have a period of 30 days to submit such documentation to the Authority's Project Manager:

- i. Final documentation to support any outstanding claims and Disputes filed during the progress of the work;
- ii. Extra Work Cost Accounts;
- iii. Final Supplemental Agreement (TA 4108 A, B, & D), with or without signature;
- iv. Final Labor Affidavits (TA 44115-9);

- v. Wage Rates Subcontractor (TA 44105-9);
- vi. Approved Reproducible Shop Drawings;
- vii. Material Certifications;
- viii. Certified Payrolls;
- ix. Tax Clearance for "Foreign" (out of State) Corporations or entities; and
- x. DBE Payment Report (TA 1023) (Note - The TA 1023 report is provided to the NYSTA OEOC until all payments are complete. Status at this time should reflect all paid contract quantities) Final Actual Utilization Plan for All Subcontractors (TA 1058F).

The above list is general and other documents and submissions may be required to properly process the Final Supplemental Agreement. Any time taken by the Design-Builder beyond the 30 day period after Final Inspection to satisfy or furnish the above information may delay the approval of the Final Supplemental Agreement and the subsequent Final Payment process. The Final Supplemental Agreement must be approved by the State Comptroller before the Final Payment process can begin.

DB 109-13 [RESERVED]

DB 109-14 ACCEPTANCE OF FINAL PAYMENT

The acceptance by the Design-Builder, or by anyone claiming by or through the Design-Builder, of the final payment shall constitute and operate as a release to the Authority from any and all claims of any liability to the Design-Builder for anything theretofore done or furnished for or relating to or arising out of the work done hereunder, and for any prior act, neglect, or default on the part of the Authority or any of its officers, agents, or employees unless the Design-Builder serves a detailed and verified statement of claim upon the Authority not later than 40 days after delivery of such final payment. Such statement shall specify the items and details upon which the claim will be based and any such claim shall be limited to such items. Should the Design-Builder refuse to accept the final payment, such refusal shall constitute a waiver of any right to interest thereon.

Notwithstanding the provision of the Court of Claims Act or of any other statute, the Design-Builder expressly understands and agrees that no action shall lie or be maintained by the Design-Builder, or anyone claiming by or through the Design-Builder, against the Authority upon any claim arising out of or based upon this Contract or by reason of any act or omission or requirement of the Authority or its agents, unless such action shall be commenced within six months after delivery of the final payment. No payment to the Design-Builder by the Authority shall limit or qualify any defense, claim or counterclaim otherwise available to the Authority relating to this Contract.

DB 109-15 CHANGED CONDITIONS AND DELAY PROVISIONS

DB 109-15.1 Compensable Delays and Changed Conditions

- A) The provisions of this Contract permit monetary compensation for delays and interference in certain defined instances. The Design-Builder agrees 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 delays to the critical path directly attributable to one of the following:

- 1) Authority-Caused Delays;
 - 2) Differing site conditions, to the extent allowed under DB §104-5;
 - 3) Utility Delays, to the extent additional compensation is allowed for such delays under DB §104-4.2;
 - 4) Significant changes in the character of the Work, to the extent allowed under DB §104-3.2, and Necessary Basic Configuration Changes, to the extent allowed under DB §104-4.1.2;
 - 5) Discovery of Hazardous Materials of a type, quantity or location that differs materially from the type, quantity or location of Hazardous Materials identified in the RFP or the Contract Documents as potentially present at the Site, to the extent allowed under DB §104-4.3 and for which the Design-Builder is not otherwise responsible under DB §§104-4.3 and 107-16;
 - 6) Discovery of Environmental Resources or Cultural Resources not identified in the RFP or the Contract Documents, to the extent allowed under DB §107-9.3;
 - 7) Delay or interference caused by activities of other Authority contractors which could not reasonably have been anticipated from the Contract Documents or could not have been avoided given reasonable notice; or
 - 8) Exercise by the Authority of an Option under the *Agreement, Article 1.2*, subject to the applicable not-to-exceed amount for delay compensation specified in *Appendix I to the Agreement, Section 5, Table 5-7.1*.
- B) Delays as described in DB §109-15.1(A) may also form the basis for extra Work compensation pursuant to DB §109-9 and DB §109-10.
- C) Failure of the Design-Builder to adequately progress the completion of the Work will be considered in determining the primary causes of delay.
- D) Any claim for monetary compensation under this DB §109-15.1 or any Dispute relating to any such claim shall be promptly submitted to the Authority's Project Manager in writing, in accordance with the applicable notice provisions of the Contract and other provisions of DB §109-10. To the extent that a notice period is not otherwise expressly provided in the Contract with respect to any such event, matter or circumstance, the Design-Builder shall provide written notice to the Authority within 10 work days after the Design-Builder has knowledge or should have had knowledge of the relevant event, matter or circumstance. For any claim asserted under this DB §109-15.1, the Design-Builder shall keep detailed written records of the costs and agrees to make them available to the Authority at any time for purposes of audit and review. Failure by the Design-Builder to notify the Authority's Project Manager in writing of any claim under this DB 109-15.1 or any Dispute relating thereto in accordance with the provisions of this Contract, or to maintain and furnish cost records of such claim or Dispute, shall constitute a waiver of the claim or Dispute, as applicable.

DB 109-15.2 Suspensions of Work Ordered by the Authority's Project Manager

- A) The Authority's Project Manager may stop by written order any Work or any part of the Work under the Contract if the methods or conditions are such that unsatisfactory Work might result (including progressing construction in the absence of Design Plans, Project Specifications, and/or Working Plans that have not been reviewed and released for construction per DB §111-12); if improper material or procedures are being used; if the Design-Builder fails to comply with any Contract requirement or with any provision of the Project Specifications, or any State or federal law or regulation; if the conditions of the Project are considered to be sufficiently deficient as to seriously affect the safety of the public or the persons employed for the construction of the Project; or if major non-conformance with the Work Zone Traffic Control Plan is causing serious disruptions to traffic operations. The Design-Builder shall not be entitled to any additional monetary compensation for such a work stoppage.
- B) If the performance of all or any portion of the Work is suspended or delayed by the Authority's Project Manager in writing for an unreasonable period of time (not originally anticipated, customary, or inherent to the design-build 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 Authority's Project Manager in writing a request for adjustment within seven days of receipt of the notice to resume Work. The request shall set forth the reasons and support for such adjustment. The record keeping requirements of DB §§104-16 and 105-5 must be complied with in connection with any requests for reimbursement.
- C) Upon receipt, the Authority's Project Manager will evaluate the Design-Builder's request. If the Authority's 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 Authority's Project Manager will make a cost and/or time adjustment (excluding profit) pursuant to an Order on Contract. The Design-Builder will be notified of the Authority's Project Manager's determination whether or not an Order on Contract is warranted.
- D) No Order on Contract will be issued unless the Design-Builder has submitted the request for adjustment within the time prescribed.
- E) No Order on Contract will be issued under this DB §109-15.2 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.

- F) This DB §109-15.2 shall be governed by the notice provisions set forth above, and the record keeping and other requirements of DB §§104-16, 105-5, and 109-10. Additional compensation via Orders on Contract shall be made for time-related costs, if any, pursuant to DB §109-10.2. For any increased costs of the Work resulting from a suspension of Work, payment shall be made pursuant to DB §109-9.2, but the equipment compensation shall be governed and controlled by the provisions of DB §109-10.2.

DB 109-16 NON-COMPENSABLE DELAYS

The Design-Builder agrees to make no monetary claim for, and has included in its prices for the Work under the Contract, any extra/additional costs attributable to any delays, inefficiencies, or interferences in the performance of the Contract caused by or attributable to items (A) through (K) set forth below.

- A) The work or the presence on the Project Site of any third party, including that of other contractors or personnel employed by the Authority, by other public bodies; by railroad, transportation or utility companies or corporations, 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.
- B) 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.
- C) The act, or failure to act, of any other public or governmental body or railroad, transportation or utility companies or corporations, including approvals, permits, restrictions, regulations, or ordinances attributable to the Design-Builder's design, submission, action or inaction, or the Design-Builder's means and method of construction.
- D) Restraining orders, injunctions, or judgments issued by a court which were caused by the Design-Builder's submissions, action or inaction, or means and method of construction.
- E) Any labor boycott, strike, picketing, or similar situation.
- F) Any shortages of supplies or material required by the Contract Work.
- G) Climatic conditions, storms, floods, droughts, tidal waves, fires, hurricanes, earthquakes, landslides, acts of terrorism, nuclear events, ionizing radiation causing direct physical damage or other catastrophes. However, payment may be made for repairing damage to the Work caused by an "occurrence" as provided in DB §107-26.2.
- H) Additional Contract Work, or extra Work which does not delay the critical path or affect the overall completion of the Contract, delays in the review or issuance of Orders on Contract or field change sheets, or delays within the established time periods for consultation and written comment for Design Documents, Working Plans, other submittals and construction details, means and methods.

- I) Variations in soil moisture content from that represented in reports, borings, or tests conducted by the Authority and included in the Contract Documents.
- J) Correcting any materials or Work rejected either by the Design-Builder or the Authority, or Work unsatisfactory to the Authority for which payment has been withheld. Refer to DB §§109-7.2; 109-15.2(A); 106-6; and 108-8(C).
- K) Any other matters not caused by the Authority or beyond its control.

**SECTION 110
ELECTRONIC PRICING DOCUMENTS**

DB 110-1 GENERAL

Upon award of the Contract, the Electronic Pricing Documents submitted by Design-Builder under ITP Section 4.7 shall continue to be held by the Authority in a locked safe in the Authority's vault or other secure location in accordance with the provisions of this DB §110. Concurrently with submission of quotations or revisions to quotations provided in connection with formally proposed Amendments to this Contract and concurrently with approval of each Order on Contract, if appropriate, Design-Builder shall deliver to the address set forth below (1) electronic copies of all documentary information used in preparation of the quotation or Order on Contract in the form and content set forth in DB §§110-5 and 105-5, (2) an updated index listing each document included in the EPDs and briefly describing the document and its location in the EPDs, and (3) a duly signed certification in the form attached as Appendix X to the Agreement:



A copy of the signed certification shall also be delivered concurrently to the Authority's Project Manager. Design-Builder may password protect the EPD files, CD-ROM or USB drive and retain such password(s), provided that Design-Builder shall enter the relevant password(s) to permit any joint review of the EPDs as provided in DB §110-2. The Agencies shall have a right to retain a copy of the index of EPDs.

Design-Builder shall retain an identical set of EPDs in hard copy in a locked fireproof cabinet in a secure location and make them available to the Authority for review under the same circumstances as EPDs are made available to the Authority under DB §110-2.

The Electronic Pricing Documents will be held in the Authority's safe as described above subject to DB §110-2 until all of the following shall have occurred:

- A) One hundred eighty days have elapsed from Final Acceptance or termination of the Work, as applicable;
- B) All claims and disputes regarding this Contract have been resolved; and
- C) Final payment on this Contract has been made by the Authority and accepted by the Design-Builder.

DB 110-2 AVAILABILITY FOR REVIEW

The Electronic Pricing Documents shall be available during business hours for joint review by the Design-Builder and the Authority, in connection with review changes in the Baseline Project Schedule and/or PPS-C, negotiations of price adjustments and Orders on Contract, and the resolution of Disputes. To the extent that any of the EPD files, CD-ROM or USB drive are password protected, the Design-Builder shall promptly enter the relevant password(s) to permit the timely conduct of any such joint review. The Authority shall be entitled to review all or any part of the Electronic Pricing Documents in order to satisfy itself regarding the applicability of the individual documents to the matter at issue. The Authority shall be entitled to make and retain copies of such documents as it deems appropriate in

connection with any such matters, provided that the Authority 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 Authority's or Department's agents, attorneys, and experts, and other dispute resolvers hereunder; and that all copies of such documents (other than those delivered to the dispute resolvers) will be either destroyed or returned to the depository (or to the Design-Builder, if the Electronic Pricing 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 Authority's discovery rights with respect to such documents.

DB 110-3 PROPRIETARY INFORMATION

The Electronic Pricing Documents are, and shall always remain, the property of the Design-Builder, subject to the Authority's right to review the Electronic Pricing Documents as provided herein. The Authority acknowledges that the Design-Builder may consider that the Electronic Pricing Documents constitute trade secrets or proprietary information. This acknowledgment is based upon the Authority's understanding that the information contained in the Electronic Pricing Documents: is not known outside the Design-Builder's business; is known only to a limited extent and by a limited number of employees of the Design-Builder; is safeguarded while in the Design-Builder's possession; and may be valuable to the Design-Builder's construction strategies, assumptions, and intended means, methods, and techniques of construction. The Authority further acknowledges that the Design-Builder expended money in developing the information included in the Electronic Pricing Documents and further acknowledges that it would be difficult for a competitor to replicate the information contained therein. The Authority acknowledges that the Electronic Pricing Documents and the information contained therein are being provided to the Authority only because it is an express prerequisite to award of this Contract. Thus, the Electronic Pricing Documents will at all times be treated as proprietary and confidential information and will be used only for the purposes described in this DB §110.

At the Design-Builder's request, confidentiality agreements will be executed and delivered to the Design-Builder by the Authority's employees or agents who review or have access to the Electronic Pricing Documents.

DB 110-4 REPRESENTATION

The Design-Builder represents and warrants that the Electronic Pricing 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 Electronic Pricing Documents are not part of the Contract and that nothing in the Electronic Pricing Documents shall change or modify the Contract.

DB 110-5 CONTENTS OF ELECTRONIC PRICING DOCUMENTS

The Electronic Pricing Documents shall, *inter alia*, be submitted in English, clearly itemize the estimated costs of performing the Work required by the Contract Documents. Estimates for costs of the design professionals and consultants itemized by discipline for development of the design shall be included. All Work shall be separated into sub-items as required to present a complete and detailed estimate of all costs and allow a detailed cost review. 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, bond rates and calculations and insurance 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 Electronic Pricing Documents shall include all assumptions, quantity takeoffs, rates of production and progress calculations, quotes from Subcontractors and Suppliers, memoranda, narratives, drawings and sketches showing Site or Work area layouts and equipment, add/deduct sheets, geotechnical reviews and consultant reports, and all other information used by the Design-Builder to arrive at the Proposal Price or Order-on-Contract price, as applicable.

DB 110-6 FORM OF ELECTRONIC PRICING DOCUMENTS

The Design-Builder shall submit the Electronic Pricing Documents in the format actually used by the Design-Builder in preparing its Proposal, provided that all information is clearly presented and ascertainable and submitted in accordance with the requirements of this DB §110. With respect to any EPDs submitted after award, one copy shall be submitted on CD-ROM and another copy on USB thumb drive, each with a label identifying (1) the relevant quotation or revised quotation submitted for any Contract amendment or the relevant Order on Contract, as the case may be, and (2) the delivery date. EPD spreadsheet files shall be in Microsoft Excel ® format, and all other EPD files shall be in searchable portable document format (.pdf), without copy protection.

It is not intended that the Design-Builder perform any significant extraordinary work in the preparation of these documents prior to the Proposal Date, but to ensure that the Electronic Pricing Documents will be adequate to enable complete understanding and proper interpretation for their intended use. However, the Design-Builder represents and warrants that the Electronic Pricing Documents related to the Proposal have been personally examined prior to delivery to the Authority by an authorized officer of the Design-Builder and that they meet the requirements of DB §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 Electronic Pricing Documents related to each Order on Contract will be personally examined prior to delivery to the Authority by an authorized officer of the Design-Builder and that they meet the requirements of DB §110-5 and will be adequate to enable a complete understanding and interpretation of how the Design-Builder arrived at its Order-on-Contract price.

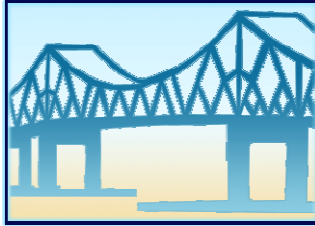
DB 110-7 REVIEW BY THE AUTHORITY

The Authority may at any time conduct a review of the Electronic Pricing Documents to determine whether they are legible and complete. Upon the Authority's request, such review shall be assisted by members of Design-Builder's staff who are knowledgeable in how the Electronic Pricing Documents were prepared. In the event the Authority determines that any data is missing, the Design-Builder shall provide such data within three work days of the request, and at that time it will be date stamped, labeled to identify it as supplementary Electronic Pricing Documents information, and added to the Electronic Pricing Documents. The Design-Builder shall have no right to add documents to the Electronic Pricing Documents except upon the Authority's request. At the Authority's option, which may be exercised at any time, the Electronic Pricing Documents associated with any Order on Contract or Contract Amendment shall be reviewed, organized, and indexed in the same manner described in the Instructions to Proposers. Such examination does not include review of, and does not constitute approval of, proposed construction methods, estimating assumptions, or interpretations of any Contract Documents. Such examination will not alter any condition or term of any Contract Document.

DB 110-8 SUBCONTRACTOR AND VENDOR PRICING DOCUMENTS

The Design-Builder shall require each Subcontractor and/or vendor 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, in the same format, and to be held in the same manner, as the Electronic Pricing Documents and which shall be accessible by the Design-Builder and its successors and assigns

(including the Authority) and dispute resolvers on terms substantially similar to those contained herein. Each such Subcontract and agreement shall include a representation and warranty from the Subcontractor or vendor, as applicable, stating that its Electronic Pricing Documents constitute all the documentary information used in preparation of its sub-bid or sub-proposal.



New York State Thruway Authority

**TAPPAN ZEE HUDSON RIVER
CROSSING PROJECT**

DB CONTRACT DOCUMENTS PART 2

**DB SECTION 111
DESIGN MANAGEMENT &
DESIGN QUALITY ASSURANCE/
QUALITY CONTROL**

CONFORMED

November 21, 2012



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PART 2 – DB SECTION 111 - DESIGN MANAGEMENT AND DESIGN QUALITY ASSURANCE/QUALITY CONTROL

DB 111-0 GENERAL DESIGN-BUILDER RESPONSIBILITIES

It is the Design-Builder's sole responsibility to provide Design Plans, Project Specifications and Working Plans enabling development of a finished product in accordance with the Contract requirements. The Design-Builder shall verify pertinent dimensions in the field prior to the development and preparation of Design Plans, Project Specifications and Working Plans. Review and/or approval of the Design-Builder's Design Plans, Project Specifications and/or Working Plans by the Agencies shall not relieve the Design-Builder of the responsibility for the completion of the Work in accordance with Contract requirements.

Design Plans, Project Specifications and Working Plans shall be subject to the Agencies' consultation and written comments per DB §111-11 before being released for construction and the beginning of construction Work covered by such Plans, and shall not be thereafter amended or altered without the prior written approval of the Design-Builder's Designer and subsequent consultation and written comment by the Agencies.

The Design-Builder shall perform the following:

- A. Manage the Quality Control (QC) and Quality Assurance (QA) of the Work;
- B. Verify existing conditions;
- C. Coordinate with and obtain necessary approvals, with Agencies' assistance, from all authorities having jurisdiction for facilities affected by the Project, including temporary road diversions and detours, shutdowns, temporary diversions, utility relocations, railroad, shipping channel, temporary sidewalk closures, and pedestrian detours; and
- D. Ensure that the Designer properly checks the designs for compliance with all Contract requirements, including Standards, and that the Design Quality Assurance Manager provides QA over the design process and certifies QC procedures in accordance with the Contract.

The procedures for the checking of design of permanent components also apply to design of major temporary components and construction sequences that affect the permanent components of the Project.

DB 111-1 DESIGN-BUILDER'S DESIGN ORGANIZATION AND OBLIGATIONS

DB 111-1.1 Designer

The Design-Builder shall appoint a suitably qualified and experienced Designer, which may be a consultant or an in-house design 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 have or establish an office in accordance with Project Requirements and maintain all necessary representation throughout the duration of the Contract to ensure the Design-Builder can meet all its obligations under the Contract.

DB 111-1.2 Location of Design-Builder's Designer

The Designer may perform production design Work in the Project vicinity or elsewhere. However, the design personnel designated in Form KP (ITP, Appendix A) shall be located in accordance with Contract requirements for the duration of the design.

DB 111-1.3 Completeness of Design

Design will be considered complete upon the Agencies' Design Acceptance following submittal and review of the As-Built Plans.

DB 111-1.4 Design Manager

The Design-Builder shall designate and assign a Design Manager to ensure proper performance of all design Work and Quality Control for design Work. The Design-Builder shall require the Design Manager to have or establish an office meeting applicable Contract requirements and to be present as required thereafter to manage design support during construction, design changes, and completion of As-Built Plans.

The design staff working under the direct supervision of the Design Manager shall conduct an assessment and evaluation of design such that the Design Quality Assurance Manager can certify to the Design-Builder and to the Agencies that the design satisfies the Contract requirements, including the following requirements:

- A. Accuracy;
- B. Adequacy;
- C. Conformance to standards of practice;
- D. Compliance with codes and Standards;
- E. Maintenance requirements;
- F. Cost effectiveness;
- G. Quality; and
- H. Fitness for purpose and/or function as specified and/or implied in the Contract.

The Design Manager shall include such written certification for all Work being subjected to a Design Review per DB §111-11.

The Design Manager's activities shall include, at a minimum, assessment and evaluation of the following to ensure conformity with Contract requirements:

- A. Design reports;
- B. Analytical approach;
- C. Drawing details;
- D. Project Specifications;
- E. Design Plans and Working Plans;
- F. Effect of major temporary components on permanent components;
- G. Field design changes;
- H. Acceptability of materials and procedures; and
- I. As-Built Plans (including assessment and evaluation for conformity with final design as well as Contract requirements).

DB 111-1.5 Responsible Engineer and Responsible Architect

The Designer shall designate and assign a Responsible Engineer or Responsible Architect for each Design Unit. The Responsible Engineer(s) or Responsible Architect(s) shall sign and seal design reports, Design Plans and Working Plans, and Project Specifications for the assigned Design Unit(s). Responsible Engineers shall be New York-licensed Professional Engineers. Responsible Architects shall be New York registered architects. The Designer shall submit qualifications of Responsible Engineers and Responsible Architects to the Agencies for review and comment.

Responsible Engineers and Responsible Architects shall be located in accordance with *Part 3 – Project Requirement 2 – Project Management*, as necessary to coordinate the Work on assigned Design Units. The Responsible Engineer or Responsible Architect shall be present in the Project area for, and shall attend all Design Reviews for, assigned Design Unit(s).

See DB §101-3 for the definitions of Responsible Engineer and Responsible Architect.

DB 111-1.6 Design Quality Assurance Manager

The Design-Builder shall identify a Design QA Manager who shall be an employee of the QA Engineering Firm, shall have no responsibilities in the production of the design Work, and shall report to the Quality Manager. The Agencies' Design Compliance Engineer (DCE) shall have direct access to the Design QA Manager.

The Design QA Manager shall be responsible for the QA of all Work conducted by the Designer. The Design QA Manager shall be located in accordance with the Project Requirements as required throughout the design process and shall be present as necessary or appropriate thereafter to manage design QA related to design support during construction, design changes, and completion of As-Built Plans.

The Design QA 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 Agencies that the design QC activities comply with the Quality Plan and Contract requirements.

The Design-Builder shall ensure that the Design QA Manager carries out all duties expressed or implied in the Contract.

The Design QA Manager shall have QA responsibilities related to the following:

- A. Design of permanent and major temporary components;
- B. Changes in design of permanent components and major temporary components; and
- C. As-Built Plans.

The Design QA 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 §111-16.3.1); and
- D. Submit specified certificates (permanent components and major temporary components).

These responsibilities are further specified in DB §111-11.

DB 111-1.7 Design Quality Control Manager

The Design Manager shall identify a Design QC Manager who shall report to the Design Manager.

The Design QC Manager shall be responsible for the QC of all Work conducted by the Designer and ensure that all design QC Work is properly performed. The Design QC Manager shall be located in accordance with the Project Requirements as required throughout the design process and shall be present as required thereafter to manage design QC related to design support during construction, design changes, and completion of As-Built Plans.

The Design QC Manager shall ensure that checkers and reviewers are assigned for each design discipline (see DB §111-14) and for each Design Unit (see DB §111-2) and that they are properly scheduled.

DB 111-1.8 Check by the Designer

The Design-Build shall require the Designer to carry out QC activities as defined in the Quality Plan as well as 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. The Designer shall not be permitted to rely on the QA efforts to be undertaken by the QA Engineering Firm and Design QA Manager to meet this requirement.

DB 111-1.9 QA Engineering Firm

The Design-Builder shall retain the services of an independent engineering consultant firm (the QA Engineering Firm) to oversee, manage, certify and perform design QA activities as specified in this DB §111, other Contract Documents and the Design-Builder's Quality Plan. The QA Engineering Firm (and any firm acting as a subconsultant to the QA Engineering Firm) shall not be owned by, or be an affiliate of, the Design-Builder, any Principal Participant, the Designer or any Subcontractor. The QA Engineering Firm shall have no responsibilities in the production of the design Work. The QA Engineering Firm shall be responsible for management and scheduling of all QA activities for design Work for this Contract.

The Design QA Manager, design QA personnel and their support staff shall be employees of the QA Engineering Firm or employees of firm(s) acting as subconsultants to the QA Engineering Firm. The QA Engineering Firm shall report directly to the Quality Manager and shall not report to the Design-Builder's Project Manager.

DB 111-2 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 days of NTP, the Design-Builder shall provide a written report updating information submitted with the Design-Builder's Proposal and identifying each Design Unit. The written report shall include the following:

- A. Description of each Design Unit, including information regarding the scope of design Work within each Design Unit and including limits and interface points;
- B. Planned review stages and dates, including specific information to be reviewed, planned review dates (measured from NTP date) and percent complete represented by each review. See DB §109 and *Appendix 111A-Forms, Form DUS*;
- C. Responsible Engineer or Responsible Architect for each Design Unit; and

D. Locations where design Work will be performed.

The Design-Builder shall submit any revisions to the information pursuant to this DB §111-2 in writing to the Agencies concurrently with the monthly progress report.

DB 111-3 RELATIONSHIP OF EARLY CONSTRUCTION STARTS TO DESIGN DEVELOPMENT AND REVIEW

The Design-Builder may commence construction of components of a Design Unit prior to completion of Final Design (“Early Construction Start”) as specified in this DB §111-3). Construction on any component of a Design Unit may not begin until completion of the applicable Readiness for Construction Design Review and related Working Plans. Construction may progress on components of a Design Unit as determined by the Design-Builder, at Design-Builder’s risk, provided each component of construction is covered by drawings and specifications that have been reviewed and meet the requirements for readiness for construction noted in DB §111-11.6.

DB 111-4 SCHEDULE FOR DESIGN CHECKS, REVIEWS, AND SUBMISSION OF CHECKED DESIGN

The Design-Builder is responsible for scheduling and conducting Design Reviews with the Agencies to meet design and/or construction needs of the Baseline Project Schedule. 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 each Design Review shall not exceed 28 calendar days and shall be mutually agreed between the Agencies and Design-Builder during the design workshop (DB §111-14) and verified and modified by mutual agreement during the course of the Project. The Design-Builder shall give written notice of scheduled Design-Reviews to the DCE 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) as part of the Baseline Project Schedule. The Design Review schedule shall be updated and reviewed monthly in accordance with DB §108-1.2 until design Work is complete. The Design-Builder shall not schedule more than two concurrent Design Reviews, per discipline, per week, without the Agencies’ written concurrence.

Except for As-Built Plans, submissions shall be in the form of a sufficient number of copies of Design Plans and Project Specifications and supporting data and reports to accommodate Design Review participants assembled in the Project office. For Final Design Reviews, submissions shall include two hard copies and one electronic copy of Design Plans and Project Specifications and supporting data, including reports and calculations.

The Design-Builder shall make specified submittals of checked designs in accordance with DB §111-11. Submissions shall be complete for each Design Unit, but may be combined for multiple Design Units at any one time upon the Agencies’ written concurrence. The Design-Builder shall submit each Design Unit for consultation and written comment (see DB §105-16) in accordance with the Baseline Project Schedule.

For each Design Unit designated by the Design-Builder, the Design-Builder shall include design checks and Design Reviews as indicated in DB §111-11.2. The Design-Builder shall allow sufficient time for the Agencies’ participation and input to any Design Review under this DB §111-4. The Design-Builder shall incorporate the schedule for Design Reviews into the Baseline Project Schedule and report progress and updates in the monthly updates. The Design-Builder shall keep the Agencies up to date on exact timing of reviews and readiness for construction Design Reviews through the monthly progress meetings.

DB 111-5 REVISIONS TO DESIGN

Any changes to design initiated by the Design-Builder following the check by the Designer and certification by the Design QA Manager shall be treated as an entirely new design. The Design-Builder shall not be entitled to any increase in the Contract Price or any extension of Contract Time pursuant to DB §108-6 with respect to any such changes.

DB 111-6 DESIGN REVIEW PLAN

The Design-Builder shall prepare and submit a written design review plan within 30 days of NTP for consultation and written comment by the Agencies. The 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. Statements of percent complete will not be acceptable.

DB 111-7 STAGES OF DESIGN DEVELOPMENT

The Design-Builder shall make a single comprehensive design check and Design Review for each Design Unit at the following stages of design development:

- A. Definitive Design;
- B. Interim Design;
- C. Final Design;
- D. Readiness for Construction;
- E. Working Plans; and
- F. As-Built Plans.

Design Reviews or design checks shall be completed as specified in DB §111-11, for each Design Unit (and for each component or element within a Design Unit) at each stage of design development.

DB 111-8 DESIGN REVIEWS

The Design-Builder shall invite the Agencies to participate in Definitive, Interim, Final, and Readiness for Construction Design Reviews for all Design Units. The Agencies may invite other Project Stakeholders to participate in Design Reviews. The Agencies will provide consultation and written comment (based on the Agencies' and Stakeholders' participation) regarding these Design Reviews. The Design-Builder shall address and/or resolve the Agencies' comments in consultation with the Agencies.

DB 111-8.1 Definitive Design Review

The Design Review of Definitive Design ("Definitive Design Review") shall be the first Design Review after Contract execution and is intended to enable the Agencies to satisfy themselves that the design concepts proposed by the Design-Builder meet Contract requirements. The Definitive Design Review submittal shall:

- A. Verify that the design concepts governing future design development are defined consistent with Contract requirements;
- B. Identify the final Basic Project Configuration;

- C. Verify the design concepts are substantiated and justified by adequate Site investigation and analysis;
- D. Identify the final ROW requirements;
- E. Identify the specific standards applicable to the proposed concepts and verify that such standards are appropriate;
- F. Verify that the proposed design concepts are constructible;
- G. Verify the availability of required materials/equipment; and
- H. Verify that the design meets Project quality requirements and required design QC procedures have been followed.

If the Definitive Design is amended subsequent to the Definitive Design Review, the Design-Builder shall re-check and re-certify the design through an additional Definitive Design Review. The Design-Builder will not be entitled to an increase in Contract Price or an extension of Contract Time for the re-check and re-certification except when the amended design results from an Order on Contract initiated by the Authority under DB §104-3.

DB 111-8.2 Early Construction Start Review

For Early Construction Start of components of Design Units the Design-Builder and the Agencies shall perform the Early Construction Start Review and the Readiness for Construction Review.

The purpose of an Early Construction Start Review is to verify that the concepts and parameters established and represented by Definitive Design are being followed and that Contract requirements continue to be met and to release the component for construction. The Design-Builder shall specifically highlight, check, and bring to the attention of the Agencies any changes to information presented at Definitive Design. The Design-Builder shall present the information for Early Construction Start review to the Agencies for consultation and written comment by the Agencies.

The Design-Builder shall not construct any permanent components or major temporary components of a Design Unit until the design checks, Design QA Manager's certifications, and Design Reviews have been completed for the relevant component, the Agencies have provided consultation and written comment, and the Design-Builder has responded to or addressed all comments or issues in accordance with DB §105-16, with respect to the Design Unit. The Design-Builder shall not commence any construction until any design-related Non-Conformance Reports have been addressed and resolved to the satisfaction of the Agencies, and satisfied all applicable requirements of DB §111-11.6.

If the Early Construction Start design includes design information for Work that can be released for continuation of construction, the results of the Early Construction Start Review, upon completion of Agencies' consultation and written comment, may be used to satisfy a portion of the requirements of DB §111-11.6.

DB 111-8.3 Interim Reviews

The Design-Builder shall request a review on a designated Design Unit prior to Final Design or Readiness for Construction Reviews. The Design-Builder shall plan and conduct at least one interim review between the Definitive Design Review and completion of design for that Design Unit. The Design-Builder shall schedule such interim reviews at a time when design is at the 60% to 80% stage of completion.

The Design-Builder and the Agencies shall use the interim Design Review(s) to verify that the concepts and parameters established and represented by Definitive Design are being followed and that Contract requirements continue to be met. For an interim review, the Design-Builder shall specifically highlight, check, and bring to the attention of the Agencies any changes to information presented at Definitive Design and any preceding interim review.

DB 111-8.4 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 Agencies any changes to information presented at previous design reviews. The Design-Builder shall submit final design for consultation and written comment by the Agencies.

The final Design Review, upon completion of Agencies' consultation and written comment, may be used to satisfy a portion of the requirements of DB §111-11.6.

DB 111-8.5 Readiness for Construction Review

The Design-Builder shall schedule and conduct a Readiness for Construction review when the Design Plans and Project Specifications for a Design Unit are 100% complete and satisfy the requirements of DB §111-11.6.

DB 111-9 WORKING PLANS

The Design-Builder shall develop Working Plans. The Design-Builder shall check, review, and certify Working Plans in accordance with DB §111-11.1 through DB §111-11.4 and DB §111-12, prior to issuing such plans for construction.

The Design-Builder shall invite the Agencies to participate in the review of Working Plans. The Agencies may invite the Stakeholders to participate in reviews of Working Plans.

DB 111-10 AS-BUILT DESIGN

The Design-Builder shall submit the As-Built Plans for each Design Unit in accordance with DB §109-11.4 and DB §111-11.

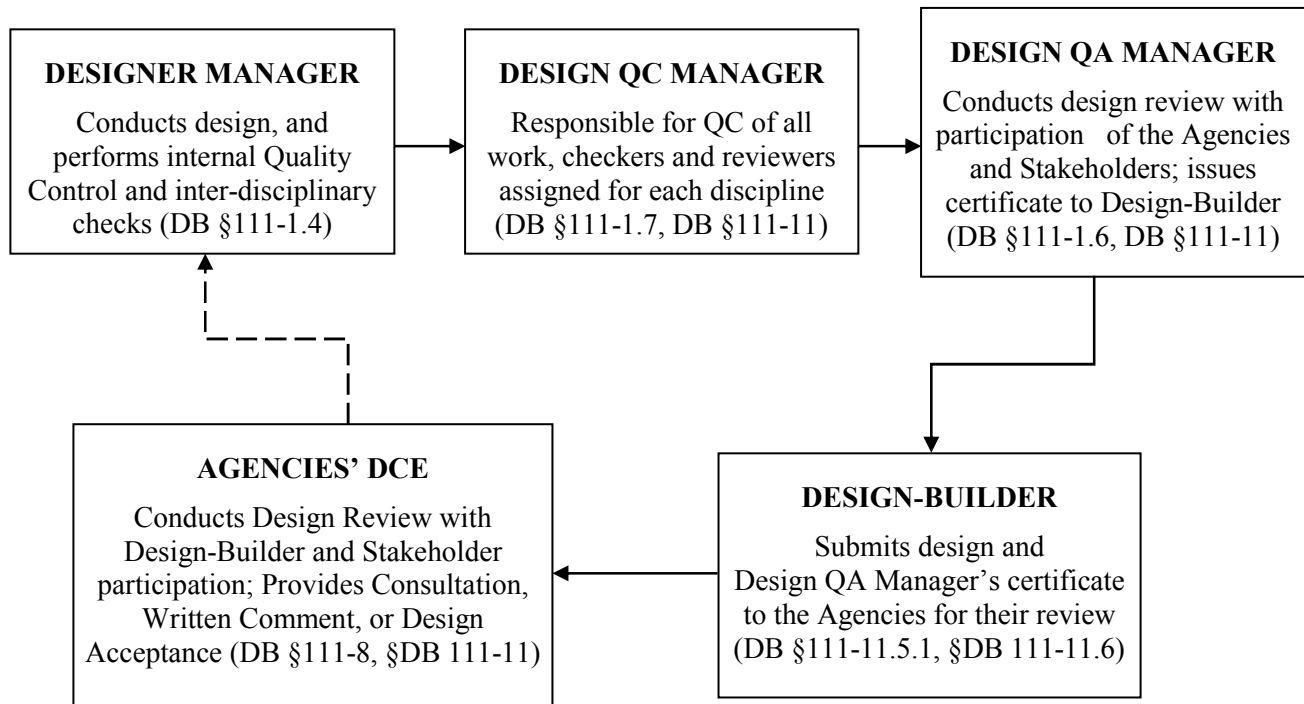
See DB § 111-11.5.2 for additional requirements relating to As-Built Plans and information.

DB 111-11 DESIGN CHECKS, CERTIFICATIONS, AND REVIEWS

The Designer's organization shall check all design documents (drawings, plans, specifications, calculations, and reports) produced by the Design-Builder's organization. The Design QA Manager shall certify that these documents have been checked per Contract requirements and the Design-Builder's Quality Plan prior to Design Reviews. The Design QA Manager shall provide the written certification specified in DB §111-11.

The Design-Builder and the DCE shall follow the process shown in Figure 111A for Design Reviews.

**Figure 111A
Design Review Flow Chart**



Note: Figure 111A refers to the Definitive Design Review, Readiness for Construction, Interim and Final reviews, and As-Built reviews.

DB 111-11.1 Design Checks

Design-BUILDER shall include, at a minimum, a check of the calculations, specifications, and drawings to confirm the correctness of the design. Design checks must be comprehensive, and must be documented in a manner that clearly records the depth of the review performed. It is recommended that Design checklists included in the NYSDOT *Bridge Manual*, Appendices 3 and 14, or referenced by the NYSTA *Structures Design Manual*, Appendix E, be used as part of the appropriate documentation. The Designer may also develop Project-specific checklists, or use its own company checklists or documentation procedures to document design checks.

The Design QA Manager shall verify that the quality control design check activity took place and is properly documented. The Design QA Manager shall document this verification prior to the Design Review.

DB 111-11.2 Independent Design Checks

The Design-BUILDER shall ensure that independent design checks are conducted by senior engineers not involved in the production of the design being reviewed and who have qualifications and experience equal to or greater than qualifications and experience of the Responsible Engineer or Responsible Architect for the design being checked. The Design QC Manager shall ensure that independent design checks of permanent components, major temporary components, and effects of temporary components on the permanent components are complete.

Independent design checks shall comprise design assessment and analytical checks as specified in DB §111-11.3 and DB § 111-11.4.

DB 111-11.3 Design Assessment

Design assessment includes the review of general compliance with the requirements of the Contract, taking into consideration the proposed method of construction, and shall cover (without limitation) 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; and
- K. Design flows.

DB 111-11.4 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:

- A. The structural geometry and modeling;
- B. Material properties;
- C. Member properties;
- D. Loading intensities; and
- E. Structural boundary conditions.

DB 111-11.5 Design Reviews

The Design-Builder shall bear all time and cost impacts of revisions arising from Agencies' and Stakeholders' participation in Design Reviews and/or caused by Design-Builder's failure to comply with Contract requirements, including the Agencies' and Stakeholders' time for reviewing revisions.

DB 111-11.5.1 Design Reviews Conducted by the Design-Builder's Design Quality Assurance Manager

The Design-Builder shall notify and invite the Agencies to participate in all Design Reviews conducted by the Design QA Manager. The Agencies may also invite Project Stakeholders and affected utility owners to participate. The Agencies will provide consultation and written comment (based on the Agencies and Stakeholder participation) regarding these Design Reviews.

For Design Reviews conducted by the Design QA Manager, the Design QA 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 report shall note items requiring corrective action on the Design Non-Conformance Report, Form NC-D (*Appendix 111A*). The Design QA Manager shall send the Design Non-Conformance Report to the Designer and a copy to the Agencies.

The Design-Builder shall conduct Design Reviews in the offices of the Design-Builder in accordance with the Project requirements. The Responsible Engineer, Responsible Architect, 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 111-11.5.2 As-Built Review

As-Built Plans and Project Specifications shall incorporate complete information that defines the Work as constructed to meet the Contract requirements.

The Design-Builder shall submit As-Built Plans complete for each Design Unit to the Agencies for review and Design Acceptance in accordance with DB §111-10. The Agencies review and Design Acceptance will be one of the processes used by the Agencies to satisfy themselves that the Project has been designed and constructed in accordance with Contract requirements and that the As-Built Plans comply with Contract requirements.

The Design-Builder shall make all corrections noted in the review of As-Built Plans and resubmit the corrected As-Built Plans to the Agencies for review and Design Acceptance.

Design Acceptance by the Agencies will not occur until the As-Built Plans are submitted, reviewed and corrected to the satisfaction of the Agencies.

DB 111-11.5.3 Design Review of Major Temporary Components

The Design QC and QA Managers 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. The Design-Builder shall invite the Agencies to participate in the review. The Agencies may invite affected Stakeholders to participate in the review(s). 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 §111-4 and DB §111-11.6.

DB 111-11.5.4 Agencies' Oversight Reviews

The Agencies (with Stakeholder participation, if invited by the Agencies) may conduct additional over-the-shoulder reviews as they deem appropriate to ensure a continued and uniform consistency in the quality and effective incorporation of revisions to designs.

DB 111-11.6 Readiness for Construction

The Design-Builder may start construction of any element of the permanent components only after all the following have occurred:

- A. The Designer has conducted its design QC checks, independent checks, analytical checks, and design assessments 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;
- B. The Design QA 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 Agencies;
 - 4. Design QC/QA activities are following the Design-Builder's Quality Plan; and
 - 5. All outstanding issues or comments from previous Design Reviews have been resolved;
- C. The Responsible Engineer and Responsible Architect have each signed all drawings prepared under his or her direction. For those drawings and documents included in the submittal that are prepared by a manufacturer or supplier or other Persons not under their direct supervision, the Responsible Engineer and/or Responsible Architect (as appropriate) shall affix a stamp that indicates the design shown on the sheet or document conforms to the overall design and Contract requirements;
- D. The Design Manager has signed the title sheet to the drawings certifying to the items contained in DB §111-1.4 (A)-(H) (the title sheet may be formatted to include the items of certification);
- E. Design-Builder has verified the following:
 - 1. Design has undergone constructability review and is constructible as represented;
 - 2. Working Plans, Project Specifications and related documents for the portion of the Project to be constructed are complete and checked in accordance with this DB §111-11;
 - 3. The design and drawings for Work Zone Traffic Control and temporary erosion control and environmental measures applicable to the Work are complete; and
- F. The Agencies have provided consultation and written comment regarding the design and applicable Work Zone Traffic Control, temporary erosion control measures, and environmental requirements.

The Agencies' consultation and written comment shall not be deemed to constitute Approval or Design Acceptance of the design or of subsequent construction.

Any Design Non-Conformance Reports shall be addressed and resolved by the Design-Builder to the satisfaction of the Design QA Manager and the Agencies prior to any design being released for construction.

The Design-Builder may proceed with construction on the Project at the Design-Builder's risk to the extent the relevant Work is covered by Design Documents that have been processed as shown in Figure 111A. Prior to construction proceeding further, the Design-Builder shall complete the next stage of design and Design Review and/or submission for such portions of the Work.

DB 111-11.7 Comment Resolution

Agencies and Stakeholder comments from Design Reviews will be recorded on Form DR (*Appendix 111A*), or in a similar form approved by the Agencies, and transmitted to the Design-Builder. The Design-Builder shall record its proposed disposition and response to each comment and meet with the Agencies to resolve outstanding comments and dispositions. The Design-Builder shall document final disposition and resolution on Form DR or other approved form.

If the design review reveals non-conformance with Contract requirements, the Agencies will prepare Form NC-D (Design Non-Conformance Report (*Appendix 111A*)) and submit it to the Design-Builder for action. The Design-Builder shall complete Form NC-D when the non-conformance is corrected and return Form NC-D to the Agencies. A form or electronic system, approved by the Agencies, that reflects the process shown on Form NC-D may be used in lieu of Form NC-D.

All Design Reviews shall include a comment and Nonconformance Report resolution process where unresolved comments and Nonconformance Reports are discussed and a written action plan and schedule for resolution of unresolved comments and Nonconformance Reports is developed. The Design QA Manager shall lead the process.

DB 111-12 DESIGN CHANGES BEFORE CONSTRUCTION

Design changes may occur prior to construction or may occur after final design, and may be initiated by the Design-Builder or the Agencies.

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 §111-4 and DB §111-11.6.

DB 111-13 DESIGN CHANGES DURING CONSTRUCTION

The Design-Builder shall verify during construction that the conditions actually encountered are consistent with the design and related Design Plans, Working Plans, and Project Specifications. The Designer-Builder shall prepare necessary adjustments in the Design Plans, Working Plans, and Project Specifications, and the Design-Builder shall proceed with the consultation process and obtain written comment from the Agencies. The Design-Builder shall be responsible for obtaining Stakeholder permits and approvals in accordance with the Contract requirements.

All changes during construction 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 §111-4 and DB §111-11.

DB 111-14 DESIGN WORKSHOP

Within 45 days of NTP, the Design-Builder shall arrange a design workshop to familiarize the Designer's personnel and the Agencies (and Stakeholders, if invited by the Agencies) 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 §111-4). The Agencies 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). Different disciplines on this Project may include: roadway, traffic, structures, utilities, landscape, buildings, aesthetics, geotechnical, survey and mapping, subsurface investigations,

lighting, electrical, tolling, ITS, drainage, environmental, and public relations. 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 Agencies' Project Manager.

DB 111-15 QUANTITY ESTIMATES

To facilitate determining Sampling and Testing requirements, the Design-Builder shall provide quantity estimates for the Work. 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 §111-17.

DB 111-16 DESIGN DOCUMENTATION

DB 111-16.1 Progress Tracking

The Design-Builder shall include engineering and design progress and changes in its Baseline Project Schedule (including Work on any design change) in the monthly updates (DB §108-1).

DB 111-16.2 Design Quality Records

The Design QA Manager shall prepare and submit monitoring reports to the Agencies of all design issues and review comments resulting from the scheduled and additional checks and reviews, including over-the-shoulder 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 days of the completion of the review.

The Design-Builder shall develop, implement, and maintain a log of design Nonconformance Reports and/or notices indicating dates issued, reasons, status, or resolution and date of resolution.

The Design-Builder shall prepare and maintain weekly records of design activities using Form MURK 2b (DB-DQC) (*Appendix 111A*) or other forms acceptable to the Agencies. These records will include narrative description of all significant QC and QA activities taking place within the given timeframe, to include at least significant planning meetings, design units started or finished, and reviews conducted.

DB 111-16.3 Design QA Manager Reports

DB 111-16.3.1 Monthly Report to the Agencies

The Design QA Manager shall submit a monthly report directly to the Agencies by the third working day of the following month that includes the following:

- A. Summary of reviews conducted;
- B. Nonconforming Work and current status and/or disposition (based on design non-conformance log, DB §111-16.2); and

C. Submission(s) from Design-Builder and status.

DB 111-16.3.2 Final Design Report

Upon completion of the final design for each Design Unit, including all its components, the Design QA Manager shall notify the Design-Builder, with a copy to the Agencies, of any outstanding monitoring report issues or unresolved review comments.

DB 111-17 DESIGN PLANS, WORKING PLANS, AND PROJECT SPECIFICATIONS

The Proposal Price includes the cost of furnishing all Design Plans, Project Specifications, Working Plans, and As-Built Plans.

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 Agencies for conformance with the Contract requirements.

DB 111-17.1 Plans

The Work shall be performed in accordance with the details as shown on the Design Plans prepared by the Designer and those Working Plans prepared by the Design-Builder. It is solely the Design-Builder's responsibility to provide Working Plans enabling development of 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 Plans review. Participation in the review of the Design-Builder's Design Plans and/or Working Plans by the Agencies (or Stakeholders, if invited by the Agencies) shall not relieve the Design-Builder of the responsibility for the satisfactory completion of the Work.

Working Plans shall be reviewed and approved in writing by the Designer before beginning the construction Work and shall not thereafter be amended or altered without the Agencies' consultation and written comment and prior written approval of the Designer.

All readiness for construction design, final design and As-Built Plans shall be reviewed, analyzed and checked by the appropriate Responsible Engineer or Responsible Architect and signed and stamped/sealed by such person. Such plans shall include, on the title sheet for the plans, certification signatures of the Design Manager and the Design QA Manager (the title sheet may be formatted to cite the appropriate certification requirements of DB §111-1.4 and DB §111-11.6).

DB 111-17.2 CADD Standards

CADD formatting and organization for Design and As-Built Plans shall conform to the Department's *Highway Design Manual*, Chapter 20 CADD Standards and Procedures. CADD formatting and organization for Design and As-Built Plans for buildings-related design units shall conform to the Authority's CADD standards and shall be in AutoCAD Architecture 2010 format.

DB 111-17.3 Project Specifications

The Design-Builder shall prepare Project Specifications in accordance with Contract requirements, including *Part 8 – Special Specifications*, Construction and Materials Sections 200 through 700. The Design-Builder may:

- A. Use the Department's *Standard Specifications* as supplemented by the Contract;
- B. Prepare supplements to the *Standard Specifications*; and/or
- C. Prepare new specifications to cover Work not covered by the *Standard Specifications*.

Project Specifications, including those based on the Sections 200 through 700 of the Department's *Standard Specifications*, shall be reviewed by the Design-Builder and the Agencies 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 required by the Contract Documents. Any deviation that results in lesser quality will require Agencies approval and may require the execution of an Order-on-Contract. The Agencies shall determine have sole discretion in approval of the Project Specifications and determining whether an Order on Contract is required

Project Specifications shall define the type and frequency of QC Sampling and Testing to be conducted for the Work covered by a Project Specification. DB §112 and latest version of the Agencies' *Materials Inspection Manual* in effect at time of submitting the Proposal shall apply in determining the type and frequency of QC Sampling and Testing. This information shall be used by the Construction QA Manager in determining QA Sampling and Testing.

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New York State Thruway Authority

**TAPPAN ZEE HUDSON RIVER
CROSSING PROJECT**

**DB CONTRACT DOCUMENTS
PART 2**

APPENDIX 111A - FORMS

CONFORMED
November 21, 2012



DB §111 – APPENDIX 111A FORMS INDEX

DR	Design	Review Comments
DUS	Design	Unit Schedule
NC-D	Design	Nonconformance Report
MURK2b	Project	Diary

**FORM DR
DESIGN REVIEW COMMENTS**

Sheet _____ of _____

Design Unit:			Discipline:			
Type of Review (Check One)	<input type="checkbox"/> Definitive	<input type="checkbox"/> Release for Construction	<input type="checkbox"/> Final	<input type="checkbox"/> Other		
Document Being Checked/Submittal:						
Revision Number / Date:						
Reviewer / Checker:				Date:		
No	Ref	Comment	Initial Disposition	Response Final	Disposition	Verifi- cation

Dispositions: *A = Will incorporate; B = Will evaluate; C = Delete comment; D = Will incorporate in next submittal*
Project QA File: _____

FORM DR
DESIGN REVIEW COMMENTS

Sheet _____ of _____

Dispositions: A = Will incorporate; B = Will evaluate; C = Delete comment; D = Will incorporate in next submittal

Project QA File: _____

FORM DUS
Design Unit Schedule (DB Section 111-2)

Design Unit Designation/ Code	Design Unit Description	Planned Review Stages (1)	Information/Components to be Reviewed	Planned Review Dates (Month After NTP)	Percent Complete Represented by Review
		Definitive			
		Final			100%
		Definitive			
		Final			100%
		Definitive			
		Final			100%

(1) Provide information as necessary to reflect additional interim and/or readiness for construction reviews planned between Definitive Design and final Design Reviews.

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Design-Builder's Project Manager

FORM NC-D
DESIGN NON-CONFORMANCE REPORT
(DB Sections 111-11 and 111-16)

From (Originator): _____ Date: _____
(Name and initials of Design QA Manager or Agencies' Project Manager or Designee)

To: _____
(Names of Design-Builder's Project Manager and Responsible Engineer)

Project name/Number: _____ Design Unit ID: _____

Copy: Design Compliance Engineer and Agencies' Project Manager

Transmittal/File No. _____ Applicable Contract Requirement: _____
(Part and Section Number)

The design Work on the referenced Design Unit is not in conformance with the noted Contract requirement for the reasons stated below (Attach additional sheets as necessary):

RESOLUTION: _____ Date: _____

From: _____
(Names and initials of Design-Builder's Project Manager and Responsible Engineer)

To: Originator as noted above

Copy to: Design Compliance Engineer, Agencies' Project Manager, and Design QA Manager

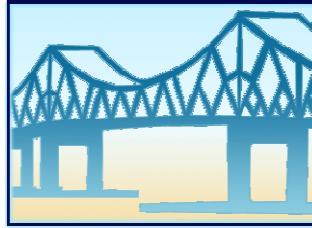
The above noted design non-conformance has been corrected and/or resolved as indicated below (attach additional sheets as necessary):

The following actions have been taken to prevent occurrence of similar non-conformances (attach additional sheets as necessary):

Acknowledgement of Receipt: _____ Date: _____
(Name and initials of Agencies' Project Manager or Designee)

Comments by PD, if any: _____ None _____ [See attached sheet(s)]

Send copy of completed, acknowledged form to Design-Builder and Agencies' Project Manager's files.



New York State Thruway Authority

**TAPPAN ZEE HUDSON RIVER
CROSSING PROJECT**

DESIGN-BUILD PROJECT

DB CONTRACT DOCUMENTS PART 2

**DB SECTION 112
CONSTRUCTION QUALITY
CONTROL/QUALITY ASSURANCE**

CONFORMED
November 21, 2012



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112C	Not Used
112D	Not Used
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PART 2 – DB SECTION 112 - CONSTRUCTION QUALITY CONTROL/QUALITY ASSURANCE

DB 112-1 GENERAL

Per DB §113, the Design-Builder shall develop and implement a quality system for all phases of the Project, including design, construction, typical maintenance during construction as well as maintenance during construction as required in DB §§105-11, 105-12 and 105-13, and environmental compliance. The Design-Builder shall have the responsibility for the quality of the Work, including conducting Quality Control (QC) and Quality Assurance (QA) for all Work and products of Subcontractors, suppliers, and vendors, both on-site and off-site, in accordance with its Design-Builder Quality Plan and applicable Contract requirements. The Agencies will conduct Oversight.

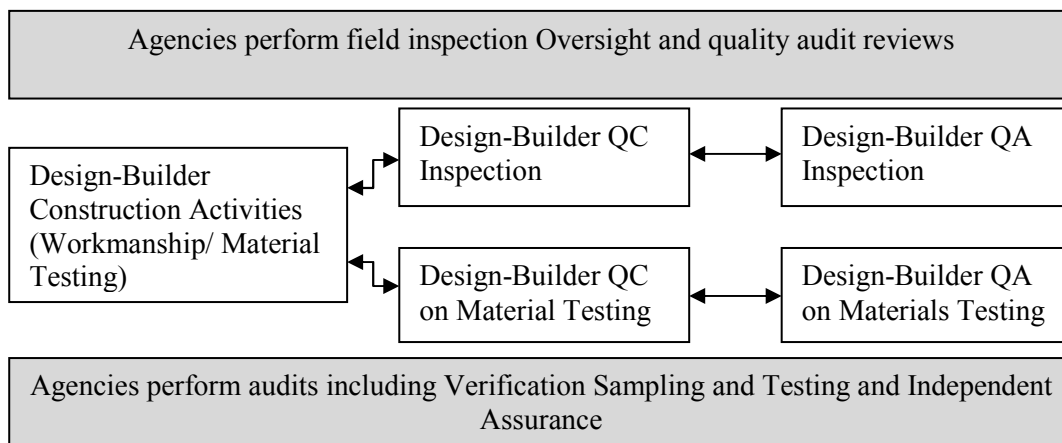
The Design-Builder's quality system shall be capable of ensuring that procurement, shipping, handling, fabrication, installation, cleaning, inspection, construction, sampling and testing, storage, examination, repair, maintenance, and required modifications of all materials, equipment, and elements of 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. The success and ultimate quality of the Project and the resultant end product will require a significant amount of interaction between the Design-Builder and the Agencies.

The Design-Builder shall provide process control measures adequate to produce a constructed product of acceptable quality that conforms to the Contract requirements. 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 Agencies will not take samples or test for process QC and will in no manner assist in controlling the Design-Builder's production operations. 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. Production of non-conforming Work will not be allowed.

Figure 112A shows the general process for QC/QA for the Design-Builder and the Agencies' oversight.

Figure 112A
General Process for Design-Builder's QC/QA and Agencies' Oversight



DB 112-2 INSPECTION, SAMPLING AND TESTING OF MATERIALS

DB 112-2.1 General

All materials are subject to inspection, sampling and testing at all times prior to Final Acceptance of the Work.

References in the Contract to a New York test method or test designation of AASHTO, 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 date of issuance of the Request for Proposals for the Contract unless otherwise noted. The Design-Builder shall comply with all applicable Materials Bureau requirements (see Engineering Bulletin, EB §11-043). All inspection, sampling and testing shall be in accordance with procedural directives issued by the Materials Bureau.

Any deviations from the sampling and testing methods and frequencies indicated in the Department's *Construction Specification* or the individual Project Specifications will require Agencies Approval prior to the start of construction on any affected Work. If there is a discrepancy between the individual Project Specifications and Department's *Construction Specification*, the more stringent requirements shall apply unless otherwise agreed in writing by the Agencies.

As a condition to Final Acceptance, the Design-Builder shall provide proof of acceptable QC and QA testing, certificates of compliance and/or manufacturer's test results where specified in the individual Project Specification or the Department's *Construction Specification* and Oversight findings.

Deficient materials and products shall be brought into compliance with Project Specifications or replaced. The Design-Builder shall note the method of reconciliation in the log of Non-Conformance Reports.

The Agencies' Construction Compliance Engineers (CCEs) and Construction Compliance Monitors (CCMs) may observe any in-process construction or fabrication including any testing performed by the Design-Builder or the Design-Builder's QA Engineering Firm. If the CCEs or CCMs observe a deviation from the Quality Assurance Plan and more specifically the specified sampling and testing procedures, the CCM shall orally describe the observed deviation to the Construction Quality Assurance (QA) Manager, followed by a written Non-Conformance Report covering the deviation to the Construction QC Manager and the Construction QA Manager within 24 hours. See also DB §§ 105-9.1, 105-9.3 and 105-16.

DB 112-2.2 Construction Quality Control Inspection

All construction processes, procedures, and workmanship shall be inspected by the Design-Builder's Construction QC Inspectors. The construction inspections shall include the observations, measurements, and documentation specified in the Design-Builder's Quality Plan. Inspection observations, measurement, results, non-conformances, and corrective actions shall be documented in accordance with the Design-Builder's Quality Plan. Inspection observation and documentation shall include description of construction activity and location by specification section.

DB 112-2.3 Construction Quality Control Sampling and Testing

The Design-Builder's Construction QC Inspectors shall perform sampling and testing for process control.

DB 112-3 QUALITY ASSURANCE INSPECTION

QA Inspection will be performed by the Design-Builder's QA Engineering Firm. The QA Inspectors will verify and assure that the Work is compliant with the Contract Documents as specified, and that daily reports and other required Contract administration documents are prepared and provided as specified. Also, QA Inspectors will prepare daily QA reports that describe the QA activities performed each day, conversations with Construction QA Manager, discussions with the Design-Builder, visits by the

Agencies or other Stakeholders with regulatory responsibility and indications of acceptable or unacceptable work by the Construction Inspectors.

Design-Builder's QA Engineering Firm will perform independent QA inspection of the Work to verify that Work has been performed properly and to the required accuracy, including assurance that the Work is constructed to established lines and grades as shown on the plans and that any required measurements for payments are performed to the prescribed accuracy. The Design-Builder's frequency of QA operations shall be at least equal to current Department practices as established in the Department's *Contract Administration Manual*, *Materials Inspection Manual* and *Construction Inspection Manual*.

DB 112-4 MATERIAL ACCEPTANCE

The acceptance of materials is comprised of both the Design-Builder's Quality Assurance and the Agencies Oversight.

Design-Builder's Quality Assurance of materials shall be based upon QA Inspection and QA Sampling and Testing in conformance with 23 CFR 637 and approved Department procedures as specified in the Department's *Standard Specifications*, Construction and Materials, §§ 200 through 700, using qualified, certified individuals, and utilizing qualified accredited materials laboratories.

The Agencies' Oversight serves to enable the Agencies to satisfy themselves that the construction QA Inspection occurs at the specified QA Sampling and Testing frequency, and that daily reports and other required Contract administration documents are prepared and provided as specified.

DB 112-4.1 Verification Sampling and Testing.

Verification Sampling and Testing will be performed by the Agencies or its designated representatives assigned to this Project.

The verification samples will be taken independently from the QC and QA samples. The verification samples will include separate samples and witness samples. At no time will the verification testing be done on the same sampling and testing devices as the QC and QA testing. Verification Sampling and Testing will be conducted to assess the adequacy of the Quality Plan and the accuracy of the QA Sampling and Testing results. Verification Sampling and Testing will be performed as directed by the Agencies' CCE and CCMs. When verification test results do not validate the QA test results, a Non-Conformance Report will be developed by the Agencies. The QA Engineering Firm shall immediately investigate the source of the non-validation and determine what corrective action is required to avoid recurrence of this nonconformance.. The QA Engineering Firm, working closely with the Design-Builder's design and construction staff shall immediately evaluate and assess the material in question to determine the disposition of the non-validated materials. The Design-Builder shall provide the Agencies with a written explanation why this nonconformance occurred, what corrective action is being put in place to avoid future non-conformances, and information regarding a clearly defensible plan for disposition (exercising good engineering judgment) of the existing non-conforming material which may potentially include removal and replacement, reworking, or repair.

DB 112-4.2 Independent Assurance

Independent Assurance (IA) is a federal requirement (23 CFR Part 637) that helps to reduce the Agencies' risk. Construction QA inspectors will be independently tested to assure both testing proficiency and use of calibrated test equipment. The Agencies will conduct all Independent Assurance testing. Results from the IA testing may not be used as part of the acceptance data.

DB 112-5 INDEPENDENT REFEREE LABORATORY

The Agencies will retain the services of an independent certified laboratory on an on-call basis to act as a referee laboratory for resolution of disputes regarding sampling and testing results reported by the Agencies' verification samplers and testers and the Design-Builder's QA samplers and testers. The services of the referee laboratory may be requested by the Agencies or by the Design-Builder. The samplers and testers results determined by the referee laboratory shall be final and binding on both parties and not subject to disputes resolution under DB §109-10. The party whose sampling and testing results are not confirmed and/or supported by the referee laboratory (i.e., the unsuccessful party) shall be responsible for payment for the referee services. If the Agencies are the unsuccessful party, the Authority will make payment directly to the referee laboratory. If the Design-Builder is the unsuccessful party, the cost of the referee laboratory services will be deducted from payment(s) otherwise due, and the Authority will make payment to the referee laboratory on behalf of the Design-Builder.

The referee laboratory may not be associated with the Project in any capacity other than acting as the referee laboratory, and may not be affiliated with any party to the Contract or with any Principal Participant. The referee laboratory shall not be a department, agency, or office of any Stakeholder.

DB 112-6 COMPETENCE

If a concern arises as to the competence of any certified individual, this concern shall be documented in writing to the Design-Builder's Project Manager and the Authority's Project Manager. The concern will be investigated as deemed necessary by the Authority's Project Manager. If this investigation substantiates the concern, the Design-Builder shall undertake corrective action or decertification following established technician certification processes and protocols.

DB 112-7 DESIGN-BUILDER CONSTRUCTION QUALITY CONTROL ORGANIZATION

The Design-Builder shall assign a Construction Manager and a Construction Quality Control Manager. The Construction Manager and Construction QC Manager shall be located in accordance with the Project Requirements throughout the construction process.

DB 112-7.1 Construction Manager

The Construction Manager shall report to the Design-Builder's Project Manager. The Construction Manager shall be responsible for the coordination, fabrication, production and scheduling of all construction Work on the Project.

DB 112-7.2 Construction Quality Control Manager

The Construction QC Manager shall report to the Construction Manager. The Construction QC Manager shall be responsible for all construction QC activities, including process, materials sampling and testing, and construction inspection.

DB 112-8 DESIGN-BUILDER'S CONSTRUCTION QUALITY ASSURANCE ORGANIZATION

The Quality Plan shall provide information regarding the construction QA organization.

DB 112-8.1 QA Engineering Firm

The Design-Builder shall retain the services of an independent engineering consultant firm (the QA Engineering Firm) to oversee, manage, certify and perform construction QA activities as specified in this DB §112, other Contract Documents and the Design-Builder's Quality Plan. The Design-Builder's QA Engineering Firm shall provide a level of inspection and documentation of the construction Work consistent with those indicated in the Department's *Contract Administration Manual, Materials*

Inspection Manual and *Construction Inspection Manual* and other published Agencies' documents. The QA Engineering Firm shall be responsible for management and scheduling all QA inspection and QA Sampling and Testing of all items of construction Work for this Contract.

The QA Engineering Firm (and any firm acting as a subconsultant to the QA Engineering Firm), shall not be owned by or be an affiliate of the Design-Builder, any Principal Participant, the Designer, or any Subcontractor.

The Construction QA Manager, all Construction QA Inspectors and their support staff shall be employees of the QA Engineering Firm or employees of firm(s) acting as subconsultants to the QA Engineering Firm. The QA Engineering Firm shall report directly for the Construction QA Manager and shall not report to the Design-Builder's Project Manager.

DB 112-8.2 Construction Quality Assurance Manager

The Design-Builder shall assign an on-site Construction QA Manager. The Construction QA Manager shall be an employee of the QA Engineering Firm, shall have no responsibilities in the production of the Work, and shall report to the Design-Builder's Quality Manager not the Design-Builder's Project Manager. The Agencies' Construction Compliance Engineer shall have direct access to the Design-Builder's Construction QA Manager..

The Construction QA Manager shall be responsible for overall management and supervision of the Design-Builder's construction QA systems. The Construction QA Manager shall be a New York-licensed professional engineer.

The Construction QA Manager, or his/her designees, shall have the authority to issue Non-Conformance Reports, orchestrate the evaluation of rejected materials and compile material dispositions for the removal and replacement, rehabilitation or repair of rejected materials, and suspend the Work if necessary or appropriate.

The Construction QA Manager shall be responsible for coordinating the schedules of construction QA Inspectors with the Design-Builder's construction activities.

DB 112-8.3 Construction QA Inspection Personnel

The Design-Builder's QA Engineering Firm shall at a minimum provide a level of inspection and documentation consistent with those indicated in the Department's *Contract Administration Manual*, *Materials Inspection Manual* and *Construction Inspection Manual*. The Design-Builder is responsible for determining the actual size of the required QA field/site staff to meet the Project complexity, production scheduling needs, shifts and composition of QA activities consistent with Work in progress. A need to define a staffing plan of all QA personnel is discussed in DB §113, Quality Plan.

The Quality Plan (DB §113) shall identify all staff pertinent to QA activities.

The staffing for inspectors and samplers should be organized according to ASCE grades for engineering titles and NICET grades for non-engineering titles. These grades are described in the Appendices from the Department's MURK Part 1D *Construction Consultant Manual*.

Construction QA Inspection staff shall include:

- A. Resident engineers with P.E. and other professionals - ASCE grades IV - VII; and/or
- B. Resident engineers without P.E., office engineers, inspectors, surveyors - NICET or ASCE grades I – IV.
- C. administrative/clerical support for the maintenance and management of records/documents.

All Design-Builder Construction QA Inspectors are required to be certified in accordance with NYSDOT Technician Certification Program or North East Transportation Technician Certification Program (NETTCP) www.nettcp.com for Concrete, HMA Paving, Soils & Aggregate, Drilled Shaft, Driven Pile and Subsurface inspections and Concrete, HMA Plant, Soils & Aggregate Lab, PG Asphalt Binder technicians. Inspection of Prestressed Concrete Fabrication requires Precast/Prestressed Concrete Institute (PCI) plant inspector certification. Inspection of steel fabrication shall be conducted by an AWS certified welding inspector who meets QC1 standard for qualification and certification of welding inspectors and inspection of precast concrete post-tensioned systems shall be conducted by a Post-Tensioning Institute (PTI) Level 1, Unbonded PT-field installation, Level 1&2 Bonded PT Field specialist.

The Design-Builder shall maintain a list of Construction QA Inspectors that identifies the test certifications each person currently holds and the certification expiration date. Inspectors will be allowed 90 days from NTP to obtain the certifications.

Construction QA Inspectors will test and sample only those materials which they are certified to test. Reports of each test shall be recorded on the form prescribed for that test. All tests that do not pass specified requirements shall be added to a log of Non-Conformance Reports. This log of Non-Conformance Reports will be used to assure that the non-conforming Work is fully evaluated and dispositions have been completed to the satisfaction of the Agencies.

The QA staffing schedule shall be updated as necessary throughout the Contract duration to reflect accurate forecasting of QA staffing requirements.

DB 112-8.4 Quality Assurance Laboratories

Laboratory QA testing shall be conducted by testing laboratories, retained by the QA Engineering Firm under subcontract, that comply with the requirements for Agencies certification for applicable tests per the Department's *Independent Assurance Sampling and Testing Procedures Manual* for Construction Materials. Laboratories shall be accredited by the AMRL, the CCRL, the NPCA for precasters, and the PCI, as appropriate for the work to be constructed. Agencies 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 the Department's 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 and calibrated at the start of Work and annually thereafter. Certification shall be the responsibility of the Design-Builder and will be audited by the Agencies.

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. At no point shall QA Laboratories or staff be used to test QC Samples.

The Agencies reserve the right to check testing equipment for compliance with specified standards and to check testing procedures and techniques, and equipment calibration dates.

The Agencies also reserve the right to access the testing facilities of the testing laboratories, at no additional cost to the Agencies, to witness the testing and verify compliance of the testing procedures, testing techniques, and test results.

DB 112-9 DESIGN-BUILDER SCHEDULING AND NOTICE TO THE AGENCIES

The Design-Builder and the Agencies shall hold weekly construction coordination meetings to provide updates on all construction activities for the upcoming week and a two and three week look ahead. Review of outstanding and pending items shall also be discussed at the weekly coordination meeting.

During the coordination meeting, the Design-Builder shall notify the Agencies in writing of planned construction activities, including fabrication, for the following two weeks to allow the Agencies to schedule its resources. For activities (such as, fabrication) occurring out of the immediate Project area (beyond 100 miles of the Project), the Design-Builder shall give the Agencies at least 21 days' notice of planned Work.

DB 112-10 PAYMENT PROCESSING

A monthly progress audit will be performed and any required correction will be made to the progress ~~pay~~ payment estimate.

See DB §109 regarding payment processing.

DB 112-11 DOCUMENTATION

The Design-Builder shall collect and preserve each of the following types of data in written form concurrently during Design-Builder's performance of the Work, all of which shall be in form acceptable to the Agencies. The Design-Builder shall use Section 90 of the Department Contract Administration (see Exhibit III, Tab 3, Reference Documents) as a basis for determining the nature and extent of information to be documented for:

- A. Daily inspection reports;
- B. As-Built Plans;
- C. Field books and computation books;
- D. Materials Quality Control and shared copies of Agencies 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 112E* or other forms with a format acceptable to the Authority's Project Manager.

A daily log for construction-related activities shall be maintained by Design-Builder's Project Manager or his/her designee(s), using Form MURK 2b(DB-CQC) (*Appendix 112E*) or another form acceptable to the Authority's Project Manager, in which shall be recorded daily in a narrative form all significant occurrences on the Project, 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. Traffic accidents in the Project area shall also 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 management Work, such data shall be maintained separately for each site.

Records shall document all QC and QA operations, Inspections, activities, and sampling and testing performed, including the Work of Subcontractors. The Design-Builder may use the forms provided by the Agencies 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 DB §108;
- B. Weekly.

The Design-Builder's QA Engineering Firm 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 QA 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 QA 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 112-11.1 Electronic Records Management System

The Design-Builder shall provide and use an Electronic Records Management System (ERMS) for comprehensive construction management that will be used by the Design-Builder and the Agencies. The ERMS shall seamlessly cover the complete construction and materials management process from contract award through contract finalization. The Design-Builder and the Agencies shall both use the ERMS for (without limitation):

- A. Field collection daily work reports (DWR) - including weather, contractor staff and equipment, extensive remark capabilities; Work item progress, DWR templates; sampling and testing; and diaries.
- B. Orders on Contract such as time extensions and scope of contract. ERMS shall have an automated approval work flow.
- C. materials management. Material management within the ERMS shall include item master and automated contract material associations; approved lists (inspectors, testers, calibrated equipment, welders, qualified labs, producers/suppliers); sampling and testing requirement definition and tracking; and unlimited user-definable templates.

The Design-Builder shall provide the Agencies (and invited stakeholders) with appropriate training and equipment to use the Design-Builder's ERMS.

DB 112-12 MATERIAL CERTIFICATES OF COMPLIANCE

When the Design-Builder purchases materials from providers/suppliers shown on the Department's approved materials or source list, the Design-Builder shall obtain and retain a certificate of compliance from the provider/supplier covering the materials and/or source.

Documentary evidence that material and equipment conform to the procurement requirements shall be available at the 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, Standards, or specifications, met by the purchased material and equipment. The effectiveness of the QC by the Design-Builder's own forces and Subcontractors shall be assessed by the QA Engineering Firm at intervals consistent with the importance, complexity, and quantity of the product or services.

The Agencies 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 the Construction QA Manager indicating that all materials incorporated in the Project conform to the Contract requirements.

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New York State Thruway Authority

**TAPPAN ZEE HUDSON RIVER
CROSSING PROJECT**

DESIGN-BUILD PROJECT

DB CONTRACT DOCUMENTS PART 2

**D 3 SECTION 112 Appendix A
CONSTRUCTION QUALITY SYSTEMS**

**CONFIRMED
November 21, 2012**

**Contract D214134
PIN 8TZ1.01
Project TA#: TANY 12-18B**

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DB SECTION 112 Appendix A CONSTRUCTION QUALITY SYSTEMS

The Design-Builder shall perform QC and QA at off site locations as required. This includes but is not limited to earthwork and gravel borrow sources, Hot Mix Asphalt materials and production, Concrete materials and concrete production, steel, precast products, masonry, bearings, structural steel paints – shop applied, bridge railing, culvert materials, guiderail, landscape products, traffic control materials, sign structures, frames and grates, and any other materials deemed necessary to assure product quality.

Further, use of approved list of materials is expected for commonly available products. Use of materials that are not on the approved list will require the Design-Builder to provide appropriate evaluation and test results to prove durability of the material for the planned use to the satisfaction of the Agencies. Such product evaluation will typically consist of laboratory testing per AASHTO, ASTM, or Agencies requirements, performed by an independent certified lab.

Design-Builder's use of materials for which there is not an approved list category will require, in the Design-Builder's Quality Plan, those tests and evaluations to prove the durability of unique materials before use in the project. In many cases, physical testing should be performed by an independent laboratory. A planned frequency of sampling and testing, commensurate with the level of risk of the product proposed for use, must be provided in the Design-Builder's Quality Plan.

Design-Builder's QA and QC activities will be implemented according to values defined and agreed upon with the Agencies and tabulated in a manner similar to the following sample table. The level of risk for various items will determine the frequency at which the Design-Builder will conduct QA and QC Sampling and Testing. At a minimum, the Design-Builder's QA and QC Sampling and Testing shall be at least equal to current practices of the Agencies as established in the Department's *Contract Administration Manual*, *Materials Inspection Manual* and *Construction Inspection Manual*, and other Department and/or Authority documents. Statistical methods may be considered for use by the Agencies to evaluate the effectiveness of Sampling and Testing for acceptance purposes.

The Agencies will perform Verification Sampling and Testing as outlined below:

1. Level 1 provides continuous analysis for those categories that are strong indicators of performance. Examples include compressive strength for hydraulic cement concrete, percent soil compaction for embankment, and percent asphalt content for Hot Mix Asphalt Concrete. The QA testing frequency is in compliance with various Agencies documents, and the Agencies' Verification Sampling and Testing frequency should be minimum 25% of the QA testing frequency.
2. Level 2 provides independent verification for those materials that are secondary indicators of performance. An example is the slump test for hydraulic cement concrete. Approved list products that require more than manufacturer certification to assure quality are covered under this item. The QA testing frequency is required to be in compliance with various Agencies documents and the Agencies' Verification Sampling and Testing frequency should be minimum 10% of the QA testing frequency.
3. Level 3 provides observation verification for those materials that only require very few QA tests for compliance with various Agencies documents or where materials are accepted based on inclusion in the Department's approved list of materials. For these materials, risk of failure does not affect the long-term performance of the facility provided approved products are used. The Design-Builder should perform QC and QA as required. Under the Level 3 approach, Agencies Oversight does not perform tests but observes any QC and QA test performance for equipment and procedural compliance.

for a product. The frequency of this testing is a minimum of once per calendar year per test method, or periodically as determined by the Authority's Project Manager. For Level 3, the Construction Compliance Monitor will observe the Q C and Q A technician performing the test. Review of documentation for certifications from manufacturers will be progressed through random audits.

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NYS DOT Specification Section	Construction Inspection Requirement	Documentation Form(s)
All	<ul style="list-style-type: none">• Location and type of Work• Personnel and Equipment• Weather and Site conditions• Checks for Compliance with Design Plans and Project Specifications• Extent of Work• Problems encountered	MURK 1d (DB CQC), MURK 2b (DB-CQC), Design-Builder’s Daily QC Project Diary
201 – Clearing and Grubbing	<ul style="list-style-type: none">• Clearing and grubbing limits• Disposal• Salvage of marketable timber• Protection and restoration	MURK 1d (DB CQC)
202 – Removal of Structures and Obstructions	<ul style="list-style-type: none">• Safety• Engineering survey• Utilities (capping and protection)• Unauthorized entry• Hazardous Materials occurrence• Exterminations• Dust control• MPT• Disposal of Materials• Salvage	MURK 1d (DB CQC)
203 – Excavation and Embankment	Cross reference failing and passing tests	
	Drilling and blasting operations	Form GE-469 (DB), Blasting Report
	Compaction and compactive effort	MURK-1 (DB CQC), Inspector’s Daily Report Form SM-384A, Compaction Control Data Sheet Form SM-417B, Field Compaction Data Sheet – Sand Cone or Volumeter Apparatus Form SM-418B, Field Compaction Data Sheet –Nuclear Direct Transmission

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NYS DOT Specification Section	Construction Inspection Requirement	Documentation Form(s)
	Material source and stockpile construction features	MURK-1 (DB CQC), Inspector's Daily Report
	Settlement measurement	Form GE-435, Settlement Report – Manometer Gage Form GE-436, Settlement Report – Rod Gage Form GE-437, Settlement Report – Pipe Gage
	Pore water pressures	Form GE-264, Pore Pressure Report/Vibrating Wire Piezometer
	Slope movements	Form GE-422, Slope Indicator Data Sheet
204, Controlled Low Strength Material (CLSM)	<ul style="list-style-type: none"> Materials: Flow test, Cylinder breaks Placement 	MURK 1d (DB CQC)
206, Trench, Culvert & Structural Excavation	<ul style="list-style-type: none"> Safety Support and protective systems Test pits Trench and Culvert excavation Disposal of excavated Material 	MURK 1d (DB CQC)
207, Geotextile	Brand name and type	MURK-1 (DB CQC), Inspector's Daily Report
	Protection of Material Material acceptance (Approved List)	MURK-1 (DB CQC), Inspector's Daily Report MURK 14,
209, Soil Erosion and Sediment Control	Checks, tests, and activity relating to mulching, temporary seeding, check dams, strawbales, haybales, sediment traps, turbidity curtains, silt fences, and fence removal	MURK-1 (DB CQC), Inspector's Daily Report
210, Removal and Disposal of Asbestos Containing Material	<ul style="list-style-type: none"> Compliance with regulatory standards Air quality monitoring Disposal 	MURK 1d (DB CQC) and forms as required by regulations

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NYSDOT Specification Section	Construction Inspection Requirement	Documentation Form(s)
301, Bituminous Stabilized Course	<ul style="list-style-type: none"> • Results of stockpile sampling and testing • Bituminous materials and stabilized course • Pugmill calibration • Additional Inspection/documentation • Approved Material incorporated, including source and stockpile • Weather and time of year restrictions met • Placement and compaction 	<p>Form GE-454, Granular Material Documentation Form</p> <p>Form GEB-352b (DB), Project Inspection Report- Bituminous Stabilized Course</p> <p>Form BEB-423b (DB), Bituminous Pugmill Calibration Form</p> <p>MURK-1d (DB CQC), Inspector's Daily Report</p>
303, Optional Flexible Shoulder	<ul style="list-style-type: none"> • Material and Quality Control (QC) per Sections 302, 304 and 401 	<p>See Sections 302, 304 & 401</p>
304, Subbase Course	<ul style="list-style-type: none"> • Information documented on MURK 1d • Equipment used for compaction and number of passes • Lift thickness prior to compaction • Thickness of subbase Material placed • Addition of water to subbase • Construction of stockpiles • Only Material from approved source or stockpile incorporated in Work • Results of stockpile sampling and testing, in accordance with the requirements of GCP-17 	<p>MURK 1d (DB CQC), Inspector's Daily Report</p> <p>Form GE-454M, Granular Material Documentation Form SM-15B, Sieve Analysis Data</p>

NYSDOT Specification Section	Construction Inspection Requirement	Documentation Form(s)
307, Hydrated Lime Stabilized Subgrade	<ul style="list-style-type: none">• Inspect and document the following:• Equipment used• Moisture added• Preparation of foundation• Scarifying• Lime application• Mixing (primary and secondary)• Compaction, shaping, and finishing• Curing• Compliance with weather limitations• Safety and protection	MURK 1d (DB CQC), Inspector’s Daily Report
308, Soil Cement Course	<ul style="list-style-type: none">• Inspect and document the following:• Material source and stockpile construction• Preparation, application of cement, mixing, spreading, placement, compaction, and finishing in accordance with Project Specifications• Curing and surface treatment• Compliance with weather limitations• Stockpile sampling and testing	MURK 1d (DB CQC), Inspector’s Daily Report GE-454M, Granular Material Documentation Form

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NYSDOT Specification Section	Construction Inspection Requirement	Documentation Form(s)
401, Plant Production	Materials <ul style="list-style-type: none"> • HMA design • Aggregates • Aggregate source • Mineral filler • PG binder • Recycled asphalt pavement • Construction • Determination of lots and sublots • Mixing and holding time • Production control • Production quantities • Plant and Equipment, including Inspection facilities 	<p>MURK 1d (DB CQC)</p> <p>Form BR-162, Bituminous Materials Certified Shipment Notice</p>
402, Hot Mix Pavements	<p>Inspect and document the following:</p> <ul style="list-style-type: none"> • Composition of mixtures • Weather and seasonal limitations • Type and grade of bituminous Material • Equipment, including hauling Equipment • Paver and Equipment cleaning • Condition of existing surface • Spreading and finishing • Compaction/pavement density • Joints • Surface and thickness tolerances 	<p>MURK 1d (DB CQC), Inspector's Daily Report</p>
403, Hot Mix Asphalt Pavement for Municipalities	<ul style="list-style-type: none"> • Composition of mixes • Aggregate • Mineral filler • Binder • Condition of existing surface • Compaction 	<p>MURK 1d (DB CQC), Inspector's Daily Report</p>

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NYSDOT Specification Section	Construction Inspection Requirement	Documentation Form(s)
18403, Joint and Crack Sealing	Inspect and document: <ul style="list-style-type: none"> • Equipment • Crack/joint preparation • Discharge temperatures • Curing 	MURK 1d (DB CQC), Inspector's Daily Report
405, Cold Mix Bituminous Pavement (Open Graded)	Inspect and document: <ul style="list-style-type: none"> • Aggregate • Composition of mixtures • Compliance with weather limitations • Equipment • Preparation of base • Mixing and spreading • Compaction • Surface testing • Pavement sealing • Bituminous material 	MURK 1d (DB CQC), Inspector's Daily Report Form BR-162, Bituminous Material Certified Shipment Notice
407, Tack Coat	Inspect and document: <ul style="list-style-type: none"> • Bituminous material • • • Preparation of tack coat • Time to paving (curing/breaking) • Maintenance of traffic • Application 	Form BR-162c 9DB), Bituminous Material Certified Shipment Notice Form BR-170 (DB), Bitumen or Mix Sample MURK 1d (DB CQC), Inspector's Daily Report

NYS DOT Specification Section	Construction Inspection Requirement	Documentation Form(s)
410, Bituminous Surface Treatment, Single Course	Inspect and document: <ul style="list-style-type: none">• Bituminous material• • • Aggregate compatibility with bitumen• Compliance with weather and seasonal limitations• Surface preparation• Application• Bitumen• Cover aggregate• Cleanup	Form BR-162c 9DB), Bituminous Material Certified Shipment Notice Form BR-170 (DB), Bitumen or Mix Sample MURK 1d (DB CQC), Inspector’s Daily Report
490, Cold Milling	Inspect and Document: <ul style="list-style-type: none">• Controls• Equipment• Cleaning• Milling	MURK 1d (DB CQC), Inspector’s Daily Report
501, Portland Cement Concrete, General	Inspect and document: <ul style="list-style-type: none">• Plant• • • • • Materials• • • • • For Structural Concrete, information required on MURK 5d (DB CQC)	BR 316a, Daily Concrete Batch Plant Report (on- and off-site plants) with Materials Acceptance Records Plant Inspector’s Diary Copy of mix design or Form BR-329, Concrete Mix Design Sheet Cement shipment certifications or cement shipment authorization and cement sample logs BR 342, Materials certification (certified batches only) Delivery tickets MURK 5d (DB CQC), Design-Builder’s Structural Concrete Inspector’s Daily Report

NYSDOT Specification Section	Construction Inspection Requirement	Documentation Form(s)
502, Portland Cement Concrete Pavement	<p>Inspect and document information required on specified form, including:</p> <ul style="list-style-type: none">• High & low ambient temperature during placement• Mixer type• Slump• Air content• Concrete specifications• BR 316 Report number• Concrete Mixing, Transporting & Discharging checks five (5) times each production day:• Central Mix – Time, End of discharge• Truck mix – time, begin and end of mixing, end of discharge and mixing revolutions• Transit Mix – Time, begin and end of discharge and mixing revolutions• Thickness Tolerance• Compliance with weather and seasonal limitations• Equipment• Forms• Preparation of subbase• Placing and spreading concrete• Finishing and texturing• Joints• Curing• Removing Forms (fixed form paving)• Protection of pavement• Surface test• Sealing joints	MURK 3, Concrete Pavement Daily Field Inspection Report

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NYSDOT Specification Section	Construction Inspection Requirement	Documentation Form(s)
503, Portland Cement Concrete Foundation for Pavement	Inspect and Document: <ul style="list-style-type: none"> • Materials – See 501 • Surface tolerance • Texturing • Curing 	MURK 3, Concrete Pavement Daily Field Inspection Report
551, Pile and Pile Driving Equipment	<ul style="list-style-type: none"> • Inspect equipment and prepare Form BD 138M, Pile and Pile Driving Equipment Data • Pile material deliveries • Complete Pile Driving Record • • Inspect and document: • Storage and handling of piles • Preparation of piles • Shoes • Splices • Driving method(s) • Length of piles • Variation in pile alignment • Cutting off piles and pile casings • Painting exposed piles • Dynamic testing of piles • Reject defective piles and document reason and disposition 	Form BD 138M, Pile and Pile Driving Equipment MURK 1d (DB CQC), Inspector's Daily Report Form BD-25M, Pile Driving Record Form BD-26M, Pile Driving Record Daily Summary MURK 1d (DB CQC), Inspector's Daily Report
552, Support & Protective Systems	<ul style="list-style-type: none"> • Materials • Safety • Permanent Sheeting • Temporary sheeting • Interim sheeting • Excavation protective systems 	MURK 1d (DB CQC), Inspector's Daily Report

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NYSDOT Specification Section	Construction Inspection Requirement	Documentation Form(s)
553. Cofferdams and Water Diversion Structures	<ul style="list-style-type: none"> • Materials • Cofferdams • Structure • Dewatering Equipment • Sediment removal areas • Temporary water diversion structure • Removal 	MURK 1d (DB CQC), Inspector's Daily Report
554, Mechanically Stabilized Earth System	<ul style="list-style-type: none"> • Materials • Construction • Placement area • Facing units • Structure erection • Methods & Equipment • Leveling pad • Backfill • Reinforcing 	Backfill sampling and testing is addressed under GCP-17.
555, Structural Concrete	Inspect and document: <ul style="list-style-type: none"> • Reinforcing bars: (See also 556) • Handling and storage • Installation • Plan clearances • Forming operations • Form support • Joints • Wall layout for waterstops • Construction joints • Concrete operations • Prior to placing • Placing sequence • Adequacy of personnel and equipment • Concrete supply 	MURK 1d (DB CQC), Inspector's Daily Report

NYS DOT Specification Section	Construction Inspection Requirement	Documentation Form(s)
	<ul style="list-style-type: none">• Conveyance system• Forms• Curing materials• Admixtures• Prewetting• Placing• Finishing• Curing• Cold weather concreting• Verify permission• Ambient temperature• Maintaining temperature• Safety/ventilation• Insulation• External heat and enclosures• Hot weather concreting• Underwater concrete placements	
556, Reinforcing Steel for Concrete Structures	Inspect and document: <ul style="list-style-type: none">• Storing and handling• Placing and fastening• Field bending• Field repair• Splices• Placement in structural slabs• Stud shear connectors for bridges	MURK 1d (DB CQC), Inspector’s Daily Report

NYS DOT Specification Section	Construction Inspection Requirement	Documentation Form(s)
557, Superstructure Slabs and Structural Approach Slabs	Inspect and document: <ul style="list-style-type: none">• Compliance with specified restrictions• Forming• Forms• Support Systems• Haunch depths• Permanent corrugated metal forms• Joints• Drainage• Placing and fastening reinforcing steel• Concreting Operations (see 555)• Finishing Integral Wearing Surfaces	MURK 1d (DB CQC), Inspector’s Daily Report
558, Transverse Sawcut Grooving of Structural Slab Surface	Inspect and document: <ul style="list-style-type: none">• Grooving layout• Grooving geometry• Grooving operations	MURK 1d (DB CQC), Inspector’s Daily Report

NYSDOT Specification Section	Construction Inspection Requirement	Documentation Form(s)
560, Masonry	<p>Inspect and document:</p> <ul style="list-style-type: none">• Materials• Dimension stone masonry• Split face concrete masonry• Stone masonry• Rubble stone masonry• Precast concrete coping• Mortar• Compliance with weather limitations• Construction (See Section 560, Part IX)• Dimension stone masonry• Split face concrete masonry• Stone masonry• Rubble stone masonry• Rubble stone masonry laid dry• Precast concrete coping	MURK 1d (DB CQC), Inspector’s Daily Report
563, Prestressed Concrete Units	<p>Inspect and document:</p> <ul style="list-style-type: none">• When receiving units:• Inspector’s stamp of approval• Units against Report of Acceptance of Structural Concrete• Damage during shipment• Camber• Dimensional tolerance• Visual defects• Erection• Repair	MURK 1d (DB CQC), Inspector’s Daily Report

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NYSDOT Specification Section	Construction Inspection Requirement	Documentation Form(s)
564, Structural Steel	Inspect and Document: <ul style="list-style-type: none"> • Materials • Field Fabrication • Field Welding • Repairs • Erection • Site storage & handling 	MURK 1d (DB CQC), Inspector's Daily Report
565, Bridge Bearings	<ul style="list-style-type: none"> • Materials • Fabrication • Protective coatings • Bearing surface preparation • Anchor bolts • Pad installation • Welding • Grouting 	MURK 1d (DB CQC), Inspector's Daily Report
566, Modular Expansion Joint System	<ul style="list-style-type: none"> • Materials-System • Fabrication • Installation 	MURK 1d (DB CQC), Inspector's Daily Report
567, Armored Bridge Joint System	<ul style="list-style-type: none"> • Materials • Fabrication • Cleaning • Assembly • Installation • Preparation • Handling and Storage 	MURK 1d (DB CQC), Inspector's Daily Report
568, Bridge & Culvert Railing	<ul style="list-style-type: none"> • Materials • Erection • Cement Mortar Pads 	MURK 1d (DB CQC), Inspector's Daily Report

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NYSDOT Specification Section	Construction Inspection Requirement	Documentation Form(s)
569, Permanent Concrete barrier for Structures	<ul style="list-style-type: none"> • Materials • Fabrication • Tolerances • Precast • Cast-in-Place 	MURK 1d (DB CQC), Inspector's Daily Report
570, Environmental Ground & Water Protection	<ul style="list-style-type: none"> • Materials • Ground Protection • Waste materials • Air filtering • Removal and disposal of waste • Waterway Protection • Collections • Floating waste containment & disposal 	MURK 1d (DB CQC), Inspector's Daily Report
571, Treatment and Disposal of Paint Removal Waste	<ul style="list-style-type: none"> • Containers • Labeling • Documentation Preparation • Waste Composition • Stabilization 	MURK 1d (DB CQC), Inspector's Daily Report
572, Structural Steel Paint System: Shop Applied	<ul style="list-style-type: none"> • Materials • Abrasive • Paint • Paint Inspection Equipment • Cleaning • Painting – General • Painting – Application Methods • Shop Painting • Field Painting 	MURK 1d (DB CQC), Inspector's Daily Report
576, Bridge Drainage System	<ul style="list-style-type: none"> • Materials • Fabrication • Erection 	MURK 1d (DB CQC), Inspector's Daily Report

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NYSDOT Specification Section	Construction Inspection Requirement	Documentation Form(s)
578, Bonded Concrete Overlay for Structural Slabs	<ul style="list-style-type: none"> • Materials • Blast cleaning • Preplacement wetting • Bonding grout placement • Handling and placing concrete • Finishing and curing slab reconstruction concrete • Finishing bonded concrete overlay • Curing bonded concrete overlay 	MURK 1d (DB CQC), Inspector's Daily Report <i>See also documentation for Section 501</i>
579, Structural Slab Reconstruction Preparation	<ul style="list-style-type: none"> • Materials • Equipment • Scarification • Reinforcing Bar Exposure • Full Depth Patches • Hydrodemolition Equipment • Water filtration and disposal • Water retention • Debris removal 	MURK 1d (DB CQC), Inspector's Daily Report
582, Removal and Replacement of Structural Concrete	<ul style="list-style-type: none"> • Materials • Removal of Unsound Concrete • Preparation of Surface • Placement • Form Removal • Curing 	MURK 1d (DB CQC), Inspector's Daily Report

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NYSDOT Specification Section	Construction Inspection Requirement	Documentation Form(s)
583, Shotcrete	<ul style="list-style-type: none"> • Materials • Equipment • Qualification Test • Preparation of Surfaces • Preparation of Materials • Placement • Weather • Quality Control • Test Panels • Coring • Finishing • Curing 	MURK 1d (DB CQC), Inspector's Daily Report
584, Specialized Overlays for Structural Slabs	<ul style="list-style-type: none"> • Materials • Manufacture of Class DP Concrete • Manufacture of Microsilica Concrete • Equipment • Limitations of Operations • Blast Cleaning • Preplacement Wetting • Bonding Grout Placement • Handling and Placing Concrete • Finishing and Curing • Construction Joints • Defective or Damaged Concrete 	MURK 1d (DB CQC), Inspector's Daily Report <i>See</i> also documentation for Section 501
585, Structure Lifting Operations	<ul style="list-style-type: none"> • Lifting Equipment • Lifting Operations 	MURK 1d (DB CQC), Inspector's Daily Report

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NYS DOT Specification Section	Construction Inspection Requirement	Documentation Form(s)
587, Bridge Railing reconstruction	<ul style="list-style-type: none"> • Materials • Bridge Railing Removal • Bridge railing Storage • Bridge Railing Installation (<i>see</i> Section 568) • Tie Beam Installation • Direct Attachment • Separate Post Installation 	MURK 1d (DB CQC), Inspector's Daily Report
589, Removal of Existing Steel	<ul style="list-style-type: none"> • Work Plan • Paint Removal • Cutting • Fastener Removal • Disassembly of Welded Connections 	MURK 1d (DB CQC), Inspector's Daily Report
590, Adjustment of Bridge Appurtenances	<ul style="list-style-type: none"> • Materials • Galvanized Parts and Repairs • Welding 	MURK 1d (DB CQC), Inspector's Daily Report
594, Timber and Lumber	<ul style="list-style-type: none"> • Materials • Erection • Treatment after Fabrication • Permits 	MURK 1d (DB CQC), Inspector's Daily Report
596, Open Steel Floor	<ul style="list-style-type: none"> • Materials • Fabrication • Shop Painting • Placement • Field Welding • Field Painting 	MURK 1d (DB CQC), Inspector's Daily Report
597, Timber Bridge Railing and Transition	<ul style="list-style-type: none"> • Materials • Fabrication • Galvanizing • Railing • Field Repair • Installation/Erection 	MURK 1d (DB CQC), Inspector's Daily Report

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NYSDOT Specification Section	Construction Inspection Requirement	Documentation Form(s)
602, Rehabilitation of Culvert and Storm Drain Pipe	<ul style="list-style-type: none"> • Materials • Existing Pipe Preparation • Handling and Installing Relining Materials • Installation • Curing • Workmanship • Lateral Connections • Damaged Pipe and Repairs 	MURK 1d (DB CQC), Inspector's Daily Report
603, Culverts and Storm Drains	<ul style="list-style-type: none"> • Materials • Excavation • Laying Pipe • Bedding and Backfill • Damaged Pipe and Repairs • Field Strutting of Corrugated Structural Plate Pipe • Joints • Concrete Paving for Corrugated Structural Plate Pipe • Relaying Pipe • Anchor Bolts 	MURK 1d (DB CQC), Inspector's Daily Report
604, Drainage Structures	<ul style="list-style-type: none"> • Materials • Excavation • Installation • Backfill – See GCP-17 	MURK 1d (DB CQC), Inspector's Daily Report
605, Underdrains	<ul style="list-style-type: none"> • Materials • Bed Preparation • Placement • Pipe Installation • Filter Installation • Backfill and Compaction – see GCP-17 	MURK 1d (DB CQC), Inspector's Daily Report

NYS DOT Specification Section	Construction Inspection Requirement	Documentation Form(s)
606, Guide Railing	<ul style="list-style-type: none">• Materials• Equipment• Rail Elements• Field Repair• Field Welding• Erection/Installation• Anchor Units• End Terminals and Assemblies• Concrete• Dimensional Tolerances• Joints• Concrete Placement• Form Removal and Finishing• Curing• Reinforcement• Defects• Repair	MURK 1d (DB CQC), Inspector’s Daily Report
607, Fences	<ul style="list-style-type: none">• Materials• Clearing and Grubbing• Grounding (where required)• Post Placement and Spacing• Post Foundations• Installation/Erection	MURK 1d (DB CQC), Inspector’s Daily Report

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NYSDOT Specification Section	Construction Inspection Requirement	Documentation Form(s)
608, Sidewalks, Driveways and Bicycle Paths	<ul style="list-style-type: none"> • Concrete (<i>see</i> 501 and 502) • Wire Reinforcement • Construction Joints • Finishing • Asphalt (<i>see</i> 402) • Brick, Stone and Concrete Block • Paving Pattern • Installation • Curing 	MURK 1d (DB CQC), Inspector's Daily Report
609, Curb and Curb & Gutter	<ul style="list-style-type: none"> • Materials • Alignment and Grade • Preparation of Mixture • Preparation of Surface • Placing • Curing 	MURK 1d (DB CQC), Inspector's Daily Report
610, Turf and Wildflower Establishment	<ul style="list-style-type: none"> • Materials • Application of Soil Amendments • Rates • Limitations • Seed Inoculation • Ground Preparation and Seeding • Mulching • Care during Construction 	MURK 1d (DB CQC), Inspector's Daily Report
611, Planting	<ul style="list-style-type: none"> • Materials • Location • Delivery • Storage • Ground Preparation • Setting Plants • Restoration • Care of Plantings 	MURK 1d (DB CQC), Inspector's Daily Report

NYS DOT Specification Section	Construction Inspection Requirement	Documentation Form(s)
612, Sodding and Placing Erosion Control Materials	<ul style="list-style-type: none">• Materials• Sod• Limitations• Procuring Sod• Ground Preparation• Finishing Grade• Placing Sod• Anchoring• Finishing• Care during Construction• Erosion Control Materials• Limitations• Ground Preparation and Installation• Care and Repair	MURK 1d (DB CQC), Inspector’s Daily Report
613, Topsoil	<ul style="list-style-type: none">• Materials• Preparation of Area• Placing and Spreading• Restoration	MURK 1d (DB CQC), Inspector’s Daily Report
614, Care, Thinning and removal of Trees	<ul style="list-style-type: none">• Materials• Care of Trees• Equipment• Pruning• Fertilizing• Cleanup and Disposal• Selective Thinning• Tree Removal• Procedures• Disposal of Wood	MURK 1d (DB CQC), Inspector’s Daily Report
615, Landscape Miscellaneous	<ul style="list-style-type: none">• Materials (Water)• Watering	MURK 1d (DB CQC), Inspector’s Daily Report

NYS DOT Specification Section	Construction Inspection Requirement	Documentation Form(s)
618, Bituminous Material	<ul style="list-style-type: none">• Materials• Construction (<i>see</i> 401, 402, 403, 405, 407 & 410	MURK 1d (DB CQC), Inspector’s Daily Report <i>See</i> 401, 402, 403, 405, 407 & 410

NYS DOT Specification Section	Construction Inspection Requirement	Documentation Form(s)
619, Maintenance and Protection of Traffic (MPT)	<ul style="list-style-type: none">• Materials• Surface Condition• Drainage• Bus Stops• Protection of Pedestrian Traffic• Intersecting Traffic• Dust Control and Spillages• Flaggers• Repairs• Snow and Ice Control• Delineation and Guiding Devices• Project Site Patrol• Shadow Vehicle• Construction Signs, Temporary Barriers, Construction Barricades and Lighting• Temporary Structures and Approaches• Short-Term Pavement Markings• Temporary Traffic Signals• Railroad Protection• Mailboxes• Maintenance of Traffic Signal Equipment• Flashing Arrow Board• Construction Zone Pavement Markings• MPT during Nighttime Operations• Cleaning• Dust Control• Channelization, Delineation and Pavement Dropoff Protection• Signs and Sign Covers• Existing Pavement Markings• Exposed Guide Railing, Median Barriers and Rail Ends	MURK 1d (DB CQC), Inspector’s Daily Report

New York State Thruway Authority

NYSDOT Specification Section	Construction Inspection Requirement	Documentation Form(s)
620, Bank and Channel Protection	<ul style="list-style-type: none"> • Materials • Ground Surface Preparation • Bedding Material • Stone Filling • Riprap (Plain and Grouted) • Concrete Block Paving • Gabions 	MURK 1d (DB CQC), Inspector's Daily Report
623, Screened Gravel, Crushed Gravel, Crushed Stone, Crushed Slag	<ul style="list-style-type: none"> • Materials • Placement • Material is on Approved List 	MURK 1d (DB CQC), Inspector's Daily Report
624, Paved Gutters	<ul style="list-style-type: none"> • Materials • AC Gutters • Preparation of Bed • Placing • Sealing • Conventional Formed Concrete Gutters • Forming and Placement • Construction Joints • Curing • Machine-Formed Gutter (<i>see</i> 609) • Precast Gutters (<i>see</i> 609) • Cobble Gutters • Construction • Joints 	MURK 1d (DB CQC), Inspector's Daily Report
630, Barricades	<ul style="list-style-type: none"> • Materials • Excavation • Erection • Backfill 	MURK 1d (DB CQC), Inspector's Daily Report

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NYS DOT Specification Section	Construction Inspection Requirement	Documentation Form(s)
633, Conditioning Existing Pavement	<ul style="list-style-type: none"> • Materials • Cleaning Pavement and Shoulders • Cleaning, Sealing and Filling Joints and Cracks 	MURK 1d (DB CQC), Inspector's Daily Report
635, Cleaning and Preparation of Pavement Surfaces for Pavement Markers	<ul style="list-style-type: none"> • Materials • MPT and Safety • Cleaning Method • Dust Control • Protection of Pavements and Seals • Limits of Work • Cleaning Concrete Curing Compounds • Cleaning Existing Pavement Markings • Replacement of Pavement Markings 	MURK 1d (DB CQC), Inspector's Daily Report
638, White Synthetic Resin Binder Concrete	<ul style="list-style-type: none"> • Materials • Weather Limitations • Preparation of Mixture • Preparation of Surface • Paving • Compaction 	MURK 1d (DB CQC), Inspector's Daily Report
640, Reflective Pavement Marking Paints	<ul style="list-style-type: none"> • Materials • MPT • Preparation • Application 	MURK 1d (DB CQC), Inspector's Daily Report
644, Sign Structures	<ul style="list-style-type: none"> • Materials • Fabrication • Transportation • Excavation • Foundations • Erection 	MURK 1d (DB CQC), Inspector's Daily Report

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NYSDOT Specification Section	Construction Inspection Requirement	Documentation Form(s)
645, Signs	<ul style="list-style-type: none"> • Materials • Fabrication • Sign Face Construction • Work Sequence • Location • Erection • Transportation, Handling and Storage • Foundations • Sign Posts • Breakaway Bases and Hinge Assemblies • Sign Panels • Illumination Systems • Insulation • Grounding • Functionality • Sign Coverings 	MURK 1d (DB CQC), Inspector's Daily Report
646, Delineators, Reference markers and Snowplowing Markers	<ul style="list-style-type: none"> • Materials • Fabrication • Location • Erection • Damage • Marker Relocation 	MURK 1d (DB CQC), Inspector's Daily Report
647, Removing, Storing and Relocating Signs	<ul style="list-style-type: none"> • Materials • Removal • Storage of Signs • Removal of Concrete Footings • Relocation of Signs 	MURK 1d (DB CQC), Inspector's Daily Report
650, Jacking Reinforced Concrete Pipe	<ul style="list-style-type: none"> • Materials • Jacking Procedures 	MURK 1d (DB CQC), Inspector's Daily Report

NYS DOT Specification Section	Construction Inspection Requirement	Documentation Form(s)
652, Furnishing and Applying Salts	<ul style="list-style-type: none">• Materials• Stabilized Gravel Surface Course• Dust Control	MURK 1d (DB CQC), Inspector’s Daily Report
654, Impact Attenuators	<ul style="list-style-type: none">• Materials• Traffic Protection• Foundations• Excavation• Foundation Slab• Pavement Restoration• Anchorage• Installation• Removal and Disposal• Removal and Storage• Relocation• Refurbishing	MURK 1d (DB CQC), Inspector’s Daily Report
655, Frames, Grates and Covers	<ul style="list-style-type: none">• Materials• Installation• Field Repairs	MURK 1d (DB CQC), Inspector’s Daily Report
656, Miscellaneous Metals	<ul style="list-style-type: none">• Materials• Welding• Galvanizing• Painting	MURK 1d (DB CQC), Inspector’s Daily Report
659, Telecommunication Facilities	<ul style="list-style-type: none">• Materials• Installation and Testing• Schedule• Excavation• Backfill	MURK 1d (DB CQC), Inspector’s Daily Report

NYS DOT Specification Section	Construction Inspection Requirement	Documentation Form(s)
660, Utilities	<ul style="list-style-type: none">• Materials• Installation and Testing• Schedule• Excavation• Backfill	MURK 1d (DB CQC), Inspector’s Daily Report
661, Electric Utilities	<ul style="list-style-type: none">• Materials• Installation and Testing• Schedule• Excavation• Backfill	MURK 1d (DB CQC), Inspector’s Daily Report
662, Gas, Oil and Steam Utilities	<ul style="list-style-type: none">• Materials• Installation and Testing• Schedule• Excavation• Backfill	MURK 1d (DB CQC), Inspector’s Daily Report

NYS DOT Specification Section	Construction Inspection Requirement	Documentation Form(s)
663, Water Supply Utilities	<ul style="list-style-type: none">• Materials• Permits• Notifications• Removals• Asbestos Containing Materials (Special Requirements)• Shut Downs/Approvals• Temporary Water Supplies• Excavation and Backfill• Thrust Restraints• Pipe Installation• Polyethylene Encasement Installation• Valves and Valve Boxes• Hydrants• Fittings• Water Service Connections• Water Meter Pits• Adjusting Valve Box Elevations• Disconnect and Cut Water Mains• Hydrostatic Testing• Disinfection	MURK 1d (DB CQC), Inspector’s Daily Report
664, Sanitary Sewer Utilities	<ul style="list-style-type: none">• Materials• Installation and Testing• Schedule• Excavation• Backfill	MURK 1d (DB CQC), Inspector’s Daily Report

NYS DOT Specification Section	Construction Inspection Requirement	Documentation Form(s)
670, Highway Lighting System	<ul style="list-style-type: none">• Materials• Excavation and Miscellaneous Work• Foundations• Grounding• Light Standards, Breakaway Transformer Bases and Arms• Conduit• Pull Boxes• Junction Boxes• Luminaries• Photoelectric Control• Cable• Ground Cable• Tests• Removal and Disposal or Storage of Lighting Equipment• Relocation of Lighting Equipment• High Mast Poles• Portable Power Drives for High Mast Poles	MURK 1d (DB CQC), Inspector’s Daily Report

NYS DOT Specification Section	Construction Inspection Requirement	Documentation Form(s)
680, Traffic Signals	<ul style="list-style-type: none">• Materials• Underground Facilities• Test Holes• Schedule• Excavation• Pole Excavation and Concrete Foundations• Poles• Grounding• Conduit and Direct Burial Cable• Pull Boxes• Signal Control Cable & Shielded Communications Cable• Cable Splices• Span Wire Assemblies• Messenger Assemblies• Guy Assemblies• Riser Assemblies• Signal Heads• Wiring Color Code• Pedestrian Push Button and Sign• Fire Pre-Emption Tell-Tale Light• Flashing Beacon Sign Assembly• Inductance Loop Installation• Concrete Base for Controller Assembly• Power Meter Base• Overhead Traffic Signs• Filed Galvanizing• Cast Iron Junction Boxes• Tests• Fiber optic Pedestrian Signal Heads	MURK 1d (DB CQC), Inspector’s Daily Report

NYS DOT Specification Section	Construction Inspection Requirement	Documentation Form(s)
	<ul style="list-style-type: none">• Fiber optic Dual Indication Arrow• Strobing Signal Section• LED Traffic & Pedestrian Signal Modules	
685, Epoxy Reflectorized Pavement Markings	<ul style="list-style-type: none">• Materials• General Requirements• Atmospheric Conditions• Surface Preparation• Epoxy Application Equipment• Application of Pavement Markings• Defective Pavement Markings	MURK 1d (DB CQC), Inspector’s Daily Report
687, Thermoplastic Reflectorized Pavement Markings	<ul style="list-style-type: none">• Materials• Equipment• Application• Atmospheric Conditions• Materials Application Requirements• Surface Cleaning and Preparation of Pavement• Application of Thermoplastic Pavement Markings	MURK 1d (DB CQC), Inspector’s Daily Report
688, Preformed Reflectorized Pavement Markings	<ul style="list-style-type: none">• Materials• General Requirements• Methods• Weather and Seasonal Limitations• Equipment• Rollers• Primer Requirements• Surface Cleaning and Preparation of Pavement Surfaces• Application of Markings	MURK 1d (DB CQC), Inspector’s Daily Report

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New York State Thruway Authority

**TAPPAN ZEE HUDSON RIVER
CROSSING PROJECT**

DESIGN-BUILD PROJECT

**DB CONTRACT DOCUMENTS
PART 2**

**DB SECTION 112 APPENDIX 112E
CONSTRUCTION QA-QC SAMPLE
FORMS**

CONFORMED
November 21, 2012



APPENDIX 112E

FORMS INDEX

BD 25M (DB)	Pile Driving Record
BD 25M Summary (DB)	Pile Driving Summary
BD 138M (DB)	Pile Driving Equipment Data
BR 162C (DB)	Bituminous Material
BR 170M (DB)	Bitumen Sample
BR 316a	Concrete Batch Plant Report
BR 329	Concrete Mix Design Sheet
BR 342 Materials	Certification
GE 352b (DB)	Bituminous Course
GE 423b (DB)	Bituminous Pugmill Calibration
MURK 1d (DB)	QC Inspector's Daily Report
MURK 2b (DB-CQC)	Construction QC Diary
MURK 4d (DB)	DB Asphalt Inspection
MURK 5d (DB)	Structural Concrete Inspector's Report
NC-C Construction	Non-Conformance Report

PILE DRIVING RECORD

DESIGN-BUILDER

JOB STAMP

No. _____ IR # _____ Date _____

me Begun _____ Time Ended _____

Ultimate Load kN

cation in Structure

Hammer: Make, Model, and Nic _____

Bridge Name/BIN	County	Year	Material	Length (ft)	Width (ft)	Height (ft)	Notes
101	Alameda	1908	Concrete	100	12	10	Replaced by new bridge in 1968
102	Alameda	1910	Concrete	120	14	12	Replaced by new bridge in 1970
103	Alameda	1912	Concrete	150	16	15	Replaced by new bridge in 1972
104	Alameda	1915	Concrete	180	18	18	Replaced by new bridge in 1975
105	Alameda	1918	Concrete	200	20	20	Replaced by new bridge in 1978
106	Alameda	1920	Concrete	220	22	22	Replaced by new bridge in 1980
107	Alameda	1922	Concrete	240	24	24	Replaced by new bridge in 1982
108	Alameda	1925	Concrete	260	26	26	Replaced by new bridge in 1985
109	Alameda	1928	Concrete	280	28	28	Replaced by new bridge in 1988
110	Alameda	1930	Concrete	300	30	30	Replaced by new bridge in 1990
111	Alameda	1932	Concrete	320	32	32	Replaced by new bridge in 1992
112	Alameda	1935	Concrete	340	34	34	Replaced by new bridge in 1995
113	Alameda	1938	Concrete	360	36	36	Replaced by new bridge in 1998
114	Alameda	1940	Concrete	380	38	38	Replaced by new bridge in 2000
115	Alameda	1942	Concrete	400	40	40	Replaced by new bridge in 2002
116	Alameda	1945	Concrete	420	42	42	Replaced by new bridge in 2005
117	Alameda	1948	Concrete	440	44	44	Replaced by new bridge in 2008
118	Alameda	1950	Concrete	460	46	46	Replaced by new bridge in 2010
119	Alameda	1952	Concrete	480	48	48	Replaced by new bridge in 2012
120	Alameda	1955	Concrete	500	50	50	Replaced by new bridge in 2015
121	Alameda	1958	Concrete	520	52	52	Replaced by new bridge in 2018
122	Alameda	1960	Concrete	540	54	54	Replaced by new bridge in 2020
123	Alameda	1962	Concrete	560	56	56	Replaced by new bridge in 2022
124	Alameda	1965	Concrete	580	58	58	Replaced by new bridge in 2025
125	Alameda	1968	Concrete	600	60	60	Replaced by new bridge in 2028
126	Alameda	1970	Concrete	620	62	62	Replaced by new bridge in 2030
127	Alameda	1972	Concrete	640	64	64	Replaced by new bridge in 2032
128	Alameda	1975	Concrete	660	66	66	Replaced by new bridge in 2035
129	Alameda	1978	Concrete	680	68	68	Replaced by new bridge in 2038
130	Alameda	1980	Concrete	700	70	70	Replaced by new bridge in 2040
131	Alameda	1982	Concrete	720	72	72	Replaced by new bridge in 2042
132	Alameda	1985	Concrete	740	74	74	Replaced by new bridge in 2045
133	Alameda	1988	Concrete	760	76	76	Replaced by new bridge in 2048
134	Alameda	1990	Concrete	780	78	78	Replaced by new bridge in 2050
135	Alameda	1992	Concrete	800	80	80	Replaced by new bridge in 2052
136	Alameda	1995	Concrete	820	82	82	Replaced by new bridge in 2055
137	Alameda	1998	Concrete	840	84	84	Replaced by new bridge in 2058
138	Alameda	2000	Concrete	860	86	86	Replaced by new bridge in 2060
139	Alameda	2002	Concrete	880	88	88	Replaced by new bridge in 2062
140	Alameda	2005	Concrete	900	90	90	Replaced by new bridge in 2065
141	Alameda	2008	Concrete	920	92	92	Replaced by new bridge in 2068
142	Alameda	2010	Concrete	940	94	94	Replaced by new bridge in 2070
143	Alameda	2012	Concrete	960	96	96	Replaced by new bridge in 2072
144	Alameda	2015	Concrete	980	98	98	Replaced by new bridge in 2075
145	Alameda	2018	Concrete	1000	100	100	Replaced by new bridge in 2078
146	Alameda	2020	Concrete	1020	102	102	Replaced by new bridge in 2080
147	Alameda	2022	Concrete	1040	104	104	Replaced by new bridge in 2082
148	Alameda	2025	Concrete	1060	106	106	Replaced by new bridge in 2085
149							

Estimated Length (m) _____ Total Length Placed in Leads (m) _____

Cut-off Elevation () Ground elev. @ time of driving*

ABOVE MUST BE FILLED OUT COMPLETED – SUBMIT REPORTS DAILY

[illegible]

Length Driven in Ground (m)	Pile Toe Elevation	For refusal indicate blows for last 10 mm
-----------------------------	--------------------	--

Remarks _____

*0 – ground at time of driving

Construction QC Manager

NOTES:

One pile in each 10 driven, and at least one in each footing, must be recorded pile, and submitted as such. One of the piles selected should be near a boring location, if possible.

At the start of pile driving, submit a pile layout sketch for the whole structure, with each pile numbered. Boring locations should be shown on the sketch.

Refusal is defined as 8 blows for 10 mm. Once refusal is achieved the pile should be struck with another 5 blows.

The energy of the hammer and its effectiveness rely upon different factors depending on the type of hammer.

-Air/Stream Hammers – The Design-Builder should provide a compressor or steam boiler capacity and other adequate equipment to maintain the rated speed of the hammer during the full time of driving a pile.

Single Acting – The energy is a function of the stroke and this stroke should be checked and recorded at the ordinary driving speeds.

Double or Differential Acting – The energy is a function of the speed of the hammer, and this speed should be checked and recorded.

-Diesel Hammers – The hammers should be in proper working order including rings, exhaust ports, and lubrication.

Single Acting or Open Ended – The energy is a function of the stroke of the hammer which is related to the strokes per minute. This stroke and/or stroke rate should be checked against the driving criteria and recorded.

Double Acting or Closed Ended – The energy is a function of the bounce chamber pressure, and the pressure should be checked against the driving criteria and recorded.

**PILE DRIVING RECORD
DAILY SUMMARY**

DESIGN-BUILDER

Job Stamp

ate Driven _____

mated Length (m) _____

.R. No. _____

Type and Size of Piles _____

Make, Type and Number of Hammer _____

Required Stroke (m), Blow Rate (bpm), or Bounce Chamber Pressure (kPa) _____

Location in the Structure _____ Cut-off Elevation (m) _____

ABOVE MUST BE FILLED OUT COMPLETELY – SUBMIT REPORTS DAILY

File No.	Length Placed In Leads	Energy Control Recorded	Length Driven in Ground	Pile Toe Elevation	Blows for the Last				Remarks*
					50 mm	30 mm	20 mm	10 mm	

Remarks _____

Bearing piles shall be given at least five blows after Refusal (8 blows for 1 cm). Indicate number of blows Under "Remarks".

Construction QA Manager

PILE DRIVING EQUIPMENT DATA

P.I.N.: _____ Contract No.: _____ Pile Driving Design-Builder/Subcontractor (Piles Driven By):

Project: _____

County: _____

Manufacturer: _____ Model: _____

☐ **HAMMER** Type: _____ Serial No.: _____

Rated Energy: _____ (kJoules) @ _____ Length of Stroke (m)

☐ **HAMMER** Material: _____ Area: _____ (cm²)

☐ **CUSHION** Thickness: _____ (mm)

☐ **CUSHION** Modulus of Elasticity: _____ (MPa)

☐ **CUSHION** (Capblock) Coefficient of Restitution: _____

Bonn ☐ **Helmet**
Drivehead Weight: _____ (kN)

☐ **PILE** Material: _____ Area: _____ (cm²)

☐ **CUSHION** Thickness: _____ (mm)

(For Modulus of Elasticity: _____ (MPa)

Concrete Coefficient of Restitution: _____

Piles only)

	1	2	3	4
Structure Name:				
Substructure:				
Pile Information:				
Material:				
Weight/m (kg/m):				
Length in Leads (m):				
Ultimate Load (kN):				
Splice Description:				
Toe Treatment Description:				

Copy Distribution:

Deputy Chief Engineer
Regional Director

Agencies' Project Manager
Construction QA Manager

SUBMITTED BY: _____ Date: _____

Phone/Fax: _____ / _____

CUSHION INFORMATION

(Data as used by NYSDOT)

Material	Modulus of Elasticity E (MPa)	Coefficient of Restitution e(510)
Aluminum	68970	.8
Blue Nylon (MC-904)	1207 .92	
Conbest	1931 .8	
Duracush	241 .82	
Forbon	2759 .85	
Fosterlon	2621 .85	
Force Ten	979 .8	
Hamortex	862 .77	
Micarta	1552 .8	
Plywood	207 .5	
Urethane	1207 .72	
Nycast 6MPB Cast Nylon	1428 .91	
Ryertex	297 .93	
Non-Impv. Polymer S-542/S-540	1379 .90	
Impv. Polymer S-539/S-530	1379	.84
Oak (Parallel)	5173 .50	
Oak (Transverse)	414 .50	
Klinger	170 .60	
Bongossi Wood	2000 .75	
Nylon/Klinger	1179 .84	
MMPAC	2531 .88	

SUBSTRUCTURE

Give designation of corresponding abutment or pier if pile size or length varies from one substructure to another.

PILE INFORMATION

Include : Pile type, size, thickness, taper.

Length in Leads: Give the length actually used and not the estimated lengths on the plans.

New York State Thruway Authority

DEPARTMENT'S MATERIALS BUREAU

BITUMINOUS MATERIAL CERTIFIED SHIPMENT NOTICE

If one transport supplies two or more projects, a separate BR162c(DB) is required for each project.

DEL. TKT. NO.		
ITEM	GRADE %	ADDITIVE

THIS FORM SHALL BE EXECUTED FOR ALL SHIPMENTS OF BITUMEN

PRIMARY SOURCE*		LOCATION (Mailing address)		LOT NO. **
SUPPLIER (Present owner of material being shipped)		LOCATION (Mailing address)		
SHIPMENT DESTINATION		LOCATION (Mailing address)		
GAL. @ 60 f	SPEC. GRAVITY @ 60 f	VEHICLE NO.	CONTRACT NO.	
SHIPPED IN <input type="checkbox"/> BULK TRANSPORT <input type="checkbox"/> BULK R.R. <input type="checkbox"/> BULK BARGE <input type="checkbox"/> BARRELS <input type="checkbox"/> DISTRIBUTOR				

ITEM GRADE	PRIMARY SOURCE	LOCATION	LOT NO.	GALLONS @ 60 F	% TOTAL	SPEC. GRAVITY @ 60 f

The above indicated material has been tested and a CERTIFIED TEST REPORT, dated _____
 Indicating conformance with all requirements of applicable Department Specifications is on file.

I HEREBY CERTIFY THAT THE ABOVE INFORMATION IS CORRECT TO THE BEST OF MY KNOWLEDGE		
_____ Authorized Signature (For Supplier)	_____ Title	_____ Date

* PRIMARY SOURCE — Refinery, Line-bend Plant, Emulsion Plant, or Intermediate Storage-Facility where BITUMEN is SAMPLED, TESTED, and CERTIFIED or RECERTIFIED.

** TEMPERATURE VISCOSITY CURVE (KINEMATIC)

One copy should be sent with the first shipment of each LOT of Bitumen made to any Mix Plant or Project.
 (Not required for Tars, Filler, Emulsions or Emulsion Bases).

COPY DISTRIBUTION: With Shipment
 Supplier
 Agencies' Project Manager
 Qa Manager
 Construction

New York State Thruway Authority

BITUMEN SAMPLE

FOR LAB USE ONLY

Test No.
Date Rec'd.
Serial No.

Primary Source		Location		
Lot No.	Item No.	Grade Type	Date Sampled	Time Sampled
Sampled By		Region No.		

COMPLETE THIS SECTION FOR SAMPLES TAKEN AT BITUMINOUS CONCRETE PLANT	COMPLETE THIS SECTION FOR SAMPLES TAKEN AT PROJECT SITE	
Name of Owner	Name of Supplier	Location
Location	Cont. or HM No.	Vehicle No.
Remarks	Station and Lane	
Facility No.	Liters Rep at 16°C	

Copy Distribution: Sample Container
 Agencies' Project Manager
Construction QA Manager

DAILY CONCRETE BATCH PLANT REPORT

Sheet

of

REPORT NO.	DATE	REGION	FACILITY NO.	JOB STAMP
PLANT				
LOCATION				
MIXER TYPE: <input type="checkbox"/> TRANSIT <input type="checkbox"/> TRUCK <input type="checkbox"/> CENTRAL <input type="checkbox"/> DRY				

MATERIAL I	TEM	CODE	TYPE	SOURCE (Brand name, Manufacture Location)
CEMENT AND / OR POZZOLAN(S)	C1			
	C2			
	C3			
	C4			
ADMIXTURES	M1		Air Entrainers	
	M2		Water Reducer	
	M3		Retarder	
	M4			
	M5			
AGGREGATE	ITEM	SOURCE NO.		SOURCE (Company name, Source location)
FINE				
COARSE				
COARSE				
OTHER				

WATER SUPPLY: ☐ MUNICIPAL ☐ WELL ☐ POND ☐ STREAM ☐ OTHER (explain)

AUTHORIZED SHIPMENTS

PROJECT	CLASS	QUANTITY	MATERIALS USED IN CONCRETE: (<u>CIRCLE</u> APPROPRIATE ITEMS)													
			C1	C2	C3	C4	M1	M2	M3	M4	M5	A1	A2	A3	A4	
			C1	C2	C3	C4	M1	M2	M3	M4	M5	A1	A2	A3	A4	
			C1	C2	C3	C4	M1	M2	M3	M4	M5	A1	A2	A3	A4	
			C1	C2	C3	C4	M1	M2	M3	M4	M5	A1	A2	A3	A4	
			C1	C2	C3	C4	M1	M2	M3	M4	M5	A1	A2	A3	A4	

REMARKS: _____

PLANT INSPECTOR SIGNATURE	PROJECT REVIEWER SIGNATURE
---------------------------	----------------------------

CONCRETE MIX DESIGN SHEET
MATERIALS BUREAU

GENERAL (B) MIX CLASS _____ SLUMP _____ % AIR _____ W/C RATIO _____ PROPERTIES OF MATERIALS SAND F. M. _____ _____ x 62.4 = _____ (SGPC) (U. Wt. PC) _____ x 62.4 = _____ (SGFA) (U. Wt. FA) _____ x 62.4 = _____ (SGCA) (U. Wt. CA)	PLANT NAME: _____ DATE: _____ (A) <hr/> LOCATION: _____ <hr/> CEMENT _____ + _____ = _____ (H₂O Req't.) (W/C Ratio) (Cement Wt.) (C) <hr/> % SAND _____ + (_____ - 2.80) X 10.0 = _____ (Basic % Sand) Sand F. M. (Corr. % Sand) (D) <hr/> % C.A. 100% - _____ = _____ (E) <div style="text-align: center;">(Corr. % Sand) (% C.A.)</div>
---	---

MIX COMPUTATIONS	1 Cu. Yd. Batch (F)			Sand % Moist	Sand Scale Weight	Added Water (G)	
	SSD (1) Weight	Unit (2) Weight	Absolute Vol. (3)			Pounds	Gals
Water		62.4		0.0			
Cement				0.5			
Air Content (0.0 _____ x 27.000) = _____				1.0			
Sub-Total _____			1.	5			
Aggregate Volume: _____				2.0			
27.000 - _____ = _____				2.5			
(Sub Total) (Agg. Vol.)							
Fine Aggregate Volumes: _____				3.0			
0. _____ x _____				3.5			
(Corr. % Sand) (Agg. Vol.)							
Coarse Aggregate Volumes				4.0			
Total 0. _____ x _____ = _____				4.5			
				5.0			
				5.5			
				6.0			
				6.5			
				7.0			
				7.5			
TOTAL							

REMARKS:

COMPUTED BY _____ CHECKED BY _____

BASIC DESIGN CRITERIA
(CUBIC YARD)

Class	Cement (lbs.)	W/C Ratio	Water Requirement (lbs.)	% Air	Basic % Sand	Slump Range (ins.)
A	606	0.46	279	6.0	36.2	2 ½ - 3 ½
B	517	0.46	238	5.0	33.2	2 - 3
C	605	0.44	266	6.0	35.8	1 ½ - 2 ½
D	725	0.44	319	7.5	45.8	2 ½ - 3 ½
E	648	0.44	285	6.0	35.8	3 - 4
F	716	0.38	272	6.0	34.6	2 - 3
G	685	0.45	308	5.0	36.0	7 - 8
H	675	0.44	297	6.0	40.0	3 - 4

NOTE: The data is based upon a fine aggregate fineness modulus of 2.80 and a median coarse aggregate gradation.

New York State Thruway Authority

MATERIALS CERTIFICATION

☐ Portland Cement Concrete

☐ Asphalt Concrete

JOB STAMP

SHIPPED FROM:

PLANT: _____ PLANT NO. _____

LOCATION: _____ REGION _____

_____ SHIPPING DATE: _____

SHIPPED TO:

PROJECT NO. _____

LOCATION _____

Class/Mix Type *	Quantity

**Use Item Number when material is not designated by Class/Mix Type*

I certify that the material delivered with the delivery ticket to the above noted project was proportioned in accordance with the requirements of the Contract Specifications for the specific class/mix/item noted using New York State Department of Transportation approved materials.

BY _____

TITLE _____ DATE: _____

**PROJECT INSPECTION REPORT
BITUMINOUS STABILIZED COURSE**

Date: _____

To: Agencies' Project Manager

Attn: _____

From: _____
Name Title

Project _____ Region _____ County _____

Contract No. _____ P.I.N. _____ Item _____

Construction QA Manager _____ Design-BUILDER _____

Gravel Source _____ Stockpile No. _____ Amount _____ m³

Moisture Content at the Time of Mixing _____ %

Asphalt Item Used in Mix _____

Recommended Application _____ L/m³ (Loose)

Amount of Asphalt Applied _____ L/m³ (Loose)

Temperature of Asphalt in Tanker °C _____

Manufacturer of Pugmill: _____ Model or Serial No. _____

Continuous _____ or Batch Type _____ Twin Shift: Yes _____ No _____

Length of Mixing Area Beyond Point of Bituminous Application: _____ m

Surge Hopper Capacity _____ m³ or Dimensions: L _____ W _____ H _____

Bituminous Material Totalizing Meter: Yes _____ No _____

Prime Distributor of Asphalt _____

City _____ Lot _____ Number _____

Width of Shoulders _____ Layer Thickness _____ mm

Preliminary Curing Time _____ Roller Used _____

Location of Mixed Sample _____

Observations and Comments _____

BITUMINOUS PUGMILL CALIBRATION FORM

Date _____

To: Agencies' Project Manager

Attn: _____

From: _____

Project _____ Region No. _____ County _____

P.I.N. _____ Contract No. _____ Construction QC Manager _____

Serial No. of Meter/Pugmill _____ Pugmill Owner _____

VOLUME OF GRAVEL

Truck No. _____ Volume of Truck (a) _____ (b) _____ (c) _____ m³

Loading Time (a) Min. _____ Sec. _____ (b) Min. _____ Sec. _____ (c) Min. _____ Sec. _____

METER CALIBRATION BY VOLUME

Water: 151L _____ mm _____ 170 L _____ mm _____ 189 L _____ mm _____

mm/L

Test 1

Test 2

Test 3

Test 4

Final Meter Reading _____

Beginning Meter Reading _____

Liters Delivered by Meter _____

mm from Top of Empty Drum _____

Liters of Asphalt in Drum (actual) _____

Percent Error* _____

METER CALIBRATION BY WEIGHT

Specific Gravity of Asphalt _____

Test 1

Test 2

Test 3

Test 4

Final Meter Reading _____

Beginning Meter Reading _____

Liters Delivered by Meter _____

Weight of Drum and Asphalt _____

Liters of Asphalt (actual) (wgt sp gr) _____

Percent Error* _____

* Percent Error = Difference between delivered and actual Liters divided by actual Liters.

Remarks _____

This image shows a blank sheet of white paper with horizontal blue ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

[illegible]

Inspector's Signature: _____ Date Prepared: _____ Date Submitted: _____

Tappan Zee Hudson River Project

PART 2 - DB §112 APPENDIX E FORMS
CONFORMED November 21, 2012

CONSTRUCTION COMPLIANCE ENGINEER'S DAILY PROJECT DIARY

JOB STAMP

Page No. _____

Sheet No. of _____ Sheets

Date _____

Day of

S	M	T	W	T	F	S
---	---	---	---	---	---	---

Week _____

Design-Builder's Work Hrs. _____

MAJOR CONTRACT OPERATIONS

	AM	PM
Weather		
	High	Low
Temperature		

I.R. No.	CCM's Name	Work Assignment and Identification

Maintenance of Traffic & Project Signs:

Remarks:

New York State Thruway Authority

Const. Compliance Engineer (Consultant)

Design-Builder

Agencies' Project Manager

DESIGN-BUILDER'S DAILY CONSTRUCTION QUALITY CONTROL PROJECT DIARY

JOB STAMP

Page No. _____

Sheet No. _____ of _____ Sheets

Date _____

Day of

Week

S	M	T	W	T	F	S
---	---	---	---	---	---	---

Design-Builder's Work Hrs. _____

MAJOR CONTRACT OPERATIONS

	AM	PM
Weather		
	High	Low
Temperature		

I.R. No.	DB Construction Inspector's Name	Work Assignment and Identification

Maintenance of Traffic & Project Signs:

Remarks:

[illegible]

Design-Builder's Project Manager

New York State Thruway Authority

Date: _____

**DESIGN-BUILDER'S
ASPHALT CONCRETE
DAILY FIELD INSPECTION REPORT**

Day of the Week:

S	M	T	W	T	F	S
---	---	---	---	---	---	---

I. R. No.: _____

Sheet No. ____ of ____ sheets

JOB STAMP

SURFACE TEMPERATURE				
Start		Finish		
Time	Temp	Time	Temp	Temp
A.M.				
P.M.				

Name of Paving
Subcontractor (if any): _____

Price Center No.	Station to Station	Lane	Length	Width	Course	Design Depth	Area	Weight
			Totals	PRICE CENTER				
				PRICE CENTER				
				PRICE CENTER				

The above described work was incorporated into this Project and was inspected by:

_____ Construction Inspector's Signature
 _____ Con
 _____ st. QA Manager
 _____ Date

[illegible]This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and extend across the width of the page. There is no handwriting or other markings on the paper.[illegible]

New York State Thruway Authority

**STRUCTURAL CONCRETE
CONSTRUCTION INSPECTOR'S DAILY REPORT**

JOB STAMP

Date: _____

Day of Week:

S	M	T	W	T	F	S
---	---	---	---	---	---	---

I.R. No.:

Sheet No. _____ of _____ Sheets

Air Temp during Placement	High Lo	w

General Weather Conditions	AM PM	

DESCRIPTION OF WORK PERFORMED AND INSPECTED

Specify for each operation: Item No., Sub-Contractor (if any), Location,
Nature of Work, Results and Details

MANPOWER EQ						UIPMENT							
TYPE	Prime	Sub	Sub	Sub	Sub	Type	Prime	Sub	Sub	Sub	Sub	Sub	Sub
FOREMAN													
OPERATORS													
LABORERS													
TEAMSTERS													
IRONWORKERS													
CARPENTERS													

ITEM	DESCRIPTION OF WORK

The above-described work was incorporated
Into this project and was inspected by:

DB Construction Inspector's Signature

Reviewed by: _____
Construction QA Manager

Date

[illegible]

CONCRETE SPECIFICATIONS*				
Class of Concrete =				
Min.		Design Range	Desired	Max
Slump				
Air				

MATERIAL USAGE	
BR-316 Report No. =	Quantity dispatched From Plant (BR-316) =
No. of Tickets =	Quantity Received =
First Ticket No. =	Quantity Used =
Last Ticket No. =	Qty. Wasted/Rejected =

*See Specification Tables 5501-3, 501-4, and 501-5 for values for specific type of placement.

[illegible]

CONSTRUCTION NON-CONFORMANCE REPORT

From: _____ Date: _____
(Name & Initials of Agencies' PM/Designee)

To: _____
(Name of Design-Builder)

Project Name/Number: _____ Price Center Code: _____

Copy: Agencies' Project Manager

Transmittal/File No. _____ Applicable Contract Requirement: _____
(Part & Section No.)

The Work on the referenced Price Center is not in conformance with the noted Contract requirement for the reasons stated below (Attach additional sheets as necessary):

RESOLUTION: _____ Date: _____

From: _____
(Names & Initials of Design-Builder's Project Manager & Construction QA Manager)

To: Agencies Project Manager

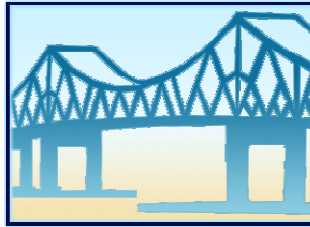
The above noted construction non-conformance has been corrected and/or resolved as indicated below (attach additional sheets as necessary):

Acknowledgement of Receipt: _____ Date: _____
(Name & Initials of DPM or Designee)

Comments by Agencies' PM, if any: _____ None _____ [See attached sheet(s)]

The following actions have been taken to prevent occurrence of similar non-conformances (attach additional sheets as necessary):

Send copy of completed, acknowledged form to Design-Builder and Department Project Manager files.



New York State Thruway Authority

**TAPPAN ZEE HUDSON RIVER
CROSSING PROJECT**

DB CONTRACT DOCUMENTS PART 2

**DB SECTION 113
DESIGN-BUILDER'S QUALITY PLAN**

CONFORMED

November 21, 2012



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PART 2 - DB SECTION 113 – DESIGN-BUILDERS QUALITY PLAN

DB 113-1 GENERAL REQUIREMENTS

The Design-Builder shall submit a Quality Plan, updated as necessary, to the Agencies for approval.

The Quality Plan shall address the topics contained in this DB §113 in the order listed herein and shall meet the specified requirements of this DB §113, DB §111, DB §112 and the other Contract Documents.

The Quality Plan shall describe the Quality System and organization to be implemented at all levels of the Design-Builder's organization, including design and construction Subcontractors as well as vendors and suppliers, and shall describe all Quality Control (QC) and Quality Assurance (QA) processes and procedures.

When developing and conducting its construction QC and QA procedures, the Design-Builder shall provide a level of inspection and documentation consistent with those indicated in the Department's *Contract Administration Manual*, *Materials Inspection Manual* and *Construction Inspection Manual*. References include the following:

- A. Guidance, Manuals, & Computer Applications
- B. MURK Part 1A Contract Administration Manual (CAM) Guidance for NYSDOT inspection staff on contract administration procedures and documentation
- C. MURK Part 1B Construction Inspection Manual (CIM) Guidance for NYSDOT inspection staff on field inspection procedures and documentation
- D. MURK Part 1C Safety & Health Program Manual (S&H) Guidance on field safety duties and responsibilities
- E. MURK Part 1D Construction Consultant Manual (CCM) Guidance for Department staff on the management of consultants in construction
- F. MURK Part 2A Materials Inspection Manual (MIM) Guidance for NYSDOT inspection staff on determination of material quality and acceptability
- G. Construction Program Employee Safety Manual Guidance for Construction Program Employees (NYSDOT and Consultants) on safety and health
- H. EBO Instructions for Construction Staff
- I. 2010 Office Engineer Guidance Manual
- J. Orders on Contract (OOC) / Field Change Payments (FCP)
- K. Operations, Materials, Equipment
- L. Weighted Average Item Price Report (WAIPR)
- M. NYSDOT CADD Information
- N. Utility Information
- O. Steel Construction Manual
- P. Prestressed Concrete Construction Manual
- Q. Manual on Uniform Traffic Control Devices (MUTCD)
- R. Construction Computer Applications

- S. Cold In-Place Recycling Construction Inspection Guidelines (Guidelines for the Inspection of Cold In-Place Recycling)
- T. Paver-Placed Surface Treatment Construction Inspection Guidelines (Guidelines for the Inspection of Paver-Placed Surface Treatment)
- U. Independent Assurance Sampling and Testing Manual (Procedure Manual for Construction Materials)

The Design-Builder can obtain additional information regarding Department approved procedures at <https://www.dot.ny.gov/publications>.

DB 113-1.1 Quality Plan Submittal

The Design-Builder shall submit its Quality Plan, updated as necessary from that submitted in the Design-Builder's Proposal, within the time period after NTP stated in *Part 3, Project Requirement 2 – Project Management*.

DB 113-1.2 Quality Plan Reviews and Updates

The Design-Builder shall conduct management reviews of its Quality Plan as specified in this DB § 113.

As work progresses, the Design-Builder shall update the Quality Plan to reflect current conditions. The Design-Builder and/or the Authority'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 Authority's Project Manager for approval within 30 days of the identification of the need for a revision.

In addition, the Design-Builder shall submit its Quality Plan for review by the Authority's Project Manager annually (within 12 months of NTP or receipt of last Approval from the Authority'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.

DB 113-1.3 Coordination with other Documents

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 compliance and mitigation, safety, and work zone traffic control requirements are met and documented.

DB 113-1.4 Organizational Requirements

DB 113-1.4.1 General

The Design-Builder shall establish an organization that reflects the indicative organization depicted in Figure 113A.

DB 113-1.4.2 Quality Manager

The Design-Builder's Quality Manager shall be responsible for overseeing the Quality Plan and the preparation, implementation and update of the Quality Plan for the Design-Builder, including management, design and construction. The Quality Manager shall not report to the Design-Builder's Project Manager, but shall be directly responsible to and report to the Project Executive of the Design-Builder's organization. The Quality Manager shall not be directly responsible for design or construction.

The Quality Manager shall be present and available for consultation with the Authority's Project Manager and other Agencies staff on an on-call basis throughout the duration of the Project. The Quality Manager

shall attend the weekly progress meetings and such other meetings as the Authority's Project Manager may request, including individual meetings between the Quality Manager and Agencies staff.

Concurrent with completion of the As-Built Plans for each Design Unit, including all its components, the Quality Manager shall certify that all Non-Conformance Reports are addressed and resolved, the Project has been designed and constructed in accordance with Contract requirements, and the As-Built Plans comply with Contract requirements.

The Quality Manager shall be the primary point of contact to the Agencies for all issues relating to the Design-Builder's Quality Plan (preparation, review, implementation and updates). The Agencies' Project Manager shall have direct access to the Design-Builder's Quality Manager.

DB 113-1.4.3 Other Personnel

Refer to applicable sections of the Contract for specific requirements of other personnel shown in Figure 113A.

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DB 113-2 MANAGEMENT RESPONSIBILITY

DB 113-2.1 Management Commitment

The Project Executive shall provide evidence of its commitment to the development and implementation of the Quality Plan and continually improving its effectiveness by the following:

- Supervising and supporting the Design-Builder's Quality Manager;
- Communicating to the Design-Builder the importance of meeting customer as well as statutory and regulatory requirements;
- Provide indoctrination training on Project level quality commitments to the Design-Builder and all Subcontractors employed on this Project, and communicate the quality commitments to vendors and suppliers;
- Establishing the quality policy;
- Ensuring that quality objectives are established and achieved;
- Conducting management reviews; and
- Ensuring the availability of resources.

DB 113-2.2 Customer Focus

The Project Executive shall ensure that customer requirements are determined and are met with the aim of enhancing customer satisfaction.

DB 113-2.3 Quality Policy

The Design-Builder shall define and document its policy for quality, including objectives for quality and its commitment to quality. The Project Executive shall be the person 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 Agencies. 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 Project Executive. The statement shall explain the commitment in terms of the services provided to the Agencies, and the responsibilities assumed by the Design-Builder to discharge its contracted accountabilities relative to the Agencies' 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.

The Project Executive commitment to quality may be demonstrated by the quality policy being signed and the 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 shall be formal; the manner of accomplishing this shall be delineated in the Quality Plan.

DB 113-2.4 Responsibility, Authority and Communication

A) Responsibility and Authority

- 1) The Project Executive shall have the responsibility to plan and determine the overall direction of the Design-Builder and its relationship to the quality. They 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 employed on the Design-Builder's team.

- 2) The Quality Plan 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 project, most employees are involved in either managing, performing or verifying work that affects quality. It shall not be the sole domain of the design checkers, Construction Inspectors or QC and QA personnel. All workers, including design and construction production personnel (including those of Subcontractors) shall be aware of the Quality Plan requirements.
- 3) A description of the organizational arrangements (such as a chart) shall be available and maintained up to date at all times. All key roles and persons, and lines of communication and authority between the Design-Builder and the Agencies and their representative(s), and with other organizations involved shall be identified. A process for identifying and submitting names and qualifications of Responsible Engineers, Responsible Architects and lead construction quality personnel to the Agencies for review and comment shall be included in the Quality Plan.
- 4) The responsibility, authority and the interrelationship of those 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:
 - a) Initiate action to prevent the occurrence of any non-conformities relating to the product, process and Quality Plan;
 - b) Identify and record any problems relating to the product, process and Quality Plan;
 - c) Initiate, recommend or provide solutions through designated channels. It shall be everyone's responsibility to report any and all quality and safety problems;
 - d) 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 whether the solution to the identified problem created another quality problem; and
 - e) Control further processing, delivery or installation of non-conforming 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) Resource Management

- 1) The Design-Builder shall identify resource requirements and provide adequate resources, including the assignment of trained personnel (see DB §113-4), for management, performance of work and QC and QA activities including internal quality audits.
- 2) The Design-Builder shall have a system for assuring that this Project is adequately staffed and that resources are provided for adequate training (and necessary certification where required) to perform such activities as design reviews (DB §113-3.2), production in-process testing, QC and QA testing activities, procurement/receiving, source inspection for fabricated material, in-process and final inspections (DB §§113-3.8 and 113-3.9) and internal quality audits (DB §113-3.15).

- 3) 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.
- 4) Other resources shall also be addressed, including computers, craft tools, equipment and facilities. Integration of QC & QA data will be a critical aspect of this Project. The Quality Plan shall address any software, database packages, and electronic communication protocols that will ensure seamless integration of data between the Design-Builder and the Agencies.

C) Design-Builder's Quality Manager

- 1) The Design-Builder's Project Executive shall appoint and supervise a Quality Manager who, irrespective of other responsibilities, shall have a defined authority for:
 - a) Ensuring that the Quality Plan, including QC and QA, is established, implemented and maintained; and
 - b) Reporting on the performance of the Quality Plan to the Design-Builder's Project Executive for review and as a basis for improvement of the Quality Plan.

D) Internal Communication

- 1) The Quality 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 113-2.5 Management Review

DB 113-2.5.1 General

The Design-Builder's Project Executive shall review the Quality Plan 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 §113-2.3). Project Executive reviews shall be held at least at 3-month intervals.

DB 113-2.5.2 Review Input

The input to the review shall include information such as:

- Audit findings;
- Agencies' feedback;
- Process performance & product conformity;
- Status of corrective and preventative actions;
- Follow up status of previously identified issues;
- Quality Plan updates;
- Recommendations of improvements.

DB 113-2.5.3 Review Output

Results of these reviews shall include decisions and directives relative to recommendations for further actions associated with changes to processes, materials and resources.

Records of such reviews shall be maintained (see DB §113-3.3). 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 Authority's Project Manager on request.

DB 113-3 QUALITY SYSTEM REQUIREMENTS

DB 113-3.1 General

The Design-Builder shall establish, document and maintain a Quality Plan as a means of ensuring that product conforms to specified requirements and meets client expectations. The Design-Builder shall prepare a Quality Plan covering the requirements of this DB §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 Plan.

The Quality Plan shall cover temporary and permanent components. It shall also cover the activities and roles of the Design-Builder, all Principal Participants and all Subcontractors, suppliers and vendors (design, construction and materials) at all tiers. The plan shall detail the role of the Design-Builder's QA Engineering Firm, Design and Construction QA Managers, Construction QA Inspectors, and other team members having a significant quality role, including the Design QC Manager, Construction QC Manager and Construction QC Inspectors.

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 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 define policies, goals and objectives of the organization and organizational interfaces

DB 113-3.1.1 Quality System Procedures

The Design-Builder shall prepare documented procedures consistent with the requirements of this DB §113 and the Design-Builder's stated quality policy.

The Design-Builder shall document standard work methods in procedures 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.

The procedures shall define the liaison and interface between the quality organization and the design and construction arms of the Design-Builder.

The quality procedures shall, as a primary objective, be written with the intent of gaining employee understanding of the system and defining where they fit with a clear understanding of roles and responsibilities.

It is the Design-Builder's responsibility to describe to the Agencies the rationale for the procedures selected and, if the procedures do not address every provision of this DB §113, to explain why the provision is not applicable in their particular situation. The following common pitfalls should be avoided:

- Too much emphasis placed on creating multiple tiered documents when a simple Quality Plan will suffice;
- Procedures which are too restrictive;
- Procedures which are inconsistent;
- Inordinate emphasis on documentation requirements; and
- Overcommitment to procedures which provide little or no information to assist employees.

The following list of procedures shall serve as the starting point for defining the Design-Builder's Quality Plan.

- A) Procedure for preparation, control and distribution of Quality Plan defining:
- 1) Scope;
 - 2) Key staff including Key Personnel
 - 3) QA Engineering Firm;
 - 4) Organizational/technical interfaces;
 - 5) Design input requirements;
 - 6) Design output requirements (deliverables);
 - 7) Design reviews;
 - 8) Agencies participation;
 - 9) Levels of responsibility and authority for:
 - a) Key Personnel;
 - b) QA Engineering Firm;
 - c) Design and Construction QC Managers;
 - d) Design and Construction QA Managers;
 - e) Construction QC and QA Inspectors; and
 - f) Other staff having a significant quality role.
- B) Procedure to control, verify and validate the design, including a Design QC and QA organizational chart and staffing plan, which shall include the experience/knowledge/skill levels/certification of QC and QA staff;
- C) Procedure for document issue, approval and revision;
- D) Procedure for receipt, storage and maintenance of Agencies supplied materials or equipment;
- E) Procedure for the identification of (and where required by Contract, the traceability of) deliverable items, such as Design Plans, Project Specifications, Working Plans, and As-Built Plans;
- F) Procedure for assurance and control of computer programs used in design;
- G) Procedure to control, verify and validate the construction, including a Construction QC and QA organizational chart and staffing plan, which shall include the period of time that the QC and QA staff members will be present on the Site and the experience/knowledge/skill levels/certification of QC and QA staff.
- H) Procedure to ensure materials testing laboratories are certified as required by DB §112-8.4 and laboratory staffs are qualified to perform the required material standard test.

- I) Procedures to ensure that the education, training, and qualification of personnel performing Quality Check Points (QCP) activities are achieved and maintained and that all Work is performed in accordance with the approved designs, plans, and specifications.
- J) Procedures to ensure that suppliers and Subcontractors designate individuals on each crew responsible for performing daily field inspections of their own work and for preparing daily Construction inspection reports to document the inspection performed. Report forms used by the responsible QC and QA personnel shall be included in the Quality Plan.
- K) Documents specifying that all activities undertaken by or on behalf of the Design-Builder affecting the quality of the Work shall be prescribed and accomplished by documented instructions, procedures, and appropriate drawings. Such instructions, procedures, and drawings shall include quantitative and qualitative criteria to be used to determine acceptance.
- L) Identification of QCP (Hold Points) and procedures to ensure that critical elements of Work are not started or continued without QA personnel on Site for acceptance QA inspection and testing. Inspection or QCP (Hold Points) shall be identified to the CQCM and CQAM. Procedures to proceed beyond inspection or Hold Points shall be developed. Quality Check Points shall be clearly established and identified on the Project execution schedule or other suitable means.
- M) Procedures for inspecting, checking, and documenting the Work. Construction inspections, examinations, and measurements shall be performed for each operation of the Work to assure quality.
- N) Procedures for the identification and control of materials, equipment, and elements of the Work. These procedures shall ensure that identification of an item is maintained by appropriate means, either on the item, or on records traceable to the item, as necessary, throughout fabrication, erection, installation, and use of the item.
- O) Procedure to ensure that materials, equipment, or elements of Work are not used or installed unless they conform to requirements of the Contract Documents, the Governmental Approvals, applicable Governmental Rules, and the Design Documents. These procedures shall include identification, documentation, segregation, disposition, and notification to the Agencies, and if appropriate, other Governmental Persons and other affected third parties, as well as procedures for the Agencies to review non-conforming Work.
- P) Procedure to indicate, by use of markings such as stamps, tags, labels, routing cards, or other suitable means, the status of inspections and tests performed upon individual items of Work.
- Q) A program for coordination of all construction inspections.
- R) A program for coordination with all utility owners.
- S) A program to ensure performance of all testing required to demonstrate that all materials, equipment, and elements of the Work will perform satisfactorily for the purpose intended and meet the standards specified in the Contract Documents. It shall specify written test procedures that include provisions for ensuring that all prerequisites for the given test have been met and that adequate test instrumentation is available and used. The Quality Plan shall require test results to be documented and evaluated by the Agencies to ensure that test requirements have been satisfied.
- T) Measure to ensure that tools, gauges, instruments and other measuring and testing devices used in activities affecting quality are properly maintained, controlled, calibrated, certified, and adjusted at specified periods to maintain accuracy within industry standards.

- U) The preparation of all Portland Cement Concrete (including grout) and Hot Mix Asphalt mix designs by qualified personnel. Additionally, the designs shall be reviewed and sealed by a licensed Professional Engineer attesting that the design meets NYSDOT requirements for the specified class or grade for which it was prepared.
- V) Sampling and testing of all materials during the production or manufacturing process so that only materials meeting the specifications are supplied for ultimate incorporation into the Work.
- W) Procedures to control the handling, storage, shipping, cleaning, and preservation of materials and equipment to prevent damage or deterioration.
- X) Procedures to ensure that conditions adverse to quality, such as failures, malfunctions, deficiencies, defective material and equipment, deviations, and other non-conforming Work are promptly identified and corrected. The procedures shall ensure that the cause of the condition is determined and corrective action taken to preclude repetition. The identification of the significant condition adverse to quality, the cause of the condition, and the corrective action taken shall be documented and reported in writing to the Agencies' representatives to ensure corrective action is promptly taken.
- Y) Measures to control the receipt and issuance of documents, such as instructions, procedures, training manuals, and drawings, including changes thereto, which prescribe activities affecting quality. These measures shall ensure that approved documents, including authorized changes thereto, are reviewed for adequacy and approved for release by authorized personnel of the Design-Builder and are distributed to and used at the location where the prescribed activity is performed.
- Z) Procedures for internal quality audits;
- AA) Procedure for management review; and
- BB) Procedures for coordinating and interfacing with Agencies' personnel engaging in Oversight activities.

Design-Builder shall develop Project specific procedures for all elements of the Project that are important to Quality for the Project.

The Design-Builder shall effectively implement the Quality Plan and its documented procedures. Implementation shall be demonstrated by internal quality audit reports, trending of non-conformances, records of root cause analysis, records of corrective and preventive actions, and/or records of the Agencies complaint handling.

For the purposes of this DB §113, the range and detail of the procedures that form part of the Quality Plan 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.

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 113-3.1.2 Quality Planning

A specific 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 Plan. The Agencies' 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 Plan 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 relevant quality management system, blending the Project requirements into that existing system and detailing it in the Quality Plan;
- C) Stating the Project objectives to be obtained;
- D) Identifying responsibilities, authorities, interfaces (both internal and external);
- E) Identifying specific procedures, methods, and instructions to be used (client or industry standard and project specific);
- F) Identifying inspections, tests, audits, surveillances to be used;
- G) Controlling modifications and change;
- H) Identifying and acquiring of any controls, processes, equipment (including inspection and test equipment), fixtures, resources and skills/certification that may be needed to achieve the required quality;
- I) Ensuring the compatibility of the design, the production process, installation, servicing, inspection and test procedures and the applicable documentation. The Design-Builder shall have significant interface obligations and shall describe in its Quality Plan how these obligations shall be met;
- J) Updating, as necessary, inspection and testing techniques, including the development of new instrumentation;
- K) Identifying suitable QC and QA at appropriate stages;
- L) Clarifying standards of acceptability (where applicable) for all features and requirements, including those which contain a subjective element; and
- M) Identifying and preparing quality records. Quality records comprise such documents as QC & QA construction inspection reports, photos, approved designs, specifications, plans, calculations, purchase orders, manufactured product certifications of conformance, design review records, vendor evaluation reports, cumulative progress reports and audit reports.

DB 113-3.2 Design and Development

DB 113-3.2.1 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 staff listed in DB §111.

DB 113-3.2.2 Design and Development Planning

The Design-Builder shall prepare plans for each design discipline. See DB §111-14 for a list of disciplines. The plans shall describe or reference activities for each discipline, 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 113-3.2.3 Design and Development Inputs

Design-input requirements relating to the product, including applicable statutory and regulatory requirements shall be identified and documented and their selection shall be 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 Agencies and other appropriate authorities any actual or apparent conflicts or inconsistencies in the information so gathered. The information, sources, and decisions taken shall be documented and treated as a Quality record (DB §113-3.14).

DB 113-3.2.4 Design and Development Outputs

The Design-Builder shall document design output and express output in terms that can be verified against design-input requirements and validated (see DB §113-3.6 and DB §113-3.7).

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:

- 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 by the Designer and Design-Builder before release.

DB 113-3.2.5 Design and Development Review

At appropriate stages of design development (see DB §111-7), 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. The Design-Builder shall maintain records of all such reviews (see DB §113-3.14).

This element reinforces the principle of qualified staff to perform QC and QA functions. The purpose here is to ensure an unbiased look at the work output being produced, to ensure that the Agencies' 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 technical design efforts or to produce alternative calculations or verify clearances through use of scale models or CADD techniques shall be validated before use for the application made. Such validation processes shall be identified in the Quality Plan and shall document how the results of such programs are determined to be adequately relied upon. Such validation efforts shall be saved in accordance with DB §113-3.14 (quality records).

In addition to conducting design reviews, design QC and QA may include activities such as:

- 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 before release.

DB 113-3.2.6 Design and Development QC and QA

Design QC and QA serve the purpose of ensuring specified requirements have been met.

At each stage of design development (DB §111-8), the Design-Builder shall ensure that the design stage output meets the design stage input requirements. The design QC and QA measures shall be recorded (see DB §113-3.14).

The Design-Builder shall establish, and the Quality Plan shall include, detailed procedures for verifying and documenting that the design output meets the design input requirements, including any checklists used. The procedure shall define an auditable process that is easily recognized on each plan/calculation sheet as showing that QC and QA has taken place, by whom, and date. See Control of Design and Development Changes below.

QC and QA shall be performed under the direction of the Design QC Manager and under the assurance of the Design QA Manager, respectively.

Designs provided by subconsultants shall be independently verified and documented under the direction of the Design QC Manager and the assurance of the Design QA Manager prior to its acceptance and incorporation into the work of others.

DB 113-3.2.7 Design and Development Oversight

The Authority will perform Oversight in accordance with DB 111, *Part 3, Project Requirements, Section 2 - Project Management*, and the other Contract Documents.

DB 113-3.2.8 Control of Design and Development Changes

After a design is complete and the Work is ready to be executed, or 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, with full consideration for impacts to ongoing or completed Work.

The Design-Builder shall establish and include in the Quality Plan, procedures on how design changes (design changes by the design team and design changes initiated from the field) are initiated, reviewed, approved, implemented and recorded in order to maintain configuration control. Changes may originate from the Agencies' request, internal and external design organization, 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 either be detailed as part of the procedure for the original work or addressed in a specific design change procedure(s). Any proposed changes shall be reviewed and approved by the Responsible Engineer or Responsible Architect that produced the original work. The degree and nature of QC and QA 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 for consistency with all previously accepted designs. 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.

There shall be a documented configuration control process that ensures 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 113-3.3 Control of Documents and Data

DB 113-3.3.1 General

The Design-Builder shall establish and maintain documented procedures to control all documents and data including, to the extent applicable, documents of external origin such as standards and the Agencies' 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 contracts, plans, specifications, design calculations, design reports, manufacturer's warranties, project design documentation, master drawing lists or equivalent documents, critical procedures and work instructions, Quality Plan, and electronic data (e.g., computer databases, 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 113-3.3.2 Document and Data Approval and Issue

The Design-Builder shall ensure 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 Plan 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 Plan 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, as follows:
- 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; frequent checking of this system by the quality managers shall be included in document control procedure.
 - 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 shall be suitably identified. Superseded, revised and voided documents may 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 113-3.3.3 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 Design-Builder shall ensure that the Person designated to review the changed work has adequate background and experience upon which to base decisions associated with the change review. 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 113-3.4 Procurement and Purchasing

DB 113-3.4.1 Purchasing Process

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 113-3.4.2 Evaluation of Subcontractors, Suppliers and Vendors

The Design-Builder shall:

- A) Evaluate and select suppliers, vendors and Subcontractors on the basis of their ability to meet Project requirements including adherence to the Quality Plan and any specific quality control 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; and
- 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.
- E) Establish and maintain quality records of acceptable suppliers, vendors and Subcontractors (see DB §113-3.15). Records shall be maintained to document the selection, control exercised over, performance, delivery, quality, etc. of all suppliers, vendors and Subcontractors.

The methods the Design-Builder elects to use to control the delivery of the contracted service or product may include:

- 1) Design reviews;
- 2) Shop inspection;
- 3) Receiving inspection;
- 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 Plan audits.

The procedures shall detail how service or product of vendors, suppliers and Subcontractors (including consultants) will be presented to the Agencies for their review and comment.

DB 113-3.4.3 Procurement and Purchasing Information

Procurement and purchasing documents shall contain data clearly describing the service or product ordered, including where applicable:

- A) The type, class, grade or other precise identification;
- B) 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; mill certifications of all steel products should accompany invoices; and
- C) The title, number and issue of all applicable Quality Plan requirements.

The Design-Builder shall review and approve procurement/purchasing documents for adequacy of the specified requirements prior to release. All documentation must be maintained at the Project Site and made available for Agency review at any time.

The documented procedure shall identify how and by whom procurement and purchasing documents are reviewed, how comments are resolved and who in Design-Builder's organization has the authorization for final approval of the document. These documents shall also clearly define how any Order on Contract or amendment efforts will be handled including Quality Plan requirements associated with any such efforts.

DB 113-3.4.4 Acceptance of Purchased Service or Product

- A) The Acceptance of any service or product is comprised of both the Design-Builder's Quality Assurance and the Authority's Oversight.
- B) Acceptance of structural steel and/or structural precast concrete elements are covered under NYSDOT's Steel Construction Manual and NYSDOT's Structural Precast Concrete Manual. The Design-Builder shall be responsible for all QC and QA at the manufacturers' facilities.
- C) Where the Design-Builder proposes to accept purchased product or service at the vendor's, supplier's or Subcontractor's premises, the Design-Builder shall notify the Agencies, with proposed plans and specifications and associated Quality Plan that outlines the Design-Builder's QC and QA method.
- D) The procurement/purchasing document shall include any requirement for the Agencies performing Verification Sampling and Testing at its vendor's, supplier's or Subcontractor's facilities. The method of acceptance 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 QC will be conducted and the acceptance process will be performed to assure the final product will meet all of the procurement/purchasing requirements.
- E) The Design-Builder and the Agencies' representative shall be afforded the right to verify and/or qualify the vendor's, supplier's or Subcontractor's premises and the Design-Builder's premises that the product or service conforms to specified requirements. Such verification/qualification shall not be used by the Design-Builder as evidence of effective control of quality by the vendor, supplier or Subcontractor.
- F) The Agencies shall have the right of access to the Design-Builder and/or vendor's, supplier's or Subcontractor facility to conduct Verification Sampling and Testing, and/or audit procedures 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 provide QC/QA actions, regardless of what the Agencies do for Verification Sampling and Testing. The Agencies' Verification Sampling and Testing, and/or auditing procedures may not be substituted for the Design-Builder's actions.
- G) Verification Sampling and Testing, and/or auditing conducted by the Agencies shall not absolve the Design-Builder of the responsibility to provide acceptable product or service, nor shall it preclude subsequent rejection by the Agencies.
- H) The vendors, suppliers and Subcontractors shall be responsible for fulfilling all of the specified procurement requirements regardless of whether the Agencies, Design-Builder or agent performed any tests or inspections. The Design-Builder shall provide the Agencies an acceptable product or service, regardless of the extent of the Agencies' auditing activities. Even if the Agencies have performed auditing actions at the Design-Builder's facilities, the product may still be rejected if it is not acceptable.

DB 113-3.5 Agencies' Property

The Design-Builder shall establish and maintain documented procedures for the storage and maintenance of the Agencies-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 Agencies.

One of the most significant products provided to the Design-Builder by the Agencies 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 physical items supplied. Any apparent deficiency or ambiguity shall be identified to the Agencies for its necessary action.

The technical characterizations of the Site, such as the boring log or soil report data supplied by the Agencies for consideration in designing the structural system for the product are examples of the Agencies supplied products for the structural consultant.

Documented procedures shall exist which detail the receipt/ acceptance, storage and maintenance (preservation) of these items.

Documented procedures shall detail the process used to report any deficiencies to the Agencies.

DB 113-3.6 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 document title, unique number, the Agencies' names, 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 non-conforming 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.

The intent of this DB §113-3.6 is to ensure the Design-Builder can effectively identify the root cause of a problem and to implement effective corrective and preventive actions to resolve and prevent future occurrences of the problem.

DB 113-3.7 Process Control

The Design-Builder shall be responsible for establishing a systematic approach to define the process, methods, procedures, and documentation for delivery of process control on the project. The Design-Builder must also staff on-site process control personnel who will be responsible for the process control aspects of this Project, including the construction manager, Construction QC Manager and Construction QC Inspectors. All Subcontractors' construction workforce shall also be considered members of the process control staff to promote a unified approach to process control and an environment and culture of quality on this Project.

The Quality Plan shall define the need for investigations when shortfalls in the process control are identified. Factual evidence that process control inspections and test have been performed is required documentation to demonstrate that commitments by the Design-Builder have incorporated quality into the Project prior to acceptance testing and inspection.

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) Documented 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 respective efforts. Such schedules shall identify required inputs from others and submittals to the Agencies and to other relevant government authorities; and
- C) An assessment by the Design-Builder of this requirement is essential to ensure compliance. 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, representative samples or illustrations); and
- I) Suitable maintenance of equipment to ensure continuing process capability.

DB 113-3.8 Inspection and Testing

DB 113-3.8.1 General

The Design-Builder shall establish and maintain documented procedures for inspection and testing activities in order to assure 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.

This section shall address inspection/testing methodology, methods of control, documentation, acceptance and distribution of results.

Written procedures are required. In general, construction 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 construction inspection personnel and results clearly indicated.

The Design-Builder shall establish, document and maintain procedures for construction inspection and testing activities, and shall outline the communication/distribution of these documents with the Agencies.

Construction 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.

The Agencies' Oversight will be referenced in and coordinated with the Design-Builder's Quality Plan. All Design-Builder procedures that include activities associated with QC and QA of the materials testing processes to be performed by the Design-Builder, shall address interfaces with Agencies' Oversight.

QC and QA and acceptance to meet Project Specifications and Contract requirements by means of inspection and testing is required:

- A) On receipt of materials;
- B) At intermediate stages; and
- C) When work is completed.

The Quality Plan shall include procedures for testing that is required to confirm design assumptions such as pile load tests. Performance and inspection of all such testing will be the full responsibility of the Design-Builder. Such tests shall be coordinated with the Construction Compliance Engineer and any associated Agencies material testing and auditing activities.

Quality Check Points shall be clearly established and identified on the Project execution schedule or other suitable means. Construction inspection procedures, logistics and reporting of results shall be clearly defined, developed and implemented.

DB 113-3.8.2 Incoming Product Inspection and Testing

The Design-Builder shall ensure that incoming product is not used or processed until it has been inspected or otherwise verified as conforming to specified requirements. The Quality Plan shall address incoming product inspection that shall include:

- 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) Ensuring quantity;
- E) Dimensional checks, when applicable;
- F) Checking 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 meets the Agencies' requirements and the Project Specifications.

In determining the amount and nature of receiving inspection, the Design-Builder shall consider the amount of control exercised at the vendor's, supplier's or Subcontractor's premises and the recorded evidence of conformance provided.

DB 113-3.8.3 In-Process Inspection and Testing

The Design-Builder shall:

- A) Inspect and test the product as required by the Quality Plan and/ or associated documented procedures; and
- B) Hold product until the required inspection and tests have been completed or necessary reports have been received and verified.

DB 113-3.8.4 Work Completed Inspection and Testing

The Design-Builder shall have documented procedures to ensure that the inspection and testing of completed work where applicable have been completed.

Records of inspection and testing of completed work are required to ensure that compliance to specified requirements has been achieved (see DB §113-3.14).

The Quality Plan and/or documented procedures for inspection and testing of completed work 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 113-3.8.5 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 non-conforming product shall apply (see DB §113-3.11).

The Design-Builder shall ensure that critical elements of the Work are not started or continued without QA personnel on Site for acceptance inspection and testing. Inspection and QCP (Hold Points) shall be identified and communicated to the CQCM and CQAM. The Design-Builder shall establish procedures on how to proceed beyond inspection or hold point.

Inspection and test records for inspections and tests performed by Design-Builder, the Agencies and/or third party shall show whether the product has passed or failed according to defined acceptance criteria. Product that fails inspection becomes non-conforming product. Also, the records shall identify the inspection authority responsible.

DB 113-3.9 Inspection, Measuring and Test Equipment

DB 113-3.9.1 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 maintains accuracy within industry standards.

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 §113-3.14).

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 Agencies 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 reproducibility 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 QA 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 the Quality Manager, to assess the vendors, suppliers and Subcontractors to ensure the required procedures exist and are implemented when they are performing inspection, measuring and control.

The Design-Builder and the QA Engineering Firm shall be responsible for ensuring applicable requirements of this section are addressed.

This DB §113-3.9 applies to inspection or testing and surveying equipment. The Quality Plan shall address:

- 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 non-conforming 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 113-3.9.2 Procedure

The Design-Builder, through the QA Engineering Firm, shall:

- 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 too internationally or nationally recognized standards. Where no such standards exist, 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 the required frequency of calibration and accuracy requirements. Calibration is not required for non-precision tools and instruments such as measuring tapes, concrete slump cones, rulers, weld radius gauges, etc.;
- 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 §113-3.15);
- 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; and
- J) Safeguard inspection, measuring and test facilities, including both test hardware and test software, from adjustments which would invalidate the calibration setting.

DB 113-3.10 Inspection and Test Status

The inspection and test status of product shall be identified by suitable means, indicating the conformance or non-conformance of product with regard to each 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, non-conforming, indeterminate, downgraded, scrap, and rejected material.

Lack of non-conformance identification shall not be an indication of acceptance.

DB 113-3.11 Control of Non-conforming Product

DB 113-3.11.1 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), disposition of non-conforming product, and for notification to the functions concerned.

There shall be documented procedures to assess non-conformance in the Design-Builder's Work and in the work provided by others, including the Agencies. The procedures shall safeguard against use of inaccurate or otherwise inappropriate information or data.

The procedures shall identify the individual(s) responsible for identifying the non-conformance, documenting it, processing the documentation in accordance with the procedures, and determining the effective corrective action/preventive action (see DB §113-3.12.2 and DB §113-3.12.3) to resolve the non-conformance.

Procedures shall also 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 Agencies. Any non-conforming 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 non-conforming 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. Non-conformances 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 113-3.11.2 Review and Disposition of Non-conforming Product

The Design-Builder shall define the responsibility for review and authority for the disposition of non-conforming product.

Non-conforming product shall be reviewed in accordance with documented procedures. Such product may be:

- A) Reworked to meet the specified requirements;
- B) Accepted with or without repair by consent of the Agencies;
- C) Regarded for alternative applications; or
- D) Rejected or scrapped.

The procedures shall also address the disposition of non-conforming items and the steps necessary to ensure that the non-conformances are adequately addressed, allowing the item to then be characterized as conforming.

Where required by the Contract, the proposed use or repair of product which does not conform to specified requirements shall be reported to the Agencies for consent. The description of the non-conformity that has been accepted and repairs shall be recorded to denote the actual condition (see DB §113-3.14).

The Design-Builder shall keep and maintain records of non-conforming findings (see DB §113-3.14). Also, each non-conformance record shall contain all deliberations, retesting, and 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 Agencies, 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 113-3.12 Improvement

DB 113-3.12.1 Continual Improvement

The Design-Builder shall implement a continual improvement process to increase the effectiveness of the Quality Plan in its ability to help the Design-Builder meet the needs of the client and enhance satisfaction. To achieve this goal, the Design-Builder shall establish and maintain documented procedures for implementing corrective and preventive action. Management reviews shall review the progress of improvement throughout the life of the project, based on an analysis of factual data as collected by other sections of the Quality Plan.

This DB §113-3.12 encompasses two aspects of dealing with non-conformities. The first involves implementation and ensuring effectiveness of previously implemented corrective actions.

The second is preventive action (P/A) which plays a major role in the continual improvement process. Most procedures addressing corrective action (C/A) need to include preventive action. In investigating non-conformances, the Design-Builder shall review three possible causes: the product, the process, and the quality system.

These non-conformances may be identified by either internal or external audits or during regular inspections or design reviews. procedures shall be prepared and implemented to determine the root causes of non-conformances and to revise existing procedures and work instructions or to establish new ones to prevent the identified situations that cause or allow non-conformances to develop. The Design-Builder shall identify appropriate authority for implementation, verification and review of the effectiveness of both preventive and corrective actions.

Any corrective or preventive action taken to eliminate the causes of actual or potential non-conformities 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 113-3.12.2 Corrective Action

The Design-Builder shall maintain and document a procedure for dealing with non-conformances and complaints, including recording data, investigating causes and effects, and determining the appropriate corrective action, if any, that shall be taken.

The procedures for corrective action shall include:

- A) The effective handling of complaints and reports of product non-conformities;
- B) Investigation of the cause of non-conformities relating to product, process and quality system, and recording the results of the investigation (see DB §113-3.14);
- C) Determination of the corrective action needed to eliminate the cause of non-conformities;
- D) Application of controls to ensure that corrective action is taken and that it is effective;
- E) Recording of the results of the action taken; and
- F) The tracking of complaints and identified non-conformance, and the actions taken to resolve them.

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 include investigation to determine whether 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 Plan.

DB 113-3.12.3 Preventive Action

The Design-Builder shall establish, document, and maintain procedures for implementing preventive actions.

The procedures for preventive action shall include:

- 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 non-conformities and causes of non-conformities;
- 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;
- D) Recording of the results of the action taken; and

- E) Confirmation that relevant information on actions taken is submitted for management review.

DB 113-3.13 Handling, Storage, Packaging, Preservation, and Delivery

DB 113-3.13.1 General

The Design-Builder shall establish and maintain documented procedures for handling, storage, packaging, preservation and delivery (HSPPD) of product.

The procedures shall 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 turnover of the facility to the Authority. The specific application of the requirements is determined by the function performed: Design-Builder, manufacturer, distributor, vendor, warehousing, equipment operators, and installer.

The engineer writing the specifications shall be responsible for identifying any special HSPPD requirements and assuring the requirements are identified in the appropriate Project documents. Procurement shall be responsible for assuring the vendors, suppliers and Subcontractors are aware of the requirements and are also aware of their responsibilities to identify all requirements to lower tier vendors, suppliers and Subcontractors.

Procedures shall be developed and implemented for designating which items require special handling, storage or maintenance. Development of the HSPPD procedures and work instructions are affected by the other elements of this DB §113 and such elements shall therefore be reviewed for applicability and requirement inclusion.

DB 113-3.13.2 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. The Design-Builder shall develop and implement procedures appropriate to the circumstances 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. Requirements for maintenance of identification and traceability shall be identified.

Special handling clothing and precautions shall be identified for all hazardous materials with assurances that only qualified and trained personnel handle the 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 113-3.13.3 Storage

The Design-Builder shall use designated storage areas or stock rooms to prevent damage or deterioration of product, pending use or delivery. The Design-Builder shall develop appropriate methods for authorizing receipt to and dispatch from such areas.

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 is received on the Project, this includes 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 expiration date. The procedures shall also identify the disposal of materials that may be toxic, hazardous or might otherwise have an adverse effect on the environment or on unsuspecting humans.

DB 113-3.13.4 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 Design-Builder shall be clearly and plainly identified on the packaging.

DB 113-3.13.5 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 113-3.13.6 Delivery

The Design-Builder shall arrange for the protection of the quality of product after final inspection and test. Where contractually specified, 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, they shall develop procedures or reference appropriate standards to protect the items during delivery.

DB 113-3.14 Control of 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 Plan. Pertinent quality records from vendors, suppliers and Subcontractor shall be included in the Design-Builder's quality records. All such documentation shall be available to the Agencies for quality and audit activities.

Records shall be kept of documents which serve as evidence that quality is achieved. 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 Agencies per Contract requirements.

The Design-Builder shall develop and implement procedures to store, retrieve, and dispose of the documents required by the Quality Plan, including 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. They 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.

The Project Executive 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 prior to completing the Work. The Design-Builder shall deliver the list to the Agencies as a condition to Final Acceptance.

DB 113-3.15 Internal Audit

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 Plan.

Internal quality audits shall be conducted in accordance with sound auditing principles. The frequency of the audits shall be at least on a quarterly basis. Audits shall be initiated early enough in the life of a Project to assure effective QC and QA 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 Plan 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 §113-3.14) 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.

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 shall be conducted in a timely manner to enable verification of 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 113-4 PERSONNEL TRAINING

The Design-Builder shall ensure that all personnel on the Project are made aware of the quality requirements of their position. Personnel will be trained in their job duties and the skills necessary to complete their work right the first time.

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 (and certified as required) on the basis of appropriate education, training and/or experience, as required. Appropriate records of training (and certification) shall be maintained (see DB §113-3.14).

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:

- 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 should be verified.

All qualification, certification and training records are quality records and shall be maintained accordingly (DB §113-3.14).

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 ensured and a record maintained.

DB 113-5 COMMISSIONING OR SERVICING

Where commissioning or servicing are specified requirements, the Design-Builder shall establish and maintain documented procedures for ensuring, and reporting that the commissioning and servicing actions meet the specified requirements.

The requirements of this DB §113-4.1 are applicable only where it is specified in the Contract.

DB 113-5.1 General

The Design-Builder's Quality Plan shall document procedures that detail the methodologies to be used while performing the commissioning and servicing, how compliance to these operations and the Agencies' requirements are verified, and the agreed upon method of reporting compliance of commissioning and service operations to Contract requirements.

Commissioning is defined in Part 2 DB 101-4. Servicing deals with the services rendered to the Authority during the warranty period.

DB 113-5.2 Commissioning Requirements

The Design-Builder shall establish and maintain documented procedures for ensuring and reporting the commissioning actions meet the specified requirements.

The Design-Builder shall use and modify the following industry guidelines for its commissioning process:

- A) GSA – General Services Administration Commissioning Guidelines
- B) ACG – Associated Commissioning Group Guidelines
- C) BCx – Building Commissioning Guidelines

While these industry guidelines are geared to building systems, the Project will have mechanical, electrical and plumbing systems associated with the Crossing and highway as well as with the building design and construction. The Design-Builder, in its Quality Plan, shall modify these industry guidelines to be applicable to and cover all types of facilities in the Project.

The Design-Builder shall provide a commissioning engineer at the beginning of the design phase, who will plan and coordinate commissioning during design and through construction. The commissioning engineer shall incorporate quality assurance and inspection activities as design and construction progresses, including design reviews, start-up, system demonstration, performance verification, fine tuning and operator training. The commissioning engineer shall be a Professional Engineer registered in the State of New York with commissioning experience and be a member of the QA Engineering Firm, **and can perform other functions on the Project.**

DB 113-6 STATISTICAL TECHNIQUES

DB 113-6.1 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 assurance 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 113-6.2 Procedures

The Design-Builder shall establish and maintain documented procedures to implement and control the application of the statistical techniques.

Should the need for statistical programs be established, the Design-Builder shall document procedures detailing the methods to be applied.

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