

IMLA CONSTRUCTION CONTRACT DRAFTING INITIATIVE (CCDI)

MODEL DESIGN-BUILD AGREEMENT

PART 1 — GENERAL CONDITIONS OF DESIGN-BUILD CONTRACT

Editor's Note: This contract is based off a Montgomery County, MD Design- Build Agreement and contains project specific references, including references to the Maryland Code. Readers must consult state specific laws when using this document. Please disregard all references to any attachments or appendices, as they have been removed from the document.

PART 1 GENERAL CONDITIONS OF DESIGN BUILD CONTRACT

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ARTICLE 1

DEFINITIONS AND USE OF TERMS

1.1 DEFINED TERMS

1.1.1 Addendum. An Addendum is a written or graphic instrument issued prior to the opening of Bids or Proposals, which clarifies, corrects or changes the Solicitation.

1.1.2 Additional Work. Work which was not required or provided for in the original Contract.

1.1.3 Administration. Administration in most RFP references refers to the Owner's administration.

1.1.4 Administrative Plans. The RFP plans that contain general project or plan information such as cover sheets, index sheets, and similar non-technical information.

1.1.5 Affiliated Entity. An Affiliated Entity is (i) any person who is a spouse, parent, natural or adopted descendant, spouse of such descendant, sibling of such person or a trust of which any person named in this clause (i) is the primary income beneficiary; (ii) any person who directly or indirectly owns, controls or holds the power to vote fifty percent (50%) or more of the outstanding voting securities (including partnership interests) of the person in question; (iii) any person fifty percent (50%) or more of whose outstanding securities (including partnership interests) are directly or indirectly owned, controlled by, or held with power to vote by the person in question; (iv) any person directly or indirectly controlling, controlled by, or under direct common control with the person in question; (v) if the person in question is a corporation, any executive officer or director of such person or of any corporation directly or indirectly controlling such person; (vi) if the person in question is a partnership, any general partner of the partnership or any limited partner owning or controlling fifty percent (50%) or more of either the capital or profits interest in such partnership; and (vii) if the person in question is a limited liability company, any managing member of the limited liability company or any member owning or controlling fifty percent (50%) or more of either the capital or profits interest in such limited liability company. As used in this definition, "control" means the possession, directly or indirectly, of the power to direct or cause the direction of the management and policies of a person, whether through the Ownership of voting securities, by contract, or otherwise.

1.1.6 Agreement. The signed Design-Build Agreement between the Owner and the Design-Builder regarding design and construction of the Project.

1.1.7 Administrator. See "Contract Administrator."

1.1.8 Allowance. An Allowance is an estimated monetary amount established in the Contract Documents and included in the Contract Price for a portion of the Work to be performed by the Design-Builder.

1.1.9 Alternative Technical Concepts. Concepts that deviate from requirements set forth in the Request for Proposal and that have been included in the Proposal with the Owner's prior written approval in accordance with the Instructions to Proposers, based on a determination by the Owner that the proposed end product based on the deviation is equal to or better than the end product absent the deviation.

1.1.10 Amendment. See "Contract Amendment" definition.

1.1.11 Applicable Law. Any law, rule, codes, standards, regulation, requirement, policy, consent decree, consent order, consent agreement, permit, guideline, action, determination or order of, or legal entitlement issued by, any governmental body having jurisdiction, applicable from time to time to any activities associated with the subject matter of this RFP, including but not limited to design, construction and permitting of the Administration and Maintenance Building or any other transaction or matter contemplated hereby (including any of the foregoing which concern health, safety, fire environmental protection, labor relations, mitigation monitoring plans, building codes, non-discrimination and the payment of prevailing wages.

1.1.12 Application for Payment. An Application for Payment is a request from the Design-Builder for a progress or final payment on the prescribed form and includes all information required to be submitted with the form to substantiate the Design-Builder's right to payment. Unless otherwise provided, Applications for Payment must be submitted in the format specified by the Owner.

1.1.13 Architect or General Engineering Consultant (GEC). The Architect or General Engineering Consultant (GEC) is a person or an entity identified as such in the Contract Documents.

1.1.14 As-builts. See "Record Drawings."

1.1.15 Baseline Progress Schedule. The time scaled and price-loaded schedule, including revisions thereto, which has been provided by the Design-Builder and which the Contract Administrator has acknowledged in writing conforms to the Contract requirements, and updates thereto accepted by the Contract Administrator. The Baseline Progress schedule represents the Design-Builder's plans for performing the Work; shows the Design-Builder's Work Breakdown Structure (WBS) for designing, constructing, and completing the Project; and distributes the Contract Price among scheduled activities over the duration of the Contract.

1.1.16 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.

1.1.17 Bid, Performance, Payment and Restoration Bonds. The term Bid, Performance, Payment and Restoration Bonds refers to instruments of security issued in accordance with the requirements set forth in the Bid Documents or the RFP Contract Documents by a surety authorized to do business in the State of Maryland and approved by the Owner.

1.1.18 Certificate for Payment. A Certificate for Payment is the original or a copy of the Design-Builder's Application for Payment, which has been reviewed and recommended by the General Engineering Consultant.

1.1.19 Certificate of Final Completion. The Certificate of Final Completion is a form the Owner issues to confirm the date of Final Completion.

1.1.20 Certificate of Insurance. A Certificate of Insurance is a form acceptable to the Owner, describing

and certifying the insurance coverage obtained by the insured Design Builder or Subcontractor from an insurer acceptable to the Owner.

1.1.21 Certificate of Substantial Completion. The Certificate of Substantial Completion is a form the Owner issues to confirm the Substantial Completion in accordance with Part 1 – GC, Article 14, Section 14.2.

1.1.22 Change Order. A Change Order is a written directive by the Owner to the Design-Builder directing a change in the Work which is within the general scope of the contract and which may increase or decrease the Contract Time and/or the Contract Price issued with or without the consent of the Design-Builder.

1.1.23 Construction. The part of the Work that is the result of performing or furnishing of labor, the furnishing and incorporating of materials and equipment into the Work and the furnishing of services (other then Design Professional Services) and documents, all as required by the Contract Documents.

1.1.24 Construction Manager. The key person in the Design-Builder's organization responsible for managing construction Work under the direction of the Project Manager.

1.1.25 Construction Quality Control Plan. A portion of the Quality Manual, so designated, that sets out the Design-Builder's means of complying with its obligations in relation to construction QC.

1.1.26 Construction Quality Control (QC) Manager. The key person in the Design-Builder's organization, responsible for construction QC under the overall direction of the Project Quality Manager.

1.1.27 Contract. The Contract is the written agreement between the Owner and the Design-Builder, as executed by the parties, covering the Work to be performed and fixing the Contract Time and the Contract Price. The Contract is comprised of the Contract Documents.

1.1.28 Contract Administrator. The Contract Administrator is the Owner's representative authorized to oversee administration of the Contract as provided in Part 1 – GC, Article 4, Section 4.1.

1.1.29 Contract Amendment. A Modification to a Contract signed by the Design Builder and Director which provides for a change in the Contract provisions, including additional work outside the scope of the original Contract.

1.1.30 Contract Documents. Means the Contract, appendices, schedules, Design Submittals, Addenda issued prior to execution of the Contract, Contract Modifications, and other documents listed in the Contract, all of which form the Contract, and are as fully a part of the Contract as if attached to the Contract or repeated herein.

1.1.31 Contract Modification. Any written alteration in any provision of the Contract Documents, whether accomplished in accordance with a Contract provision, or by mutual action of the parties to the Contract. The term includes Change Orders, Additional Work orders, supplemental agreements, or Contract amendments.

1.1.32 Contract Price. The fixed-fee price the Owner will pay the Design Builder as full compensation for the Work, as identified in the Design-Build Agreement, as adjusted from time to time by Contract Modifications.

1.1.33 Contract Time. The Contract Time is the total period of time stated in the Contract between the Date of Commencement and Final Acceptance of the Work. The Contract Time is subject to adjustment only by Change Order as provided herein.

1.1.34 Contractor. The Contractor is the person or entity identified as such in the Bid or Proposal and referred to in the Contract executed by the Owner. The Contractor is also the person or entity identified as the principal on the Bid, Performance and Payment Bonds. Also referred to as the Design-Builder or Proposer.

1.1.35 Cooling Months. The period of time during the calendar year, specifically between May 15 and October 15, during which WMATA requires that air conditioning must be maintained in its facilities.

1.1.36 Coordination Drawings. Drawings prepared by the Design-Builder showing comprehensive coordination of all Work including but not limited to structural, architectural, vertical transportation, mechanical, plumbing, fire protection and electrical systems.

1.1.37 Date of Commencement. The Date of Commencement of the Work is the date established in the initial Notice to Proceed upon which the Contract Time begins to run; or if no date is established, then it is the date of the Notice to Proceed.

1.1.38 Date of Substantial Completion. The Date of Substantial Completion is the date certified by the General Engineering Consultant and accepted by the Owner in accordance with Part 1 – GC, Article 14, Section 14.2 upon which the Work is found to be substantially complete.

1.1.39 Day. Unless otherwise specifically modified, the term "day" means a calendar day.

1.1.40 Defective or Nonconforming Work. "Defective or nonconforming" is Work that is unsatisfactory, faulty or deficient, in that it:

.1 Does not conform to the Contract Documents;

.2 Does not meet the requirements of any inspection, test or approval referred to in the Contract Documents or required by law;

.3 Is used or not of recent manufacture;

.4 Contains defects;

.5 Represents an Or-Equal or Substitution not properly approved by the Owner; or

.6 Has been damaged prior to Substantial Completion

1.1.41 Definitive Design. The Design Documents defining the Design-Builder's design approach and finalizing the Basic Project Configuration.

1.1.42 Delay. The term "delay" refers to any circumstance which has the effect of preventing the Design-Builder from performing Work, or a portion thereof, which at the time of the delay was on the Critical Path of the most recent CPM Schedule of Record.

.1 An excusable delay, as defined in Part 1 – GC, Article 11, Section 11.5.1 may entitle the Design-Builder to an adjustment in the Contract Time, but does not entitle the Design-Builder to any additional compensation.

.2 A compensable delay, as defined in Part 1 – GC, Article 11, Section 11.5.2 may entitle the Design-Builder to additional compensation and an adjustment in the Contract Time.

.3 An unexcused delay, as defined in Part 1 – GC, Article 11, Section 11.5.3 does not entitle the Design-Builder to an adjustment in the Contract Time or additional compensation, and may subject the Design-Builder to claims for damages from the Owner including Liquidated Damages.

1.1.43 Department. The Department means the Owner Department of General Services.

1.1.44 Design-Builder. The Entity selected pursuant to the RFP that enters into the Contract with the Owner to design and construct the Project.

1.1.45 Design Manager. The key person in the Design-Builders organization, employed by the Designer, who is in responsible charge of the design Work?

1.1.46 Design Plans. Plans prepared by the Designer showing the location, character, dimensions and details of the Work to be done.

1.1.47 Design Professional Services. That part of the Work comprised of services relating to the preparation of Drawings, Specifications, and other design submittals specified by the Contract Documents and required to be performed by licensed design professionals, as well as other services provided by or for licensed design professionals during Bidding/Negotiating, Design, Construction, or Operational phases.

1.1.48 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.

1.1.49 Design Quality Control (QC) Manager. The key person in the Design-Builder's organization, employed by the Designer or a firm on the design team, who is responsible for design QC under the overall direction of the Project Quality Manager.

1.1.50 Design Quality Control Plan. The Design-Builder's document, a portion of the Quality Manual, so designated, that sets out the Design-Builder's means of complying with its obligations in relation to design QC.

1.1.51 Design Unit. A distinct unit of the project of which the design is performed as a contiguous, integrated unit.

1.1.52 Designer. The Principal Participant, specialized Subcontractor, or in-house designer that has primary responsibility for design services for the Project.

1.1.53 Directive Plans. The RFP plans that depict required elements and components of the Project within specifically defined parameters. The Design-Builder has limited or no latitude to adjust components or details shown on Directive Plans, unless specifically authorized by the Owner. Examples of Directive Plans include the following:

(A) Basic Project configuration plans that depict the basic project configuration within the limits defined in the Contract;

(B) Standard Plans;

(C) Final Owner Plans; and, (D) Right-of-Way plans.

1.1.54 Director. The Director means the Director, Department of General Services for Montgomery Owner.

1.1.55 Drawings. The Drawings are the graphic and pictorial portions of the Contract Documents identified in the executed Contract, generally including plans, elevations, sections, details, schedules and diagrams, and any revisions, supplements or clarifications thereto issued after execution of the Contract. In addition, Drawings are also those portions of the Contract Documents prepared by or for the Design-Builder and approved by the Owner including plans, elevations, sections, details, schedules and diagrams, other data and any revisions, supplements or clarifications thereto which show the scope, extent and character of the Work.

1.1.56 Effective Date of the Agreement. The date indicated in the Agreement on which it becomes effective, which is the date that it is executed by the Director.

1.1.57 Environmental Approvals. Those Governmental Approvals arising from or required by any Environmental Law in connection with development of the Project, including those identified in the performance specifications, i.e., for the environment and drainage.

1.1.58 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. 9601 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.

1.1.59 Field Order. A Field Order is a written instruction issued by the Owner to the Design-Builder directing a change in the Work when unforeseen and unanticipated conditions arise which require immediate action to mitigate costs or avoid delays. It may provide for additional compensation to be paid to the Design-Builder (outside of the Contract Price under a separate encumbrance), but does not change the Contract Time or Contract Price. A Field Order may also be issued directing the Design-Builder's performance of disputed work.

1.1.60 Final Completion. Final Completion is the stage in the progress of the Work, as confirmed by the Owner's acceptance of the General Engineering Consultant's Certificate of Final Completion in accordance with Article 14, when all of the Work, including all Punch List works, is complete in accordance with the Contract Documents.

1.1.61 General Engineering Consultant (GEC). The engineering team selected by the Owner to support the Owner in managing the design and construction.

1.1.62 Geotechnical Data Report. The Geotechnical Data Report refers to the report of explorations and tests of subsurface conditions at or contiguous to the Site, which have been prepared for the use of the Design-Builder in designing the project. Their accuracy or completeness is limited to the very narrow parameters of locations, timing and depth of the borings, pits and other analyses. As such, they are not intended to, and do not, provide a comprehensive representation of subsurface conditions. The Geotechnical Data Report has been made part of the Contract Documents for the limited purpose of evaluation of subsurface conditions and preliminary design of the Work .The Geotechnical Data Report shall not be relied upon by the Design-Builder for final design or any means or methods of construction. The Design-Builder shall conduct its own supplementary investigation of the subsurface conditions for final design.

1.1.63 Geotechnical Baseline Report. The Geotechnical Baseline Report refers to the report of interpretive subsurface conditions that describe the geotechnical conditions anticipated to be encountered during subsurface construction. Risks associated with construction conditions consistent or less adverse than the baselines are allocated to the Design-Builder, and the risks associated with construction conditions materially more adverse than the baselines are allocated to the Owner.

1.1.64 Governmental Approval. Any approval, authorization, certification, consent exemption filing, lease, license, permit, registration or ruling, required by or with any Governmental Body in order to perform the Work or any Relocation work being performed by a utility Owner, including any modification or supplement to any of the foregoing, but excluding (a) any such approvals relating to the work to be performed by other contractors as specifically described in the Contract Documents and (b) any such approvals required by or with a Governmental Body in its capacity as a utility Owner.

1.1.65 Governmental Body. 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 Owner.

1.1.66 Governmental Rules. All applicable laws, codes, rules, ordinances, restrictions and regulations of the federal, State, regional or any local Governmental Body and judicial or administrative orders which affect the acquisition of real property for, or the design, construction, operation or maintenance of the Project including those relating to fire, safety, land use, health, labor, environmental protection, seismic design, conservation, traffic control, parking, handicapped access, zoning and building laws, codes ordinances rules and regulations.

1.1.67 Hazardous Materials. Hazardous Materials means (a) any "hazardous waste" as defined by the Resource Conservation and Recovery Act of 1976 (42 U.S.C. §6901 et seq.), as amended from time to time, and regulations promulgated thereunder; (b) any "hazardous substance" as defined by the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (42 U.S.C. Section 9601 et seq.), as amended from time to time, and regulations promulgated thereunder; (c) any "oil, petroleum products, and their byproducts" as defined by Md. Code Ann., Envir., §4-401(g) (1996 Repl. Vol.), as amended from time to time, and regulations promulgated thereunder; (d) any "controlled hazardous substance" or "hazardous substance" as defined by Md. Code Ann., Envir., §7-201 (1996 Repl. Vol.), as amended from time to time, and regulations promulgated thereunder; (e) any "infectious waste" as defined by the Md. Code Ann., Envir., § 9-227 (1996 Repl. Vol.), as amended from time to time and regulations promulgated thereunder; (f) any substance the presence of which on the Project site is prohibited, regulated, or restricted by applicable Laws or Regulations similar to those set forth in this definition; and/or (g) any other substance which by applicable Law or Regulation requires special handling in its Generation because of its effect or potential effect on the environment. The term "Generation" means the usage, collection, generation, storage, transportation, treatment, or disposition.

1.1.68 Incidental Utility Work. All of the following work necessary for the construction of the

Project:

(A) Temporary relocations;

(B) Relocations of service lines; (C) Protection in place;

(D) The adjustment of utility appurtenances (e.g., manholes, valve boxes, and vaults) for line and grade upon completion of roadway work;

(E) 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

(F) All work necessary to abandon in place any utility in accordance with proper procedures (e.g., flushing, capping, slurry backfill, etc.).

1.1.69 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 that 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.

1.1.70 Indemnified Parties. The Owner, and their respective successors, assigns, officeholders, officers, directors, agents, representatives, consultants and employees. In the event that any Utility Agreement includes indemnification requirements, the term Indemnified Parties shall include the utility Owner that is a party to that agreement, subject to the proviso that inclusion of the utility Owner in the defined term shall not be deemed to expand the utility Owner's rights to indemnity as set forth in the Utility Agreement.

1.1.71 Indicative Plans. The RFP plans that represent the nature and type of Work to be designed and constructed as part of the Project. Owner facilities have no particular view on the specific configuration or material used in the final product, such as the following:

(A) Structure type (concrete or steel)

(B) Pavement type (concrete or asphalt)

1.1.72 Instructions to Design-Builders. The Instructions to Design-Builders are issued in conjunction with the Request for Proposals, and set forth some of the requirements applicable to the preparation, submission, opening and consideration of Proposals and accompanying submittals, and the award and execution of the Contract.

1.1.73 Landscape Planting Establishment Period. The period during which the Design-Builder is obligated to provide landscape establishment services, as set forth in the Performance Specification and Special Provisions.

1.1.74 Laws and Regulations. The term "laws and regulations" includes the applicable laws, rules, regulations, ordinances, codes and orders of any and all governmental bodies, agencies, authorities and courts having jurisdiction over the Contract or the Project.

1.1.75 Legal Requirements. All applicable federal, state and local laws, codes, ordinances, rules, regulations judgments, decrees, directives, guidelines, policy requirements, orders and decrees of any Governmental Body having jurisdiction over the Project or Site, the practices involved in the Project or Site, any Work, or any utility work being performed by a utility Owner. The term "Legal Requirements" does not include Governmental Approvals.

1.1.76 Liquidated Damages. The term "liquidated damages" refers to the amount payable by the Design-Builder to the Owner for each day of unexcused delay in achieving Substantial Completion of the Work. The amount of liquidated damages is initially set forth in the Bid Documents and is stated in the executed Contract.

1.1.77 Major Phase of Work. Defined as any Work activity that requires more than 10 calendar days.

1.1.78 Milestone. A defined step towards the completion of Work within a Work Breakdown Structure identified in the Baseline Progress Schedule.

1.1.79 Modification. A Modification is (i) a Contract Amendment or (ii) a Change Order.

1.1.80 Notice to Proceed. A Notice to Proceed is one or more written notice(s) given by the Owner to the Design-Builder fixing the date on which the Contract Time or a designated portion thereof will commence to run and by which the Design-Builder must start to perform the Work or a designated portion thereof as stated in the Notice to Proceed.

1.1.81 Or Equal Item. The term Or Equal Item refers to an item of material or equipment proposed by the Design-Builder that is allowed by the Contract Documents and, in the Owner's sole discretion, is functionally equal to an item specified or described in the Contract Documents. "Functionally equal" means that the item is sufficiently similar to that specified or described that, in the opinion of the Owner, the item meets or exceeds the physical characteristics, performance ratings, durability, serviceability, appearance and other relevant characteristics of the item specified or described in the Contract Documents, and that no change in design or related Work will be required. See Part 1 – GC, Article 12, Section 12.6.

1.1.82 Over-the-Shoulder Reviews. The Design Process where the Designer and Owner representatives that are to review the Design-Builder's Definitive Design, Release for Construction, Working Plans and As-builts, meet to discuss the Design-Builder's design approach, Basic Project Configuration and preliminary plans prior to the official submittals, with the goal of expediting reviews and approvals by the Owner and/or or its representatives.

1.1.83 Oversight. Actions by the Owner to satisfy itself that the Design-Builder is designing, constructing and managing the Work in accordance with the Contract Documents. It includes actions identified in the Contract Documents by the terms QA, accept/acceptance, inspect/inspection, audit, ensure, certify, review, verify or terms of similar import. Owner 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 Owner shall be construed to relieve the Design-Builder and its organization from the responsibility and costs for meeting all Contract and regulatory requirements.

1.1.84 Price Proposal. Those elements of the Proposal that the ITP identifies as constituting the Price Proposal, primarily the pricing forms.

1.1.85 Procurement Officer. See Contract Administrator definition, Section 1.1.29 above.

1.1.86 Product Data. Product Data generally consist of preprinted illustrations, standard schedules, performance charts, instructions, brochures, diagrams and other information prepared by a supplier and provided by the Design-Builder to illustrate materials or equipment to be incorporated in the Work.

1.1.87 Progress Schedule. The Progress Schedule is a schedule prepared by the Design-Builder, in accordance with the requirements of the Contract Documents and which is approved by the Owner, indicating the starting and completion dates for each portion of the Work, including any interim contractually required completion dates. The Design-Builder must prepare computer generated schedules in accordance with the Contract Documents.

1.1.88 Project. The Project is the total capital project administered by the Owner, of which the Work performed under the Contract may be the whole or a part in conjunction with design, construction or other operations by the Owner or Separate Contractors.

1.1.89 Project Manager. The term Project Manager refers to the person designated as such by the Design-Builder having authority to act on behalf of the Design-Builder with respect to all aspects of the Project and to whom the Superintendent reports.

1.1.90 Project Manual. The Project Manual is the volume assembled for the Project which generally includes the Specifications, the Bid or Proposal Documents, the Contract, any Geotechnical Studies, and other Project related documents.

1.1.91 Project Quality Manager. The key person in the Design-Builders organization with overall responsibility for development and management of the Design-Builder's Quality Manual and responsible for the overall Quality Control program of the Design-Builder, including the quality of management, design, and construction. The Project Quality Manager may be an employee of a consultant firm, not the QC Engineer or Designer and shall act under the authority of the Design Builder's corporate management or Joint Venture (JV) Board.

1.1.92 Project Site. The real property located in the County on which the building and improvements are to be constructed by the Design-Builder as required by this Design-Build Contract.

1.1.93 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 specifications designated as standards in the Performance Specifications, the Special Provisions, and shall provide finished products that meet or exceed the quality requirements of the Contract.

1.1.94 Proposal. The Proposal is the Design-Builder's complete and properly signed response to a Request for Proposal.

1.1.95 Proposal Date. The date on which the Proposal was received by the Owner. If best and final offers were requested, their term shall mean the date on which the best and final offer was received by the Owner.

1.1.96 Proposal Documents. The Proposal Documents means the Request for Proposal (RFP) and all addenda.

1.1.97 Proposal Price. The sum for which the Work will be performed according to the RFP as identified in the Price Proposal.

1.1.98 Punch List. The Punch List is the list initially prepared by the Design-Builder for review, supplementation and approval by the Owner, the General Engineering Consultant, and , at the time of Substantial Completion of all or a portion of the Work, identifying items that are required to be completed or corrected by the Design-Builder as part of Final Completion (as set forth in Article 14) of the Work.

1.1.99 Quality Assurance (QA). All planned and systematic Oversight actions by the Owner necessary to provide confidence that the Design-Builder is performing QC in accordance with the Quality Manual and associated QC Plans 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. QA actions include monitoring and verification of design through auditing, spot-checking and participation in the review of the Design Plans and Working Plans; and monitoring and verification of construction, manufacturing/process facilities and equipment, on-site equipment and QC documentation through auditing, spot inspections and reconciliation of material acceptance and rejection based on QC testing and Verification Sampling and Testing at production sites and the Project Site. Quality Assurance also includes Independent Assurance, consultation and provision of written comments by the Owner, documentation of QA activities, final inspection and Final Acceptance.

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

1.1.101 Quality Control (QC). 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 procedures for design quality, checking, and 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, testing and acceptance/rejection 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.

1.1.102 Quality Control Engineering Firm (QC Engineer). An engineering/testing firm, within the Design-Builder organization but independent of the Design-Builder's construction management organization with responsibility for administering, managing and conducting the construction QC inspection, sampling and testing specified in the Contract Documents and the Design-Builder's Quality Manual. The QC Engineer may not be owned in any part or controlled by the Design-Builder, any Principal Participant or by any construction Subcontractor. The Designer or a firm associated with or subsidiary to the Designer, may serve as the QC Engineer, unless the Designer is a Principal Participant or construction Subcontractor or is an Affiliate of any Principal Participant or construction Subcontractor.

1.1.103 Quality Manual. The Design-Builder's plan for implementing the Design-Builder's overall quality program and associated activities, including Design-Builder's QC and procedures to assure and document quality of design and construction activities through reviews, inspections, testing, internal communications and necessary interfaces with Owner.

1.1.104 Record Documents. The term Record Documents refers to record copies, maintained at the Site by the Design-Builder for the Owner, of the Drawings, Specifications, Addenda, Change Orders, Field Orders and other Modifications, the most recently approved Progress Schedule and Superintendent daily records, all in good order and marked currently to record all changes and selections made during construction and their approval, and record copies of approved Shop Drawings, Product Data, Samples and similar required Submittals.

1.1.105 Reference Document. The documents provided with and so designated in the RFP.

1.1.106 Referenced Standards. The term Referenced Standards includes standards, standard details, specifications, manuals, regulations or codes of any technical society, organization or association, or of any governmental or quasi-governmental authority referred to in the Contract Documents to describe the nature or quality of any of the Work, whether such reference be specific or by implication, and means the latest standard, standard detail, specification, manual, regulation or code in effect at the time of Bid or Proposal opening, except as may be otherwise specifically stated in the Contract Documents.

1.1.107 Release For Construction Plans. The plans submitted by the Design-Builder requesting Owner approval to authorize the commencement of work in the field.

1.1.108 Relocation or Utility Relocation. Each removal, relocation, abandonment and/or or Protection in Place (including provision of temporary services as necessary) of any utility facility that is necessary in order to accommodate or permit construction of the Project, including backfilling, pavement restoration and any other work described in Part 5 – Utility Requirements.

1.1.109 Request for Proposal. Request for Proposal or RFP is a solicitation to prospective Offerors, the response to which is analyzed in accordance with selection criteria set forth in the solicitation for the purpose of ranking the Proposals received.

1.1.110 Request for Modification. A request by the Design-Builder stating that an event or situation has arisen that the Design-Builder believes justifies an equitable adjustment to the Contract Price and/or a completion deadline.

1.1.111 RFP Plans. The Request for Proposal Plans.

1.1.112 Responsible Engineer. An engineer, employed by the Designer or design Subcontractor, who has qualified academically, has the requisite practical experience, has passed a recognized examination, and is currently licensed as such in the State of Maryland and who is in direct charge of the design of a designated Design Unit.

1.1.113 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 maintain in accordance with DB GP 7.06 following consultation and written comment by the Owner's authorized representative.

1.1.114 Samples. Samples are physical examples of products, materials, equipment, assemblies or workmanship to be incorporated in the Work, and which are intended to establish standards for the completed Work.

1.1.115 Schedule of Submittals. The Schedule of Submittals is a listing and time schedule of Submittals prepared by the Design-Builder for review and approval by the Owner and the General Engineering Consultant as provided in Part 1 – GC, Article 11, Section 11.2.5.

1.1.116 Schedule of Values. The Schedule of Values is a breakdown of the Contract Sum by Construction Specification Institute (CSI) divisions, or as specified elsewhere in the Contract Documents or Request for Proposal, prepared by the Design-Builder for review and approval by the Owner and the General Engineering Consultant as provided in Part 1 – GC, Article 13, Section 13.1.

1.1.117 Security Instruments. Security instruments shall include the Design-builder's labor and materials payments bond, performance bond and any corporate or parent guaranty or letter of credit or other instrument provided by a third-party to guaranty the Design-builder's performance under the Contract.

1.1.118 Separate Contractor. The term Separate Contractor refers to a person or entity with which the Owner has contracted to construct other portions of the Project or perform other operations at the Site.

1.1.119 Shop Drawings. Shop Drawings generally consist of those drawings, diagrams, schedules and other data specially prepared for the Work by the Design-Builder or a Subcontractor, Sub-subcontractor, manufacturer, Supplier or distributor detailing the fabrication or assembly of some portion of the Work, copies of which are submitted by the Design-Builder to the GEC and/or CCM for approval to indicate the details of execution of that portion of the Work. The cost of preparing Shop Drawings, including Coordination Drawings, is the responsibility of the Design-Builder, which is included in the Contract Price and for which the Design-Builder will not be paid any additional compensation. The Design-Builder must also, at no additional compensation, provide calculations to the GEC and/or CCM for approval for design/engineering portions of the Work. The submission and/or approval of Shop Drawings cannot change the Contract Documents.

1.1.120 Site. The term Site refers to that portion of the property on which the Work is to be performed or which has been otherwise set aside for use by the Design-Builder.

1.1.121 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 Owner's authorized representative.

1.1.122 Site Survey. This term includes, but is not limited to site plans, topographic surveys and property surveys and refers to those drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site which have been utilized by the General Engineering Consultant or Owner in preparing the Contract Documents or which have been provided by the Owner for the Design-Builder's information in evaluating Site conditions.

1.1.123 Solicitation. The term Solicitation means an Invitation for Bid or a Request for Proposal and all addenda.

1.1.124 Special Provisions. Specifications for any specific requirements peculiar to an individual project and not otherwise thoroughly or satisfactorily detailed in the Contract Documents.

1.1.125 Specifications. The Specifications are that portion of the Contract Documents, generally Included in and identified as such in the Project Manual, setting forth the written requirements for materials, equipment, construction systems, standards and workmanship for the Work, and performance of related services.

1.1.126 Statement of Qualifications. The Design-Builder's Statement of Qualifications submitted in the response to the Request for Qualifications.

1.1.127 Subcontract. Any agreement entered into by the Design-Builder or a Subcontractor for a portion of the design, construction, or any other part of the Work in connection with, and under the terms of, the Contract.

1.1.128 Subcontractor. A Subcontractor is a person or entity who has a direct contract with the Design-Builder to perform a portion of the Work, and includes any Supplier who performs Work such as installation of materials and equipment. The term "Subcontractor" does not include a Separate Contractor or any subcontractors of a Separate Contractor.

1.1.129 Submittals. The term Submittals refers to all items relating to the performance of the Work which are required to be submitted by the Design-Builder to the Owner and/or the General Engineering Consultant for review, acceptance or approval. Submittals include, but are not limited to, items such as Drawings, Specifications, Cash Flow Projections, the Schedule of Values, Progress Schedule, Schedule of Submittals, lists of Subcontractors and Suppliers, insurance certificates, Shop Drawings, Product Data, Samples, requests for substitutions or use of Or-Equal Items, Record Documents, Warranties and operating manuals, and similar items. Submittals other than Drawings and Specifications are not Contract Documents. As used herein, the term "Submittal" does not include change proposals submitted by the Design-Builder, the Design-Builder's Applications for Payment and supporting data, Disputes or Claims.

1.1.130 Substantial Completion. Substantial Completion is the stage in the progress of the Work, as confirmed by the Owner's acceptance of the Owner Construction Manager's Certificate of Substantial Completion in accordance with Article 14, when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents (i) so the Owner can occupy or utilize the entire Work or designated portion thereof for its intended use and (ii) that the completion or correction of any Punch List items can be accomplished within a period of 30 days. No lane closures will be allowed after issuance of the Certificate of Substantial Completion".

1.1.131 Substitution. The terms Substitution and Substitute Item refer to an item of material or equipment proposed and certified by the Design-Builder as substantially equivalent to an item specified or described in the Contract Documents by using the name of a proprietary item, a particular manufacturer or a particular Supplier, and the substitution of the item is not expressly prohibited, and the proposed replacement, in the Owner's sole discretion, is functionally, technically and aesthetically equal to the item specified or described.

1.1.132 Sub-subcontractor. A Sub-subcontractor is a person or entity who has a direct or indirect contract at any tier with a Subcontractor to perform a portion of the Work.

1.1.133 Superintendent. The term Superintendent refers to the person designated as the Design-Builder's representative at the Site with overall responsibility for direction and execution of the Work, and unless otherwise designated by the Design-Builder, for the protection of persons and property at the Site and compliance with all applicable Laws and Regulations.

1.1.134 Supplemental Conditions. The Supplemental Conditions are that part of the Contract Documents, designated as such, which amend or supplement these General Conditions.

1.1.135 Supplier. The term Supplier refers to any manufacturer, fabricator, supplier, distributor, materialman or vendor furnishing materials or equipment to be incorporated in the Work by the Design-Builder or any Subcontractor or Sub-subcontractor.

1.1.136 Surety. The term Surety refers to any corporation, person or entity, authorized to do business in the State of _____, which has issued a Bid Bond, Performance Bond, a Labor and Material Payment Bond, or similar security on the Design-Builder's behalf, in accordance with the requirements of the Contract Documents.

1.1.137 Taxes. The term Taxes includes all applicable federal, State, and local taxes and duties, including sales, consumer, use and similar taxes for the Work or portions thereof provided by the Design-Builder and all social security, unemployment, and similar employment taxes, withholding and contributions for employees, which are legally enacted before the opening of Bids or Proposals and effective at any time during the performance of the Work. All Taxes applicable to the performance of the Work are payable by the Design Builder and included in the Contract Price. The Design-Builder will not be paid any additional compensation for payment of Taxes except for Taxes which are legally enacted after the opening of Bids or Proposals.

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

1.1.139 Unit Prices. The term Unit Prices refers to the rates stated in the Proposal or Bid Documents at which change work (additive or deductive work) is to be performed by the Design-Builder or deducted from the Contract Sum. Unit Prices include all direct labor and materials costs, payroll burden, relocation of stockpiled materials as necessary, indirect job costs such as insurance, bonds, coordination, engineering, permits, cleanup, tools, profit, and overhead (which includes office overhead and site-specific overhead and general conditions) and all other costs necessary to complete the Work.

1.1.140 Unit Price Work. Work to be paid for on the basis of Unit Prices.

1.1.141 Utility Agreement. Each agreement between the Owner and a utility, a copy of which is included in Part 5 – Utility Requirements, Appendix A as well as any other agreements added to Part 5 – Utility Requirements, Appendix A by Change Order, in each case as the same may be amended from time to time.

1.1.142 Utility Relocation Master Plans. The plan to be developed by the Design-Builder showing existing inventoried utilities and proposed Utility Relocations, in accordance with Part 5 – Utility Requirements, Section 6.9.

1.1.143 Utility Relocation Plans The detailed plans for relocation of a utility impacted by the Project, which may be Design Plans prepared by the Design-Builder or may be prepared by the Owner, as designated in any applicable Utility Agreements.

1.1.144 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 Standard" shall mean the standard specifications, standards of practice, and construction methods that are customarily applied by a 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 the Owner.

1.1.145 Warranties and Guarantees. The terms Warranties and Guarantees generally refer to written instruments, certificates, acknowledgments or similar documents required by the Contract Documents (other than the Design-Builder's general warranty) evidencing specific obligations and undertakings by the Design-Builder, Subcontractors, Sub-subcontractors and Suppliers, to correct, repair or replace a portion of the Work covered by such Warranty or Guarantee.

1.1.146 Work. The Work means all or any part of the entire design and construction and services required

by the Contract Documents, whether completed or partially completed, including all labor, materials, equipment and services provided or to be provided by the Design-Builder for incorporation into the completed construction required by the Contract Documents. The Work may constitute the whole or a part of the Project.

ARTICLE 2

THE CONTRACT

2.1 CONTRACT

2.1.1 Changes. The Contract may be changed only by a Modification.

2.1.2 Documents Excluded from the Contract. The Contract Documents do not include documents issued or provided to the Design-Builder for the information of the Design-Builder or for reference purposes and which are not specifically incorporated in the Contract Documents.

2.2 ORGANIZATION AND INTENT

2.2.1 Contract Documents Complementary. The Contract Documents are complementary, and what is required by one is as binding as if required by all. Anything mentioned in the Specifications and not shown on the Drawings, or shown on the Drawings and not mentioned in the Specifications, are of like effect as if shown or mentioned in both. Where compliance with one or more contract standards is required, the Design-Builder shall comply with the more stringent of the contract standards.

2.2.2 Intent to Require Completed Project. The intent of the Contract Documents is to require that the Design-Builder provide all Design Professional Services, materials and labor, including tools, equipment and supervision, necessary for the proper execution and completion of the Work

2.2.3 Work Required if Reasonably Inferable. Performance by the Design-Builder is required to the extent consistent with the Contract Documents and reasonably inferable from them as being necessary to produce the intended results. Where no explicit quality or standards for materials or workmanship are established for the Work, the Work is to be of good quality and consistent with the quality of surrounding Work which conforms to the requirements of the Contract Documents and to the standards for construction of the Project generally.

2.2.4 Organization of Drawings and Specifications. Organization of the Drawings around professional disciplines such as civil, architectural, structural, plumbing, mechanical and electrical, and of the Specifications into divisions, sections and articles, does not control the Design-Builder in dividing the Work among Subcontractors or in establishing the extent of Work to be performed by any trade or excuse the Design-Builder of its obligation to properly allocate and provide for the performance of all Work under the Contract.

2.3 REFERENCED STANDARDS

2.3.1 Standards Incorporated. All Referenced Standards are incorporated into the Contract as fully as if printed and bound with the Specifications, but only to the limited extent that such standards are applicable to the Work.

2.3.2 Availability of Referenced Standards. The Design-Builder is responsible for obtaining and having available at the Site a copy of each Referenced Standard insofar as it is applicable to the Work.

2.3.3 Precedence of Contract Documents Over Referenced Standards. No provision of a Referenced Standard is effective to change (i) the procedures established in the Contract Documents or by any applicable laws or regulations, or (ii) the duties and responsibilities of the Owner, General Engineering Consultant, Owner Construction Manager or Design-Builder from those set forth in the Contract Documents; nor is any provision of a Referenced Standard effective to assign to the Owner or the General Engineering Consultant or the Owner Construction Manager any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake Responsibility inconsistent with the provisions of Part 1 – General Conditions of Construction Contract (GC), Article 4 or any other provision of the Contract Documents.

2.3.4 Reliance on Documentation. The Design-Builder may rely on documents and information provided by the Owner to the extent expressly provided in the Contract Documents. In general, the Design-Builder has the right to rely on Contract Documents such as the Engineering Data in performance of the Work, subject to the obligation to ensure that the completed Project conforms to applicable Contract requirements. However, the RFP Plans may be relied upon only for purposes of establishing the Basic Project Configuration.

Reference Documents are not Contract Documents and may be relied upon only to the extent that the Contract Documents identify specific parts of Reference Documents as requirements (see Part 3 – Design Requirements and Performance Specifications (PS), Section 3.1) or provide for information in the Reference Documents to be used as a baseline for determining the scope or amount of Contract Modifications.

Unless expressly otherwise provided in the Contract Documents, (a) the Owner shall not be responsible or liable in any respect for any loss, damage, cost or expense whatsoever suffered by any Design-Builder Entity by reason of any use of any information contained in the RFP Plans or Reference Documents or any action or forbearance in reliance thereon, (b) if and to the extent Design-Builder or anyone on Design-Builder's behalf uses any of said information in any way, such use is made on the basis that Design-Builder, not the Owner, has approved and is responsible for said information, and (c) Design-Builder is obligated to conduct any and all studies, analyses, and investigations as it deems advisable to verify and supplement said information, and any use of said information without verification or supplement is entirely at Design-Builder's own risk and at its own discretion.

2.4 OWNERSHIP AND USE OF DOCUMENTS

2.4.1 Copies Furnished. Unless otherwise provided in the Contract Documents, the Owner will furnish one (1) printed set of RFP Drawings and RFP Project Manual free of charge to the Design-Builder. The Owner will make such additional copies of Drawings and Project Manuals as are reasonably necessary for execution of the Work available to the Design-Builder at a reasonable cost.

2.4.2 Ownership of Documents. The Drawings, Project Manuals and other documents furnished to the Design-Builder by the Owner are the Owner's property.

2.4.3 Copyright and Other Reserved Rights. The Design-Builder may not own or claim a copyright in the Drawings, Project Manuals and other documents furnished, inclusive of those documents obtained from the Owner.

2.4.4 Use and Reproduction of Documents. The Drawings, Project Manuals and other documents, including copies furnished to the Design-Builder, are for use solely with respect to this Project. They are not to be used by the Design-Builder on other projects or for additions to this Project outside the scope of

the Work without the specific written consent of the Owner, the General Engineering Consultant and any of their consultants whose authorship or copyright is indicated thereon and Design-Builder must include a similar provision in all contracts with its Subcontractors and Suppliers. The Design-Builder is granted a limited license to use and reproduce applicable portions of the Drawings, Project Manuals and other documents furnished to them appropriate to and for use in the execution of their Work under the Contract Documents, including submittals or distributions to meet regulatory requirements. Submittal or distribution to meet regulatory requirements or for other authorized purposes in connection with this Project is not to be construed as publication in derogation of the Owner's, the General Engineering Consultant's, or any of their consultants' copyright or other reserved rights. All copies made under this license must bear the same copyright notice, if any, as is shown on the cover page or on each of the Drawings, Project Manuals and other documents that are reproduced.

2.4.5 Record Documents. The Design-Builder must maintain at the Site for the Owner one set of Record Documents. These must be available to the Owner and the Owner Construction Manager for their reference during the progress of the Work. The record drawings and any other Record Documents indicating changes or selections made during construction must be delivered to the Owner Construction Manager for submission to the Owner upon completion of the Work and before final payment becomes due.

2.4.6 Return of Documents. All copies of Drawings, Project Manuals and other documents furnished to the Design-Builder, must be suitably accounted for to the Owner, on request, upon completion of the Work. At the Owner's request, all copies not reasonably required for the Design-Builder's, Subcontractors' or Sub-subcontractors' records must be returned to the Owner.

ARTICLE 3

THE OWNER

3.1 Owner's REPRESENTATIVES

3.1.1 Designated Representatives. The Department carries out the Owner's responsibilities. Unless noted otherwise, including specifically the exceptions outlined in Part 1 – GC, Article 4, and Section 4.1, the authority of the Owner is granted to the Contract Administrator or such person as is expressly Designated in writing by the Director as having such authority. For the purposes of ordering extra work by a Field Order, the Owner is defined as the Contract Administrator or such person as is designated in writing by the Director. Only the Director has the authority to execute a Change Order or Contract Amendment.

3.1.2 Representative of Legal Owner. In the event that the Owner is acting for the benefit of another private, nonprofit or governmental entity which is or will become the legal Owner of the Project, such legal Owner (i) will be identified in the Contract Documents, (ii) will be considered a beneficiary of this Contract, and (iii) will be entitled to enforce all rights and remedies of the Owner hereunder. Unless otherwise provided, however, the Owner has assumed all responsibility for the performance of the Owner's obligations under this Contract, and nothing herein is to be construed to create any obligation of such legal Owner to the Design-Builder or to provide the Design-Builder any rights or remedies against such legal Owner.

3.2 PROJECT INFORMATION

3.2.1 Site Surveys. The Owner may furnish surveys identifying the boundaries of the Site, the location of existing structures and restrictions of record such as easements and rights of way. The Owner may also furnish information with respect to topographical features and utilities of which the Owner is aware. It is the Design-Builder's responsibility to determine and verify all information provided by Owner including, but not limited to, grades and elevations. Notwithstanding the foregoing, the Design-Builder is entitled to rely on information provided by the Owner in arriving at its Contract Price, and to the extent existing conditions are inconsistent with those shown on information provided by the Owner, the provisions of Part 1 – GC, Article 12, Section 12.4 shall govern.

It is the Design-Builder's responsibility to verify the existence and locations of utilities with the appropriate agencies and utility companies.

3.2.2 Site and Physical Data. Any Geotechnical Studies or other subsurface information including boring logs, soils and other reports, provided by the Owner to the Design-Builder.

3.2.3 Reliance by Design-Builder. Except for the Geotechnical Baseline Report, and all the supporting information and data contained therein, the Design-Builder may not rely upon surface or Site and physical data with respect to the completeness of any reports and drawings for the Design-Builder's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by the Design-Builder or any of the Design-Builder's safety precautions and programs.

For Contract Modification purposes, the Geotechnical Baseline Report establishes a baseline for expected subsurface conditions. The Contractor must show a material difference between the Geotechnical Baseline Report and actual subsurface conditions to justify a Contract Modification.

3.3 Owner RESPONSIBILITIES

3.3.1 Access to Site. The Owner will furnish the Project Site as indicated in the Contract Documents, and such other lands which are designated in the Contract Documents, if any, for the use of the Design-Builder. The Design-Builder is responsible for obtaining any additional rights of way, approvals or easements for access to the Site and/or performance of the Contract resulting from the Design-Builder's use, means and methods. The Owner may identify in the Contract Documents encumbrances or restrictions not of general application but specifically related to use of the Site which are not of public record. If so identified in the Contract Documents, the Design-Builder must comply with them in performing the Work. Permanent easements for the completed facility or for changes in existing facilities will be obtained and paid for by the Owner, unless otherwise provided in the Contract Documents, provided that the Design-Builder has obtained all necessary permits.

ARTICLE 4

ADMINISTRATION OF THE CONTRACT

4.1 CONTRACT ADMINISTRATION

4.1.1 Administration by Owner. The Contract is administered by the Contract Administrator, the identity of whom is set forth in Part 1 – GC, Article 1.1.6 of the Contract. The Contract Administrator is authorized to administer the Contract commencing on the date that the Contract is signed by the Contracting Officer and terminating on the date the Contract is completed or terminated. The Contract Administrator's authority is limited as follows:

.1 Provide directions to the Design-Builder to ensure satisfactory and complete performance, including issuance of Field Orders;

.2 Monitor and inspect Design-Builder performance to ensure acceptable timeliness and quality;

.3 Maintain necessary documentation and records regarding Design-Builder performance and other pertinent matters;

.4 Determine acceptance or rejection of Design-Builder's performance;

.5 Provide Owner determinations in response to Design-Builder's requests for an increase in the Contract Time and/or an increase in the Contract Price in accordance with Part 1 – GC, Articles 11 and 12;

.6 Approve or reject invoices for payment;

.7 Furnish necessary reports to the Director;

.8 Furnish notice of Design-Builder performance failures to the Director and to the Office of the Owner Attorney, as appropriate; and

.9 Recommend Contract Modifications or terminations for default or convenience to the Director.

.10 Issue Notice-to-Proceed.

.11 Modify and verify compliance with DBE Performance Plan.

.12 Serve as Records Custodian and include wage requirements.

4.1.2 Contract Administrator Limitations of Authority. The authority of the Contract Administrator is limited to the functions set forth above. In particular, the Contract Administrator is NOT authorized to make determinations (as opposed to recommendations) that:

.1 Alter or modify Contracts;

.2 Terminate or cancel Contracts;

.3 Approve, as opposed to recommend, Change Orders or Contract Amendments; or

.4 Waive the Owner's Contract rights.

Unless the Director changes this delegation of authority, in writing, no other person is authorized to perform the functions of the Contract Administrator for this particular Construction Contract between Owner and Design-Builder.

4.1.3 Owner's Representatives. The Contract Administrator may further delegate authority and responsibility for performance of the Owner's administration of the Contract to designated Individuals. For the purposes of ordering extra work by Field Order, the Owner is defined as the Contract Administrator.

4.2 CONSTRUCTION ADMINISTRATION

4.2.1 Performance of Construction Administration. Unless otherwise provided in the Contract Documents, ongoing administration of construction as provided in the Contract Documents will be performed by the Contract Administrator with the assistance of the Owner's Project Manager(s), Construction Representative(s), or others as designated by the Contract Administrator, under the overall direction of the Contract Administrator.

4.2.2 Status of General Engineering Consultant and Owner Construction Manager. The General Engineering Consultant and Owner Construction Managers are not agents of the Owner, but will assist the Owner in the administration of the Contract and the Work, as described in the Contract Documents, and will be the point of contact for purposes of communication (i) during construction, (ii) until final payment is due, and (iii) with the Owner's concurrence, from time to time during the warranty period described in Part 1 – GC, Article 10, Section 10.2.

4.2.3 Owner's Project Manager Limitations of Authority. The Owner's Project Manager, Construction Representatives and others as designated by the Contract Administrator will have authority to act on behalf of the Owner only to the extent provided in the Contract Documents, unless otherwise modified by written instrument in accordance with other provisions of the Contract.

4.2.4 Communications. Except as otherwise provided in the Contract Documents, the Design-Builder must communicate through the Owner's Construction Manager. Communications by and with (i) the Owner Construction Manager's consultants must be through the Owner Construction Manager, (ii) Subcontractors, Suppliers and Design-Builder's consultants must be through the Design-Builder, and (iii) Separate Contractors and Owner's consultants must be through the Owner.

4.2.5 Change in Owner Construction Manager's or General Engineering Consultant's Duties. The Owner may make changes in the duties, responsibilities and limitations of authority of the Owner Construction Manager or General Engineering Consultant as set forth in the Contract Documents, and will provide written notice of any significant changes to the Design-Builder. However, no such change will provide the basis for any Claim for a change in the Contract Time or an increase in the Contract Price.

4.2.6 Change of Owner Construction Manager or General Engineering Consultant. In case of termination of employment of the Owner Construction Manager or General Engineering Consultant by the Owner, the Owner will appoint a replacement Owner Construction Manager or General Engineering Consultant whose status under and responsibilities as set forth in the Contract Documents, unless otherwise indicated in a notice of appointment to the Design-Builder, will be that of the former Owner Construction Manager or General Engineering Consultant.

4.2.7 Timeliness of Construction Administration Services. The Owner, the Owner Construction Manager and the General Engineering Consultant will endeavor to provide approvals, information or services under their control with reasonable promptness to avoid unreasonable delay in the orderly progress of the Work, but the Owner will not be responsible for any delay where the Design-Builder has not provided reasonable prior notice in writing to the Owner of the time within which such approval, information or services will be required in order to avoid such delay.

4.3 ADMINISTRATION OF CONSTRUCTION

4.3.1 GOVERNING ORDER OF CONTRACT DOCUMENTS

The components of the Contract Documents are intended to be complementary and to describe and provide for a complete Project. The following components of the Contract Documents complement one another in the following order of precedence:

(A) The Design Build Agreement Documents,

(B) General Conditions of Contract (unless expressly otherwise provided in the Contract)

(C) Supplemental Conditions of Contract

(D) The General Design Criteria and Performance Specifications

(E) The Specific Design Criteria

(F) Design Documents

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 Owner has accepted the proposed change to the Work and products to that of a higher quality, the Design-Builder's Proposal will take precedence for that specific higher quality Work and products, as applicable.

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

4.3.2 Standard of Interpretation. Interpretations and clarifications by the Owner Construction Manager or General Engineering Consultant will be consistent with the intent of, and reasonably inferable from, the Contract Documents. When making such interpretations and clarifications, the Owner Construction Manager and General Engineering Consultant will endeavor to secure faithful performance by both Owner and Design-Builder, will not show partiality to either and will not be liable to the Design-Builder for results of interpretations or clarifications issued in good faith.

4.3.3 Interpretations and Decisions by Owner. The Owner will provide written interpretations and decisions concerning Contract terms and conditions within a reasonable time after written request is made by the Design-Builder or as otherwise required during the course of the Project. Any interpretation or decision is presumed to be a clarification of the Contract terms and conditions reasonably inferable from them and may not form the basis for any Claim by the Design-Builder for a change in the Contract Time or the Contract Sum. If the Design-Builder contends that the interpretation or decision constitutes a change in the Work, the Design-Builder must file a Claim for an increase in the Contract Time and/or an increase in the Contract Price in accordance with Part 1 – GC, Article 11 and/or Article 12 or the Design-Builder will be conclusively deemed to have waived any Claim for an increase in the Contract Time or an increase in the Contract Price based on the interpretation or decision.

4.3.4 Acceptability of Superintendent and Key Personnel. The Design-Builder will be advised in writing if the Superintendent or other supervisory personnel prove unsatisfactory to the Owner as provided in Part 1 – GC, Article 5, Section 5.4.2.

4.3.5 Approval of Subcontractors and Suppliers. The Design-Builder will be advised in writing if the Owner has reasonable objection to, and rejects, any proposed Subcontractor or Supplier subject to review by the Owner, as provided in Part 1 – GC, Article 6, Section 6.1.2.

4.3.6 Approval of Submittals. The Owner Construction Manager, the General Engineering Consultant and the Owner, as appropriate, will review the Design-Builder's Submittals and take appropriate action thereon, as required for each type of Submittal. Review and approval of Shop Drawings, Product Data Samples and similar Submittals will be as provided in Part 1 – GC, Article 9, Section 9.2.

4.3.7 Site Visits. The Owner Construction Manager, the General Engineering Consultant and Owner will make Site visits as provided in Part 1 – GC, Article 10, Section 10.3.2.

4.3.8 Rejection of Work. The Owner, in consultation with the Owner Construction Manager, may reject Work as provided in Part 1 – GC, Article 10, Section 10.6.1.

4.3.9 Additional Inspection, Testing or Specific Approvals. The Owner Construction Manager has authority to recommend, and the Owner has the authority to require, additional inspection, testing or specific approval of the Work as provided in Part 1 – GC, Article 10, Section 10.4.4.

4.3.10 Authority to Stop or Suspend Work. The Owner has the authority to stop or suspend the Work as provided in Part 1 – GC, Article 11, Sections 11.4.1 and 11.4.2. The Owner Construction Manager does not have authority to stop or suspend the Work on behalf of the Owner unless specific written authority from the Owner to do so is provided in any notice to stop or suspend the Work.

4.3.11 Review of Applications for Payment. Based on the Owner Construction Manager's observations and evaluations of the Design-Builder's Applications for Payment and the Work, the Owner Construction Manager will certify the amounts due the Design-Builder and will issue Certificates for Payment in such amounts to the Owner as provided in Part 1 – GC, Article 13, Section 13.3. The Owner will review and approve such Applications and Certificates and make payment on Owner- approved amounts within the time specified in the Section 13.4.

4.3.12 Changes in the Work. The Owner Construction Manager may assist the Owner in preparing Change Orders as provided in Part 1 – GC, Article 12, Section 12.2, Field Orders as provided in Section 12.3 and Contract Amendments. The Owner Construction Manager may, with the Owner's concurrence, authorize minor changes in the Work not involving an increase in the Contract Time or an increase in the Contract Price.

Notwithstanding the foregoing or any other provision of the Contract, no additions to or changes in the Work or other extra Work may be performed and no Claim for additional compensation, credit, or increase of time is valid without written authorization by the Contract Administrator and/or Director. Accordingly, no course of conduct or dealings between the parties, no implied acceptance of changes in the Work, and no Claim that the Owner has been unjustly enriched by any change to the Work, can be the basis for any Claim for an increase in the Contract Time or in the Contract Price.

4.3.13 Substantial Completion. As provided in Part 1 – GC, Article 14, the Owner Construction Manager and Owner will conduct inspections to determine the date or dates of Substantial Completion. The Owner Construction Manager and Owner will issue Certificates of Substantial Completion and a final Certificate for Payment upon the Owner Construction Manager's recommendation and Owner's determination that the Design-Builder has fully completed the Contract. The Owner may accept partial Substantial Completions as to portions of the Work which have reached Substantial Completion and are available for use by the Owner.

4.3.14 Recommendations on Payments, Changes, Claims and Disputes. If the Owner requests, the Owner Construction Manager will make recommendations to the Owner concerning payments, changes, Claims and Disputes, and similar matters.

4.4 LIMITATIONS OF OWNER'S AND ARCHITECT/ENGINEER'S RESPONSIBILITIES

4.4.1 Charge or Control. Neither the Owner nor the Owner Construction Manager have control over or charge of or are responsible for construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the Work, since these are solely the Design-Builder's responsibility as provided in Part 1 – GC, Article 5, Section 5.3.1, Section 5.3.2 and Part 1 – GC, Article 8. Neither the Owner nor the Owner Construction Manager will be responsible for the Design-Builder's failure to carry out the Work in accordance with the Contract Documents.

4.4.2 Actions not to Relieve Design-Builder. No action or failure to act on the part of the Owner or the Owner Construction Manager or the General Engineering Consultant, including but not limited to (i) the acceptance or approval of any Subcontractor, selection, Substitution or Or-Equal Item, Submittal or schedule, (ii) observation or inspection of any of the Work, (iii) the performance of any test or inspection, (iv) assistance in performance of Design-Builder's Work, or (v) the acceptance or failure to accept all or any portion of the Work, relieves the Design-Builder of responsibility for performing the Work in accordance with the Contract Documents.

The Owner or Owner's Architect/engineers review of the any design drawings, plans, design documentation, specifications or shop drawings shall not relieve the Design-Builder of its sole responsibility for the design and construction of the Work.

4.4.3 Responsibility for Others. Neither the Owner nor the Owner Construction Manager nor the General Engineering Consultant will have control over or charge of and will not be responsible for acts or omissions of the Design-Builder, Designer, Subcontractors, Sub- subcontractors, Suppliers or their agents or employees, or of any other persons performing portions of the Work.

4.4.4 Inspection, Testing or Approval and Rejection of Work. The performance of any tests, inspections or approvals required by the Contract Documents does not relieve the Design-Builder of any of its obligations under the Contract Documents. The Owner's and the Owner Construction Manager's authority to require and the Owner Construction Manager's authority to recommend additional testing, inspection or approval of Work, and the Owner's and the Owner Construction Manager's authority to reject defective or nonconforming Work, does not give rise to any duty or responsibility on the part of either to exercise such authority for the benefit of the Design-Builder or any other person or entity.

4.4.5 Stopping or Suspension of Work. The authority of the Owner to stop the Work under Part 1 – GC, Article 11, Sections 11.4.1 or to suspend the Work under Section 11.4.2 does not give rise to any duty or responsibility on the part of the Owner to exercise such authority for the benefit of the Design Builder or any other person or entity.

4.4.6 Payments. The issuance of a Certificate for Payment by the Owner Construction Manager under Part 1 – GC, Article 13, Section 13.3.1 or the making of any progress payment or final payment by the Owner under Sections 13.4.2 or 14.4.3 does not constitute acceptance of Work not complying with the requirements of the Contract Documents. The making of final payment does not constitute a waiver of claims by the Owner as provided in Section 14.4.5.

4.4.7 Occupancy or Use. Partial or entire occupancy or use of a portion or portions of the Work by the Owner under Part 1 – GC, Article 14, Section 14.1 does not constitute Final Acceptance of Work not complying with the requirements of the Contract Documents.

4.4.8 Certificate of Substantial or Final Completion. Neither the issuance by the Owner Construction Manager of a Certificate of Substantial or Final Completion under Part 1 – GC, Article 14, Sections 14.2.6 or 14.4.1, nor acceptance thereof by the Owner, constitutes acceptance of Work not complying with the requirements of the Contract Documents.

ARTICLE 5

DESIGN-BUILDER

5.1 REVIEW OF CONTRACT FIELD CONDITIONS

5.1.1 Review of Site Conditions. By executing the Contract, the Design-Builder represents that the Design-Builder has reviewed and understands the Contract Documents, has visited the Site and is familiar with local conditions under which the Work is to be performed, has correlated personal observations with the requirements of the Contract Documents, and has notified the Construction Manager and the Owner of and obtained clarification of any discrepancies which have become apparent during the bidding or proposal period.

5.1.2 Review of Contract Documents. The Design-Builder must carefully study and compare the Contract Documents among themselves and further compare the Contract Documents with any other information furnished by the Owner pursuant to Part 1 – GC, Article 3, Section 3.2 before commencing Work at the Site and at frequent intervals during its progress.

5.1.3 Field Measurements and Site Conditions. The Design-Builder must take field measurements and verify Site conditions, and must carefully compare such field measurements and Site conditions and other information known to the Design Builder with the Contract Documents, before ordering any material or doing any Work at the Site.

5.1.4 Inspection of Work. The Design-Builder must make frequent inspections during the progress of the Work to confirm that Work previously performed by the Design-Builder is in compliance with the Contract Documents and applicable laws and regulations and Referenced Standards and that all or any portion of Work previously performed by the Design-Builder or by others are in proper condition to receive subsequent Work.

5.1.5 Compliance of Contract Documents with Laws and Regulations and Referenced Standards. If the Design-Builder believes that any portions of the Contract Documents do not comply with applicable laws, statutes, ordinances, building codes, and rules and regulations, or any orders by code enforcement officials or the Owner or its designees acting in the capacity of building code inspectors or Referenced Standards, the Design-Builder must promptly notify the Owner and the Owner Construction Manager of the non-compliance as provided in following Section 5.1.6 and request direction before proceeding with the affected Work.

5.1.6 Notice of Discrepancies. The Design-Builder must promptly notify the Owner and the Owner Construction Manager in writing of any apparent errors, inconsistencies, omissions, ambiguities, construction impracticalities or code violations discovered as a result of the Design-Builder's review of

the Contract Documents including any differences between actual and indicated dimensions, locations and descriptions, and must give the Owner and the Owner Construction Manager timely notice in writing of same and of any corrections, clarifications, additional Drawings or Specifications, or other information required to define the Work in greater detail or to permit the proper progress of the Work. The Design-Builder must provide similar notice with respect to any variance between its review of the Site and physical data and Site conditions observed.

5.1.7 Risk of Performance. If the Design-Builder performs any Work involving an apparent error, inconsistency, ambiguity, construction impracticality, omission or code violation in the Contract Documents of which the Design-Builder is aware, without prompt written notice to the Owner and the Owner Construction Manager and request for correction, clarification or additional information, as appropriate, the Design-Builder does so at its own risk and expense and all Claims relating thereafter are specifically waived. Notwithstanding the foregoing, the Owner acknowledges that the Design-Builder is not required to ascertain that the Contract Documents are in accordance with applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities.

5.2 LEGAL REQUIREMENTS

5.2.1 Compliance with Laws, Regulations and Orders. The Design-Builder must obtain all licenses and comply with and give all notices required by laws, ordinances, rules, regulations and lawful orders of public regulatory authorities bearing on performance of the Work, including the orders of the Owner or its designees acting in the capacity of building code inspectors. The Design-Builder must ascertain that the Contract Documents are in accordance with applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities. The Design-Builder shall promptly report to the Owner any errors, inconsistencies or omissions it discovers.

5.2.2 Taxes. The Design-Builder must pay sales, consumer, use and similar taxes for the Work or portions thereof which are legally enacted when Bids or Proposals are received or negotiations concluded or which are enacted thereafter, whether or not yet effective or merely scheduled to go into effect. The Design-Builder is on notice that under Md. Code Ann., Tax-Gen'l, §11-220(b) (2004 Repl. Vol.), purchases made by the Design-Builder in furtherance of this Contract are not exempt from Maryland sales and use taxes by virtue of the Owner's status as a local government entity.

5.2.3 Permits and Fees. Unless otherwise provided in the Contract Documents, the Design-Builder must obtain and pay for all permits and governmental fees, licenses and inspections necessary for proper execution and completion of the Work, including those required by NSA Bethesda, the National Institutes of Health, and the Washington Metropolitan Transit Authority, as well as connections, tap fees and inspections in connection with the installation of utilities and any bonds required by any utilities for the performance of any utility Work on utility lines or within a utility easement, specialized trade permits such as for plumbing, mechanical and electrical work, and any fees and charges associated therewith which have been enacted or established at the time Bids or Proposals are received or negotiations concluded or which are enacted thereafter.

5.3 DESIGN-BUILDER'S RESPONSIBILITY FOR PERFORMANCE

5.3.1 Assignment, Scheduling and Coordination. The Design-Builder is solely responsible for and has control over assigning, scheduling and coordinating all portions of the Work under the Contract performed by the Design-Builder's own forces and by its Designers, Subcontractors, Sub-subcontractors and Suppliers in accordance with the CPM Schedule of Record, unless the Contract Documents give other specific instructions concerning these matters.

5.3.2 Construction Means and Methods. The Design-Builder must provide continuous on-Site supervision, inspection and direction of the Work using the Design-Builder's best efforts. The Design-Builder has control over construction means, methods, techniques, sequences and procedures, unless the Contract Documents give other specific instructions concerning these matters, and is solely responsible therefore.

5.3.3 Discipline at the Site. The Design-Builder must enforce strict discipline and good order among the Design-Builder's employees and other persons for whose Work the Design-Builder is responsible, including Designers, Subcontractors, Sub-subcontractors, and Suppliers.

5.3.4 Responsibility for Subordinates. The Design-Builder is responsible for the acts and omissions of all persons performing portions of the Work at the Site, including but not limited to the Design-Builder's employees, Designers, Subcontractors, Sub-subcontractors, Suppliers, and the agents and employees of any of them.

5.3.5 Obligations Not Relieved. The Design-Builder is not relieved of its obligations to perform the Work in accordance with the Contract Documents, or to comply with applicable laws and regulations and Referenced Standards, by the activities or duties of the Owner or the Construction Management Consultant in the administration of the Contract or of construction, or by tests, inspections or approvals required or performed by persons other than the Design-Builder.

5.4 SUPERINTENDENCE

5.4.1 Superintendent. The Design-Builder must employ a competent Superintendent and necessary assistants who represent the Design-Builder who must be in attendance at the Site at all times during the performance of the Work or any other operations by the Design-Builder at the Site until issuance of the Certificate of Substantial Completion, during the performance of any punch list work, and for such additional time thereafter as the Owner or Construction Management Consultant may determine to be necessary for Final Completion.

5.4.2 Acceptability of Key Personnel. The Design-Builder's acknowledges that selection of the firm was based upon a qualifications based selection (QBS) process, and the personnel proposed by the Design-Builder at the proposal stage as "key project personnel" were considered by the Owner and were influential in its selection of the Design-Builder. Design-Builder shall ensure that to the extent that key personnel identified in the project proposal remain available to the Design-Builder those personnel shall remain assigned to this project. Owner reserves the right of approval and replacement of key project-specific personnel. If the Owner advises the Design-Builder that any such personnel are unsatisfactory to the Owner, then the Design-Builder must promptly provide an acceptable substitute. If the Owner determines, during the Design-Builder's performance of the Work, that any such personnel are unsatisfactory, then the Design-Builder must promptly provide an acceptable substitute. The Design-Builder may not voluntarily change the Superintendent or key personnel without prior notice to and the consent of the Owner, not to be unreasonably withheld. The Owner may condition its consent on the Design-Builder's fully familiarizing the replacement personnel with all Contract Documents and the status of the Work at the Design-Builder's expense. The Design-Builder shall not remove or replace key project personnel including the project manager, project engineer or superintendent identified in the proposal without the approval of the Owner. The Owner's approval shall not be unreasonably withheld.

5.4.3 Communications with Superintendent and Project Manager and Owner's Representatives, Construction Management Consultant and/or the General Engineering Consultant. The Superintendent and Project Manager must be fluent in written and spoken English, and communications

given to the Superintendent or Project Manager are as binding as if given to the Design Builder.

5.5 LABOR, MATERIALS AND EQUIPMENT

5.5.1 Labor, Materials and Equipment Provided by Design-Builder. Unless otherwise provided in the Contract Documents, the Design-Builder must provide and pay for all services, labor, materials, equipment, and utilities required for the performance of the Contract.

5.5.2 Royalties and License Fees. The Design-Builder must pay all royalties and license fees and comply with any licensing requirements required in connection with the use of a particular design, process or product of a particular manufacturer or manufacturers. The Design-Builder must defend suits or claims for infringement of copyrights, patent rights or trade secrets and must hold the Owner, the Owner Construction Manager and General Engineering Consultant harmless from liability and indemnify the Owner, the Owner Construction Manager and General Engineering Consultant against any loss or damage on account thereof.

5.5.3 Compliance with Contract Documents, Approved Submittals, and Interpretations. The Design-Builder must perform the Work in accordance with: (i) the Contract Documents; (ii) Submittals approved pursuant to Part 1 – GC, Article 9, Section 9.2 to the extent they are not in conflict with the Contract Documents; and (iii) interpretations and instructions issued by the Owner Construction Manager pursuant to, Section 4.3.1.

5.5.4 Compliance with Manufacturers' Instructions. Unless otherwise specifically provided in the Contract Documents, the Design-Builder must store, handle, install, and test all materials and equipment in accordance with the manufacturers' or Suppliers' most recent instructions and recommendations. In the event such instructions or recommendations are in conflict with any provisions of the Contract Documents, the Design-Builder must give prompt notice of the conflict to the Owner as provided in Part 1 – GC, Article 5, Section 5.1.6.

5.5.5 Labor. The Design-Builder must provide, and must also ensure that its Subcontractors and Sub-subcontractors provide, a sufficient number of properly skilled workers and crews to perform the Work in a safe and expeditious manner in accordance with the approved Progress Schedule, including appropriate proportions of laborers, apprentices, journeymen, masters and foremen, and must not permit employment of persons who are unfit to perform or are not skilled in tasks assigned to them.

5.6 CONSTRUCTION OPERATIONS

5.6.1 Use of Site. The Design-Builder must confine operations at the Site to areas permitted by law, ordinances, permits, and the Contract Documents and must not unreasonably encumber the Site with materials and equipment. The Owner may establish reasonable additional limitations on the Design-Builder's use of the Site to accommodate the needs of the Owner, Separate Contractors, users of occupied facilities the public, or other forces authorized by the Owner to perform work. Provided, however, if such limitations are made known to the Design-Builder after the date bids are received, the Design-Builder may be entitled to an equitable adjustment in the Contract Time and/or Contract Price if the Design-Builder can demonstrate that such limitations adversely impact the prosecution of the Work.

5.6.2 Benchmarks and Layout of Work. The Design-Builder must establish the construction baselines, exterior lines and elevations of all buildings and structures to be erected on the Site, and lines and grades of Site Work such as roads, utilities and Site grading, based on reference points, the location of

existing structures or improvements, or benchmarks identified in the Contract Documents or Site Surveys provided by the Owner. The Design-Builder must protect and preserve such established reference points, and if they are disturbed, the cost of their relocation and replacement must be borne by the Design-Builder. The Design-Builder must provide a professional certification by a registered professional engineer or land surveyor as to the actual location of building lines prior to the construction of the foundations. The Design-Builder must establish the working lines, building grades, lines and levels, and column, wall and partition lines required by its Subcontractors in laying out their Work. At the completion of the Work, the Design-Builder must provide another professional certification by a registered professional engineer or land surveyor as to the location of the completed improvements in relation to construction baselines, property lines, building lines, easements, and other boundaries. Prior to Final Completion, the Design-Builder shall set right-of-way markers at all property corners along the right-of-way within the project limits.

5.6.3 Working Hours. Except as otherwise provided in the Contract Documents, all Work must be performed between the hours of 7:00 a.m. and 5:00 p.m. Monday through Friday exclusive of Owner, State and federal holidays unless more restrictive hours are required by the Montgomery Owner Code or other applicable law or permit conditions governing the Design-Builder's performance of the Work, such as WMATA's revenue hours or SHA maintenance of traffic restrictions. Underground work, with Owner/WMATA permission, may be expanded beyond hours noted above. The Owner has the right to impose further restrictions on working hours reasonably related safety, maintenance of traffic to the use of occupied facilities provided, however, the Design-Builder shall be entitled to an equitable adjustment in the Contract Time and/or Contract Price if such restrictions are imposed after the date bids are received if the Design-Builder can demonstrate that such limitations adversely impact the prosecution of the Work. No delays resulting from compliance with applicable laws or regulations or conditions of permits may form the basis for any Claim by the Design-Builder for delay damages or additional compensation or for any increase in the Contract Time; any delays arising from restrictions related to the use of occupied facilities are non- compensable and any requests for an increase in the Contract Time relating to them must be filed in accord with Part 1 – GC, Article 11 or the same will be conclusively deemed to have been waived. The Design-Builder must not permit work outside of such hours or on a Saturday, Sunday or other Owner, State or Federal holiday without the written consent of the Owner, given after prior written notice to the Owner Construction Manager; such consent, if given, may be conditioned upon payment by the Design-Builder of the Owner's and Owner Construction Manager's additional costs and fees incurred in monitoring such off-hours Work. The Design-Builder must notify the Owner as soon as possible if Work must be performed outside such times in the interest of the safety and protection of persons or property at the Site or adjacent thereto, or in the event of an emergency. In no event shall the Design-Builder permit Work to be performed at the Site without the presence of the Design Builder's Superintendent and/or persons responsible for the protection of persons and property at the Site and compliance with all applicable Laws and Regulations, if different from the Superintendent. Notwithstanding any other provisions of this Contract, the Owner may order the Design-Builder to suspend work for any continuing violation of this section.

5.6.5 Temporary Facilities. Except as otherwise provided in the Contract Documents, the Design-Builder must provide and pay for all labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other temporary facilities and services necessary for proper execution and completion of the Work, including measures for sediment control, storm water management and waste disposal. The Design-Builder must not use any preexisting facilities of the Owner without the specific written consent of the Owner or WMATA, except as indicated in the Contract Documents. The Design-Builder is solely responsible for temporary facilities and services provided or utilized by the Design-Builder and must remove those not required to remain at the completion of the Work or any portion thereof; must promptly correct any damage caused by the erection, use or removal of

temporary facilities; and must restore the Site and any adjacent areas to their original condition or that required by the Contract Documents upon completion of the Work.

5.6.6 Cutting, Patching and Finishing. The Design-Builder is responsible for all cutting, patching and finishing required to complete the Work or to make its parts fit together properly. The responsibility of the Design-Builder, Owner and Separate Contractors with respect to cutting, patching and finishing work by others is as provided in Part 1 – GC, Article 7, Section 7.2.4.

5.6.7 Cleaning Up. The Design-Builder must keep the Site and adjacent areas free from accumulation of waste materials or rubbish caused by operations under the Contract, and must keep tools, construction equipment, machinery and surplus materials suitably stored when not in use. If the Design-Builder fails to do so in a manner reasonably satisfactory to the Owner or the General Engineering Consultant within forty-eight (48) hours after notice or as otherwise required by the Contract Documents, the Owner may clean the Site and back charge the Design-Builder for all costs associated with the cleaning.

5.6.8 Utilities.

.1 Temporary Utilities. Unless otherwise specified in the Contract Documents, the Design Builder, at its own expense, must:

(a.) Furnish all temporary heat, cooling ventilation, and humidity control including all required apparatus and fuel as may be necessary to protect the Work fully, both during its execution and until Final Completion and acceptance. Design-Builder must not use any method of heating, cooling, ventilation, or humidity control of the building unless approved by the Owner in advance;

(b.) Provide all temporary on-Site water service required to perform the Work, to assure safety at the Site, and as otherwise specified in the Contract Documents. All temporary service must be removed by Design-Builder unless otherwise specified in the Contract Documents;

(c.) Furnish all temporary electric service required to perform the Work, to assure safety at the Site, and as otherwise specified in the Contract Documents. Existing dedicated power feeds are not to be interrupted;

(d.) Furnish all temporary telephone and data service required to perform the Work, to assure safety at the Site, and as otherwise specified in the Contract Documents; and

(e.) The Design Builder must provide and maintain in a neat, sanitary condition such accommodations for the use of the Design-Builders and Subcontractors employees as may be necessary to comply with the requirements and regulations of the Department of Health and Human Services of Montgomery Owner, or of other authorities having jurisdiction, and shall commit no public nuisance.

.2 Existing Utilities.

(a) The existence and locations of underground or other utilities and other construction indicated on the plans are not guaranteed by Owner.

(b) Design-Builder must investigate and verify the existence and location of underground or other utilities before commencing the Work. Work performed near existing structures and utilities must be done safely by hand. Design-Builder is responsible for any damage to, and for maintenance and protection of, existing utilities and structures.

(c) At Design-Builder's expense the Design-Builder must coordinate with utilities companies for the adjustment, moving or relocation as necessary of existing structures, utility poles, lines, services, or other appurtenances located in, or affected by, the Work which was discoverable by a thorough site visit, and/or a careful review of the Contract Documents. No increase in the Contract Time or an increase in the Contract Price will be granted for any Delay associated with such coordination whether caused by the Design-Builder, a public utility, any other third party or the Owner acting in its governmental capacity. The Design-Builder will be allowed an increase in the Contract Price and/or an increase in the Contract Time associated with the adjustment, removal, or relocation of any operational but unknown and unmarked utilities which were not discoverable by a thorough site visit, and/or a careful review of the Contract Documents. Any Claim for adjustment of the Contract Time or the Contract Price must be filed within the time and in accordance with the provisions of Part 1 – GC, Articles 11 and 12 or any Claim to such will be deemed to have been conclusively waived.

.3 Permanent Utilities.

(a) Design-Builder must arrange for and coordinate the installation and inspection of permanent utilities with all appropriate utility companies. The installation cost and the time associated with such work is included in the Contract Time and the Contract Price unless otherwise specified in the Contract Documents. No increase in the Contract Time or an increase in the Contract Price will be granted for any Delay associated with obtaining such permanent utilities whether caused by the Design-Builder, a public utility, any other third party or the Owner acting in its governmental capacity. The Design-Builder is responsible for the costs for its use of permanent utilities until Substantial Completion.

5.6.9 Air Pollution Control

.1 The Design-Builder must comply with the Owner Air Quality Ordinances or other local requirements and EPA air quality requirements as well as any successor or substitute provisions covering the regulation of air quality.

.2 Hauling of Materials: All fine-grained loose materials hauled to or from a project must be covered to prevent spillage and blowing.

.3 Disposal of Materials: Disposal of materials by burning at any location within the project site is prohibited. Any off-site burn area receiving materials from the project site must have a Fire Permit from the local licensing authority Owner Department of Environmental Protection and conform to all laws and regulation associated with said Fire Permit.

ARTICLE 6

SUBCONTRACTORS AND SUPPLIERS

6.1 SELECTION AND RIGHT OF REJECTION

6.1.1 Identification of Subcontractors and Suppliers. Unless otherwise provided in the Contract Documents or the Instructions to Bidders, the Design-Builder, within ten (10) days after issuance of the Notice to Proceed and before commencing Work at the Site, must furnish in writing to the Owner through the Owner Construction Manager the names of Subcontractors and Suppliers which the Design-Builder intends to utilize during the first thirty (30) days, and those then known to the Design-Builder who are proposed for each principal portion of the Work. This list must be consistent with the Design-Builder's Progress Schedule required by Part 1 – GC, Article 11, Section 11.2.1 and Schedule of Submittals required by Part 1 – GC, Article 11, Section 11.2.2. Such principal Subcontractors include, but are not limited to, (i) those performing ten percent (10%) or more of the amount of the Work as indicated by the Design-Builder's Schedule of Values; (ii) any Subcontractor whose Work falls on the critical path of the Design-Builder's Progress Schedule, and (iii) those responsible for excavation, structural steel, concrete, masonry, plumbing, mechanical, electrical, roofing and finish work. The Design-Builder must submit any proposed changes or additional names as the Work progresses, not less than thirty (30) days prior to the date on which the Design-Builder intends to contract with the proposed Subcontractor or Supplier, and sufficiently in advance of such date to permit a reasonable time for review.

.1 The Design-Builder must not enter into any subcontract, contract, agreement, purchase order or other agreement for the furnishing of any portion of the materials, services, equipment or Work with any party or entity if such party or entity is an Affiliated Entity with which the Design-Builder has a direct or indirect Ownership, control or interest unless such agreement has been approved by the Owner, such approval not to be unreasonably withheld, after full disclosure in writing by the Design-Builder to the Owner of such affiliation or relationship and all details relating to the proposed arrangements.

.2 The Design-Builder shall submit the name of all principal Subcontractors to the Owner within sixty (60) days after Notice to Proceed and shall have all principal Subcontractors under contract within ninety (90) days of Notice to Proceed.

6.1.2 Qualification of Subcontractors The Owner may make such investigations as it deems necessary to determine the ability of any Subcontractor to perform its work, and the Design-Builder and Subcontractor shall furnish to the Owner all such information and data for this purpose as the Owner may request. The Owner may visit any Subcontractor's place of business and review any other factors relevant to a determination of the Subcontractor's ability to perform its work. The Owner reserves the right to reject any Subcontractor who has previously failed to perform properly or to complete in a timely manner, or whose proposed Subcontractors, Suppliers, or Surety have similarly failed to perform properly or timely, contracts of a similar nature, or if investigations show the Subcontractor unable to perform the requirements of the Subcontract.

.1 Upon Owner request, Subcontractors shall furnish under oath the following proof of qualifications to perform its proposed work. Subcontractor shall furnish a description of comparable work performed by him within the previous five years indicating the location, contract scope, Contract Price, type of construction, name, address and phone number of Owner and architect, date work completed, and construction period in days. Upon Owner request, Subcontractors may be required to furnish additional information as proof of qualifications. Failure to submit any requested information within 10 days of Owner request shall be sufficient cause to reject the Subcontractor.

.2 Upon Owner request, Subcontractors shall furnish a current condensed net worth statement and financial references for verification of financial responsibility.

.3 All Subcontractors must be licensed, as required by law, to perform its proposed work. Upon Owner request, Subcontractors shall furnish evidence of required licenses.

6.1.3 Acceptance of Subcontractors and Suppliers. The Owner's Construction Manager will, within a reasonable time, advise the Design-Builder in writing if the Owner rejects any proposed Subcontractor or Supplier, stating the reasons therefore, or stating that additional information is required in order to make a determination as to the acceptability of any proposed Subcontractor or Supplier.

6.1.4 Use of Acceptable Subcontractors and Suppliers. The Design-Builder must not contract with a proposed Subcontractor or Supplier who has been rejected by the Owner. If the Design-Builder wishes to change a previously-selected Subcontractor or Supplier, the Design-Builder must submit the name of the replacement for review and acceptance as provided in Part 1 – GC, Article 6, Section 6.1.1.

6.1.5 Owner's Right to Require Removal. The Owner has the right to require the Design-Builder to remove a Subcontractor or Supplier, for any occurrence which, if done by the Design-Builder, would be a breach of the Contract.

6.1.6 Replacement Subcontractors and Suppliers. If the Owner requires removal of a Subcontractor or Supplier, the Design-Builder must propose another to whom the Owner has no reasonable objection. The Design-Builder is not entitled to any adjustment in the Contract Time or the Contract Price occasioned by such change if the removal is for any occurrence which, if done by the Design-Builder, would be a breach of the Contract, or if the Design-Builder has failed to act promptly and responsively in submitting names as required.

6.2 SUBCONTRACTUAL RELATIONS

6.2.1 Subcontracts Required. The Design-Builder must require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound to the Design-Builder by the terms of the Contract Documents, and to assume toward the Design-Builder all the obligations and responsibilities which the Design-Builder, by the Contract Documents, assumes toward the Owner and the Owner Construction Manager. Each subcontract must allow to the Subcontractor, unless otherwise agreed to by the Owner, rights, remedies and redress against the Design-Builder equivalent to those that the Design-Builder, by the Contract Documents, has against the Owner. The Design-Builder must require each Subcontractor to enter into similar agreements with Sub-subcontractors.

6.2.2 Subcontract Provisions. The Design-Builder must submit a copy of each subcontract to the Owner upon request. Each subcontract must specifically include provisions that:

.1 Preserve and protect the rights of the Owner under the Contract with respect to the Work to be performed under the subcontract so that the sub-contracting thereof will not prejudice such rights;

.2 Require the Subcontractor to comply with all applicable licensing, bonding and insurance requirements;

.3 Require submission to the Design-Builder of submittals in sufficient time and in such detail as will enable the Design-Builder to review, approve and submit such submittals in accordance with Part 1 – GC, Article 9;

.4 Require that the Work under the subcontract be performed in accordance with the requirements of the Contract Documents and applicable laws and regulations.

.5 Require the Subcontractor to comply with all applicable employment laws, regulations and requirements of the Contract, including requirements concerning equal employment

Opportunity and affirmative action and Disadvantaged Business Enterprise (DBE) requirements applicable to Subcontractors;

.6 Require submission to the Design-Builder of applications for payment in sufficient time and in such detail as will enable the Design-Builder to apply for payment in accordance with Part 1 – GC, Article 13, and provide for payment to Subcontractors as provided in Section 6.3;

.7 Require that all requests and/or Claims for additional costs, increase of time, damages for delays or otherwise with respect to subcontracted portions of the Work for which the Owner, the Owner Construction Manager, the General Engineering Consultant, any Separate Contractor, or any of their consultants, subcontractors, agents or employees might be liable, be submitted through the Design-Builder in sufficient time and in such detail as will enable the Design-Builder to comply with the requirements of Part 1 – GC, Articles 11, 12 and 16 for such requests or Claims;

.8 Require the Subcontractor to indemnify as provided in Part 1 – GC, Article 8, Section 8.4;

.9 Expressly provide for the contingent assignment referred to in Part 1 – GC, Article 6, Section 6.4;

.10 Obligate the Subcontractor specifically to consent to the provisions of this Section; and

.11 Allow the Subcontractor and applicable Sub-subcontractor to be terminable at no cost to the Owner or the Design-Builder if the Contract is terminated.

6.3 PAYMENTS TO SUBCONTRACTORS AND SUPPLIERS

6.3.1 Payments by Design-Builder to Subcontractors and Suppliers. The Design Builder shall pay each Subcontractor and Supplier, in accordance with applicable law and the sub-contract agreements Owner that portion of the amount paid to the Design-Builder on account of such Subcontractor's or Supplier's portion of the Work to which the Subcontractor or Supplier is entitled. Retainage withheld from payments to a Subcontractor or Supplier must not exceed the contract retainage applicable to the Design-Builder on account of that Subcontractor's or Supplier's portion of the Work. **[N O T E : "Paid when paid provisions," may be illegal in your state or jurisdiction.]**

6.3.2 Substantial Completion Payment and Final Payment to Subcontractors and Suppliers. The Design-Builder must make payment (excluding retainage, amounts withheld for completion of Punch List and correction of any defective Work) to Subcontractors and Suppliers within a reasonable time after Substantial Completion of the Work. Remaining retainage payments and any amounts previously withheld for completion of Punch List and correction of any defective Work must be made to Subcontractors and Suppliers within seven (7) days after receipt of final payment by the Design-Builder.

6.3.3 Information Regarding Payments. The Owner may at its discretion, and the Owner Construction Manager may if so authorized by the Owner, furnish directly to a Subcontractor or Supplier on its request, if practicable, information regarding the Contract, including percentages of completion claimed or amounts applied for by the Design-Builder and action taken thereon by the Owner Construction Manager and Owner on account of portions of the Work done by such Subcontractor or Supplier.

6.3.4 Responsibility for Payment to Subcontractors. Neither the Owner nor the Owner Construction Manager shall have any obligation to pay or to see to the payment of any moneys to any Subcontractor or Supplier or provide any information to either. Notwithstanding any provision to the

contrary in this Article 6 or in any other provision of the Contract Documents, any obligations imposed upon the Design-Builder with respect to Subcontractors and Suppliers is solely for the benefit of the Owner, Owner Construction Manager and General Engineering Consultant and shall not be construed as giving any Subcontractor or Supplier any rights against the Owner or the Architect /Engineer or creating any privity of contract between the Owner, Owner Construction Manager and General Engineering Consultant on one hand and any Subcontractor or Supplier on the other hand.

6.4 CONTINGENT ASSIGNMENT OF SUBCONTRACTS AND PURCHASE ORDERS

6.4.1 Assignment. Each subcontract and Design-Builder's purchase order for a portion of the Work, including contracts for the purchase or rental of temporary facilities and equipment, must be assignable by the Design-Builder to the Owner under the conditions of this Section at no cost or change in price or time of performance on account of the assignment.

6.4.2 Election by Owner. The assignment of subcontracts and Design-Builder's purchase orders is effective only after termination of the Contract by the Owner pursuant to Part 1 – GC, Article 15, Sections 15.2 or 15.3, and only for those subcontracts or purchase orders which the Owner accepts by notifying the Design-Builder and Subcontractor or Supplier in writing.

6.4.3 Rights of Surety. The assignment of subcontracts and Contractor's purchase orders is subject to the prior rights of the Surety, if any, on the Project.

6.4.4 Liability for Prior Obligations. In the event the Owner accepts an assignment, the Owner is not liable for any obligations of the Design-Builder to the Subcontractor or Supplier arising prior to the effective date of the assignment, other than payment for Work performed in accordance with the Contract Documents and for which the Owner has not made payment to the Design-Builder. In no event does such assignment act as a release of the Design-Builder or its Surety from any of their obligations to the Owner, the Subcontractor, Supplier, or any other person or entity affected thereby. The Design-Builder must insert a provision to this effect and to the effect of Part 1 – GC, Article 6, Section 6.4.1 in all contracts with its Subcontractors and Suppliers and require all Subcontractors to insert a similar provision in all contracts with any Sub-subcontractor.

ARTICLE 7

WORK BY Owner AND BY OTHERS

7.1 OTHER WORK AT THE SITE

7.1.1 Owner's Rights Reserved. The Owner reserves the right to perform work at the Site with its own forces, to permit work to be performed at the Site by other forces, and to award separate contracts in connection with other portions of the Project.

7.1.2 Identification of Work by Others. Work to be performed by the Owner or by Separate Contractors is identified as such in the Contract Documents. If a question arises concerning the allocation of responsibilities among the Design-Builder and the Owner or any Separate Contractor, the Design-Builder must promptly request an interpretation or decision as provided in Part 1-GC, Article 4, Section 4.3.3.

7.1.4 Coordination of Other Work. The Design-Builder must cooperate in coordinating its Work with the work, if any, of the Owner, Separate Contractors, and any other forces permitted by the Owner to perform work at the Site without an increase in the Contract Time or the Contract Price. The Design-Builder must, in addition, coordinate its Work with other work at the Site as required in the Contract Documents without an increase in the Contract Time or the Contract Price. Such coordination will be performed as designated in the Contract Documents by the Owner the General Engineering Consultant, a separate consultant retained by the Owner such as a construction manager, or may be assigned to the Design-Builder or a Separate Contractor, and any such assignment shall be without an increase in the Contract Time or in the Contract Price. In the event such coordination is not performed by the Owner's own personnel, the Owner will advise the Design-Builder in writing of the person or entity who will be responsible for such coordination, and will describe the duties, authority and limitations of authority of such person or entity.

7.2 RESPONSIBILITY OF DESIGN-BUILDER

7.2.1 Design-Builder to Afford Access to Others. The Design-Builder must afford the Owner and Separate Contractors and other forces permitted by the Owner to perform work at the Site reasonable opportunity for introduction and storage of their materials and equipment and performance of their work and related activities. The Design-Builder shall also afford WMATA access to the site.

7.2.2 Connection with Other Work. The Design-Builder must connect its Work with that of the Owner and Separate Contractors and other forces permitted by the Owner to perform work at the Site as required by the Contract Documents, the overall Project Progress Schedule, and the directions of the Owner and its authorized representatives.

7.2.3 Inspection and Notice of Unsuitability. If part of the Design Builder's Work or other operations depends for proper execution or results, upon, or may adversely be affected by, construction or operations by the Owner or a Separate Contractor or other forces permitted by the Owner to perform work at the Site, the Design-Builder must, as soon as practicable but in all events in sufficient time to prevent delay, disruption, hindrance or interference with the performance of the Design-Builder's work and prior to proceeding with that portion of the Work, report in writing to the Owner Construction Manager and the Owner any apparent discrepancies or defects in, or other conditions pertaining to, such other construction or operations that would prevent the Design-Builder from achieving proper execution and results of the Work.

Failure of the Design-Builder to report such conditions prior to proceeding with the Work constitutes an acknowledgment (i) that the construction by the Owner or Separate Contractors or other forces permitted by the Owner to perform work at the Site is fit and proper to receive the Design Builder's Work, except as to defects not then reasonably discoverable, and (ii) that their operations will not adversely affect the performance of the Work.

7.2.4 Cutting, Patching and Finishing of Work by Others. The Design-Builder must not damage or endanger fully or partially completed construction by the Owner or Separate Contractors or other forces permitted by the Owner to perform work at the Site by cutting, patching, finishing or otherwise altering such construction, or by excavation. The Design-Builder must not cut or otherwise alter such work by others except with written consent of the Owner; such consent will not be unreasonably withheld. The Design-Builder must not unreasonably withhold from the Owner or a Separate Contractor or other forces permitted by the Owner to perform work at the Site the Design-Builder's consent to cutting, patching, finishing or otherwise altering the Design-Builder's Work.

7.2.5 Remedy of Damage to Work by Others. The Design-Builder must promptly remedy damage

caused by the Design-Builder to completed or partially completed construction or to property of the Owner or Separate Contractors or other forces permitted by the Owner to perform work at the Site as provided in Part 1 – GC, Article 8, Section 8.2.8.

7.3 MUTUAL RESPONSIBILITY OF THE Owner AND SEPARATE CONTRACTORS

7.3.1 Responsibility for Cleaning Up. If a disagreement arises among the Design-Builder, Separate Contractors or other forces permitted by the Owner to perform work at the Site and the Owner as to their respective responsibilities for maintaining the Site, the Work and surrounding area free from waste materials and rubbish as described in Part 1 – GC, Article 5, Section 5.6.7, the Owner may clean up or direct the Design-Builder or a Separate Contractor or other forces permitted by the Owner to perform work at the Site to do so, and allocate the cost thereof among them.

7.3.2 Disagreements Involving Separate Contractors. If a disagreement arises among the Design-Builder and any Separate Contractors or other forces permitted by the Owner to perform work at the Site over delays, impacts, inefficiencies, additional costs or damage to their work or property at the Site, the Design-Builder must, upon due notice to the Owner make a good faith effort to settle with such Separate Contractor. If a settlement is not reached, the Design-Builder must submit a Claim for an increase in the Contract Time and/or a Claim for an increase in the Contract Price in accordance with Part 1 – GC, Articles 11 and 12. If a Separate Contractor or other forces permitted by the Owner to perform work at the Site brings a claim under the Montgomery Owner Procurement Regulations against the Owner on account of any delay, impacts, inefficiencies, additional cost or damage alleged to have been caused by the Design-Builder, the Owner will notify the Design-Builder who must participate in such proceedings at the Design-Builder's expense. If any judgment or award against the Owner arises therefrom, the Design-Builder must indemnify the Owner from liability for any loss or damage and must reimburse the Owner for all fees and costs including attorney's, consultant's and expert's fees which the Owner has incurred in the defense and satisfaction of such claim, to the extent that the delay, impacts, inefficiencies, additional cost or damage is attributable to the acts, failures to act, or negligence of the Design-Builder or anyone for whom the Design-Builder is responsible.

ARTICLE 8

PROTECTION OF PERSONS AND PROPERTY

8.1 RESPONSIBILITY FOR SAFETY

8.1.1 Responsibility for Site Safety. In compliance with applicable law and good construction industry practices, the Design-Builder is responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the performance of the Contract. The Design-Builder must submit a Monthly Safety Report, Form SAF; see Part 1-GC Appendix A for Form SAF.

8.1.2 Appointment of Safety Officer. The Design-Builder must designate a responsible, properly trained and qualified member of the Design Builder's organization who must maintain a full-time presence at the Site and whose duty is the prevention of accidents and the maintenance of safety programs, precautions and procedures. This person is the Design-Builder's Superintendent unless otherwise permitted or required by the Contract Documents, in which case the safety officer must be designated by the Design-Builder in writing to the Owner and Owner Construction Manager.

8.1.3 Compliance with Legal Requirements. The Design-Builder must comply with all applicable laws, ordinances, rules, regulations and lawful orders of public authorities bearing on safety of persons or property or their protection from damage, injury or loss.

8.1.4 WMATA Requirements. The following Safety items are required by WMATA for design and construction work they will own, operate and maintain:

(A) Safety Manual

(B) Mandatory WMATA Construction and Environment Safety Manual

(C) Safety and Security Certification

(D) Mandatory Safety and Security Certification Program Plan Requirements

(E) System Safety Program Plan

(F) Mandatory System Safety Program Plan Requirements

8.2 SAFETY OF PERSONS AND PROPERTY

8.2.1 Protections Required. The Design-Builder must take reasonable precautions for the safety of, and must provide reasonable protection to prevent damage, injury or loss to:

.1 All persons at and adjacent to the Site and other persons who may be affected by the Work or other operations of the Design-Builder;

.2 The Work and materials and equipment to be incorporated therein or otherwise utilized in the performance of the Contract, whether in storage on or off the Site, under care, custody or control of the Design-Builder or the Design-Builder's Subcontractors or Sub-subcontractors; and

.3 Other property at the Site or adjacent thereto and not designated for removal, relocation or replacement in the course of construction.

WMATA facility work shall require Design Builder workers to take WMATA's Roadway Worker Protection Training.

8.2.2 Notices and Safeguards. The Design-Builder must implement and maintain, as required by the Contract Documents, applicable laws and regulations and orders of public authorities having jurisdiction (including without limitation OSHA and MOSH), manufacturers' instructions or recommendations, existing conditions and performance of the Contract, reasonable safeguards for safety and protection, including issuing appropriate notices, distributing material safety data sheets and other hazard communication information, providing protective clothing and equipment, posting danger signs and other warnings against hazards, promulgating safety regulations and notifying Owner and users of adjacent sites and utilities.

8.2.3 Loading. The Design-Builder must not load nor permit any part of any structure at the Site to be loaded or subjected to stresses or pressures so as to endanger its safety or that of adjacent structures or property.

8.2.4 Hazardous Activities. When explosives or other hazardous materials or equipment are stored or used or unusual methods are employed or hazardous conditions are present in the performance of the Work, the Design-Builder must adhere to OSHA, ATF, and WMATA requirements, exercise utmost care

and conduct such activities under supervision of properly qualified personnel. Explosives or hazardous materials may not be stored on site; such materials are only allowed on site in quantities necessary for that day's production. Any excess explosives or hazardous materials must be removed from the site to a secure storage facility daily. Notice to the Owner needs to be given 48-72 hours prior to the introduction the introduction of hazardous materials on site. In the case of an occupied renovation, a designated safety plan shall be submitted with the notice.

8.2.5 Qualified Personnel. The Design-Builder must ensure that all work is performed by qualified personnel, trained in accordance with all applicable laws and regulations, to safely perform the work.

8.2.6 Emergencies. In an emergency affecting safety of persons or property, the Design-Builder must take all necessary action, without the necessity for any special instruction or authorization from the Owner or the Owner Construction Manager, to prevent threatened damage, injury or loss. The Design-Builder must promptly but in all events within twenty-four (24) hours of the occurrence report such action in writing to the Owner and the Owner Construction Manager. If the Design-Builder incurs additional costs on account of or is delayed by such action, the Design-Builder may file a Claim requesting a change in the Contract Time or Contract Price to account for such action in accord with Part 1 – GC, Articles 11 and 12. Any such Claim must be filed within ten (10) days of the occurrence or it will be conclusively deemed to have been waived. Any adjustment in the Contract Time or Contract Sum shall be limited to the extent that the emergency work is not attributable to the fault or neglect of the Design-Builder or otherwise the responsibility of the Design-Builder under the Contract Documents.

8.2.7 Notice of Physical Injury or Damage. If the Design-Builder suffers physical injury or damage to person or property because of an act or omission of the Owner, or of any of the Owner's employees or agents, or of others for whose acts it is contended that the Owner is liable, written notice of such injury or damage, whether or not insured, must be given to the Owner within a reasonable time not exceeding forty eight (48) hours after the onset or occurrence of such damage or injury or such shorter time as may be required by the Occupational Safety & Health Administration (OSHA). The notice must provide sufficient detail to enable the Owner to investigate the matter.

If notice is not received by the Owner within the time specified, any Claim arising from the occurrence will be deemed to be conclusively waived, except to the extent of any applicable insurance (excluding self- insurance) coverage covering such occurrence. The provisions of this Section may not be used by the Design-Builder in lieu of the requirements of Part 1 – GC, Article 12 when the Design-Builder is seeking an adjustment in the Contract Price and are in addition to the requirements of Article 11 when the Design-Builder is seeking an adjustment in the Contract Time.

8.2.8 Remedy of Property Damage. The Design-Builder must promptly remedy damage and loss to property referred to in Part 1 – GC, Article 7, Section 7.2.5 caused in whole or in part by the Design-Builder, Designer, a Subcontractor, a Sub-subcontractor, a Supplier, or anyone directly or indirectly employed by any of them, or by anyone for whose acts they may be liable, unless otherwise instructed in writing by the Owner. This obligation is in addition to, and not in limitation of, the Design-Builder's obligations for indemnification under Part 1 – GC, Article 8, Section 8.4. The Design-Builder shall not be responsible for the security of materials, equipment and tools of Separate Contractors and other forces permitted by the Owner to perform work at the Site.

8.2.9 Responsibility for Site Security. The Design-Builder is responsible for taking all reasonable and necessary precautions to secure and protect the Site, the Work, materials and equipment to be incorporated therein, and any tools or equipment of the Design-Builder necessary or beneficial to the performance of the Work from damage due to vandalism, theft, arson, or other criminal mischief.

The Design-Builder must repair and/or replace that portion of the Work and any materials or equipment to be incorporated therein and any tools or equipment of the Design-Builder necessary or beneficial to performance of the Work which are damaged or stolen due to vandalism, theft, arson, or any other criminal mischief at its expense whether or not covered by insurance. No increase of the Contract Time or increase in the Contract Price will be granted to the Design-Builder as a consequence of any delay, impacts or inefficiencies resulting from any act of vandalism, theft, arson or other criminal mischief whether or not caused or contributed to by the Design-Builder's negligence. The Design-Builder is responsible for securing the Site against unlawful and unauthorized entry. This section is applicable regardless of Ownership or title of equipment or materials stored on site.

8.2.10 Preconstruction Survey. See Part 4 – Special Provisions SP-106 Visual Condition Surveys.

8.3 HAZARDOUS MATERIALS

8.3.1 Disclosure, Identification and Handling. The Design-Builder must maintain at the Site, available to the Owner and the Owner Construction Manager, appropriate information pertaining to all Hazardous Materials brought to the Site. Such materials must be properly labeled or identified, and the Design-Builder must properly store, handle and use them at all times. Manufacturers and distributors are required by the federal Hazard Communication Standard (29 CFR §1910.1200), and the Maryland "Access to Information About Hazardous and Toxic Substances" law to label each Hazardous Material or chemical container, and to provide Material Safety Data sheets to the purchaser. The Design-Builder must comply with these laws and must provide the Owner and Owner Construction Manager with copies of all relevant documents, including Material Safety Data sheets prior to performance of services or contemporaneous with delivery of goods. The Design-Builder must provide and designate appropriate and secure areas for their storage and must notify the Owner and Owner Construction Manager of their presence and location at the Site. The Design-Builder must not store Hazardous Materials at the Site in excess of those reasonably needed for the Design-Builder's current operations, and must properly remove or dispose of all Hazardous Materials, including combustible waste, as soon as possible after completion of the operations in which they are utilized.

8.3.2 Discovery of Hazardous Materials at the Site. In the event the Design-Builder encounters on the Site material reasonably believed to be a Hazardous Material (other than those for which the Design-Builder may have specific responsibility for remediation under the Contract), and the Design-Builder's reasonable precautions will be inadequate to prevent foreseeable damage or injury and the Design-Builder cannot proceed with the Work in the absence of the removal, containment or remediation of the Hazardous Material, the Design-Builder must immediately stop Work in the area affected and report, within twenty four (24) hours the condition to the Owner and the Owner Construction Manager in writing.

8.3.3 Investigation and Remediation. Upon receipt of notice of suspected Hazardous Materials, the Owner will cause an investigation to be made to verify the presence and extent of such materials, to determine whether such materials are in fact hazardous, and the steps necessary for their removal, containment or remediation.

8.3.4 Resumption of Work. If the Owner's investigation confirms the presence of Hazardous Materials which present a risk of injury or damage which will not be adequately protected against by the Design-Builder's reasonable precautions, then the Work in the affected area must not thereafter be resumed except at the written direction of the Owner. The Work in the affected area will be resumed promptly (i) in the absence of a finding of Hazardous Material by the Owner, (ii) upon the removal, containment or remediation of the Hazardous Materials, or (iii) upon the establishment of appropriate safety precautions.

8.3.5 Adjustments for Hazardous Materials. The Design-Builder may request a change in the Contract Time or Contract Price if the Design-Builder incurs additional costs on account of or is delayed by the need to remove, contain or remediate Hazardous Materials which has not been rendered harmless at the Site unless the Design-Builder is responsible for same under the Contract. Any such requested change in the Contract Time or Contract Price must be made in within ten (10) days of the Owner's approved resumption of Work referenced in Section 8.3.4 above and must fully comply with Part 1 – GC, Articles 11 and 12 or any Claim will be deemed conclusively waived by the Design-Builder.

8.3.6 Blasting. Should blasting be proposed, the Design-Builder's blasting plan will need to address how chemicals used in the explosive will be prevented from leaching into the ground water and potentially causing violations in existing WMATA permits. All appropriate regulations and requirements of OSHA, ATF and EPA shall be addressed.

8.4 INDEMNIFICATION

8.4.1 Indemnity and Duty to Defend. To the fullest extent permitted by law, the Design-Builder shall defend, indemnify and hold harmless the Owner, its consultants and Separate Contractors, the Owner Construction Manager and the General Engineering Consultant, the General Engineering Consultant's and Owner Construction Manager's consultants, and any of their Subcontractors, Sub-subcontractor, Suppliers, agents and employees, and WMATA from and against liability for all claims, damages, (including incidental and consequential), losses (including purely economic losses) and expenses, including but not limited to attorneys', expert witnesses' and consultants' fees, which arise out of or result from (a) the performance of the Work, (b) operations at the Site or (c) any act or omission by the Design-Builder. Such performance, operations, acts or omissions of the Design-Builder include the performance, operations, acts or omissions of the Design-Builder's Subcontractors, sub-subcontractors, Suppliers, Designer and their respective agents and employees and anyone for whose acts said parties may be liable.

This indemnity obligation and the duty to defend applies, regardless of whether or not such claim, damage, loss or expense is also caused or is alleged to have been caused in part by the negligence or act or omission of a party indemnified hereunder, provided it is also caused or alleged to have been caused at least in part by the Design-Builder, Designer, a Subcontractor, Sub-subcontractor, Supplier or their agents or anyone directly or indirectly employed by them or anyone for whose acts said parties may be liable. The duty to defend accrues at the time a claim that potentially is within the scope of coverage of the indemnity herein is made against the indemnitee(s). Nothing in this section shall be deemed a waiver of the Owner's right and or entitlement to assess and collect consequential damages from the Design-Builder.

8.4.2 Effect of Limitations on Statutory Benefits. In claims against any indemnitee hereunder by an employee of the Design-Builder, Designer, a Subcontractor, Sub-subcontractor or Supplier or anyone directly or indirectly employed by them or anyone for whose acts said parties may be liable, the indemnification obligation and duty to defend under Section 8.4.1 above are not limited by the amount or type of damages, compensation or benefits payable by or for the Design-Builder or a Designer, Subcontractor, Sub-subcontractor or Supplier under workers' or workmen's compensation acts, disability benefit acts or other employee benefit acts.

8.4.3 Limitation as to Negligence of Indemnitee(s). The Design-Builder's obligations under Section 8.4.1 above to indemnify (but not the duty to defend which shall apply nonetheless) do not apply to the extent that, but only to the extent that, any claim, damage, loss or expense as to bodily injury to any person or damage to property (but not as to purely economic claims, damages, losses or expenses as to which the Design-Builder's obligation under Section 8.4.1 above shall nonetheless apply) is ultimately

determined to result from the sole and exclusive negligence of the indemnitee(s).

8.4.4 Other Rights of Indemnity. The indemnification obligations of this Part 1 – GC, Article 8, Section 8.4 must not be construed to negate, abridge, or reduce any common-law or statutory rights of the indemnitee(s) which would otherwise exist as to such indemnitee(s).

ARTICLE 9

SUBMITTALS

9.1 SUBMITTALS REQUIRED

9.1.1 Pre-contract Submittals. The Owner reserves the right to require certain Submittals before executing the Contract. Submittals required before execution of the Contract include, but are not limited to, the following:

.1 Performance and Payment Bonds acceptable to the Owner as provided in Part 1 – GC, Article 17, Section 17.1; **[NOTE: If your jurisdiction has common law performance/completion bonds, remember to include specific language referencing the bond obligation in the contract.]**

.2 Policies and certificates of insurance acceptable to the Owner as provided in Part 1 – GC, Article 17, Sections 17.2.7 and 17.3.9; and **[NOTE: To be included in the insurance policy: Any cancellation, termination or non-renewal or expiration of the policy shall require 30 day advanced written notice to the municipality. Make this a condition of your RFP offering for the procurement.]**

.3 Other submittals required by the Bid or RFP Documents.

9.1.2 Initial Submittals. Unless otherwise provided in the Bid or RFP Documents or the Contract Documents, Submittals required within the first thirty (30) days (or such shorter period as specified in the following sections) after issuance of a Notice to Proceed include, but are not limited to, the following:

.1 A Progress Schedule for approval by the Owner Construction Manager and the Owner as provided in Part 1 – GC, Article 11, Section 11.2.1 which must be provided within fifteen (15) days of the Notice to Proceed;

.2 A Schedule of Submittals including Drawings, Plans, Calculations, Reports, Shop Drawings, Product Data Samples and other Submittals for approval by the Owner Construction Manager or General Engineering Consultant as provided in Part 1 – GC, Article 11, Section 11.2.5;

.3 A list of Subcontractors and Suppliers as provided in Part 1 – GC, Article 6, Section 6.1.1 which must be provided within ten (10) days of the Notice to Proceed;

.4 A list of Design-Builder's key personnel as provided in Part 1 – GC, Article 5, Section 5.4.2;

.5 A Schedule of Values as provided in Part 1 – GC, Article 13, Section 13.1.1 which must be provided within ten (10) days of the Notice to Proceed;

.6 A Quality Control (QC) plan as provided in the Specifications, if applicable;

.7 A preliminary cash flow projection estimating monthly payments due to the Design-Builder; and

.8 Other Submittals required by the Contract Documents.

9.1.3 Submittals During Design and Construction. Unless otherwise provided in the Contract Documents, Submittals required during the course of construction include, but are not limited to, the following:

.1 A certified building location survey as provided in Part 1 – GC, Article 14, Section 14.3.3.6;

.2 Drawings, Calculations, Reports, Plans, Schedules, Newsletters as provided in the Specifications;

.3 Progress reports (regular and intermittent) as provided in the Specifications, properly identified and authenticated;

.4 Certificates of inspection, approval and test reports as provided in Part 1 – GC, Section 10.5.7;

.5 Monthly Progress Schedules as provided in Part 1-GC, Article 11, Section 11.2.2;

.6 Applications for Payment with supporting documentation as provided in Part 1 – GC, Article 13, Section 13.2; and,

.7 Shop Drawings, Product Data Samples and other Submittals required by the Contract Documents.

.8 Modifications to Shop Drawings after submission of the original drawing.

9.1.4 Closing Submittals. Unless otherwise provided in the Contract Documents, Submittals required upon Substantial and Final Completion of the Work include those described in Part 1 – GC, Article 14, Sections 14.2.2 and 14.3.3.

9.1.5 Purpose of Submittals. Submittals required by the Contract Documents are not Contract Documents. The purpose of their submission is to demonstrate, for those operations or portions of the Work for which Submittals are required, the way the Design-Builder proposes to conform to the information given and the design concept expressed in the Contract Documents, or otherwise to demonstrate the Design-Builder's compliance with the requirements of the Contract Documents. Review of Submittals is subject to the limitations of Part 1 – GC, Article 9, Section 9.2.7.

9.1.6 Performance of Work. The Design-Builder must not perform any portion of the Work requiring submission, review or approval of Submittals until the respective Submittal has been submitted and any required approval has been given. Such Work must be in accordance with approved Submittals and the Contract Documents. In the event of a conflict between an approved Submittal and the Contract Documents, the requirements of the Contract Documents shall control over the approved Submittal. The Design-Builder must correct at its cost, and without any adjustment in Contract Time, any Work the correction of which is required due to the Design-Builder's failure to obtain approval of a Submittal required to have been obtained prior to proceeding with the Work, including, but not limited to, correction of any conflicts in the Work resulting from such failure.

9.2 SUBMISSION, REVIEW AND APPROVAL OF SUBMITTALS

9.2.1 Design-Builder's Submission. The Design-Builder must prepare and submit to the Owner Construction Manager Submittals required by the Contract Documents with reasonable promptness and in such sequence as to cause no delay in the Work or in the activities of the Owner or of Separate Contractors or other forces permitted to perform work at the Site. The Design-Builder must submit them in accordance with the Schedule of Submittals provided under Part 1 – GC, Article 11, Section 11.2.5. The Design-Builder must provide the Owner and the Owner Construction Manager with copies of all Submittals made to regulatory agencies.

9.2.2 Verification of Information in Submittals. By submitting Shop Drawings, Product Data, Samples and similar Submittals, the Design-Builder represents that the Design-Builder has determined and verified materials, field measurements and field construction criteria related thereto and has checked and coordinated the information contained within such Submittals with the requirements of the Work and of the Contract Documents. All Submittals must bear the following certification, signed and dated by the Design-Builder, and by any Designer, Subcontractor, Sub-subcontractor or Supplier who has prepared the Submittal for the Design-Builder:

"I certify that the requirements of the Contract Documents have been met and all dimensions, conditions and quantities are verified as shown on the attached Submittal."

The foregoing certification will be deemed to have been inserted into any Submittal from which it has been omitted.

9.2.3 Identification of Submittals. All Submittals, including Shop Drawings and Samples, must include submittal tracking numbers coinciding with the Specification section and Submittal log and must be dated and marked to show the names of the Project, General Engineering Consultant, Owner Construction Manager, Design-Builder, originating Designer, Subcontractor, Sub-subcontractor, manufacturer or Supplier, and separate detailer if pertinent. Shop Drawings must completely identify Specification section and locations at which materials or equipment are to be installed. Reproductions of Contract Drawings are acceptable as Shop Drawings only when specifically authorized in writing by the General Engineering Consultant. Submittals must be submitted under cover of a Submittal form approved by the Owner which must include at a minimum the information required in this Section, the identity of each recipient of the Submittal, and such other information as the Owner may require.

9.2.4 Deviations from the Contract Documents or General Design Criteria. At the time of submission, the Design-Builder must specifically note in the transmittal form any approved deviations in the Submittal from the requirements of the Contract Documents. No such deviation will be considered as having been approved solely by reason of approval of a Submittal in which the deviation was noted; instead, if the Design-Builder is seeking approval of the deviation from the Contract Documents, the Design-Builder must comply with the provisions of Part 1 – GC, Article 12, Section 12.6 governing approval of Or-Equal items or Substitutions, as applicable.

9.2.5 Return Without Action. Incomplete Submittals will be returned to the Design-Builder without action and must be promptly completed and resubmitted by the Design-Builder. Submittals made by the Design-Builder which are not required by the Contract Documents may be returned without action.

9.2.6 Review and Action by General Engineering Consultant or Owner Construction Manager. The General Engineering Consultant or the Owner Construction Manager or the Owner, or any combination thereof as appropriate for the type of Submittal, will review and approve or take other appropriate action upon the Design-Builder's Submittals. Such action will be taken with such reasonable

promptness as to cause no unreasonable delay in the Work, provided that Design-Builder has acted promptly in submitting, correcting and resubmitting such Submittals and sufficient time has been allowed to permit adequate review. A minimum of thirty (30) Days for review must be allowed, unless otherwise agreed to in writing by the Owner.

9.2.7 Scope of Review. Review of Submittals will be only for the limited purpose of checking for conformance with the design concept expressed in and the specific requirements of the Contract Documents. Review of such Submittals is not conducted for the purpose of determining their accuracy and completeness, reviewing the means and methods of fabrication or assembly, confirming details such as dimensions and quantities, or for substantiating instructions for installation or performance of equipment or systems, all of which remain the responsibility of the Design-Builder in accordance with the Contract Documents.

9.2.8 Correction and Resubmission. The Design-Builder must submit additional information or make any corrections required and must resubmit the required number of corrected copies of Submittals for further review and approval or other appropriate action required by the Contract Documents until such approval or other action is taken. No delay will be recognized, and no increase of Contract Time will be given, for any delay in approval of Submittals which results from returning Submittals to the Design-Builder for incompleteness, correction and resubmission. If more than two (2) resubmittals are required the Design-Builder must pay any amounts the Owner owes the Architect for review of further resubmittals.

9.2.9 Identification of Revisions. The Design-Builder must direct specific attention, in writing or on resubmitted Submittals, to any revisions made in a resubmitted Submittal other than those requested by the Owner, the Owner Construction Manager or the General Engineering Consultant on previous Submittals. No such revision will be considered as having been approved solely by reason of approval of a Submittal in which the revision was noted.

9.2.10 Responsibility for Deviations, Revisions, Errors and Omissions in Submittals. Approval of any Submittal will not extend to, and the Design-Builder will not be relieved of responsibility for, (i) deviations or revisions not specifically identified and approved in accordance with Part 1 – GC, Article 9, Sections 9.2.4 or 9.2.9, or (ii) any errors or omissions in Submittals, except to the extent such errors or omissions occur in the Contract Documents and are the responsibility of the Owner Construction Manager, the General Engineering Consultant and/or Owner. Review and approval of the Design-Builder's Submittals by the Owner, the Owner Construction Manager and/or the General Engineering Consultant will not relieve the Design-Builder of its obligations under the Contract, nor will it constitute approval of safety precautions or of any construction means, methods, techniques, sequences or procedures of fabrication or assembly. The approval of a specific item does not indicate approval of an assembly of which the item is a component.

9.2.11 Professional Certifications. The Design-Builder must provide professional certifications on submittals and shop drawings as required by the Contract Documents. For WMATA calculation and drawing submittal approvals, the submittals require a P.E. seal. The Owner, the Owner Construction Manager and the General Engineering Consultant are entitled to rely on the accuracy and completeness of professional certifications of performance criteria of materials, systems or equipment required by the Contract Documents.

9.2.12 Submittals for Finishes. The Owner Construction Manager and/or the General Engineering Consultant may postpone review of Submittals requiring color or finish selections until such time as all such Submittals have been submitted. Any delays and/or extra costs resulting from incomplete Submittals are the responsibility of the Design-Builder.

ARTICLE 10

QUALITY CONTROL PLAN, COMMISSIONING REPORT AND WARRANTIES

10.1 QUALITY CONTROL PLAN AND COMMISSIONING REPORT

10.1.1 Quality Control Plan. Unless noted otherwise in the Contract Documents, the Design-Builder must prepare and submit a quality control plan in accordance with the requirements of the Contract Documents for review and approval by the Owner within thirty (30) days of Notice to Proceed. The Design-Builder must comply with the requirements of the approved quality control plan (See Part 1 – GC, Article 10, Sections 10.5 and 10.6).

10.1.2 Commissioning Plan. The Design-Builder must submit an Initial Commissioning Plan within 60 days of initial notice to proceed for approval by the Owner. The Commissioning Plan is intended to be a living document that is updated and refined throughout design and construction. Formal updates to the Commissioning Plan must be submitted for approval by the Owner and WMATA at the Design Development and Release for Construction submittals for each work package. The Commissioning Plan and any related Commissioning Specifications must address all systems, including but not limited to heating, ventilation, air conditioning, plumbing, electrical, communication, security, life safety, conveyances, building envelope, mechanical, and building management systems. The Commissioning Plan must address all processes, actions and deliverables necessary to successfully commission the project, including but not limited to, training, system manuals, construction checklists, testing (start-up and seasonal), and issue resolution throughout the entire project, including the warranty period. The Design-Builder must comply with the requirements of the approved Commissioning Plan and Commissioning Specifications.

10.2 GENERAL WARRANTY AND SPECIAL WARRANTIES

10.2.1 General Warranty. The Design-Builder warrants to the COUNTY that all materials and equipment furnished under the Contract will be of first quality and new unless otherwise required or permitted by the Contract Documents, that the Work will be free from defects, and that the Work will conform to the requirements of the Contract Documents.

10.2.2 Duration of General Warranty. The Design-Builder warrants and guarantees for one (1) year from Final Acceptance of the Work. This includes a Warranty and Guarantee against any and all defects for a minimum period of one (1) year from Substantial Completion. The Design-Builder must correct any and all defects in material and/or workmanship which may appear during the Warranty and Guarantee period, by repairing (or replacing with new items or new materials, if necessary) any such defect at no cost to the COUNTY, within a reasonable period of time, and to the COUNTY's satisfaction.

Warranties for the portion of the work that will be accepted by WMATA commence when WMATA issues their Letter of Final Acceptance for WMATA facilities.

10.2.3 Relation to Specific Correction Provisions and Other Remedies. The Design Builder's general warranty and any additional or special warranties are not limited by the Design-Builder's obligations to specifically correct defective or nonconforming Work as provided in Part 1 – GC, Article 10, Section 10.6, nor are they limited by any other remedies provided in the Contract Documents. The Design-Builder shall also be liable for any damage to property or persons (including death) including consequential and direct damages relating to any breach of the Design-Builder's general warranty or any additional or special warranties required by the Contract Documents.

10.2.4 Additional or Special Warranties. The Design-Builder must furnish all special warranties required by the Contract Documents no later than Substantial Completion. The COUNTY may require additional special warranties in connection with the approval of "Or-Equals" or Substitutions, Allowance items, Work which is defective or nonconforming, or the acceptance of nonconforming Work pursuant to Part 1 – GC, Article 10, Sections 10.6.2 and 10.6.3.

10.2.5 Spare Parts. The Design Builder must furnish all spare parts required by the Contract Documents no later than Substantial Completion.

SUGGESTED ALTERNATIVE

10.2 DESIGN-BUILD WORK WARRANTY.

10.2.1 General. The Design-Build Contractor warrants to the Authority that the Design-Build Work, including all materials, equipment, and structures furnished, shall (i) be new, of recent manufacture and of high quality, (ii) conform to the requirements of this Design-Build Contract, and (iii) be free of defects in materials, equipment, workmanship ("Design-Build Work Warranty"). The Design-Build Work Warranty: (1) excludes remedy for damage or defect caused by modifications not executed by the Design-Build Contractor, improper or insufficient maintenance, improper operation, or normal wear and tear under normal usage; and (2) includes remedy for damage or defect caused by any defects or errors in the Operations and Maintenance Manuals prepared by the Design-Build Contractor.

10.2.2 Call-Back Obligations. If, at any time during the Warranty Period, the Project or any of the Design-Build Work is found to be malfunctioning, defective or otherwise not in accordance with the requirements of this Design-Build Contract (including the Design-Build Work Warranty), the Design-Build Contractor shall correct it promptly after receipt of written notice from the Authority to do so. The Authority shall give such notice promptly after discovery of the condition. The Design-Build Contractor shall respond to critical or emergency service calls from the Authority within eight (8) hours and to non-critical or non-emergency calls within three (3) business days. Such response shall require that a competent representative or representatives of the Design-Build Contractor familiar with the Project, including its specific equipment, design and operational requirements, inspect the Project and, while on site, either correct the problem or initiate a course of action that will fully correct the problem within a reasonable period of time in accordance with Good Engineering and Construction Industry Practice and the specific requirements of subsection (___) of this Section. In critical or emergency situations, the time period for correction shall not exceed forty-eight (48) hours after the on-site inspection, and for non-emergencies, the time period for correction shall not exceed ten (10) days; provided, however, that if such time periods are not practicable in accordance with Good Engineering and Construction Industry Practice, then the time period for correction shall be the minimum amount of time required in accordance with Good Engineering and Construction Industry Practice.

10.2.3 Right of Authority to Proceed with Corrective Action; Design-Build Contractor Liability. If the Design-Build Contractor fails to commence and complete the steps set forth in subsection (B) of this Section within the required time frames, in addition to any other remedies provided under this Design-Build Contract, the Security Instruments or Applicable Law, the Authority may commence and complete the correction of such nonconforming Design-Build Work with its own forces or with third party contractors. If the Authority does perform such corrective Design-Build Work, the Design-Build Contractor shall be responsible for all costs incurred in performing such correction.

10.2.4 No Period of Limitation on Other Obligations. Nothing contained in this Article shall be construed to establish a period of limitation with respect to other obligations that the Design-Build Contractor has under this Design-Build Contract or under Applicable Law with respect to the Design-Build Work, including warranties and obligations with respect to latent defects.

The Warranty Period relates only to the specific obligations of the Design-Build Contractor to respond to notices from the Authority under this Article, and has no relationship to the time within which the obligation of the Design-Build Contractor to comply with this Design-Build Contract may be enforced, nor the time within which proceedings may be commenced to establish the Design-Build Contractor's liability with respect to the Design-Build Contractor's obligations under this Design-Build Contract.

10.2.5 Extension of Warranties. The "call-back" obligations set forth in this Section shall apply to all Design-Build Work re-done or corrected pursuant to this Design-Build Contract. The "call-back" obligations for re-done or corrected elements of the Design-Build Work shall extend beyond the Warranty Period, if necessary, to provide a one (1) year period following acceptance by the Authority of such re-done or corrected Design-Build Work; provided, however, that in no event shall such "call-back" obligations extend beyond one (1) year following the expiration of the Warranty Period.

10.2.6 Design-Build Contractor Reliance on Manufacturers' Warranties During Call-Back Period. During the period in which the call-back obligations set forth in this Section are in effect, the Design-Build Contractor (or the Authority) shall be permitted to enforce all warranties provided by manufacturers, suppliers and other third parties. Notwithstanding the applicability or effectiveness of such warranties, the Design-Build Contractor shall be required to comply with all the requirements set forth in subsection (B) of this Section.

10.2.7 Compensation. The Design-Build Contractor acknowledges that the Fixed Design-Build Price contains the entire compensation due the Design-Build Contractor for any and all warranty work to be performed by the Design-Build Contractor or its Subcontractors or agents pursuant to this Article including overhead and profit, except as otherwise provided. In the event any amounts are required to be paid to third-parties to perform warranty work pursuant to this Article, payment of such amounts shall be the responsibility of the Design-Build Contractor. Notwithstanding the foregoing, if the Design-Build Contractor responds to a warranty-related claim and such claim is later determined not to be a valid warranty claim, the Authority shall reimburse the Design-Build Contractor for its reasonable labor and related costs incurred in responding to the claim.

10.2.8 Performance of Warranty Work. The Design-Build Contractor acknowledges that time is of the essence in the performance of all warranty work required under this Article in light of the Project's essential public purpose. Accordingly, all warranty work required under this Article shall be performed in accordance with the Design-Build Standards and, without limiting any of the specific time requirements set forth in subsection (B) of this Section, within the minimum amount of time required in accordance with Good Engineering and Construction Industry Practice. The Design-Build Contractor shall perform or cause to be performed all warranty work performed under this Article in a manner that will minimize interference with the ongoing operations of the Project. The Design-Build Contractor shall provide a written plan for all proposed warranty work pursuant to this Section (unless expressly waived by the Authority).

10.3 WARRANTIES NOT EXCLUSIVE.

10.3.1 The warranties set forth in this Article are in addition to, and not in limitation of, any other warranties, rights and remedies available under this Design-Build Contract or Applicable Law, and shall not limit the Design-Build Contractor's liability or responsibility imposed by this Design-Build Contract or Applicable Law with respect to the Design-Build Work, including liability for design defects, latent construction defects, strict liability, negligence or fraud. The provisions of this Article shall survive the termination of this Design-Build Contract.

10.4 MANUFACTURERS' WARRANTIES

10.4.1 Manufacturers' Warranties Generally. The Design-Build Contractor shall, for the protection of the Authority, obtain from all Subcontractors, vendors, suppliers and other persons that provide structures, improvements, fixtures, machinery, equipment and materials to be incorporated in the Project each warranty and guarantees specifically required in this Design-Build Contract ("Manufacturers' Warranties"), and each warranty shall be assigned to the Authority to the full extent of its terms. No such warranty shall relieve the Design-Build Contractor of any other obligation under the Contract, and no failure of any warranted or guaranteed structures, improvements, fixtures, machinery, equipment or material shall be the cause for any increase in the Fixed Design-Build Price or excuse any non-performance of the Design-Build Work, including any warranty work required under this Article, unless such failure is itself attributable to an Uncontrollable Circumstance.

10.4.2 No Limitation of Third Party Warranties. Nothing in this Design-Build Contract is intended to limit any third party warranty that provides the Authority with greater warranty rights than those provided under this Article.

10.5 WARRANTY PERFORMANCE BOND

10.5.1 If the Design-Build Performance Bond does not cover all the obligations of the Design-Build Contractor under this Article, then the warranty related responsibilities set forth the Contract Documents shall be secured by a Warranty Performance Bond in accordance with Section 11.2 hereof ("Warranty Performance Bond").

10.6 POST ACCEPTANCE AND POST WARRANTY SERVICES.

10.6.1 Upon Acceptance and continuing beyond the expiration of the Warranty Period, at the Authority's option and in accordance with the scope and term determined by the Authority, the Design-Build Contractor shall provide one or more Rhode Island certified operators for operations assistance, support and/or training services. Not later than fifteen (15) days after the Authority's request, the Design-Build Contractor will prepare a proposal in accordance with Section 5.12 (E) hereof and if acceptable, the Authority will issue a Change Order for these services. The Design-Build Contractor will utilize, to the extent practical, the key personnel who were involved in the Design-Build Work to provide such services.

10.3 OBSERVATION AND INSPECTION OF PROJECT

10.3.1 Access to PROJECT. The Design-Builder must provide the COUNTY and the County Construction Manager safe access to the PROJECT at all times that it is in preparation or progress wherever located.

10.3.2 Authority and Duties of County Inspectors. The Design-Builder shall have the primary responsibility for inspection of the entire PROJECT through its Quality Manager, Design Quality Manager, Construction QC Manager, QC Engineer and their respective staffs. However, the Design-Builder contract does not alter the authorities of the COUNTY's Authorized Representatives in COUNTY of the Contract. The COUNTY has the right but no obligation to inspect all or any portion of the PROJECT and may rely upon the Design-Builder and its Quality Control inspection to the extent that the COUNTY deems desirable. WMATA will provide QA oversight and periodic inspection on all facilities to be owned, maintained and operated by WMATA. This provision applies to QA Oversight inspection when performed by the COUNTY or its agents. COUNTY inspectors shall be authorized to perform Oversight inspection on all work done and all material furnished. Such Oversight inspection may extend to all or any part of the PROJECT and to the preparation, fabrication or manufacture of the materials to be used. Inspection shall include the Design-Builder's compliance with applicable safety requirements set forth in Part 1 – GC, Article 8, Section 8.2. The inspector is not authorized to revoke, alter or waive any requirements of the Contract, nor is he/she authorized to approve or accept any portion of the complete project. He/she is authorized to call the attention of the Design-Builder to any failure of the work or materials to conform to the Contract. He/she shall have the authority to reject materials or suspend the Work until any questions at issue can be referred to and decided by the Contract Administrator.

The COUNTY’s inspections and tests are for the sole benefit of the COUNTY and shall not:

(a) Relieve the Design-Builder’s responsibility for providing adequate QC measures;

(b) Relieve the Design-Builder’s responsibility for damage to or loss of the material before Final Acceptance;

(c) By implication, constitute Acceptance for Maintenance/(letter of Final Acceptance for WMATA facilities), in whole or in part, or Final Completion or Acceptance; or

(d) Affect the continuing rights of the COUNTY after Final Completion and Final Acceptance.

The COUNTY inspector shall in no case act as foreman or perform other duties for the Design-Builder. Any advice, instruction, direction or other order which said inspector may give the Design-Builder shall not be construed as binding the Contract Administrator in any way, or releasing the Design-Builder from fulfilling all of the terms of the Contract.

Where there is disagreement between the Design-Builder (or its representative) and the COUNTY’s inspector, such as refusal by the Design-Builder to use properly approved material, performing work not in compliance with Contract Documents, and/or refusing to suspend Work until problems at issue can be referred to and decided by the Contract Administrator, the COUNTY’s inspector will immediately direct the Contract Administrator's attention to the issues of disagreement.

All materials and each part or detail of the PROJECT shall be subject at all times to Oversight inspection by the Contract Administrator or his/her authorized representative, and the Design-Builder will be held strictly to the materials, workmanship, and the diligent execution of the Contract. The Contract Administrator , or his/her representative, shall be allowed access to all parts of the PROJECT and shall be furnished with such information and assistance by the Design-Builder as is required to make a complete and detailed inspection.

10.4 TESTS, INSPECTIONS AND APPROVALS BY OTHERS

10.4.1 Required Tests, Inspections and Approvals. The Design-Builder must arrange for tests, inspections and approvals of portions of the PROJECT required by the Contract Documents, laws, ordinances, rules, regulations or orders of public authorities having jurisdiction, or the COUNTY or its designee acting as a public authority, to be made at an appropriate time. Unless otherwise provided in the Contract Documents, such tests, inspections and approvals, other than those provided by public authorities, must be provided by an independent testing laboratory or entity acceptable to the COUNTY, and the Design-Builder must bear all related costs of tests, inspections and approvals. The Design-Builder must give the COUNTY, through the County Construction Manager, timely notice of when and where tests and inspections are to be made so the COUNTY and the County Construction Manager may observe such procedures. County or its designated representative shall be present at such testing, inspection or approval.

10.4.2 Tests and Inspections by COUNTY. If indicated in the Contract Documents, the COUNTY will hire, and pay the costs for, inspection and testing agencies for specific portions of the Work. The Design-Builder must coordinate with any COUNTY-hired inspection and testing agencies and arrange for (schedule) tests, inspections and approvals of portions of the Work required by the Contract Documents without delaying the Work.

10.4.2.1 Notice of Problems with COUNTY-hired Inspection Agencies. The Design-Builder shall promptly notify the COUNTY of any problems or concerns with COUNTY-hired inspection and testing agencies.

10.4.2.2 Mis-scheduling of COUNTY-hired Inspection Agencies. The Design-Builder is responsible for coordinating and accurately scheduling COUNTY-hired inspection and testing agencies so that the work is ready for inspection when scheduled with the agencies. The Design-Builder's failure to accurately schedule inspections and/or tests with the COUNTY-hired agencies causes the COUNTY unnecessary costs. If the Design-Builder repeatedly fails to accurately schedule the inspections/testing agencies' time, the COUNTY will backcharge the Design-Builder for the cost of the unnecessary Site visits by the COUNTY-hired agencies.

10.4.3 Scheduling of Tests, Inspections and Approvals. The Design-Builder must schedule all tests, inspections or specific approvals required by law or the Contract Documents so as to avoid any delay in the Work. If any portion of the Work is required to be tested, inspected or approved, the Design-Builder shall not cover such Work until the required tests, inspections or approvals are complete. In the event such Work is covered prior to completing required tests, inspections or approvals, the Design-Builder shall uncover such Work at its expense. To the extent that any delay in any required tests, inspections, approvals or retests, re-inspections or additional approvals are due to a failure of the Design Builder to comply with the provisions of this section or for any other reason of Design Builder fault, the Design Builder shall not be entitled to an equitable extension of time.

10.4.4 Additional Tests, Inspections and Specific Approvals. The COUNTY may, in its discretion, require the Design-Builder to perform additional testing, or obtain inspection or specific approval of any portion of the Work, whether or not such Work is fabricated, installed or completed. However, neither a recommendation made by the County Construction Manager nor a decision by the COUNTY either to require or not to require such testing, inspection or specific approval gives rise to a duty or responsibility of the COUNTY or the County Construction Manager to the Design-Builder, Subcontractors, Sub-subcontractors, material and equipment Suppliers, their agents or employees, or other persons performing portions of the Work.

10.4.5 Other Tests, Inspections and Specific Approvals Required by COUNTY. In addition to the tests required by this Section 10.5, the COUNTY may at any time arrange for other tests, inspections and

specific approvals to be performed by others selected by the COUNTY, at the COUNTY's expense. The Design-Builder must cooperate with the COUNTY and provide access to the Work for such tests, inspections and approvals.

10.4.6 Notice to Design-Builder. If the COUNTY, in its discretion, determines that portions of the Work require additional testing, inspection or approval not included under Part 1 – GC, Article 10, Section 10.6.2, the COUNTY or the County Construction Manager will instruct the Design-Builder to make arrangements for such additional testing, inspection or approval, and the Design-Builder must give timely notice to the COUNTY and the County Construction Manager of when and where tests and inspections are to be made so the COUNTY and the County Construction Manager may observe such procedures. Unless otherwise provided, additional testing, inspection and approval must be conducted by an organization selected by the Design-Builder that is acceptable to the COUNTY. The COUNTY shall bear such costs except as provided in Part 1 – GC, Article 10, Sections 10.6.2 and 10.6.3.

10.4.7 Observation of Tests, Inspections or Approvals. If the COUNTY or the County Construction Manager is to observe tests, inspections or approvals, they will do so, so as not to delay any critical path activities and, where practicable, at the normal place of testing, provided reasonable notice of them has been given by the Design-Builder to the COUNTY and County Construction Manager.

10.4.8 Certificates of Testing, Inspection and Approval. Required certificates of testing, inspection or approval must, unless otherwise required by the Contract Documents, be secured by the Design-Builder and promptly delivered to the County Construction Manager for the COUNTY.

10.4.9 Costs of Re-Testing, Inspection and Approval. If testing, inspection or approval under Part 1 – GC, Article 10, Sections 10.6.2 and 10.6.3 Section reveals failure of any portion of the Work to comply with the Contract Documents or applicable legal requirements, the Design-Builder must bear all costs and time impacts made necessary by such failure, including costs of the COUNTY's and County Construction Manager's additional services and expenses and the costs of repeated testing, inspection or approval, and Design-Builder's cost to correct.

10.5 DESIGN MANAGEMENT AND DESIGN QUALITY ASSURANCE/QUALITY CONTROL

10.5.1 General Design-Builder Responsibilities The Work shall be performed in accordance with the details as shown on the Design Plans, Project Specifications and Working Plans prepared by the Design-Builder, subject to COUNTY's Consultation and Written Comment and shall be in conformance with the Owner's General Design Criteria and Performance Standards included as Appendix ___ to the Contract. In addition, Inspection and Test plans shall be approved by the Owner.

It shall be the Design-Builder's sole responsibility to provide Design Plans, Project Specifications and Working Plans of such a nature to develop a finished product in accordance with the Contract requirements and the Design-Builder's Design Quality Plan. The Design-Builder shall verify pertinent dimensions in the field prior to the review of Design Plans, Project Specifications and Working Plans. Review of the Design-Builder's Design Plans, Project Specifications and/or Working Plans by the COUNTY shall not relieve the Design-Builder of the responsibility for the satisfactory completion of the Work.

Design Plans, Project Specifications and Working Plans shall be subject to the COUNTY's Consultation and Written Comments per Part 1 – GC, Article 10, Sections 10.5.9, 10.5.11, 10.5.12, 10.5.13, and 10.5.16 before beginning construction Work covered by the Plans, and shall not be thereafter amended or altered without the prior approval of the Design-Builder's Designer and subsequent Consultation and Written Comment by the COUNTY.

The Design-Builder shall perform the following:

(A) Manage the design and design Quality Control (QC) of the Work;

(B) Coordinate with and obtain necessary approvals from, but not limited to, authorities having jurisdiction for temporary road diversions and detours, shutdowns, Utility Relocations, temporary sidewalk closures, and pedestrian/bicycle detours: impacts to WMATA's Metrobus, Medical Center Metrorail Station and its associated facilities; impacts to NSAB or NIH main gate entrances; elevators; life safety; mechanical, electrical and plumbing systems; security, WMATA systems; and

(C) Ensure that the Designer properly checks the designs of the Project and that the Design QC Manager certifies QC procedures in accordance with the Contract and Design Quality Plan.

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.

10.5.2 Design-Builder's Design Organization And Obligations

10.5.2.1 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 may establish an office in the Project vicinity (see Special Provision (SP) 100 Project Office and Field Office) or perform the work at an off-site location.

10.5.2.2 Completeness of Design. The Designer shall determine the following:

(A) Effects of all loading requirements on existing and proposed features;

(B) Dimensions of all elements;

(C) Structural redundancies, where they exist;

(D) Sub-soil interaction to support the loads from above;

(E) Effects of seismicity;

(F) Effects of fatigue;

(G) Durability and maintainability requirements;

(H) Details of required QA/QC procedures, monitoring, and controls;

(I) Effects of hydrology, design flows, and scour depths as appropriate;

(J) Location and identification of existing features; and

(K) Capacity and adequacy of:

(1) Poles and columns;

(2) Drainage structures;

(3) Vertical shaft and horizontal tunnel components (structural, electrical, mechanical and fire protection systems);

(4) Traffic control devices; and

(5) Lighting and Ventilation elements.

Design will be considered complete upon Final Acceptance following submittal and review of the Record

Drawing Plans, and in accordance with Part 1 – GC, Article 10, Section 10.5.15.6.

10.5.2.3 Design Manager. The Design-Builder shall designate and assign a Design Manager to manage all Work performed by the Design-Builder's Designers. The Design Manager shall be in the Project vicinity as required for the design Work and shall be present as required thereafter to manage design support during construction, design changes, and completion of Record Drawing Plans.

The Design Manager and/or staff working under the direct supervision of the Design Manager shall conduct an assessment and evaluation of design such that the Design Manager can certify to the Design-Builder and to the COUNTY that the design satisfies the Contract requirements, including, without limitation, the following requirements:

(A) Accuracy;

(B) Adequacy;

(C) Conformance to standards of practice;

(D) Compliance with codes and standards;

(E) Cost effectiveness;

(F) Quality; and

(G) 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 GC, Article 10, Section 10.5.15.

The Design Manager's activities shall include, as a minimum, assessment and evaluation of the following:

(A) Design reports;

(B) Analytical approach;

(C) Drawing details for conformity to Contract requirements;

(D) Project Specifications for conformity to Contract requirements;

(E) Design and Working Plans;

(F) Major temporary components' effect on permanent components;

(G) Field design changes;

(H) Design approvals for materials and procedures;

(I) Record Drawing Plans for conformity with final design, Contract requirements, and Design Quality Plan;

(J) Design Computations; and,

(K) Set-up and development of design schematic.

10.5.2.4 Responsible Engineer. The Designer shall designate and assign a Responsible Engineer for each Design-Builder-designated Design Unit. The Responsible Engineer(s) shall sign and seal design reports, calculations, Design and Working Plans, and Project Specifications for the assigned Design Unit(s). Responsible Engineers shall be Maryland-licensed Professional Engineers.

Responsible Engineers shall coordinate the Work on assigned Design Units. The Responsible Engineer shall attend all design reviews for, assigned Design Unit(s).

See Part 1 – General Conditions of Construction Contracts (GC), Article 1, Section 1.1 for the definition of Responsible Engineer.

10.5.2.5 Design Quality Control Manager. The Design-Builder shall assign a Design QC Manager. The Design QC Manager shall report to the Design-Builder's Quality Manager, and shall be independent from the production of the design.

The Design QC Manager shall be responsible for providing QC in accordance with the Design Quality Control Plan, for all Work conducted by the Designer. The Design QC Manager shall be present as required to manage design QC related to design support during construction, design changes, and completion of As-Built Plans.

The Design-Builder's Design QC Manager shall assess and evaluate the Design-Builder's design QC activities in order to certify to the Design-Builder and to the COUNTY that the design QC activities comply with the Design Quality Control Plan and Contract requirements.

The Design-Builder shall ensure that the Design QC Manager carries out all duties expressed and implied in the Contract.

The Design QC Manager shall have QC responsibilities related to the following:

(A) Design of permanent and major temporary components;

(B) Changes in design of permanent components; and

(C) Record Drawing Plans.

The Design QC Manager shall also perform the following activities:

(1) Conduct design reviews that are the responsibility of the Design-Builder (See Part 1 – GC, Article 10, Section 10.5.5);

(2) Identify and report non-conformities/non-compliance;

(3) Track, monitor, and report on status of outstanding design-related non-conformance reports;

(4) Supply monthly reports (See Part 1 – GC, Article 10, Section 10.5.22.3.1); and,

(5) Submit specified certificates (permanent components and major temporary components).

These responsibilities are further specified in Part 1 – GC, Article 10, Section 10.5.22.3.

10.5.2.6 Check by the Designer. The requirement that the Design-Builder engage and use a Design QC Manager shall not relieve the Designer from carrying out all the checks and reviews that a professional and prudent designer would normally carry out on the type of Work that is actually being designed.

10.5.3 Design Units. The Design Builder shall package all design, drawings, and other related documents 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) Design Unit description, including scope of design Work within each Design Unit, 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 Part 1 – General Conditions of Construction Contract (GC), Article 10, Section 10.5.8 and Part 1 – GC, Appendix C, Form DUS;

(C) Responsible Engineer; and,

(D) Locations where design Work will be performed.

The Design-Builder shall submit any revisions to the information provided in writing to the COUNTY concurrent with the monthly progress report.

10.5.4 Relationship of Early Construction Starts to Design Development and Review. It is the intent of the COUNTY to allow construction to begin on a Design Unit prior to completion of final design. Construction on any Design Unit may begin at any time after the applicable Readiness for Construction design review. Construction may progress in increments determined by the Design-Builder, at Design-Builder's risk, provided each increment of construction is covered by drawings and specifications that have been reviewed by the COUNTY and meet the requirements for Readiness for Construction noted in Part 1 – GC, Article 10, Section 10.5.12.

10.5.5 Schedule for Design Checks, Reviews, and Submission of Checked Design. The Design-Builder is responsible for scheduling and conducting design reviews to meet design and/or construction needs of the Baseline Progress Schedule. It is recognized and anticipated that the design review process and frequency, duration and intensity of design reviews may vary with the complexity of the individual Design Units and the associated construction activities. The duration of design reviews shall be discussed and mutually agreed between the COUNTY (and MOA's with SHA, WMATA, NIH and/or NSAB) and Design-Builder during the Design Workshop (See Part 1 – GC, Article 10, Section 10.5.20) and verified and modified by mutual agreement during the course of the Project. The Design-Builder shall give a written notice of scheduled design reviews to the COUNTY's General Engineering/Construction Manager Consultant 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, design safety assessment, and elements) as part of the Baseline Progress Schedule. Review activities shall be coded by reviewer (e.g WMATA, County, SHA, etc.) to enable reviewers for various stakeholders to effectively plan their reviews and manage their resources. The design review schedule shall be reviewed monthly. The Design-Builder shall not schedule more than two concurrent design reviews by the same County reviewers (for example 2 or more MOT, Drainage, etc.), without the COUNTY's written concurrence.

Except for Record Drawings, Design Documents to be reviewed during design reviews shall be in the form of sufficient copies, as defined in the Design Review Plan and Schedule (See Part 1 – GC, Article 10, Section 10.5.7), to accommodate all participants in the design review and shall be assembled for review in the review office (Project Office or the Designer/Design-Builder's office). Copies should be distributed prior to meetings, as feasible.

The Design-Builder shall only conduct design reviews on Design Documents that have been checked in accordance with Part 1 – GC, Article 10, Section 10.5.15. Design Documents shall be complete for each Design Unit, but may be combined for multiple Design Units at any one time upon the COUNTY's written concurrence. A portion of a design Unit may be reviewed where that portion has been identified for Readiness for Construction (See Part 1 – GC, Articles 10, Section 10.5.12 and 10.5.15). The Design-Builder shall review each Design Unit for Consultation and Written Comment (See Part 1 – GC, Article 10, Section 10.5.15.5) in accordance with the Baseline Progress Schedule.

For each Design Unit designated by the Design-Builder, the Design-Builder shall include design checks and design reviews as indicated in Table 10.5C, and such additional reviews as may arise as indicated in Part 1 – GC, Article 10, Section 10.5.15.8. The Design-Builder shall allow the time for the COUNTY's participation and input to any design review conducted by the Design-Builder's Design QC Manager as agreed per this Part 1 – GC, Article 10, Section 10.5.5. The Design-Builder shall incorporate this schedule into Design Builder's Baseline Progress Schedule and report progress and updates in the monthly updates. The Design-Builder shall keep the COUNTY up to date on exact timing of reviews and Readiness for Construction design reviews through the weekly progress meetings.

10.5.6 Revisions to Design. The Design-Builder shall deal with any changes to design initiated by the Design-Builder and already checked by the Designer and certified by the Design QC Manager as an entirely new design. The Design-Builder shall not be entitled to any increase in the Contract Price or extension of time in such circumstances.

10.5.7 Design Review Plan and Schedule. The Design-Builder shall prepare and submit a written Design Quality Control Plan with accompanying (or included) Design Review Plan and Schedule that addresses design stages, planned completeness and the Quality Control process consistent with the Design-Builder's Quality Manual (See Part 1 - GC Article 10, Section 10.6.1.1) for each Design Unit, in accordance with the schedule established in Part 1 – GC, Article 10, Section 10.5.5 for Consultation and Written Comment by the COUNTY. The Design Quality Plan shall describe the level of design that the Designer will accomplish for each of the planned stages of design development and provide a description and/or checklist for each Design Unit clearly identifying the design product that will be reviewed. The Design schedule shall include proposed review times for each design review, including the review dates and durations for the COUNTY and Project Stakeholders. See Part 1 – GC, Article 10, Section 10.5.5.

10.5.8 Stages of Design Development. The Design-Builder shall make a single comprehensive design check and design review for each Design Unit at the stages of design development specified herein.

The following are the stages of design development:

(A) Over-the-Shoulder Reviews;

(B) Definitive Design;

(C) Readiness for Construction;

(D) Working Plans; and

(E) Record Document Plans.

The intent of each stage of design development and design review is the following:

(1) Verify that the design complies with the Contract requirements;

(2) Allow components of Design Units to be released for construction;

(3) In the case of reviews of Working Plans, to allow construction to continue; and/or

(4) In the case of Record Drawing plans, to ensure that components are built per approved design.

Design reviews or design checks shall be completed as specified in Part 1 – GC, Article 10, Section 10.5.9, for each Design Unit (and for each component or element within a Design Unit) at each stage of design development.

The Design-Builder shall time the design review and submissions to be consistent with the Baseline Progress Schedule.

10.5.9 Design Reviews. Except as mutually agreed to between the Design-Builder and the COUNTY (and MOA's with SHA, WMATA, NIH and/or NSAB), all design reviews will be conducted in the review office (Project Office or Designer/Design-Builder's office). The Design-Builder shall invite the COUNTY, and other Stakeholders, to participate in Over-the-Shoulder, Definitive Design and Readiness for Construction reviews. The Design-Builder shall address and/or resolve comments in consultation with the COUNTY (and SHA, WMATA, NIH and/or NSAB if required by an MOA). Any COUNTY, or other Stakeholder, comments will be forwarded to the Design-Builder by the COUNTY and shall be addressed and/or resolved by the Design-Builder.

Design reviews may consist of three phases.

Phase 1 - An informal, brief presentation at the review office by the responsible engineer of the Design Unit being reviewed and the other Design-Builder staff. The presentation may include an explanation of what component(s) are being reviewed, highlighting any critical points or other information that may be of particular interest to the review participants. A question and answer period may follow.

Phase 2 - A period of more detailed review by the review participants. For minor items with little complexity, Phase 2 may be completed in the review office immediately following Phase 1. For more complex reviews, Phase 2 may be scheduled at a later date at the review office. Although it is expected that most Phase 2 reviews will take place in the review office, Phase 2 shall, as necessary, provide for review participants to take the review package to their own offices for further examination, particularly for complex, sensitive features and those items requiring review and approval by third parties. During this period, reviewers are encouraged to contact or meet with the responsible engineer to gain further understanding of any issues that may arise. The length of Phase 2 shall be consistent with the durations agreed to at the design workshop (Part 1 – General Conditions of Construction Contract (GC), Article 10, Section 10.5.20) or as subsequently agreed to in writing. The COUNTY's Phase 2 Written Comments, if any, will be provided to the Design-Builder in accordance to the MOA's review times and/or times agreed to during the Design Workshop .

Phase 3 - A face-to-face meeting with the responsible engineer and other members of the Design Builder's staff to present and resolve comments from review participants.

10.5.10 Over-The-Shoulder Reviews. The intent of Over-the-Shoulder (OTS) reviews during design is for the technical leads of both the Design-Builder and County to meet regularly during the development of the concept/plans prior to submittal of them for the Definitive Design Review. The goal is to work out a majority of the issue prior to the submittal so that the submittal and review by the COUNTY or outside

agencies can be expedited. While co-location is not being required, cohabitation during design is encouraged as a way to resolve issues as they arise more quickly.

10.5.11 Definitive Design Review. The design review of Definitive Design shall be the first design review after Award and is intended to verify that the design concepts proposed by the Design-Builder meet Contract requirements. The Definitive design review shall verify the following:

(A) The design concepts governing future design development are defined consistent with Contract requirements;

(B) The final Basic Project Configuration;

(C) The design concepts are substantiated and justified by adequate Site investigation and analysis and clearly depict existing site conditions;

(D) The design is within the PROJECT's Easements and Right-Of-Way;

(E) The specific standards applicable to the proposed concepts are identified and appropriate;

(F) The proposed design concepts are constructible;

(G) The availability of required materials/equipment; and

(H) The design meets Project quality requirements and required procedures in the Design Quality Plan 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 as an additional Definitive design review. The Design-Builder will not be entitled to an increase in Contract Price or a time extension for the re-check and re-certification except when the amended design results from a Contract Modification requested by the COUNTY. See also Part 1 – GC, Article 10, Section 10.5.17 regarding design deviations and exceptions.

10.5.12 Readiness for Construction Review. The Design-Builder and the COUNTY shall use the design review(s) of Readiness for Construction design to verify that the concepts and parameters established and represented by Definitive Design are being followed and that Contract requirements continue to be met. The Design-Builder shall specifically highlight, check, and bring to the attention of the COUNTY any changes to information presented at Definitive Design. The Design-Builder shall present the information for Readiness for Construction review and Consultation and Written Comment by the COUNTY. Readiness for Construction Review may be conducted at any level of design or in construction with any other stage of design development (See Part 1 – GC, Article 10, Section 10.5.15.9).

The Design-Builder shall not construct any permanent components or major temporary components until the design checks, design reviews, and Design QC Manager's certifications have been completed for the relevant Design Unit, and any issues raised in the COUNTY's Consultation and Written Comments (See Part 1 – GC, Article 10, Section 10.5.15.9) on the design have been satisfactorily resolved. Additionally, 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 COUNTY.

If the Readiness for Construction design includes design information for Work that can be released for continuation of construction, the results of the readiness for construction design review, upon completion of COUNTY's Consultation and Written Comment, may be used to satisfy a portion of the requirements of Part 1 – GC, Article 10, Section 10.5.15.9.

10.5.13 Working Plans. Working Plans include, but may not be limited to, those supplemental design products listed in Part 1 – GC, Article 1, Section 1.1.153. The Design-Builder shall check, review, and certify working drawings in accordance with Part 1 – GC, Article 10, Section 10.5.15 through 10.5.18.

The Design-Builder shall invite the COUNTY to participate in the review of Working Plans. The COUNTY may invite the Stakeholders to participate in reviews of Working Plans.

10.5.14 Record Drawing Plans. The Design-Builder shall submit the Record Document Plans for each Design Unit in accordance with Part 1 – GC, Article 10, Section 10.5.15.6. Record Drawing Plans and design calculations shall group and organize Design Units into complete and discernible components, i.e.:

- Roadways;
- Roadway structures;
- Roadway systems (i.e. roadway lighting, drainage, plaza, etc.) or roadway segments by stations;
- Elevator headhouse, elevator lobby and associated facilities;
- Pedestrian underpass, stair/escalator, elevator;
- Passageway and associate facilities; and
- Medical Center Metrorail Station stair/escalator.
- WMATA Systems (Mechanical, Electrical, Plumbing, Ventilation, Fire, etc.)

See Part 1 – GC, Article 10, Sections 10.5.19 and 10.5.23.1 for additional requirements relating to Record Drawing Plans and information.

10.5.15 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 QC Manager will certify that these documents have been checked per Contract requirements and the Design-Builder's Design Quality Control Plan. The Design QC Manager's written certification is one of the two certifications required in Part 1 – GC, Article 10, Section 10.5.23.1 (the Design Manager's is the other; see Part 1 – GC, Article 10, Section 10.5.2.4).

The Design-Builder and the COUNTY shall follow the process shown in Figure 10.5A for design reviews conducted by the Design-Builder's Design QC Manager (applies to all design reviews except Record Drawing Plan design reviews).

The Design-Builder and the COUNTY shall follow the process shown in Figure 10.5B for designs being submitted for the COUNTY review (applies to review of Record Drawings only).

The Design-Builder shall conduct and complete the design checks, certifications, and reviews for each Design Unit by the entity specified in Table 10.5B. The COUNTY will provide Consultation and written comment of the design prior to the Design-Builder releasing designs for construction. The COUNTY may also issue design Non-Conformance Reports (NCRs) which must be addressed and resolved to the satisfaction of the COUNTY prior to releasing the design(s) for construction. If no Written Comments or NCRs are received within the agreed upon design review durations of the Design Review Plan and Schedule (including the COUNTY's additional 7 days) (See Part 1 - GC, Article 10.5.7, 10.5.9 and

10.5.16), the Design-Builder may proceed as if no Written Comments were received and NCRs were

satisfactorily resolved. Proceeding in this manner also satisfied the Consultation and Written Comment and NCR requirements for Readiness for Construction in Part 1 – GC, Article 10, Section 10.5.15.9.

The Design-Builder shall conduct its design review or submit its design for review in accordance with Table 10.5C, supported by a written certification issued by the Design QC Manager, at the stages of design development shown in Table 10.5C for each Design Unit in accordance with the design review schedule in the Baseline Progress Schedule.

10.5.15.1 Design -Builder's Independent Design Checks. The Design-Builder shall carry out independent design checks of permanent components, major temporary components, and effects of temporary components on the permanent components and/or existing features by senior engineers not involved in the production of the design being reviewed who have equal or greater qualifications and experience as the Responsible Engineer for the design being checked.

Independent design checks shall be identified in the Design Quality Control Plan and shall comprise design assessment and analytical checks as specified in Part 1 – GC, Article 10, Section 10.5.15.2 and 10.5.15.3.

10.5.15.2 Design Assessment. Design assessment shall be the review of general compliance with the requirements of the Contract, taking into consideration the proposed method of construction, and shall cover the following areas:

(A) Loads;

(B) Codes and standards;

(C) Methods of analysis;

(D) Computer software and its validation;

(E) Interface requirements;

(F) Maintenance requirements;

(G) Materials and material properties;

(H) Durability requirements;

(I) Fatigue performance;

(J) Hydrology;

(K) Design flows;

(L) Safety; and,

(M) Resistance/Capacity.

10.5.15.3 Analytical Check. The independent design check shall include an independent analytical check using separate calculations (and without reference to Designer's calculations) to establish the structural adequacy and integrity of critical structural members. This shall include, but is not limited to the following:

(A) The structural geometry and modeling;

(B) Material properties;

(C) Member properties;

(D) Loading intensities; and,

(E) Structural boundary conditions.

10.5.15.4 Design Reviews. The Design-Builder's time and cost impacts of revisions arising from COUNTY's (and SHA, WMATA, NIH and/or NSAB as required by MOA's, and/or Maryland Department of the Environment, Maryland Historic Trust and/or National Capital Planning Commission) participation in design reviews and/or caused by Design-Builder's non-compliance with Contract requirements shall be borne by the Design-Builder.

10.5.15.5 Design Reviews Conducted by the Design-Builder's Design Quality Control Manager. The Design-Builder shall notify and invite the COUNTY to participate in all design reviews conducted by the Design QC Manager. The COUNTY may also invite Project Stakeholders and affected Parties to participate. The COUNTY will provide Consultation and Written Comment (based on the COUNTY and Stakeholder participation) regarding these design reviews.

For design reviews conducted by the Design QC Manager (See Table 10.5C), the Design QC Manager shall provide a design review report for each Design Unit at the conclusion of each design review. The design review reports will identify any actions arising from the review. The report shall note items requiring corrective action on the Design Non-Conformance Report, Part 1 – GC, Appendix C, Form NC-D (Appendix C). The Design QC Manager shall send the Design Non-Conformance Report to the Designer and a copy to the COUNTY.

The Design-Builder shall conduct design reviews in the Project Office or Designer/Design-Builder's office. The Responsible Engineer and any specialists with significant input to the design or review shall be present. The Design-Builder shall make available all drawings, copies of calculations, reports, or other items pertinent to the design review in accordance with the Design Review Plan and Schedule.

10.5.15.6 Record Drawing Review. Record Drawing Plans and Project Specifications shall incorporate complete information that defines the Work as constructed to meet the Contract requirements.

As a condition of Acceptance for Maintenance/(letter of Final Acceptance for WMATA facilities) (See Part 1 – GC, Article 10.5.14), the Design-Builder shall submit Record Drawing Plans, grouped and organized by discernible roadway components, for each Design Unit to the COUNTY for review and in accordance with Part 1 – GC, Article 10, Section 10.5.14. The above ground and pedestrian underpass record drawings, facilities to be owned and maintained by the COUNTY/SHA, shall use Maryland State Highway Administrations base line and benchmarks. The deep elevators, stairs and tunnel connecting with the Medical Center Metrorail Station, facilities to be owned and maintained by WMATA, shall use WMATA's baseline and benchmarks. The COUNTY (and SHA, WMATA, NIH and/or NSAB if required by MOA's) review will be one of the processes to verify if the Project has been designed and constructed in accordance with Contract requirements and to see if Record Drawings comply with Contract requirements.

The Design-Builder shall make all corrections noted in the review of Record Drawing Plans and resubmit the corrected Record Drawing Plans to the COUNTY for review and acceptance. Please note that WMATA requires Record Drawings of all utility plans for this Project.

Acceptance of Record Drawings by the COUNTY and/or other Stakeholders in accordance with MOA's is a condition of Final Acceptance (See Part 1 – GC, Article 10, Section 10.5.2.3) and will not occur until the Record Drawings are submitted, reviewed and corrected to the satisfaction of the COUNTY.

10.5.15.7 Design Review of Major Temporary Components. The Design QC Manager shall conduct a design review of major temporary components that represent complex structures and that potentially can affect the safety, quality, and durability of the permanent components. The review shall include the effect of the major temporary components on the permanent components. The Design-Builder shall invite the COUNTY and/or other Stakeholders as required by MOA's to participate in the review.

WMATA will review major temporary components of facilities it will own, operate or maintain.

10.5.15.8 Additional Reviews. The COUNTY, with Stakeholder participation as required by MOA's, may conduct additional "over-the shoulder" reviews as considered necessary to ensure a continued and uniform consistency in the quality and effective incorporation of revisions to designs. The Design-Builder may also conduct reviews necessary to facilitate early release of designs for construction.

10.5.15.9 Readiness for Construction. The Design-Builder may start construction of any element of the permanent components only after all the following items have occurred:

(A) The Designer has conducted its design QC checks throughout the design process in compliance with the Design 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;

The Design QC Manager has signed the title sheet for the drawings, certifying to the following (the title sheet can be formatted to include the items of certification):

- Design checks have been completed;
- Work conforms to Contract requirements;
- Any deviations or design exceptions have been approved in writing by the COUNTY (Part 1 – GC, Article 10, Section 10.5.17);
- Design QC activities are following the Design-Builder's Design Quality Plan; and
- All outstanding issues or comments from design reviews have been resolved;

(B) The Designer has received approved permits for the work, i.e. Erosion and Sediment Control Permit, SWM permit, etc.

The Responsible Engineer has signed all drawings prepared under his/her direction. For those drawings and documents included in the submittal that are prepared by a Manufacturer or Supplier or other Persons not under his/her direct supervision, the Responsible Engineer will affix a stamp that indicates the design shown on the sheet or document conforms to the overall design and Contract requirements;

The Design Manager has signed the title sheet to the drawings certifying to the items contained in Part 1 – GC, Article 10, Section 10.5.2.3 (A)-(G). The title sheet can be formatted to include the items of certification;

Design-Builder has verified the following:

Design has undergone constructability review and is constructible as represented;

- Working Plans, Project Specifications and related documents for the portion of the Project to be constructed are complete and checked in accordance with this Part 1 – GC, Article 10, Section 10.5.15;
- The design and drawings for Maintenance and Protection of Traffic (MOT) and temporary erosion control and environmental measures applicable to the Work are complete; and

- Adequate stakes, lines, and/or monuments necessary to control the Work have been established on the Site; and

The COUNTY, and other Stakeholders as required by MOA's, has provided Consultation and Written Comment regarding the design and applicable MOT plans, temporary erosion control measures, and environmental requirements.

The COUNTY's, and other Stakeholders as required by MOA's, Consultation and Written Comment will not constitute approval of the design or subsequent construction.

Any Design Non-Conformance Reports issued by the Design QC Manager or the COUNTY shall be addressed and resolved by the Design-Builder to the satisfaction of the COUNTY, and other Stakeholders as required by MOA's, prior to any design being released for construction.

Subject to having satisfied all applicable permit requirements and conditions in the WMATA Project Coordination Agreement, the Design-Builder may proceed with construction on the Project at Design-Builder's risk to the extent Work is covered by relevant Design Plans, Working Plans and Project Specifications that have been processed as shown in Figure 10.5A. Prior to construction proceeding further, the Design-Builder shall complete the next stage of design and design review.

10.5.16 Comment Resolution. COUNTY, and other Stakeholders as required by MOA's, comments from design reviews will be recorded on Form DR (Appendix C) and transmitted to the Design-Builder. WMATA comments may be recorded on forms required by WMATA. The Design-Builder shall record its proposed disposition and response to each comment and meet with the COUNTY and/or other Stakeholders to resolve outstanding comments and dispositions. Final disposition and resolution will be documented on Part 1 – GC, Appendix C, Form DR by the Design-Builder.

If the design review reveals non-conformance with Contract requirements, the COUNTY will prepare Form NC-D, Design Non-Conformance Report, 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 Part 1 – GC, Appendix C, Form NC-D to the COUNTY.

All design reviews shall include a comment and non-conformance report resolution process where unresolved comments and non-conformance reports are discussed and a written action plan and schedule for resolution of unresolved comments and non-conformance reports is developed. The Design QC Manager will lead the process.

10.5.17 Design Exceptions. All deviations or design exceptions from specified standards must be submitted to the COUNTY, and other Stakeholders as required by MOA's, for review and approval. All requests for deviations and exceptions must be submitted with a justification report detailing the reasons to retain a non-standard or substandard feature or for providing an improvement that does not bring the feature up to standard. Requests for design deviations and exceptions must be submitted NO later than the Definitive Design review and approved by the COUNTY, and other Stakeholders as required by MOA's, in writing before the affected Design Units will be released for construction (Part 1 – GC, Article 10, Section 10.5.15.9).

10.5.18 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 COUNTY, and other Stakeholders as required by MOA's.

For all design changes requiring calculations, the Designer and the Design QC Manager shall conduct a documented check of all calculations. All design changes requiring alteration of design documents released for construction shall undergo all review procedures included for original design documents in the Design-Builder's Design Quality Plan and Part 1 – GC, Article 10, Section 10.5.1.

10.5.19 Design Support During Construction. The Designer and Design QC Manager 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 shall prepare necessary adjustments in the Design Plans, Working Plans, and Project Specifications, and the Design-Builder shall obtain required COUNTY, and other Stakeholders as required by MOA's, Consultation and Written Comment. The Design-Builder shall be responsible for obtaining Stakeholder permits or approvals. The Designer and Design QC Manager shall check any such changes in accordance with the Design Quality Plan. The Design QC Manager shall certify the change in writing as meeting the Contract requirements. The Design-Builder shall incorporate the adjustments in the Record Drawing Plans. The Design-Builder shall retain copies of the Design QC Manager's written certifications and submit the certifications to the COUNTY, and other Stakeholders as required by MOA's.

10.5.20 Design Workshop. Within 30 days of the Initial NTP, the Design-Builder shall arrange a design workshop to familiarize the Designer's personnel and the COUNTY and Stakeholder review personnel with the design concepts, issues, status, and review procedures. The intent of the workshop is to make the subsequent design reviews more effective and efficient for all parties. The COUNTY and Design-Builder shall jointly develop the agenda of the workshop and how it will be organized (i.e., by Design Unit and engineering discipline).

The agenda shall include developing agreements regarding time allowed for design reviews (see Part 1 – GC, Article 10, Sections 10.5.5), submittal process and forms needed with each submittal, and certification that submittals comply with specifications and the WMATA Project Coordination Agreement or other third party agreements. The duration of design reviews, particularly the duration of Phase 2, will vary significantly depending on such items as the stage of the design development, the size of the review package, the complexity of the subject for review, potential environmental implications, public safety concerns, and the need for third party review and approval. The Design-Builder shall consider all applicable guideines when preparing its Proposed Baseline Project Schedule as well as when discussing durations at this workshop.

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 COUNTY.

10.5.21 Quantity Estimates. To facilitate determining QC 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 Part 1 – GC, Article 10, Section 10.5.23.4.

10.5.22 Design Documentation

10.5.22.1 Progress Tracking. The Design-Builder shall include engineering and design progress and changes in its Baseline Progress Schedule (including Work on any design change) (Part 1 – GC, Article 1, Section 1.1.13).

10.5.22.2 Design Quality Records. The Design QC Manager shall prepare and submit monitoring reports to the COUNTY 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 Design Quality Plan procedures, reviews and checks. An independent auditor shall be able to determine and verify by reviewing documentation if all procedures included in the Design Quality Plan have been followed.

The Design-Builder shall submit reports of checks and reviews within seven Calendar Days of the completion of the review.

The Design-Builder shall develop, implement, and maintain a log of design Non-Conformance Reports and/or notices indicating dates issued, reasons, status, or resolution and date of resolution. See also 10.7.8.2 Review and Dispostion of Nonconforming Product.

The Design-Builder shall prepare and maintain daily records of design activities.

10.5.22.3 Design QC Manager Reports.

10.5.22.3.1 Monthly Report to the COUNTY. The Design QC Manager shall submit a monthly report directly to the COUNTY 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, Part 1 – GC, Article 10, Section 10.6.1.4);

(C) Submission(s) from Design-Builder and status; and,

(D) Discussion of the impact of the design review process on the Project baseline schedule and submit a revised design schedule.

10.5.22.3.2 Final Design Report. Upon completion of the final design for each Design Unit, including all its components and elements, the Design QC Manager shall notify the Design-Builder, with a copy to the COUNTY, of any outstanding monitoring report issues or unresolved review comments.

10.5.23 Design Plans, Working Plans, and Project Specifications. 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 COUNTY to determine if they meet the Contract requirements.

10.5.23.1 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 shall be solely the Design-Builder's responsibility to provide Working Plans of such a nature as to develop a finished product in accordance with Design Plans, Project Specifications, and Contract requirements. The Design-Builder shall verify pertinent dimensions in the field prior to conducting a Working Plans review. Participation in the review of the Design-Builder's Design Plans and/or Working Plans by the COUNTY 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 prior written approval of the Designer and the COUNTY's, and other Stakeholders as required by MOA's, Consultation and Written Comment.

All Readiness for Construction Design and Record Drawing Plans shall be signed and stamped/sealed by the appropriate Responsible Engineer and shall include, on the title sheet for the plans, certification signatures of the Design Manager and the Design QC Manager, blocks for permits, blocks for reviewing agency approval and/or owner certification notes and blocks as needed. The title sheet can be formatted to cite the appropriate certification requirements of Part 1 – GC, Article 10, Section 10.5.15.

WMATA will review and approve all plans for facilities it will own, operate or maintain.

10.5.23.2 Design and Record Drawing Plans Format and Organization. The Design-Builder shall organize and format Design and Record Drawing Plans per Maryland State Highway Administration (SHA) CADD Drafting Standards for MD 355 (and associated above ground work) and the pedestrian underpass, which are co-owned and maintained by the COUNTY/SHA, and Washington Metropolitan Area Transit Authority (WMATA) CADD Drafting Standards for the stairs, elevators and tunnel connecting to the Medical Center Metrorail Station, that are to be owned and maintained by WMATA.

10.5.23.3 CADD Standards. CADD formatting for Design and Record Drawing Plans shall conform to the SHA, COUNTY and WMATA CADD Manuals, based on who is to be the ultimate owner of the facility being constructed.

10.5.23.4 Project Specifications. The Design-Builder shall prepare Project Specifications based on Contract requirements. The Design-Builder may perform the following activities:

(A) Use SHA's Standard Specifications for all work to be owned and maintained by either the County or SHA, and WMATA Design Criteria, Design Drawings, Standard Specifications, Standard Drawings and Adjacent Construction Project Manual for all work to be owned, operated and maintained by WMATA;

(B) Prepare supplements to the Standard Specifications for Construction Materials; and/or

(C) Prepare new Specifications to cover Work not covered by the Standard Specifications.

Project Specifications will be reviewed by the Design-Builder and the COUNTY 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. Development and implementation of Project Specifications will not require a Contract Modification provided that the Project Specifications are of equal or greater quality than the Specifications presented in Contract Documents. The Design-Builder shall be responsible for demonstrating that the Project Specifications meet or exceed the standard of quality established by the Specifications in the Contract Documents. The COUNTY, and other

Stakeholders as required by MOA's, shall determine, at its sole discretion, if the Project Specifications meet the Contract Requirements.

Project Specifications shall define the type and frequency of QC sampling and testing to be conducted for the Work covered by a Project Specification. Use Part 1 – GC, Article 10, Section 10.6 and the latest version of the COUNTY's Materials Inspection Manual (See Part 1 – GC, Appendix D, Frequency Inspection Guide) in effect at time of submitting the Proposal to determine the type and frequency of QC sampling and testing.

10.6 CONSTRUCTION QUALITY CONTROL/QUALITY ASSURANCE

10.6.1 General. Part 1 – GC, Article 10, Section 10.6 specifies the minimum requirements for Construction Quality Control.

10.6.1.1 Quality Control (QC). Per Part 1 – GC, Article 10, Section 10.1.1, the Design-Builder shall develop and implement a quality control plan documented by its Construction Quality Control Plan for all phases of Project, construction and maintenance. The Design-Builder, as documented in its Design-Builder Quality Manual, shall have the primary responsibility for the quality of the Work, including all Work and products of Subcontractors, fabricators, Suppliers, and vendors both on-site and off-site.

The program shall be capable of ensuring that procurement, shipping, handling, fabrication, installation, cleaning, inspection, construction, testing, storage, examination, repair, maintenance, and required modifications of all materials, equipment, and elements of the Work 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 perform satisfactorily for the purpose intended.

10.6.1.2 Quality Assurance (QA). The COUNTY, and other Stakeholders as required by MOA's, in its Oversight role through Quality Assurance (QA), reserves the right to and will conduct verification Oversight inspections, audits, sampling and testing, and Independent Assurance (IA).

10.6.1.3 Definitions. See Part 1 – GC, Article 1 for definitions, including definitions of Quality Control and Quality Assurance.

10.6.1.4 Construction Quality Control Inspection. All construction processes, procedures, and workmanship shall be inspected by the Design-Builder's Construction Quality Control (QC) inspectors. The Construction QC inspections shall include the observations, measurements, and documentation specified in Part 1 – GC, Appendix D, Part 1 – GC, Article, 10.6 and/or included in the Design-Builder's Quality Manual (Part 1 – GC, Article 10.7.1.1, Quality Management Principles). Inspection observations, measurements, results, non-conformances, and corrective actions shall be documented on the forms in Part 1 – GC, Appendix C to this Part 1 – GC, Article 10.6 or on the Design-Builder's forms acceptable to the COUNTY. Inspection observation and documentation shall include description of construction activity and location by Specification section.

10.6.1.5 Submittals. The Design-Builder shall submit its Construction Quality Control Plan and subsequent updates per the time requirements specified in Part 1 – GC, Article 11.

10.6.2 Inspection and Testing of Materials.

10.6.2.1 General. All materials are subject to Inspection, sampling, and testing at any time before Final Completion.

References in the Contract to COUNTY test method or test designation of the American Association of State Highway and Transportation Officials (AASHTO), the American Society for Testing and Materials (ASTM), or any other recognized national organization shall mean the latest revision of that test method or Specification for the Work in effect on the day the Final Request for Proposal (RFP) was issued.

Materials shall be sampled and tested by the construction QC testers and samplers. Copies of all test results shall be furnished to the Design-Builder's Project Manager, the QC Manager, and the COUNTY's QA Material Engineer. When a test is done for the Design-Builder as process control assuring that its process and materials source is producing an acceptable product, test results are not furnished to the COUNTY but are Design-Builder's internal documents.

The COUNTY's, and other Stakeholders as required by MOA's, authorized representative may observe any sampling testing performed by the QC testers and samplers. If the COUNTY's authorized representatives observe a deviation from the specified sampling or testing procedures, the COUNTY's, and other Stakeholders as required by MOA's, authorized representative will verbally describe the observed deviation to the Design-Builder's Construction QC Manager, followed by a written Non-Conformance Report (NCR) addressing the deviation to the Design-Builder's Construction QC Manager and Project Manager within 24 hours. See also Part 1 – GC, Article 13, Section 13.4.1 Withholding of Payment by COUNTY.

10.6.2.2 Construction Quality Control Testing and Sampling. The quality control sampling and testing may be used in the COUNTY's, and other Stakeholders as required by MOA's, acceptance decision in accordance with Part 1 – GC, Appendix D to this Part 1 – GC, Article 10, Section 10.6. Construction QC testers and samplers shall be certified in the Mid-Atlantic Region Technician Certification Program to the level appropriate for the Work being sampled/tested. The Design-Builder shall maintain a list of construction QC testers and samplers that indicate what test certifications each person currently holds. Testers and samplers will be allowed 90 working days from Award of the Contract to obtain the certifications.

The construction QC testers and samplers shall test and sample only those materials for which they are certified to sample and test. Reports of each test shall be recorded on the form prescribed for that test. All tests that do not pass specified requirements shall be added to a log of failed tests. This log of failed tests shall be used to assure that the Work is reconciled.

The minimum frequency of QC sampling and testing shall be consistent with Part 1 – GC, Appendix D, Frequency Inspection Guide, to this Part 1 – GC, Article 10, Section 10.6 and the individual Project Specifications accepted by the Design-Builder for construction in accordance with Part 1 – GC, Article 10, Section 10.5.

The Design-Builder shall utilize an electronic database system to document and track material testing and field site inspection results. The Design-Builder shall develop a method to transfer results of the material and site inspection to the COUNTY's Materials Control Center. The Design-Builder's populated electronic database shall be provided to the COUNTY for coordination with the Office of Material and Technology no less than every two weeks.

10.6.3 Quality Assurance Oversight.

10.6.3.1 County QA Oversight. Quality Assurance Oversight will be performed by the COUNTY's authorized representative(s) assigned to the Project.

The COUNTY's authorized representative(s), and other Stakeholders as required by MOA's, will periodically audit sampling and testing results. The, audit, and subsequent feedback to the Design-Builder's Construction QC Manager are intended to assess the adequacy of the Design-Builder's QC, including frequency of testing.

The Design-Builder's Project Manager shall provide information to the COUNTY's, and other Stakeholders as required by MOA's, authorized representative regarding verification that activities are completed as per the Design-Builder's Baseline Progress Schedule and quantities of any Unit Priced Work items. A monthly audit of activities and quantities of any Unit Priced Work items will be performed and required correction made to the subsequent progress pay estimate. This review and audit will assure that the activity achievement and correct quantities are shown. Documents for payment of Contract Modifications shall also contain sufficient information to satisfy an audit. Documents for the closure of each Contract Modification will be reviewed and included in the final pay estimate. Additionally, in accordance with Part 1 – GC, Article 4, Section 4.3.10 Authority to Stop or Suspend Work and Article 13 Payments, the COUNTY, and other Stakeholders as required by MOA's, will have the authority to suspend the Work if at any time it is determined that the Design-Builder is not in conformance with Contract requirements.

Verification Sampling and Testing will be performed by the COUNTY or its authorized representative assigned to this Project on samples that are taken independently of the quality control samples.

10.6.3.2 Independent Assurance. The COUNTY's, or other Stakeholders as required by MOA's, Authorized Representative will provide periodic Independent Assurance to evaluate the qualified sampling and testing personnel and testing equipment. The program will evaluate sampling procedures, testing procedures, and testing equipment of the Design-Builder's Independent Construction Quality Control Firm, COUNTY's QA Material Engineer and Independent Referee Laboratory. The Design-Builder shall provide the schedules and notifications described in Section 10.6.9 to the Authorized Representative(s).

10.6.3.3 Quality Check Points. Quality Check Points (QCPs) have been established at stages of the construction progress that ensures Work is performed in accordance with the Design-Builder's Construction Quality Control Plan and within terms and conditions of the Contract. As Work is accomplished, the Design-Builder's Construction Manager, representative from the Independent Construction Quality Control Firm (QC Engineer), and Responsible Engineer shall meet with the COUNTY's authorized Oversight representative to review documentation and procedures for quality control including but not limited to material certifications, daily inspection records, material testing results, survey results, permits, and material placement records. The Design-Builder's QC Engineer shall coordinate group members to ensure that QCP's are accomplished timely so the Design-Builder is not delayed. When an identified QCP is accomplished and when notified by the QC Engineer, the COUNTY's, and other Stakeholders as required by MOA's, Oversight representative will respond within four working hours to verify whether Work has been completed for the checkpoint. Notification to the COUNTY that a QCP has been reached while Work is still being performed or not allowing adequate time to complete the QCP review and opportunity for adjustments (e.g. concrete trucks are queuing while reinforcement is still being placed and QCP is being reviewed for specified unit) may result in the issuance of a Non-Conformance Report.

QCPs will be established at the following stages of construction.

(A) Environmental

(1) After establishment of erosion and sediment control measures for defined earth disturbance area (EDA); and,

(2) At the end of each month to review weekly and post storm inspections.

(B) Architecture

(1) After forming for foundation;

(2) After placement of rebar;

(3) Prior to concrete pour;

(4) After sample pattern/liner has been formed; and,

(5) Obtain similar check points from other disciplines (electrical, communication, plumbing, HVAC systems).

(C) Pedestrian tunnel

(1) Prior to saw cutting pavement;

(2) prior to installation of support of excavation;

(3) After installation of support of excavation and prior to excavation;

(4) After excavation and prior to application of waterproofing and/or external drainage;

(5) At the completion of reinforcement (rebar) placement for pedestrian tunnel and prior to placement of concrete or other concrete products;

(6) At the completion of placement for footing reinforcement steel and prior to placement of concrete; and

(7) After completion of the first component to receive specified aesthetic wall treatment/form liner and prior to proceeding with construction of subsequent components;

(D) WMATA elevator shaft, tunnel connection and portal interface to Medical Center Metrorail Station

(1) Prior to site clearing;

(2) Prior to /drilling holes for blasting;

(3) Prior to the blasting for rock;

(4) Prior to shotcrete application or placement of precast panels and members;

(5) Prior to and after installation of waterproofing and external drainage;

(6) At the completion of reinforcement (rebar) placement for deep elevator shaft and tunnel connection to Medical Center Metrorail Station reinforcement and prior to placement of concrete;

(7) Before and after concrete placement (Form CPC concrete pour card);

(8) After completion of the first component to receive specified aesthetic wall treatment/form liner and prior to proceeding with construction of subsequent components; and

(E) Utilities

(1) Prior to excavation/boring;

(2) After installation of direct burial ductbanks and prior to backfill operations; and,

(3) For concrete encased ductbanks, after installation of conduits and prior to placement of concrete.

(F) Paving and Sidewalks

(1) Before placement of each course above subgrade on permanent roadway components;

(2) Before placement of each lift of asphalt or Portland cement concrete; and,

(3) Prior to placement of concrete for sidewalks, curbs and gutters.

10.6.4 Independent Referee Laboratory. The COUNTY, and other Stakeholders as required by MOA's, will retain the services of an independent AASHTO accredited laboratory on an on-call basis to act as a referee laboratory for resolution of disputes regarding sampling and testing results reported by the COUNTY's verification samplers and testers and the Design-Builder's construction QC testers and samplers. The referee laboratory may not be the COUNTY's Materials Laboratory. The services of the referee laboratory may be requested by the COUNTY, or other Stakeholders as required by MOA's, or by the Design-Builder, as indicated in Part 1 – GC, Article 10, Section 10.6.12, Figure 10.6A. The sampling and testing results determined by the referee laboratory shall be final and binding for both parties and not subject to disputes resolution under Part 1 – GC, Article 16, Section 16.4. 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 COUNTY, or other Stakeholders as required by MOA's, is the unsuccessful party, it 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 COUNTY will make payment to the referee laboratory on behalf of the Design-Builder.

The referee laboratory will not be associated with the Project in any capacity or be affiliated with any party to the Contract or with any Principal Participant and/or the Design-Builder. The referee laboratory shall not be a department, agency, or office of any Stakeholder.

10.6.5 Material Testing Process. The Design-Builder's Quality Control Engineering Firm (QC Engineer) shall inspect, sample, test and accept or reject materials in accordance with the approved Construction Quality Control Plan and consistent with Part 1 – GC, Appendix D, Frequency Guide. All results shall be submitted for review and statistical comparison with verification sampling and testing by the COUNTY, and other Stakeholders as required by MOA's. Materials determined by the Design-Builder to be noncompliant shall be rejected. Discrepancies of allowable tolerances between the COUNTY's, and other Stakeholders as required by MOA's, verification testing and QC Engineer may be forwarded to the Independent Referee Laboratory for determination at the request of Design-Builder. Materials which are mutually agreed to be non-compliant or determined by the Referee Laboratory to be not in compliance with the Specifications shall be assigned a Non-Conformance Report and tracked separately until satisfactorily disposed. Refer to Part 1 – GC, Article 10, Figure 10.6A-Construction Inspection and Testing Flow Chart. All failing test data shall be included in the comparison of QC and verification test data unless material is rejected by the Design-Builder based on the failing test data. In such instances, the test data representing the rejected lots of material can be excluded from comparison.

10.6.6 Competence. If a concern arises as to the competence of any certified individual, this concern will be documented in writing to the Design-Builder's Project Manager, Design-Builder's Construction

Quality Manager and the Contract Administrator. The concern will be investigated as deemed necessary by the Contract Administrator. If this investigation substantiates the concern, corrective action or decertification will be required by the COUNTY.

10.6.7 Design-Builder Quality Control. The Design-Builder shall provide process control measures adequate to produce a constructed product of acceptable quality that conforms to the Contract Documents. The Design-Builder shall perform process control sampling, testing, and inspection during all phases of the Work at a rate sufficient to assure that the Work conforms to the Contract requirements.

The Design-Builder shall provide personnel and equipment capable of providing a product that conforms to specified requirements and shall provide personnel and equipment capable of confirming and documenting performance. Continual production of non-conforming Work will not be allowed.

10.6.8 Design-Builder's Construction Quality Control Organization. The Design-Builder's Construction Quality Control Plan shall provide information regarding the construction Quality Control organization. See Section 10.7.2.2 for environmental compliance.

10.6.8.1 Independent Construction Quality Control Firm (Quality Control Engineer). The Design-Builder shall retain the services of an independent engineering consultant organization (the QC Engineer) to oversee, manage, certify, and perform construction QC activities as specified in this Part 1 – GC, Article 10. Section 10.6, other Contract Documents, and the Design-Builder's Quality Manual (Part 1 – GC, Article 1, Section 1.1.107). The QC Engineer and any firm acting as a subconsultant to the QC Engineer shall not be owned by or be an Affiliate of the Design-Builder, any Principal Participant or construction subcontractor. The QC Engineer shall be responsible for management and scheduling all QC inspection and QC sampling and testing of all items of construction Work for this Contract. Subject to the limitations stated above, the Designer may serve as the QC Engineer.

The Design-Builder's Construction QC Manager, Construction QC inspectors and construction QC testers and samplers and their support staff shall be employees of the QC Engineer or employees of firm(s) acting as subconsultants to the QC Engineer. The QC Engineer shall work directly for the Design-Builder's Quality Manager and shall not report to the Design-Builder's Project Manager.

10.6.8.2 Construction Quality Control Manager. The Design-Builder shall assign an on-site Construction QC Manager. See Part 4 – Special Provision (SP), SP 102 Key Personnel for the requirements of this position.

The Design-Builder's Construction QC Manager, or his/her designees, shall be delegated the authority to make needed improvements to the quality of Work, including the suspension of the Work if required.

The Design-Builder's Construction QC Manager shall be responsible for coordinating the schedules of the Design-Builder's construction QC inspectors and construction QC testers and samplers with the Design-Builder's construction activities so as not to delay the Design-Builder's operations due to Construction QC inspection, sampling, and testing activities.

10.6.8.3 Staffing Levels. The actual size of the field/Site staff shall reflect the complexity, needs, shifts, and composition of QC activities consistent with Work in progress.

The Design-Builder's Construction Quality Control Plan shall identify administrative and clerical support for the maintenance and management of records and documents pertinent to construction QC activities.

The construction QC staffing schedule shall be updated as necessary throughout the Contract duration to reflect accurate forecasting of construction QC staffing requirements.

10.6.8.4 Laboratories. Laboratory QC testing shall be conducted by testing laboratories retained by the QC Engineer under subcontract that comply with the requirements for COUNTY certification for applicable tests. Laboratories shall be accredited by the AASHTO Material Reference Laboratory (AMRL), the Concrete Cement Reference Laboratory (CCRL), the National Precast Concrete Association (NPCA) for precasters, or the Prestressed Concrete Institute (PCI), as appropriate, for the Work to be constructed. COUNTY 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 COUNTY test methods.

Satellites (field laboratories) of these laboratories may be used where appropriate for the tests being conducted. The equipment in the satellite laboratories shall be certified at the start of Work and annually thereafter. Certification shall be performed by an independent AASHTO accredited laboratory or AMRL inspector.

The laboratory shall have written policies and procedures to assure portable and satellite laboratories performing testing activities on the Project are capable of providing testing services in compliance with applicable test methods. The policy and procedures shall address inspection and calibration of testing equipment as well as a correlation testing program between the accredited laboratory and portable or satellite facilities.

The COUNTY, and other Stakeholders as required by MOA's, reserves the right to check testing equipment for compliance with specified standards and to check testing procedures and techniques, as identified in Part 1 – GC, Article 10, Section 10.6.3.2-Independent Assurance.

The COUNTY, and other Stakeholders as required by MOA's, also reserves the right to access the testing facilities of the testing laboratories with no additional cost to the COUNTY to witness the testing and verify compliance of the testing procedures, testing techniques, and test results.

The COUNTY's, and other Stakeholders as required by MOA's, rights to check equipment, procedures, and techniques and to access testing facilities will also apply to Project Stakeholders when the Design-Builder is performing Work on their facilities.

10.6.9 Design-Builder Scheduling and Notice to the COUNTY. The Design-Builder shall notify the COUNTY, and other Stakeholders as required by MOA's, in writing by Friday noon of each week of planned construction activities, including fabrication, for the following two weeks to allow the COUNTY and/or Stakeholders to schedule its resources. The Design-Builder shall deliver this information at the weekly coordination meeting where related discussion will occur. For activities, such as fabrication occurring out of the immediate Project area (beyond 100 miles of the Project), the Design Builder shall provide the COUNTY, and other Stakeholders as required by MOA's, at least 21 Calendar Days of notice of planned Work. The Design-Builder shall provide the County notice of changes in material delivery/placement schedules a minimum of 12 hours before scheduled time.

10.6.10 Documentation. The Design-Builder shall collect and preserve each of the following types of Quality Control documentation in an electronic format concurrently during Design-Builder's performance of the Work, all of which shall be in a format acceptable to the COUNTY:

(A) Daily Inspection Reports;

(B) Record Drawing Plans;

(C) Secure databases, such as spreadsheets, standard database software, and computation books;

(D) Materials acceptance records;

(E) Photographs;

(F) Field change sheets; and

(G) Testing records.

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 E to this Section 10.6 or other forms with a format acceptable to the Contract Administrator.

A daily log for construction-related activities shall be maintained by Design-Builder's Project Manager or his/her designee(s), using a form acceptable to the Contract Administrator or designee, in which all significant occurrences on the Project shall be recorded daily in a narrative form, including, unusual weather, asserted occurrences, events and conditions causing or threatening to cause any significant delay or disruption or interference with the progress of any of the Work, injuries to person or property, work related accidents, and a listing of each activity depicted on the current monthly plan update which is being actively prosecuted. Also, traffic accidents in the Project area will be noted as well as lane closures in effect at the time of the accident.

For Utility-related activities such data shall be maintained separately for each Utility facility.

For harmful/Hazardous Material remediation Work, such data shall be maintained separately for each site.

Records shall document all QC operations, inspections, activities, and tests performed, including the Work of Subcontractors. The Design-Builder may use the forms provided by the COUNTY 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 Part 1 – General Conditions of Construction Contract, Article 11, Section 11.2.2;

(B) Weekly

The Design-Builder shall maintain and submit records that include factual evidence that required activities or tests have been performed, including the following:

(1) Type, number, and results of QC and control activities, including, reviews, inspections, tests, audits, monitoring of Work performance, and materials analysis;

(2) Closely-related data, such as, qualifications of personnel, procedures, and equipment used;

(3) The identity of the Design-Builder's QC inspector or data recorder, the type of test or observation employed, the results, and the acceptability of the Work, and action taken in connection with any deficiencies noted;

(4) Nature of non-conforming Work and causes for rejection;

(5) Proposed corrective action;

(6) Corrective actions taken; and

(7) Results of corrective actions.

10.6.11 Material Certifications. Within 30 days of NTP and to the extent information is known, the Design-Builder shall provide to the COUNTY the sources of supply and item material types that will be used in the Work. For materials not initially identified or changes to the initial source provided, the source of supply shall be provided sufficiently in advance of their use. Fabricated structural steel, other metal fabricated structural members and prestressed/pre-cast structural members can have long lead times for fabrication. The fabricator for these items shall be presented to the COUNTY as soon as known. Copies of documentation for all sources of supply shall be provided as soon as known, but shall be provided to the COUNTY no less than 30 days prior to delivery to the Project. Information regarding sources and fabricators shall be provided to the County using the County's electronic format which is maintained by the Material Control Center.

The COUNTY uses the list of qualified manufactures, producers and fabricators maintained by the Maryland State Highway Administration (MSHA) Office of Materials and Technology (OMT) that can be located at http://www.marylandroads.com/MPEL/. The Design-Builder is not restricted to use these sources if the Quality Plan details quality control procedures and methods for ensuring materials meet specifications, including inspection and quality control measures at the manufacturer or fabrication site. Use of any source not on the approved OMT list requires OMT approval.

When the Design Builder purchases materials from suppliers shown on the COUNTY's approved materials or source list, the Design-Builder shall obtain a Materials Certification (Certificate of Delivery, Certificate of Analysis, or Certificate of Compliance, as required) from the supplier covering the materials and/or the source.

Documentary evidence that materials and equipment conform to the procurement requirements shall be available at the job Site no less than 24 hours prior to installation or use of such materials and equipment. This documentary evidence shall be retained at the job Site and shall be sufficient to identify the specific requirements, such as, Working Plans, codes, standards, or Specifications, are fulfilled by the purchased materials and equipment. Substitution of specified materials shall not occur without prior approval by the Design-Builder's Design Manager. Failure to acquire prior substitution approval will result in the assignment of a Non-Conformance Report. Additionally, a copy of all documentary evidence that materials and equipment conform to the procurement requirements shall be provided to the COUNTY, or its representative, at the same time the Design-Builder receives such documentary evidence. The effectiveness of the QC by the Design-Builder's own forces and Subcontractors shall be assessed by the Design-Builder and the QC Engineer at intervals consistent with the importance, complexity, and quantity of the product or services. The COUNTY reserves the right to audit and review these documents at any time.

At the completion of the Project, the Design-Builder shall submit with the final payment application a certificate of compliance signed by the Design-Builder's Project Manager and Construction QC Manager indicating that all materials incorporated in the Project conform to the Contract requirements.

10.6.12 Control for Final Acceptance. The COUNTY has overall responsibility and authority for Final Acceptance (See Part 1 – GC, Article 14.3 and 14.4). WMATA has responsibility and authority for Final Acceptance for items that they will own, maintain and operate. The Design-Builder shall complete all Work and provide all documents, certifications, and other information in accordance with the Contract Documents. Final Acceptance will be based on QC testing, verification testing, the final Inspection, and SHA District 3 Material Clearance (for FHWA approval). Any deviations from the sampling and testing methods and frequencies indicated in Part 1 – GC, Appendix B to this Section 10.6 or the individual Specifications will require the COUNTY's Approval prior to the start of construction on any affected Work. If there is a discrepancy between the individual Specifications and Part 1 – GC, Appendix E to this Section 10.6, the more stringent requirements shall apply unless otherwise agreed in writing by the COUNTY. Final Acceptance will be based on certificates of compliance and/or Manufacturer's test results where specified in the individual Specification or Part 1 – GC, Appendix E to this Part 1 – GC, Article 10, Section 10.6.

Deficient materials and products shall be brought into compliance with Specifications or replaced. Refer to Part 1 – GC, Article 10.7.8.2 for review and disposition of nonconforming product. The method of reconciliation will be noted in the log of failed tests.

10.7 DESIGN BUILDER'S QUALITY MANAGEMENT SYSTEM AND DOCUMENTATION REQUIREMENTS.

10.7.1 General. Part 1 – GC, Article 10, Section 10.6 specifies the minimum requirements for Construction Quality Control.

10.7.1.1 Quality Management Principles

The Design Builder's Quality Management System and associated Quality Manual, Environmental Compliance Plan and Construction and Design Quality Control Plans shall incorporate the following:

(a) Customer focus: Meeting the Design Builder's and other Project Stakeholder's requirements and exceeding their expectations;

(b) Leadership demonstrating unity of purpose and direction within the Design-Builder's organization;

(c) Involvement of people throughout the Design-Builder's organization;

(d) Use of a process approach when managing activities and related resources;

(e) System approach to management that includes identifying, understanding and managing interrelated processes;

(f) Continual improvement of the Design-Builder's overall organization;

(g) Factual approach to decision making where decisions are based on analysis of data and information; and

(h) Mutual beneficial relationship among the Design-Builder and its Subcontractors and

Suppliers.

10.7.1.2 Quality Management System

The Design-Builder shall establish, document and maintain a Quality Management System as a means of ensuring that product conforms to specified requirements. The Design-Builder's Quality Management System shall include all levels of its organization from executive management on down, including production personnel and the Design-Builder's quality control team.

10.7.2 Document Requirements

10.7.2.1 General

The Design-Builder shall prepare and implement its Quality Management System which shall be documented in its Quality Manual and associated Environmental Compliance Plan, Design Quality Control Plan and Construction Quality Control Plan. The Quality Manual and associated plans shall meet the requirements specified in Part 1 – GC, Articles 10.5, 10.6 and 10.7.

10.7.2.2 Environmental Compliance Plan

In developing its Quality Manual, the Design-Builder shall establish appropriate controls in its management, design, construction/installation and documentation procedures to ensure that environmental permit requirements are met and documented. The Design-Builder shall prepare and implement an Environmental Compliance Plan that:

(a) Describes how the Design-Builder will achieve full compliance with the commitments, considerations, permit conditions and approval requirements for design and construction;

(b) Describes how and where the Design Builder proposes to further avoid and/or minimize impacts to cultural resources, bicycle/pedestrian facilities, trees, , water resources (groundwater and surface water); and

(c) Describes the Design-Builder's process, structure, organization location and methods proposed for documentation, communication and environmental quality control.

Specific elements of the Environmental Compliance Plan are detailed in the Environmental Performance Specifications.

10.7.2.3 Quality Manual and Quality Plan Requirements and Submittals

The Design-Builder shall submit a comprehensive Quality Manual, and associated Environmental Compliance Plan, Design QC Plan and Construction QC Plan, updated as necessary, to the COUNTY for Consultation and Written Comment in accordance with the following schedule and limitations specified herein.

The Quality Manual shall address the topics contained in Part 1 – GC, Article 10.7 in the order listed therein and shall meet the specified requirements, Quality Management System and Quality Manual Requirements, as applicable. The Design-Builder shall be responsible for describing the rationale for the procedures selected and, if the procedures do not address all provisions of the Articles, explain why the standard is not applicable in its particular situation. Topics covered in the Environmental Compliance Plan or the Quality Control Plans shall be cross referenced in the Quality Manual. Repeating the text of

these plans in the Quality Manual is not required.

The Quality Manual shall establish a "quality control team" which shall be distinct and separate from the design and construction production organization. The quality control team shall report directly to the Design-Builder's Project Quality Manager (Quality Manager). The Quality Manager shall have the overall responsibility for development and management of the Design-Builder's Quality Manual and be responsible for the overall Quality Control program of the Design-Builder, including the quality and management for design and engineering, construction and environmental compliance. The Quality Manual shall describe the quality system to be implemented at all levels of the Design-Builder's organization, to include consultants, Subcontractors, suppliers and vendors at all tiers.

Refer to Part 1 – GC, Article 1, Definitions and Use of Terms, 1.1 Defined Terms, for the definitions of Quality Control and Quality Assurance.

(a) Quality Manual Submittal: The Design-Builder shall submit its comprehensive Quality Manual within 30 days of Initial Notice to Proceed (INTP). No construction shall commence nor will the COUNTY authorize payment for construction until the Quality Manual is approved. Design activities may proceed upon submission of the Design Quality Control Plan and successful resolution to COUNTY's Consultation and Written Comment.

(b) Environmental Compliance Plan Submittal: The Design-Builder shall submit its Environmental Compliance Plan within 45 days of LNTP. The same limitations on construction and payment for construction will apply as for the Quality Manual.

(c) Design Quality Control (QC) Plan: The Design-Builder shall submit its Design QC Plan concurrent with its submittal of its Quality Manual. The requirements for Design QC are specified in Part 1 – GC, Article 10.5, Design Management and Design Quality Assurance/Quality Control. The Design-Builder shall develop engineering QC requirements for Work, such as surveys, utility location and geotechnical investigations, in accordance with the requirements specified in the Contract. Design of permanent works may proceed upon submission of the Design QC Plan and successful resolution of the COUNTY's Consultation and Written Comments.

(d) Construction Quality Control (QC) Plan: The Design Builder shall submit its Construction QC Plan at least 30 days prior to the start of construction or other ground disturbing activity, but not later than 45 days within LNTP. No construction shall commence nor will the COUNTY authorize payment for construction until submission of the Construction QC Plan and successful resolution of the COUNTY's Consultation and Written Comments.

10.7.2.4 Quality Plan Reviews and Updates

The Design-Builder shall conduct management reviews of its quality system as specified in Part 1 – GC, Article 10.7 Design-Builder's Quality Management System and Documentation Requirements.

As work progresses, the Design-Builder shall update the Quality Manual, Environmental Compliance Plan and QC Plans to reflect current conditions. The Design-Builder and/or the COUNTY may identify the need for revisions to the Quality Manual or associated plans. The Design-Builder shall submit any revisions or updates to the Quality Manual or associated plans to the COUNTY for Consultation and Written Comment within 30 days of the identification of the need for a revision.

In addition, the Design-Builder shall submit its Quality Manual and associated plans for Consultation and Written Comment by the COUNTY annually (within 12 months of NTP or receipt of last Consultation and Written Comment from the COUNTY) even if no revisions have occurred during that 12-month period. The Design-Builder shall submit conformed copies of the updated Quality Manual and associated plans with revisions highlighted.

10.7.2.5 Quality Manual

The Quality Manual shall:

(a) Be written with the intent of gaining employee understanding of the quality management system;

(b) Identify the scope of the Project and the scope of the quality management system;

(c) Identify Key Personnel;

(d) Address the topics contained in Part 1 – GC, Article 10.7 in the order in which they appear herein. It shall also incorporate the requirements of Part 1 – GC, Articles 10.5 and 10.6 and the Environmental Compliance Plan either directly or by specific cross reference;

(e) Include or make reference to the quality management system procedures and outline the structure of the documentation used in the quality system;

(f) Cover temporary and permanent components;

(g) Either contain or reference the procedures and documentation structure outline critical to quality;

(h) Establish or reference the procedures that make up the quality management system. Should the manual only reference the procedures, it shall also detail the levels of the documented system, its contents, and the interrelationship of the document types;

(i) Provide a "road map" within the Quality Manual that is lined up to the applicable element that describes the quality management system. This road map is a cross reference, narrative, chart, index, or some similar method;

(j) Detail the roles, responsibilities, and authority of the Design-Builder, each Principal Participant, the Project Quality Manager, the Designer, the Design and Construction QC Managers, and other team members having a significant quality role;

(k) Define policies, goals, and objectives of the organization and organizational interfaces;

(l) Identify and include standard procedures applicable to the Project, and Project-specific procedures for all elements of the Project that are not addressed adequately by the Design-Builder's standard procedures; and

(m) Make reference to specifications that define how an activity is performed Procedures shall describe "what" processes need to be performed and work instructions shall prescribe "how" and activity is to be accomplished).

10.7.2.6 Document and Data Control

10.7.2.6.1 General

The Design-Builder shall establish and maintain documented procedures to control all documents and data that relate to the requirements of this section Part 1 – GC, Article 10.7.2.6 including, to the extent applicable, documents of external origin such as standards and the COUNTY and Stakeholder plans.

These documents shall include, but are not limited to, contracts, plans, specifications, permits, master drawing list or equivalent documents, critical procedures and work instructions, quality system manuals, Project Quality Control plans and data (e.g., computer data bases, computer files).

The document and data control procedures shall be documented in the Design-Builder's Quality Manual.

10.7.2.6.2 Document and Data Approval Issue

The Design-Builder shall be responsible to see that the documents and data are reviewed and approved for adequacy by authorized personnel prior to issue. A master list or equivalent document-control procedure identifying the current revision status of documents shall be established and be readily available to preclude the use of invalid and/or obsolete documents.

The Design-Builder shall be responsible for establishing, documenting, maintaining, and implementing a procedure which clearly defines the process for document review, resolution of comments and approval authority.

No construction work activities shall be accomplished using unreleased, unauthorized, or outdated design documents.

The document and data control procedures shall ensure that:

(a) The pertinent issues of appropriate documents are available at all locations where operations essential to the effective functioning of the quality system are performed; and

(b) Invalid and/or obsolete documents are promptly removed from all points of issue or use, otherwise assured against unintended use.

10.7.2.6.3 Document and Data Changes

The Design-Builder shall identify and include in its Quality Manual, the process for the initiation, review and approval of all document changes prior to issuance of those changes.

Changes to documents and data shall be reviewed and approved by the same functions/organizations that performed the original review and approval, unless specifically designated otherwise. If this is not possible, then the designated approval authority shall have adequate background and experience upon which to base the decision. The designated functions/organizations shall have access to pertinent background information upon which to base their review and approval.

10.7.2.6.4 Quality Manual

The Quality Manual shall include procedures for preparation, control and distribution of the Quality Manual and associated plans and updates to the same.

10.7.2.7Control 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 comprise such documents as audit inspection reports, approved designs, specifications, plans, calculations, purchase orders, design review records, vendor evaluation reports, cumulative progress reports, and audit reports.

Quality records shall be maintained to demonstrate conformance to specified requirements and the effective operation of the quality system. Pertinent quality records from subcontractors shall be an element of these data.

Records shall be kept of documents which serve as evidence that quality is achieved in work on a Project. Records shall be adequately identified, filed, and stored. Retention periods and the storage of such records shall be established in accordance with Contract requirements.

All quality records shall be legible and shall be stored and retained is such a way that they are readily retrievable in facilities that provide suitable environment to prevent damage or deterioration and to prevent loss. Quality records shall be made available for evaluation by the COUNTY.

The Design-Builder's management shall identify records necessary to provide objective evidence of contract review, procedure compliance, design review (when applicable), training, and completion and acceptance of inspection and testing, or to provide traceability of equipment or items to documentation.

A list of Project-required records shall be developed, retained, and/or turned over to the COUNTY prior to completing the Work.

10.7.2.8 Contract Modification Review

10.7.2.8.1 General

The Design Builder shall establish and maintain documented procedures for review of Contract Modifications and for the coordination of these activities. See also 10.7.5.2.2

10.7.2.8.2 Review

The Contract review is a process which should begin with the request for change and continues through the Contract Modification preparation.

Change review shall take place for each Change Order or request for Contract Modification.

Before submission of a proposal for a Contract Modification or in response to a Change Order, the Change Order or proposal shall be reviewed by the Design-Builder to ensure that:

(a) The requirements are adequately defined and documented. Where no written statement of requirement is available for an order received by verbal means, the Design-Builder shall ensure that it understands the order requirements.

(b) Where verbal orders are received from the COUNTY's Authorized Representative, the Design-Builder shall ensure that requirements are reviewed and confirmed in writing by the Design-Builder and the COUNTY. The Design-Builder shall be responsible to ensure the change requirements are understood.

(c) Any differences between the Contract, Contract Modification or Change Order requirements and those in the proposal are resolved. Differences between a proposal and the Change Order shall be reconciled and reviewed for impact and action.

The Design-Builder shall identify how a Contract Modification is made and correctly transferred to the functions concerned within the Design-Builder 's organization.

The Contract review procedure shall describe processing all Contract Modifications. Contract

Modification requests shall be subject to an appropriate level of review similar to the initial Contract. The review shall include impact on Work already performed, schedule and costs.

10.7.2.8.3 Review Records

Contract Modification and Change Order reviews shall include examining correspondence, meeting minutes, signed documents, and records of negotiation, each of which shall be maintained as Project records (Part 1 – GC, Article 10.7.2.7).

10.7.3 MANAGEMENT RESPONSIBILITY

10.7.3.1 Management Commitment

The Design-Builder shall have a published statement, signed by the responsible executive(s), of its commitment to quality and the organization's quality objectives signed by its responsible executive(s). It shall explain the commitment in terms of the services provided to the COUNTY, and the responsibilities assumed by the Design-Builder to discharge its contracted accountabilities relative to the COUNTY's overall responsibility to Stakeholders and the public-at-large, for assuring quality in the constructed facility. The statement shall be made known to and understood by all staff and be included in the Quality Manual.

10.7.3.2 Customer Focus

The Design-Builder shall provide a written statement describing the concepts, procedures, and activities it will implement to ensure its organization focuses on meeting the COUNTY's and other Project Stakeholders' requirements and exceeding their expectations and how its concepts, procedures, and activities will achieve customer focus. The Design-Builder's approach to customer focus shall be documented in the Quality Manual.

10.7.3.3 Quality Policy

The Design-Builder 's executive management shall define and document its policy for quality, including objectives for quality and its commitment to quality. In the context of this Part 1 – GC, Article 10.7, "executive management" shall mean those persons to whom the Design-Builder's Project Manager reports and who has overall responsibility for the Design-Builder's performance. The quality policy shall be relevant to the 's organizational goals and the expectations and needs of the COUNTY. The Design-Builder shall ensure that this policy is understood, implemented and maintained at all levels of the organization.

10.7.3.4 Planning

10.7.3.4.1 Quality Objectives

The Design-Builder shall develop its quality objectives giving full consideration to customer satisfaction in addition to meeting requirements specified in the Contract Documents. The Design-Builder shall also identify objectives to the extent that they may differ and enhance achievement of overall Project quality objectives.

The quality objective shall be documented in the Quality Manual

10.7.3.4.2 Quality Management System Planning

There shall be evidence of quality planning that ensures specific Contract/Project requirements have been

identified and incorporated into the documented quality management system. The COUNTY's requirements represent the minimum requirements.

The Design-Builder shall define and document how the requirements for quality will be met. Quality planning shall be consistent with all other requirements of a Design-Builder's quality system and shall be documented in a format to suit the Design-Builder's methods of operation. The Design-Builder shall incorporate the following activities, as appropriate, in meeting the specified requirements for the Project:

(a) Preparing the Quality Manual;

(b) If the Design-Builder already has a quality management system, blending the unique Project requirements into the quality system;

(c) Identifying and acquiring of any controls, processes, equipment (including inspection and test equipment), fixtures, resources and skills that are needed to achieve the required quality;

(d) 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 Manual how these obligations shall be met;

(e) Updating, as necessary, of quality control, inspection and testing techniques, including the development of new instrumentation;

(f) Identifying suitable verification at appropriate stages;

(g) Clarifying standards of acceptability for all features and requirements, including those which contain a subjective element; and

(h) Identifying and preparing quality records (See Part 1 – GC, Article 10.7.2.7).

10.7.3.5 Responsibilities, Authority and Communication

10.7.3.5.1 Organizational Requirements

The Design-Builder shall designate a Project Quality Manager (Quality Manager), who shall be one of the key personnel and who shall be responsible for overseeing the overall quality program and the preparation, implementation and update of the Quality Manual, Environmental Compliance Plan, Design QC Plan and the Construction QC Plan for the Design-Builder. The Quality Manager shall be directly responsible to and report to a joint venture board, senior management or similar level of the Design-Builder's organization not directly responsible for design or construction. The Design-Builder's Quality Manager shall have direct access to executive management to report on the performance of the quality management system and shall not report or work under the Design-Builder's Project Manager or anyone else responsible for design or construction production.

The Design-Builder's Quality Manager shall be present and available for consultation with the COUNTY on an on-call basis throughout the duration of the Project. The Quality Manager shall attend the weekly progress meetings as a minimum and such other meetings as the COUNTY may request, including individual meetings between the Quality Manager and COUNTY staff.

The Quality Manager shall be the primary point of contact to the COUNTY for all issues relating to the Design-Builder's Quality Plan (preparation, review, implementation and updates). The Quality Manager, irrespective of other responsibilities, shall have defined authority for:

(a) Ensuring that a quality management system is established, implemented and maintained;

(b) Reporting on the performance of the quality management system to the Design-Builder's management for review and as a basis for improvement of the quality management system; and

(c) Direct supervision of the Design QC Manager, Construction QC Manager Environmental Compliance Manager and their respective staffs.

See Part 1 – GC, Article 10.6 for responsibilities and qualification requirements of Construction QC staff.
See Part 1 – GC, Article 10.5 for responsibilities and qualification requirements of Design QC staff.

10.7.3.5.2 Responsibility and Authority

(a) Executive management shall have the responsibility to plan and determine the overall direction of the Design-Builder and its relationship to the quality efforts. Executive management shall ensure the quality policy is documented and understood by all employees and management by formal and/or informal indoctrination and shall further ensure the implementation of the quality policy by everyone in the organization.

(b) The quality system shall be an integral part of the overall management system and as such shall be supported and implemented from the top down. On a Design-Build project most employees are involved in either managing, performing or verifying work that affects quality. Quality shall not be the sole domain of the design checkers, Quality Control (QC) inspectors or QC personnel. All workers, including design and construction production personnel, including those of Subcontractors, shall be aware of the quality management system requirements that govern their respective work.

(c) A description of the organizational arrangements (such as a chart) shall be available and maintained up to date and shall be included in the Quality Manual. All key roles and persons, and lines of communication and authority between the Design-Builder and the COUNTY and their representative(s), and with other organizations involved shall be identified.

(d) The responsibility, authority and the interrelation of personnel who manage, perform and verify work affecting quality shall be defined and documented, particularly for personnel who need the organizational freedom and authority to:

(1) Initiate action to prevent the occurrence of any nonconformities relating to the product, process and quality system;

(2) Identify and record any problems relating to the product, process and quality system;

(3) Initiate, recommend or provide solutions through designated channels. It shall be everyone's responsibility to report any and all quality and safety problems;

(4) Timely confirm the implementation of solutions. The verification shall also determine if the solution to the identified problem created another quality problem; and

(5) Control further processing, delivery or installation of nonconforming product until the deficiency or unsatisfactory condition has been corrected. Controls shall be established, including stopping work, if necessary, once a significant quality

problem is identified until the cause of the problem can be identified and the required corrective action can be implemented.

10.7.3.5.3 Internal Communication

The Quality Manual shall:

(a) Define the liaison and interface among the quality control team and Project management and design and construction components of the Design-Builder's organization; and

(b) Define the organizational and technical interfaces within the Design Builder's organization.

10.7.3.6 Management Reviews

The Design-Builder's executive management shall review the quality system at defined intervals sufficient to ensure its continuing suitability and effectiveness in satisfying the requirements of this standard and the Design-Builder's stated quality policy and objectives (see Part 1 – GC, Article 10.7.3.3 and 10.7.3.4.1). Management reviews shall be held at least at 3-month intervals.

10.7.3.6.1 Review Input

The input to management reviews shall include information on:

(a) Results of audits;

(b) COUNTY and Project Stakeholder feedback;

(c) Process performance and product conformity;

(d) Status of preventative and corrective actions;

(e) Follow-up actions from previous management reviews;

(f) Changes that could affect the quality management system; and

(g) Recommendations for improvements.

10.7.3.6.2 Review Output

The output from management reviews shall include any decisions and actions related to:

(a) Improve the effectiveness of the quality management system and its processes;

(b) Improvement of product related to COUNTY and Project Stakeholder requirements; and,

(c) Resource needs.

Records of such reviews shall be maintained (see Part 1 – GC, Article 10.7.2.7). 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 COUNTY on request.

10.7.4 RESOURCE MANAGEMENT

The Quality Manual shall identify the source of resources, including staffing (management, professional, technical, and labor) and shall deal with the integration of resources into the specific Contract requirements.

10.7.4.1 Provision of Resources

The Design Builder shall identify resource requirements and provide sufficient resources for management, performance of work and verification activities including internal quality audits. Other resources shall also be addressed such as computers, craft tools, equipment and facilities.

10.7.4.2 Human Resources

10.7.4.2.1 General

The Design-Builder shall have a system for assuring that projects are adequately staffed with qualified specified key personnel and trained personnel and that resources are provided for adequate training to perform such activities as design reviews, verification activities, receiving, in-process and final inspections and internal quality audits.

10.7.4.2.2 Competence, Awareness and Training

The Design-Builder shall provide resources and actions to ensure:

(a) Competence-Key personnel shall have the qualifications specified in the Contract Documents (see Part 4 – Special Provisions (SP), SP 102) and that all other personnel assigned to the Project are competent to perform the work to which they are assigned.

(b) Awareness-The Design-Builder shall establish procedures to ensure that its personnel are aware of the relevance and importance of their activities and how they contribute to the achievement of quality objectives.

(c) Training

(1) The Design-Builder shall establish and maintain documented procedures for identifying training needs and provide for the training of all personnel performing activities affecting quality. Personnel performing specific assigned tasks shall be qualified on the basis of appropriate education, training and/or experience, as required. Appropriate records of training shall be maintained (see Part 1 – GC, Article 10.7.2.7);

(2) 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;

(3) Training shall focus on improving competency and skill for those performing activities that materially impact quality;

(4) All qualification and training records are quality records and shall be maintained accordingly;

(5) Project personnel shall be trained in all the special Project procedures applicable to their work; and

(6) Craft journeymen with special skills need not be trained but their competency shall be verified and a record maintained of the verification.

10.7.4.3 Infrastructure

The Design-Builder shall determine, provide and maintain the infrastructure needed, including infrastructure specified for the COUNTY, to achieve conformity with Contract requirements and additional needs of the Design Builder. The processes involved in determining, providing and maintaining the infrastructure shall be documented in the Quality Manual, or when more appropriate, in applicable Design and Construction QC Plans and the Environmental Compliance Plan.

Infrastructure includes:

(a) Buildings, workspace, parking facilities and associated utilities;

(b) Process equipment, including both hardware and software; and

(c) Supporting services, such as transport or communication.

10.7.4.4 Work Environment

The Design-Builder shall determine and manage the work environment to achieve Contract requirements, including provision of appropriate safety, sanitation and environmental protection measures. The Design-Builder shall document its processes in its Quality Manual.

10.7.5 PROJECT REALIZATION

In the context of this Part 1 – GC, Article 10.7, Project Realization means the achievement of the Design-Builder's Project objectives. The processes associated with achievement of the Design-Builder's objectives shall be documented in its Quality Manual or in associated Design and Construction Plans and the Environmental Compliance Plan.

10.7.5.1 Planning of Project Realization

The Design Builder shall plan and develop the processes needed to achieve its Project objectives consistent with the other processes in its quality management system.

In planning for achievement of Project objectives, the Design-Builder shall determine the following;

(a) Quality objectives and requirements for the Project;

(b) The need to establish processes, documents, and provide resources specific to the Project;

(c) Required verification, validation, monitoring, inspection and test activities specific to the Project and the criteria for Project acceptance; and

(d) Records needed to provide evidence that the processes for achieving objectives and the resulting Project meet Contract requirements.

The output of this planning shall be in a form suitable for the Design-Builder's operations.

10.7.5.2 Customer-related Processes

The Design-Builder shall document the processes discussed herein in its Quality Manual.

10.7.5.2.1 Determination of Requirements Related to the Project

The Design-Builder shall determine:

(a) Requirements specified by the COUNTY or otherwise required by the Project Stakeholders, including but not limited to those outlined in the MOA, WMATA PCA, etc.;

(b) Requirements not stated by the COUNTY but necessary for specified or intended use;

(c) Statutory and regulatory requirements related to the Project; and,

(d) Any additional requirements determined by the Design-Builder.

10.7.5.2.2 Review of Requirements Related to the Project

The Design-Builder shall review the requirements related to the Project, document its processes in the Quality Manual and include the results of any such review as records (Part 1 – GC, Article 10.7.2.7). This review shall be conducted prior to the Design-Builder's submission of proposals or acceptance of Contract Change Orders and/or Modifications (see also Part 1 – GC, Article 10.7.2.8) and ensure that;

(a) Requirements are defined;

(b) Contract Change Orders or Modifications differing from those previously expressed are resolved; and,

(c) The Design-Builder has the ability to meet the defined requirements.

Records of the results of the review and actions arising from the review shall be maintained (Part 1 – GC, Article 10.7.2.7).

Where the COUNTY or Project Stakeholders provides no documented statement, their requirements shall be confirmed by the Design-Builder before acceptance of the Change Order or Contract Modification.

Where the Project requirements are changed, the Design-Builder shall ensure that relevant documents are amended and that relevant personnel be made aware of the changed requirements.

10.7.5.2.3 Customer Communications

The Design-Builder shall determine and implement effective arrangements for communicating with the COUNTY and Project Stakeholders in relation to:

(a) Project information and Public involvement support;

(b) Enquiries, contracts or Change Orders and/or Modification handling; and,

(c) COUNTY and Stakeholder feedback, including COUNTY, Stakeholder and public complaints, which shall be retained as required for Document and Data Control (Part 1 – GC, Article 10.7.2.7).

10.7.5.3 Design and Engineering

The Design-Builder shall establish and maintain documented procedures in its Design Quality Control Plan to control and verify the design of the product in order to ensure that the specified requirements are met. The Design QC Plan will be included in the Design-Builder's Quality Plan by reference.

Design and engineering 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 plan shall detail the roles of the:

(a) Designer;

(b) Design Manager;

(c) Design QC Manager; and,

(d) Responsible Engineers.

10.7.5.3.1 Requirements of the Design Quality Control Plan

The Design-Builder shall prepare a Design Quality Control (QC) Plan based on the requirements of Part 1 – GC, Article 10.5, Design Management and Quality Assurance/Quality Control, and Contract requirements specifying design and engineering quality requirements such as Part 3-Design Requirements and Performance Specifications, and Part 4-Special Provisions. The resulting Design QC Plan shall address each design and engineering activity. The Design QC Plan shall describe or reference these activities, and define responsibilities for their implementation. The design and engineering activities shall be assigned to qualified personnel equipped with adequate resources. The Design QC Plan shall be updated as the Project evolves to address revised activities.

The Project Design QC Plan shall define the technical interfaces among the different groups which provide input to the design and engineering processes or receive output. The information shall be documented, transmitted and regularly reviewed. If not defined in these procedures, a separate description shall be required.

10.7.5.3.2 Design and Engineering Input

Design and engineering input requirements relating to the Project, including applicable statutory and regulatory requirements shall be identified, documented and their selection 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 shall determine 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 COUNTY 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 (Part 1 – GC, Article 10.7.2.7).

10.7.5.3.3 Design and Engineering Output

The Design-Builder shall document design and engineering output and express output in terms that can be verified against design and engineering input requirements and validated.

The control of these design and engineering outputs shall be an integral part of the Design-Builder's document control process (Part 1 – GC, Article 10.7.2.6), which comprises a portion of the Design QC Plan.

Output documentation shall be reviewed for compliance with design and engineering requirements.

10.7.5.3.4 Design and Engineering Review

At each stage of design, (see Part 1 – GC, Article 10.5.8 Stages of Design Development) documented reviews of the design results shall be planned and conducted. Participants at each design review shall include representatives of all functions concerned with the design stage being reviewed, as well as other specialist personnel, as required. Records of such reviews shall be maintained (see Part 1 – GC, Article 10.7.2.7).

Any computer software used to perform alternative calculations or verify clearances through use of scale models or CADD techniques shall be validated before use of the application, with validation documented in accordance with Part 1 – GC, Article 10.7.2.7 (Control of Records).

10.7.5.3.5 Design and Engineering Verification

Design and engineering verification is the process of ensuring that specified requirements have been fulfilled.

The Design QC Plan shall include procedures for verifying and documenting that the design and engineering outputs meets the design and engineering input requirements. Verification shall include independent checks, tests and/or reviews.

Verification shall be performed under the direction of the Design QC Manager.

Designs and engineering provided by Subconsultants shall be independently verified and documented under the direction of the Design QC Manager prior to acceptance and incorporation into the work of others.

10.7.5.3.6 Design and Engineering Validation

The Design-Builder shall perform design and engineering validation to ensure that the Project conforms to defined user needs and/or requirements. The Design QC Plan shall identify appropriate validation procedures.

10.7.5.3.7 Design 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 representatives before their implementation.

The Design-Builder shall establish and include in the Design QC Plan procedures on how design changes are initiated, reviewed, approved, implemented and recorded in order to maintain configuration control, and shall include the identification of persons authorized to approve design changes. Changes may originate from the COUNTY's request, internal and external design organization, and site or field personnel. Design changes may result in a permit modification.

Any proposed changes shall be reviewed and approved by the Responsible Engineer that produced the original work or Design Unit. The degree and nature of control on design changes shall be at least equivalent to that under which the original Work was accomplished. An administrative system shall be in

place to ensure that approved changes are documented and provided to holders of the original material in a timely manner. Also, there shall be a documented process that ensures that superseded information is removed from use when the updated document or record is received.

A master list of currently effective documents shall be maintained to reflect design changes and permit modifications approved and shall be communicated to the construction site in a timely manner. 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.

10.7.5.4 Procurement and Purchasing

10.7.5.4.1 General

The Design-Builder shall establish and maintain documented procedures to ensure that purchased services and products conform to specified requirements and shall document these processes in its Quality Manual or associated SC Plans.

The Design-Builder shall be responsible for establishing, documenting, and maintaining procedures for the evaluation and selection of suppliers, vendors, and Subcontractors.

10.7.5.4.2 Evaluation of Subcontractors, Suppliers and Vendors

The Design-Builder shall:

(a) Evaluate and select Subcontractors on the basis of their ability to meet subcontract requirements including the quality system and any specific quality control requirements;

(b) Control the evaluation and selection of suppliers, vendors and Subcontractors using procedures documented in the Design-Builder's Quality Manual or associated QC Plans. Just a statement of policy in the Quality Manual will not be acceptable;

(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 Manual or associated QC Plans;

(d) Define the type and extent of control exercised by the Design-Builder over Subcontractors; and

(e) Establish and maintain quality records of acceptable subcontractors (see Part 1 – GC, Article 10.7.2.7). Records shall be maintained to document the selection, control exercised over, performance, delivery, quality, etc. of all consultants, Subcontractors, vendors and suppliers.

10.7.5.4.3 Procurement and Purchasing Data

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; and

(c) The title, number and issue of the quality-system standard to be applied.

The Design-Builder shall review and approve procurement/purchasing documents for adequacy of the specified requirements prior to release.

The documented procedure shall identify how and by whom procurement and purchasing documents are reviewed, how comments are resolved and who in the organization has the authorization for final approval of the document.

10.7.5.4.4 Verification of Purchased Service or Product

(a) Design-Builder Verification at Subcontractor's Premises:

Where the Design-Builder proposes to verify purchased product or service at the subcontractor's premises, the Design-Builder shall specify verification arrangements and the method of product release in the procurement/purchasing documents.

(b) The COUNTY Verification of Subcontracted Product or Service:

(1) Where specified in the Contract, the Design Builder or the COUNTY's representative shall be afforded the right to verify at the Subcontractor's premises and the Design Builder's premises that subcontracted product or service conforms to specified requirements. Such verification shall not be used by the Design-Builder as evidence of effective control of quality by the Subcontractor.

(2) The Subcontractors shall be responsible for fulfilling all of the specified procurement requirements regardless if the COUNTY, Design-Builder or agent performed any tests or inspections.

10.7.5.5 Production and Service Provision

The Design-Builder shall document its procedures relative to production and service provisions in its Quality Manual or associated QC Plans and/or Environmental Compliance Plan.

10.7.5.5.1 Control of Production and Service Provision

The Design-Builder shall plan and carry out production and service provision under controlled conditions. Controlled conditions shall include, as applicable:

(a) The availability of information that describes the character of the product or service;

(b) The availability of work instructions;

(c) The use of suitable equipment;

(d) The availability and use of monitoring and measuring devices;

(e) The implementation of monitoring and measuring; and

(f) The implementation of release, delivery, and post-delivery services.

Where servicing is a specified requirement, the Design-Builder shall establish and maintain documented procedures for performing, verifying, and reporting that the servicing meets the specified requirements

The requirement of this Part 1 – GC, Article 10.7.5.5.1 is applicable only where it is specified in the Contract.

Should such a requirement exist, the Design-Builder shall document procedures which detail the methodologies to be used while performing the service, how compliance to these operations and the COUNTY's requirements are verified, and the agreed upon method of reporting compliance of service operations to contract requirements.

10.7.5.5.2 Validation of Processes for Production and Services

The procedures the Design-Builder elects to use to validate the delivery of the contracted service or product shall include, but are not limited to:

(a) Design reviews;

(b) Shop inspection;

(c) Receiving inspection;

(d) Witnessed inspection hold points;

(e) Issuance of a certificate of compliance or analysis;

(f) Testing and approval of a prototype or sample;

(g) Provision and approval of a Quality Control Plan prior to award; and

(h) Quality system audits.

The procedures shall detail how the Design-Builder will notify the COUNTY of Subcontractors, including consultants, to which it proposes to enter into agreements.

10.7.5.5.3 Identification and Traceability

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.

The Design-Builder shall establish and maintain documented procedures whereby items of work for which records are to be kept shall be identifiable.

The Design-Builder shall include document title, unique number, the COUNTY's name, the Design Builder's name, the preparer's name, and the date and revision number on all Project deliverables.

The filing and retrieval of operating manuals, certificates of compliance and/or analysis, heat numbers, inspection status and nonconforming product shall be traceable to the items. Records shall be kept that identify the installed location of the equipment.

The Design-Builder shall establish and maintain documented procedures for unique identification and recording of individual product or batches.

10.7.5.5.4 COUNTY and Stakeholder Property

The Design-Builder shall establish and maintain procedures documented in the Quality Manual or associated QC Plans for the control of verification, storage and maintenance of the COUNTY supplied items provided for incorporation into the Project or for related activities. When such items are encountered, documented procedures shall exist which detail the receipt/acceptance, storage and maintenance (preservation) of these items.

When items are considered inadequate for the task required, documented procedures shall detail the process used to report such deficiencies to the COUNTY.

10.7.5.6 Handling, Storage, Packaging, Preservation and Delivery

10.7.5.6.1 General

The Design-Builder shall establish and maintain documented procedures in its Quality Manual of associated QC Plans for handling, storage, packaging, preservation and delivery (HSPPD) of product.

The procedures developed 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 turn over of the facility to the COUNTY. The specific application of the requirements is determined by the function performed: Design Builder, manufacturer, distributor, vendor, warehousing, equipment operators, and installer.

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 Part 1 – GC, Article 10.7 and therefore shall be reviewed for applicability and requirement inclusion.

10.7.5.6.2 Handling

The Design-Builder shall provide methods of handling products that prevent damage or deterioration.

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.

10.7.5.6.3 Storage

The Design-Builder shall use designated storage areas or stock rooms to prevent damage or deterioration of product, pending use or delivery. Appropriate methods for authorizing receipt to and dispatch from such areas shall be stipulated.

In order to detect deterioration, the condition of product in stock shall be assessed at appropriate intervals.

Items requiring protection shall be identified and protected as necessary to prevent loss, damage deterioration or loss of identification.

Special storage requirements shall be clearly defined for materials and equipment that are received on the Project; this includes plans, records and operating manuals.

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 use 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.

10.7.5.6.4 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.

10.7.5.6.5 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.

10.7.5.6.6 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 the destination.

When delivery of equipment and/or materials to the job site is the responsibility of the Design-Builder, it shall develop procedures or reference appropriate standards to protect the items during delivery for handling, storage, packaging, preservation, preservation and delivery (HSPPD) of the product.

The procedures developed shall apply to all parties involved on the Project, beginning with the Design-Builder preparing specifications all the way through the personnel responsible for the start-up and turn over of the facility to the COUNTY. The specific application of the requirements shall be determined by the function performed: Design-Builder, manufacturer, distributor, vendor, warehousing, equipment operators, and installers.

Procedures shall be developed and implemented for designating which items require special handling, storage or maintenance. Development of HSPPD procedures and work instructions are affected by the other elements of this Part 1 – GC, Article 10.7 and therefore shall be reviewed for applicability and requirement for inclusion.

10.7.5.6.7 Handling

The Design-Builder shall provide methods of handling products that prevent damage or deterioration.

Special handling clothing and precautions shall be identified for all hazardous materials with assurance 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.

10.7.5.6.8 Storage

The Design-Builder shall use designated storage areas or stock rooms to prevent damage or deterioration of product, pending use or delivery. Appropriate methods for authorizing receipt to and dispatch from such areas shall be stipulated.

In order to detect deterioration, the condition of product in stock shall be assessed at appropriate intervals. Items requiring protection shall be identified and protected to prevent loss, damage, deterioration, or loss of identification. Special storage requirements shall be clearly defined for materials that are received on the Project; this includes plans, records and operating manuals. Materials shall be segregated to prevent cross contamination or environmental contamination.

Materials 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 of to humans.

10.7.5.6.9 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 and instructions shall clearly define all special packing and packaging and marking process requirements (i.e. export crating, moisture barrier, regulatory requirements, climate control, identification, and all Contract requirements.).

Labeling of hazardous materials, special handling instructions and notification of authorities and the Design-Builder shall be clearly and plainly identified on the packaging.

10.7.6 CONTROL OF MONITORING AND MEASUREMENT DEVICES

10.7.6.1 General

The Design-Builder shall establish and maintain documented procedures to control, calibrate and maintain inspection, measuring and test equipment (including test software) used by the Design-Builder to demonstrate the conformance of product to the specified requirements. Inspection, measuring and test equipment shall be used in a manner which ensures that the measurement uncertainty is known and is consistent with the required measurement capability.

The Design-Builder's QC Engineering Firm shall establish, document, and maintain procedures for the control of inspection, measuring, and test equipment. It shall be the Design-Builder's responsibility through the Quality Manager, to assess the Subcontractor to ensure the required procedures exist and are implemented.

The Design-Builder and the QC Engineering Firm shall be responsible for ensuring applicable requirements of this section are addressed, including:

(a) Definition of the responsibility and authority for the inspection, measuring and test equipment;

(b) Procedures for selecting measurements, determining accuracy and precision required, and obtaining equipment which meets those requirements;

(c) Disposition of nonconforming equipment;

(d) Procedures for identification, maintenance, and storage of measuring equipment;

(e) Record keeping;

(f) Calibration frequency;

(g) Calibration status including indicators;

(h) Disposition of items checked with equipment found to be out of calibration; and

(i) Traceability of primary and secondary calibration standards.

10.7.6.2 Control Procedures

The Design-Builder, through the QC Engineer, 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 equipment at prescribed intervals, or prior to use, against certified equipment having a known valid relationship to

internationally or nationally recognized standards. Where no such standards exist, the Design-Builder shall document the basis used for calibration;

(c) Develop a master calibration listing indicating the inspection and test equipment that is used. The log shall include as a minimum, the identification number, item description, and the required frequency of calibration and accuracy requirements;

(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 Part 1 – GC, Article 10.7.2.7);

(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.

The control procedures shall be documented in the Design-Builder's Quality Manual or associated QC Plans.

10.7.7 MEASUREMENT ANALYSIS

10.7.7.1 General

The Design Builder shall plan and implement monitoring, measurement, analysis and improvement processes need to:

(a) Demonstrate conformity of the product;

(b) Ensure conformity of the quality management system; and

(c) Continually improve the effectiveness of the quality management system.

10.7.7.2 Analysis

10.7.7.2.1 General

The Design-Builder shall determine the applicable methods of analysis, including statistical techniques, and the extent of their use.

10.7.7.2.2 Statistical Techniques

(a) Identification of Need: The Design Builder shall identify the need for statistical techniques required for establishing, controlling, and verifying process capability and product characteristics. The Design-Builder shall review its operations for activities which may benefit from the use of statistical techniques as a means of establishing a level of control, the maintenance of an existing level of performance, and the verification of performance. The assessment of need may include determination of an activity on cost, time management/utilization, and the quality of deliverables. This may also include areas where the application of statistics provides an indication of variation, activities efficiencies, and deviation control.

(b) Procedures: The Design-Builder shall establish and maintain documented procedures to implement and control the application of statistical techniques.

Should the need for statistical programs be established, the Design-Builder shall document procedures detailing the methods of application.

10.7.7.3 Monitoring and Measurement

10.7.7.3.1 Customer Satisfaction

As one of the measurement of performance of the quality management system, the Design-Builder shall monitor information relating to COUNTY and Project Stakeholder perception as to whether the Design-Builder has met their requirements. The procedures for obtaining and using this information shall be documented in the Quality Manual with results retained as Project records.

10.7.7.3.2 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 system.

Internal quality audits shall be conducted in accordance with sound auditing principles. The frequency of the audits shall be appropriate to the importance and complexity of a Project or corporate operation, but shall at least be performed on a quarterly basis. Audits shall be initiated early enough in the life of a Project to assure effective quality control during all phases. The audits shall include Project management as well as technical work activities.

The internal quality audit program shall provide verification that the quality system is operating and being implemented as planned. Audits shall 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 Part 1 – GC, Article 10.7.2.7) and brought to the attention of the personnel having responsibility in the area audited. The management personnel responsible for the area shall take timely corrective action on deficiencies found during the audit.

Follow-up audit activities shall verify and record the implementation and effectiveness of the corrective action taken (see Part 1 – GC, Article 10.7.2.7).

The results of internal quality audits shall be reviewed in management review meetings. During management reviews, 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 determine the effectiveness of corrective action that is implemented. Records of corrective actions shall be retained with the respective audit records.

Records of internal audits shall be maintained by the Design-Builder.

10.7.7.3.3 Monitoring and Measurement Processes

The Design-Builder shall plan and control the Work and shall prepare a documented process plan defining how Work is to be carried out. Documentation may be in the form of a narrative, flow chart or control points.

The Design-Builder shall identify and plan the production, installation and servicing processes that directly affect quality and shall ensure that these processes are carried out under controlled conditions.

10.7.7.3.4 Inspection and Testing

The Design-Builder shall establish and maintain documented procedures for inspection and testing activities in order to verify that the specified requirements for the Project are met. The required inspection and testing, and the records to be established, shall be detailed in the Construction QC Plan and cross referenced in the Quality Manual.

This section shall address inspection/testing methodology, methods of control, documentation, acceptance and distribution of results.

The Design-Builder shall establish, document and maintain procedures for inspection and testing activities (see also Part 1 – GC, Article 10.6).

Construction QC 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.

Quality Check Points and hold points (Work that must be inspected and approved by the assigned Construction QC inspector before Work can proceed), shall be clearly established and identified on the Project execution schedule or other suitable means (See Part 1 – GC, Article 10.6.3.3). Construction QC inspection procedures, logistics and reporting of results shall be clearly defined, developed and implemented.

10.7.7.3.5 Incoming Product Inspection and Testing

The Design-Builder shall ensure that incoming product is not used or processed, except in the circumstances described herein, until it has been inspected or otherwise verified as conforming to specified requirements. Verification of the specified requirements shall be in accordance with the Construction QC Plan and/or documented procedures.
The Construction QC Plan shall include incoming product inspection that shall include but is not limited to:

(a) Documentation review;

(b) Physical inspection of materials and/or equipment:

(c) Identification of items per the purchase order and shipping list, tag number or marking;

(d) Verification of quantity and size;

(e) Dimensional checks, when applicable;

(f) Verification of protective coatings if applicable; and,

(g) Examination of item(s) for condition and shipping damage.

10.7.7.3.6 In-Process Inspection and Testing

The Design-Builder shall:

(a) Inspect and test the product as required by the Construction QC Plan and/or documented procedures; and

(b) Hold product until the required inspection and tests have been completed or necessary reports have been received and verified.

10.7.7.3.7 Final Inspection and Testing

The Design-Builder shall jointly conduct all final inspection and testing with the COUNTY in accordance with the Contract requirements and the Construction QC Plan and/or documented procedures to complete the evidence of conformance of the finished Project to the specified requirements.

The Design-Builder shall have documented procedures to ensure that the final observation and testing where applicable have been completed.

Records of final inspection and test are required to verify compliance to specified requirements has been achieved (see Part 1 – GC, Article 10.7.2.7).

The Construction QC Plan and/or documented procedures for final inspection and testing shall require that all specified inspection and tests, including those specified either on receipt of product or in-process, have been carried out and that the results meet specified requirements.

10.7.7.3.8 Inspection and Test Records

The Design-Builder shall establish and maintain records which provide evidence that the product has been inspected and/or tested. These records shall show clearly whether the product has passed or failed the inspections and/or tests according to defined acceptance criteria. Where the product fails to pass any inspection and/or test, the procedures for control of nonconforming product shall apply.

Inspection and test records for inspections and tests performed by Design-Builder, the COUNTY and/or third party shall show whether the product has passed or failed according to defined acceptance criteria. Product that fails inspection becomes nonconforming product. Also, the records shall identify the inspection authority responsible.

10.7.7.3.9 Inspection and Test Status

The inspection and test status of product shall be identified by suitable means, which indicate the conformance or nonconformance of product with regard to inspection and test performed. The identification of inspection and test status shall be maintained, as defined in the Construction QC 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.

10.7.8 CONTROL OF NONCONFORMING PRODUCT

10.7.8.1 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, disposition of nonconforming product, and for notification to the functions concerned.

10.7.8.2 Review and Disposition of Nonconforming Product

The Design-Builder shall define the responsibility for review and authority for the disposition of nonconforming product.

A nonconformance shall be defined as any condition in equipment, materials, or processes which does not comply with required plans, specifications, codes, standards, documentation, records, procedures, or contract requirements which cause the acceptability of equipment, materials, or processes to be unacceptable or indeterminate.

Nonconforming product shall be reviewed in accordance with documented procedures. It may be:

(a) Reworked to meet the specified requirements; or

(b) Rejected.

The procedures shall also address the disposition of nonconforming items and the steps necessary to verify that the nonconformances have been adequately addressed and that the item then be characterized as conforming.

The Design-Builder shall keep and maintain records of nonconforming findings (see Part 1 – GC, Article 10.7.2.7). Each nonconformance 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 Construction QC Plan and/or documented procedures.

Repair shall require the involvement of the COUNTY, 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.

The COUNTY and the County Construction Manager have the authority to reject defective or nonconforming Work. The Design-Builder, at its sole expense, shall promptly remove rejected Work and replace it with non-defective Work. The COUNTY, in its sole discretion, may choose to accept nonconforming Work. Non-conforming Work will only by accepted by a Change Order incorporating necessary revisions to the Contract Documents and providing an equitable adjustment to the COUNTY for the diminished value of the Work. If the Design-Builder fails to correct nonconforming Work the COUNTY may correct and remedy such Work at the Design-Builder's expense. The Design-Builder will not be allowed an extension of time for any delay attributable to the exercise of the COUNTY's rights under this paragraph.

10.7.8.3 Analysis of Data

The Design-Builder shall determine, collect and analyze appropriate date to determine the suitability and effectiveness of the quality management system and to evaluate where continual improvement of the effectiveness of the quality management system can be performed. Analysis shall include data generated as a result of monitoring and measurement and from other relevant sources.

The analysis of data shall include:

(a) Customer satisfaction

(b) Conformity of Project requirements

(c) Characteristics and trends of processes and products including opportunities for preventive action; and,

(d) Suppliers.

10.7.9 IMPROVEMENT

10.7.9.1 Continual Improvement

The Design Builder shall continually improve the effectiveness of the quality management system through the use of its quality policy, quality objectives, audit results data analysis, corrective and preventive actions and management reviews. The Design-Builder shall implement and document a process for continual improvement in the Quality Manual.

10.7.9.2 Corrective and Preventative Action

The Design-Builder shall establish and maintain documented procedures for implementing corrective and preventive action.

This Section Part 1 – GC, Article 10.7.9.2 encompasses aspects for dealing with nonconformities. The first is implementation and effectiveness of previously implemented corrective actions.

The second is preventive action which comprises a major role in this requirement. Most procedures addressing corrective action need to include preventive action. The investigation of nonconformances shall include the three possible causes. They are the product, the process, and the quality system.

The Design-Builder shall implement and record any changes to the documented procedures resulting from corrective and preventive action.

10.7.9.2.1 Corrective Action

The Design-Builder shall maintain and document a procedure for dealing with complaints, ensuring the recording, investigating and determining the appropriate corrective action, if any, that shall be taken.

Follow-up action shall investigate to see if the corrective action resolved the identified problem, and also to ensure the corrective action did not have an undesirable effect on another element of the quality system.

10.7.9.2.2 Preventive Action

The Design-Builder shall establish, document, and maintain procedures for implementing corrective and preventive action.

A documented procedure shall be established to accomplish the following:

(a) Determine potential nonconformances and their cause;

(b) Evaluate the need for action to prevent occurrences of nonconformances;

(c) Determine and implement actions needed to avoid nonconformances;

(d) Maintain a record of actions taken (Part 1 – GC, Article 10.7.2.7); and,

(e) Review preventive actions taken.

The Design Builder shall submit monthly a certificate signed by the Design QC Manager and the Construction QC Manager certifying the following for the previous month:

(A) That all Work, including that of the Designer and all other designers, Subcontractors, suppliers, and fabricators has been checked and/or inspected by the Design-Builder's QC staff, that all documentation regarding this QC 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.

10.7.10 Contract Modification Status Report. The Design-Builder shall provide a report of outstanding Contract Modification requests containing the following:

(A) The Design Builder's and COUNTY's Contract Modification 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.

10.8 COMMISSIONING

10.8.1 Objective It is the objective of the commissioning program to ensure that the Design-Builder delivers a properly functioning and efficient facility; that operational and maintenance costs are minimized; that portions of the project that integrate with existing WMATA systems function properly and are acceptable to WMATA; that portions of the project that integrate with existing Owner systems function properly and are acceptable to the Owner; that Owner and WMATA personnel responsible for operation of the facilities are properly trained to operate their respect portions of the facility; and that operation manuals contain information required to properly and efficiently operate and maintain the facility.

10.8.2 Design-Builder's Commissioning Responsibilities The Design-Builder is responsible for verifying the Owner's project requirements and developing and updating the Basis of Design to satisfy those requirements. The Design-Builder is responsible for developing, securing Owner and WMATA approval of, updating and executing the Commissioning Plan. The Design-Builder shall identify an independent Commissioning Agent as a Key Personnel. The Design Builder's Commissioning Agent shall have the education, experience and expertise required to successfully fulfill the Design-Builder's Commissioning Responsibilities. The Design-Builder shall ensure that it, or its subcontractors as may be appropriate, perform all commissioning duties assigned to them and supply all data, tests, manuals, logs, procedures, training and other items required by the approved Commissioning Plan. The Design-Builder is responsible for complying with WMATA commissioning requirements.

10.8.3 Owner's Commissioning Responsibilities The Owner will retain the services of a Commissioning Authority to act on its behalf to provide oversight of the commissioning process. The Owner's Commissioning Authority has the authority and responsibility for assuring that the Design-Builder complies with the approved Commissioning Plan and that the commissioning objectives of the Owner and WMATA are achieved. The Owner has provided its project requirements as outlined in this Request for Proposals. At the request of the Design-Builder, the Owner will provide interpretation of its requirements and or additional information necessary to verify the Owner's project requirements. The Owner will review and approve the Design-Builder's Commissioning Plan.

10.8.4 Commissioning of WMATA Facilities See Part 4 – Special Provisions, SP 108 – WMATA.

10.8.5 Conceptual Commissioning Process A conceptual Commissioning Process is depicted in Figure 10.8A. The Design-Builder is responsible for all Commissioning Activities except those shaded, which are the responsibility of the Owner or WMATA as appropriate.

ARTICLE 11

TIME

11.1 COMMENCEMENT

11.1.1 Date of Commencement and Initial Notice to Proceed. The Owner may issue an Initial Notice to Proceed within 45 days of the Contract being executed. Work prior to issuance of full Notice to Proceed may be limited to efforts requiring little or no ground disturbance, development of Design/Construction/Safety/etc. manuals, Mobilization, etc.

11.1.2 Date of Commencement and Notice to Proceed. The Owner will issue a Notice to Proceed and make the Site available to the Design-Builder within a reasonable time after execution of the Contract. The date on which the Contract Time commences, as established in the Notice to Proceed, will not be postponed by failure to proceed with the Work by the Design-Builder or persons or entities for whom the Design-Builder is responsible. For phased work noted in the Contract Documents, multiple Notices to Proceed may be issued by the Owner.

11.1.3 Preconstruction Conference. Promptly after the Notice to Proceed has been issued but before the Work at the Site begins, the Owner will conduct a preconstruction conference with the Design-Builder and any Separate Contractors to review Project requirements including, but not limited to, preliminary Submittals, schedules, Site utilization, construction operations to occur at the Site during the succeeding sixty (60) days, communications, coordination with Separate Contractors, payment procedures, and other matters.

11.1.4 Commencement of Work at the Site. The Design-Builder must not commence operations on the Site prior to issuance of the Notice to Proceed.

11.1.5 Pre-Construction Meetings. The Design-Builder will schedule and hold pre-construction meetings prior to major phases of work.

11.2 CONSTRUCTION SCHEDULES

11.2.1 Design-Builder's Initial Progress Schedule. Within fifteen (15) days after issuance of the Notice to Proceed, the Design-Builder must prepare and submit for the Owner's and the Owner Construction Manager's approval a proposed Initial Critical Path Method Project Schedule (ICPM) for performance of the Work, which schedule may be a cost and man-loaded Progress Schedule, if so specified in the Contract Documents. The Design-Builder will not receive any payments until such time the ICPM has been submitted and approved by the Owner. The schedule must (i) conform to all specified time limits, including Substantial, Final and any interim Completion dates, established by the Contract Documents, (ii) include all Work for each element of the Project as required by the Contract Documents, (iii) include the schedule for all Submittals, (iv) include all testing, inspections and commissioning required by the Contract Documents, and (v) provide for expeditious and practicable execution and completion of the Work within the Contract Time.

11.2.2 Requirements of the Progress Schedule. The ICPM must further comply with the scheduling specifications set forth in the Contract Documents, and to the extent not inconsistent therewith, must also fully comply with the following requirements.

The Design-Builder must plan, schedule, and construct the Work using a Critical Path Method Project Schedule (CPM). The CPM must be used for coordinating and monitoring all the work specified in the Contract Documents including all activities of the Designer, Subcontractors, Sub-subcontractors, vendors, Suppliers, utilities, the Owner, Separate Contractors, authorities having jurisdiction, and all other parties associated with the construction of the Contract. All work including but not limited to submittals, major procurement, delivery, and construction activities must be included. All activities specified in the Contract Documents must be included in the CPM. The CPM must be based upon the entirety of the Contract Documents. The software utilized for the CPM must generate files that are compatible with Primavera Project Planner.

Float. The CPM utilizes float. Float is defined as the amount of time between when an activity "can start to finish" and when an activity "must start or finish". Float is a shared commodity for the use of the Owner and the Design-Builder and is not for the exclusive use or benefit of either party. The parties have the full use of the float until it is depleted.

Scheduling Representative. The Design-Builder must designate a scheduling representative, prior to submission of the Initial Critical Path Method Project Schedule (ICPM). The scheduling representative is the person primarily responsible for development and maintenance of the Design Builder's CPM schedule. The scheduling representative will represent the Design-Builder in all matters regarding the schedule and must attend all schedule related meetings.

The Design-Builder must submit the qualifications of the designated scheduling representative to the Owner for approval within ten (10) days of Notice-to-Proceed. This approval is required before the ICPM will be accepted. The designated scheduling representative must have at least three years of verifiable experience in preparing and maintaining CPM project schedules on contracts of similar size and complexity. Replacement of the scheduling representative by the Design-Builder will require written approval from the Owner.

Initial Critical Path Method Project Schedule (ICPM). The ICPM must consist of:

(a) A time scaled diagram. The ICPM time scaled diagram will have a scale and format that is acceptable to the Owner and Owner Construction Manager. The activities must be labeled with the activity identification clearly shown for each activity. All relationships between activities must be shown;

(b) Tabular reports with activities sorted as follows:

(1) Activity ID. This report must include predecessors and successors for each activity with leads and lags shown;

(2) Activity ID. This report must include resources. This report must clearly define the resources assigned to each activity.

(3) Early Start, Total Float; (4) Total Float, Early Start;

(5) Project Area (if applicable) (It may be beneficial to separate WMATA components from Owner and SHA components); (6) Project Phase (if applicable); and

(7) Responsibility e.g., Design-Builder, specific subcontractor, specific supplier, the Owner, utilities and specific third parties.

The header of each tabular report must include the project name, Contract number, data date, run date and number, and report type.

The body of each report must include the activity identification, activity

description, original and remaining duration, early/late start and finish dates, percent complete, actual start/finish dates, total float, and calendar designation for every activity.

(c) Written Narrative (WN). The WN must comply with the requirements described hereinafter;

(d) Printed Calendars. The printed calendars must include a listing, description, and calendar form tabulation of all calendars used in the ICPM. The calendar must contain the total number of anticipated work days (including day and night shifts) required to complete all the work required in the Contract. The calendars must delineate the holidays and anticipated non-work days or periods including inclement weather days. An explanation of the Design-Builder's basis for determining each non-work day or period must be included in the WN; and

(e) Data disc containing all of the information contained in the CPM. The format must be compatible with Primavera Project Planner software.

All construction activities must have durations not exceeding 10 working days, unless otherwise approved by the Owner and Owner Construction Manager. Activities for review and approval of Submittals and shop drawings by the Owner Construction Manager must be given durations of not less than 30 calendar days. Activities for review and approval must be identified with a hierarchical activity code structure to identify review activities by the Owner and authorities having jurisdiction, stake holders and other entities as appropriate. The Design-Builder may submit a short list of highly critical approval activities to the Owner Construction Manager. The Owner Construction Manager will make every effort to expedite the approval of these Submittals; however, this will not alter the requirements to include 30 calendar days for all approvals in the ICPM. Durations for other procurement activities will be evaluated on a case by case basis.

The latest calculated early finish date in the ICPM shall equal the Contact calendar date for Substantial Completion specified in the Contract Documents. If the Design-Builder submits an earlier Substantial Completion date than specified in the Contract Documents, the Owner, upon approval of the ICPM, may issue a Change Order to adjust the Substantial Completion date to that shown on the ICPM.

The Owner and/or Owner's Construction Manager reserve the right to require specific activities and/or milestones to be added to the CPM (consistent with the Work).

The Design-Builder must utilize activity codes to categorize activities by at least the following: project area; project phase; and responsibility, e.g. Contactor or specific subcontractors.

The Design-Builder must provide a WN as part of the ICPM. This WN must explain the sequence of work, the critical path, interim completion dates, project phasing, non-work days, or periods, and labor and equipment resources (as appropriate). In addition, the Design-Builder must explain how the ICPM has provided for: permit requirements, environmental requirements, coordination with other public Design-Builders, milestone dates (for the Contract or other related contracts), coordination with other entities, coordination with all utility companies, special non-work days or periods, and weather in its ICPM. The WN must explain the specific scope of each critical activity and the basis used to determine the original duration of each activity, i.e., production rate and anticipated quantities.

All Work specified in the Contract Documents must be addressed in the WN. The Design-Builder shall utilize the WN to explain the following:

(a) Relationships between activities not obviously identified; (b) Equipment usage and limitations;

(c) Manpower usage and limitations;

(d) Activity codes, abbreviations, and activity identification system; (e) All Calendars and how they are utilized in the CPM;

(f) Date or time constraints;

(g) All abbreviations in the ICPM; and

(h) Scheduling of weather and temperature sensitive activities.

The Design-Builder must complete and submit the proposed ICPM within 15 calendar days after issuance of the Notice to Proceed; submission to the Owner Construction Manager and Owner for review and approval shall include: one electronic copy and two paper sets (in color) to the Owner Construction Manager, and one electronic copy and three paper sets (in color) to the Owner.

The Owner Construction Manager and Owner will complete the review of the Design-Builder's ICPM within 30 calendar days after the submittal. If required, the Owner Construction Manager may convene a Joint Review Conference at which Owner Construction Manager, Owner and Design-Builder (including its scheduling representative) will make corrections and adjustments to the proposed ICPM. If a revision is necessary due to the Owner's or Owner Construction Manager's review or the Joint Review Conference, the proposed revision must be submitted by the Design Builder within seven calendar days after the Design-Builder received the Owner's and/or Owner Construction Manager's review comments or within seven calendar days after the date of the Joint Review Conference, whichever is the latest. Revisions must conform to the requirements for the ICPM. The Owner and Owner Construction Manager will respond to the revised ICPM within seven calendar days after the revised ICPM is received.

Any delay in starting work caused by the acceptance of the ICPM by the Owner or Owner Construction Manager will not be considered as a basis for any adjustments in the Contract Time or Contract Price.

When the Owner notifies the Design-Builder that the ICPM has been accepted, that document will become the CPM schedule of record. The Design-Builder will be responsible for implementing and executing the work specified in the Contract in strict conformance with the CPM Schedule of Record. The CPM Schedule of Record will be the Design-Builder's work plan for completing the entire Contract as specified in the Contract Documents.

CPM Updates. The Design-Builder must update the CPM Schedule of Record and submit to the Owner and Owner Construction Manager for review on a monthly basis and at more frequent intervals as required by the issuance of Change Orders and Field Orders or other conditions of the Work and Project and as provided in Article 9 (G) of the Contract. The monthly updates of the CPM Schedule of Record are required to be submitted concurrent with the Design-Builder's monthly Application for Payment; however, the CPM update is required whether the Design-Builder submits an Application for Payment for a month or not.

CPM update submissions must contain the activity data as specified in (a) through (e) of the ICPM. The update must describe the progress of the project to date. The WN must include a description of the work performed during the update periods, current critical path, the amount of float on the critical path, any delays or disruptions experienced by the Design-Builder during the period of the update, any change in manpower or equipment, any systematic revision, and any potential delays or disruptions.

Systematic Revisions to the Schedule of Record. Systematic Revisions are defined as one or more of the following:

(a) A change in the specified original duration of an activity; (b) A change in the logic of the schedule;

(c) A change in the calendars or to the calendar to which an activity is assigned; (d)A change to resources;

(e) A change to any actual date, previously established; (f) The deletion or addition of an activity;

(g) A change to, addition of, or deletion of a date or time constraint; (h) A change to, addition of, or deletion of an activity code;

(i) A change to an activity description; and

(j) Any change order than updating an activity.

If the Design-Builder indicates in the WN that a monthly CPM update contains no systematic revisions from the previous CPM Schedule of Record, the monthly CPM update must consist solely of updating the previous CPM schedule of record with actual data (actual start dates, actual finish dates, completion percentage, etc.). In the event the Design-Builder is submitting a monthly CPM update without any systematic revisions, no pre-coordination with the Owner and/or Owner Construction Manager is required.

When the Design-Builder proposes to make a systematic revision(s) to the CPM, the Design-Builder (including its scheduling representative) must verbally discuss the proposed revision(s) with the Owner and Owner Construction Manager. If the revision(s) is/are determined to be minor in nature, the Owner and Owner Construction Manager will allow the Design-Builder to include the revision on the next CPM Update. If the Owner or Owner Construction Manager determines that the revision is not minor in nature, the Design-Builder must submit its proposed systematic revision(s) in writing to the Owner and Owner Construction Manager for review and approval prior to deviating from the CPM Schedule of Record.

The proposed revision(s) must describe the reason for the proposed revision(s), the resulting critical path, and all particulars of the revision. These must include, but not be limited to, changes in the method or manner of the work, changes in resources, addition or deletion of manpower, increased or decreased quantities, defective work, and acceleration of work.

After review, the Owner Construction Manager and Owner shall provide direction on what systematic revisions, if any, are acceptable. The Design-Builder shall submit its monthly CPM Schedule based on this direction.

Approval and/or Acceptance of Monthly CPM Schedule Update. The Owner, with input from the Owner Construction Manager shall approve, accept or reject the Design Builder's monthly CPM Schedule update.

Approval: The Owner will approve a CPM Schedule update if (1) the update accurately reflects the project status as of the data date, (2) any systematic revisions are acceptable, (3) the schedule meets all other contractual requirements, and (4) the schedule's projected Substantial Completion date is at or precedes the contractual Substantial Completion date.

An approved CPM Schedule Update becomes the CPM Schedule of Record and no further action is required by the Design-Builder.

Acceptance: The Owner will accept but not approve a CPM Schedule update if (1) the update accurately reflects the project status as of the data date, (2) any systematic revisions are acceptable, and (3) the schedule meets all other contractual requirements but the schedule's projected Substantial Completion date is later than the contractual Substantial Completion date.

An accepted CPM Schedule Update becomes the CPM Schedule of Record but the Design-Builder must take corrective action to return the project to schedule so that Substantial Completion can be achieved within the Contract Time. Before the next CPM Schedule Update, the Contract shall submit a written description to the Owner and the Owner Construction Manager of its plan to overcome the delay.

Upon approval or acceptance by the Owner and Owner Construction Manager, the update will become the CPM schedule of record for the period between its data date and the data date of the next approved update.

Rejection: The Owner may reject a CPM Schedule update if (1) the update does not accurately reflect the project status as of the data date, (2) utilized systematic revisions are not acceptable, (3) the schedule does not meet any contractual requirement, or (4) the schedule's projected Substantial Completion date is later than the contractual Substantial Completion date for two (2) or more consecutive months and the Design-Builder is not making adequate efforts to remedy the Delay.

A rejected CPM Schedule Update must be reworked to incorporate the comments of the Owner and/or the Owner Construction Manager and be resubmitted to the Owner and the Owner Construction Manager. Resubmittal by the Design-Builder must be made within seven calendar days after receipt of the Owner and/or Owner Construction Manager's review comments. The Owner reserves the right to reject any proposed revision which adversely impacts the Owner, utilities, or other concerned parties. No new schedule update shall be submitted until a rejected Update is resubmitted and accepted or approved by the Owner.

Failure to timely submit a CPM Schedule update may result in the Owner Construction Manager or Owner withholding payment until submission and approval/acceptance. Failure to timely resubmit a CPM Schedule update which can be approved or accepted by the Owner may result in the Owner Construction Manager or Owner withholding payment until an acceptable Update or Revision is submitted.

Updates must not include any systematic revisions to the previous CPM Schedule of Record, unless prior approval by the Owner Owner's Construction Manager is received for the insertion of revisions.

The Design-Builder will attend bi-weekly progress meetings at the project site. At these meetings, the Design-Builder will provide a report on the actual status of the Work as compared to the latest CPM Schedule of Record.

11.2.3 Coordination with Other Schedules. The Design-Builder must revise its Progress Schedule as necessary to conform to the overall Project Progress Schedule incorporating schedules of the Owner and any Separate Contractors as provided in Part 1 – GC, Section 7.1.4.

11.2.4 Review and Approval of Schedules. The Design-Builder's Progress Schedule must include, at no additional cost, details requested by the Owner or the Owner Construction Manager and be in the format

specified in the Contract Documents and as provided in this Article 11. The Owner and the Owner Construction Manager will review and approve or take other appropriate action on the Design-Builder's Progress Schedule, but only for the limited purpose of checking for general conformance with the requirements of the Contract Documents, this Article 11, and the schedules of the Owner, Separate Contractors and other forces permitted by the Owner to perform work at the Site. Any changes to the schedule required by the Owner or the Owner Construction Manager must be made by the Design-Builder and the schedule resubmitted to the Owner for approval. Review and approval or acceptance of the schedule does not relieve the Design-Builder of its obligations to complete the Work within the Contract Time or any interim completion dates required by the Contract Documents, nor does it constitute approval of any construction means, methods, techniques, sequences or procedures. The approval or acceptance of any schedule or any schedule adjustment made as part of the approval/acceptance of any schedule does not constitute, nor does it provide the basis for, any Claim for an increase of the Contract Time or any Claim for an increase in the Contract Price.

11.2.5 Schedule of Submittals. The Design-Builder must prepare and keep current, for the Owner's and the Owner Construction Manager's approval, a Schedule of Submittals which is part of the Progress Schedule. The Schedule of Submittals must allow at least thirty (30) days for review and approval of each Submittal by the Owner Construction Manager, and sufficient additional time, if required, for (i) review and approval by regulatory bodies and (ii) their correction and resubmission by the Design-Builder and any Subcontractors or Suppliers. The Schedule of Submittals must identify all schedules, Shop Drawings, Product Data, Samples, Warranties, operating manuals and other Submittals provided for review or required for approval by the Owner or the Owner Construction Manager, which indicates the dates or times which the Design-Builder proposes to submit each such Submittal (allowing sufficient time for review, correction and resubmission if required, and approval) and the dates or times on or within which such Submittals must be approved in order to avoid a delay in the progress of the Work.

11.3 PROJECT PROGRESS

11.3.1 Contract Time Reasonable. By executing the Contract, the Design-Builder confirms that the Contract Time is a reasonable period for performing the Work.

11.3.2 Time is of Essence. The Design-Builder acknowledges that completion of the Contract by the dates specified for Substantial and Final Completion is critical to the Owner, time being of the essence.

11.3.3 Design-Builder to Proceed Expeditiously. The Design-Builder must proceed expeditiously with adequate forces and maintain progress in accordance with the latest approved Progress Schedule.

11.3.4 Conformance to Schedules. The Design-Builder must conform to the most recently approved Progress Schedule. The Design-Builder must complete the indicated Work or achieve the required percentage of completion, as applicable, within any interim completion dates established in the most recently approved Progress Schedule.

11.3.5 Progress Record. The Design-Builder must maintain at the Site, available to the Owner and the Owner Construction Manager for their reference during the progress of the Work, a color copy of the latest approved Progress Schedule, a copy of the latest CPM Schedule of Record (if different from the latest approved Progress Schedule) and any approved revisions thereto. The Design-Builder must keep current records of and mark on a copy of the CPM Schedule of Record the actual commencement date, progress, and completion date of each scheduled activity indicated on the Progress Schedule.

11.3.6 Substantial Completion Within Contract Time. The Design-Builder must achieve Substantial Completion within the Contract Time.

11.3.7 No Damages for Prevention of Early Completion. The Design-Builder represents that its bid includes all costs, overhead and profit which may be incurred throughout the Contract Time and the period between Substantial and Final Completion. Accordingly, the Design-Builder may not make any Claim for delay damages based in whole or in part on the premise that the Design-Builder would have completed the Work prior to the expiration of the Contract Time but for any claimed delay.

11.3.8 Acceleration to Comply with Schedule. If the Design-Builder's progress is not maintained in accordance with the latest approved Progress Schedule, or the Owner determines that the Design-Builder is not diligently proceeding with the Work or has evidence reasonably indicating that the Design-Builder will not be able to conform to the most recently approved Progress Schedule, the Design-Builder must, promptly and at no additional cost to the Owner, take all measures necessary to accelerate its progress to overcome the delay and ensure that there will be no further delay in the progress of the Work and notify the Owner thereof. Any extension of working hours requires approval of the Owner, which will not be unreasonably withheld but may be subject to reasonable conditions including payment for additional or overtime services of the Owner, the Owner Construction Manager and any other applicable consultants, testing or regulatory agency costs.

11.3.9 Acceleration of Schedule. The Owner reserves the right to issue a written directive to accelerate the Work which may be subject to an appropriate adjustment, if any, in the Contract Price. If the Owner directs an acceleration of the Project Schedule and no adjustment is made in the Contract Price, or if the Design-Builder disagrees with any adjustment made, the Design-Builder must file a request for increase to Contract Time as provided in Part 1 – GC, Article 12 or any Claim for such will be deemed to be conclusively waived.

11.4 SUSPENSION OR STOPPAGE OF WORK

11.4.1 Owner's Right to Stop the Work. If the Design-Builder fails to correct Work, or any portion thereof, which is not in accordance with the requirements of the Contract Documents or fails on more than one occasion to carry out Work in accordance with the Contract Documents, the Owner may, order the Design-Builder to stop the Work, or any portion thereof, until the cause for such order has been eliminated. The Owner or its designee, acting in the capacity of a building inspection official, has the power to stop Work as may be necessary to enforce compliance with applicable codes and regulations. Work stoppage in accordance with this Section does not entitle the Design-Builder to an increase in Contract Time or damages for delay. If the Design-Builder disagrees with the Owner's right to stop the Work, the Design-Builder must file a Claim for increase in the Contract Time and/or increase in the Contract Price in accordance with Part 1 – GC, Articles 11 and/or 12 as applicable or any Claim for such will be deemed to be conclusively waived.

11.4.2 Owner's Right to Suspend Work for Convenience. The Owner may, without cause and for its convenience, order the Design-Builder in writing to suspend, delay or interrupt the Work in whole or in part for such period of time as the Owner may determine, subject to an appropriate adjustment in the Contract Time and/or Contract Sum. The Design Builder is not entitled to profit on any adjustment to the Contract Price due to any such stoppage, suspension, interruption or delay. If no adjustment is made in the Contract Price as a consequence of the suspension order, or if the Design Builder disagrees with any adjustment made, the Design-Builder must file a Claim for increase in the Contract Time and/or increase in the Contract Price in accordance with Part 1 – GC, Articles 11 and/or 12 as applicable or any Claim for such will be deemed to be conclusively waived.

11.4.3 Disagreements Involving Non-payment. In the event of any disagreement between the Design-Builder and the Owner involving the Design-Builder's Claim to entitlement of any payment, the Design-Builder must diligently proceed with the Work pending resolution of the disagreement subject to the provisions of Section 7(G) of the Contract.

11.5 DELAYS

11.5.1 Excusable Delay. An excusable Delay is a Delay in the progress of the Work which at the time of the Delay was a critical path activity as shown on the most recent CPM Schedule of Record and which prevents the Design-Builder from achieving Substantial Completion before the expiration of the Contract Time, caused by conditions which could not reasonably be anticipated by, are beyond the control of, and are without the fault or negligence of the Design-Builder, as set forth in Section ___, Uncontrollable Circumstances. Excusable Delay does not include any delay caused in whole or in part by any Designer, Subcontractor, Sub- subcontractor or Supplier which is considered unexcused Delay. There shall be no compensation whatsoever for excusable delay. Excusable Delay may, but does not necessarily, include:

.1 Weather delay as further defined in Part 1 – GC, Article 11, Section 11.6.6;

.2 Act or omission of government and regulatory agencies and officials (other than the Owner in its capacity as Owner);

.3 Act or omission by third parties (utilities are not included as an Excusable Delay);

.4 Catastrophic event such as fire, flood and unavoidable casualties; and

.5 Strike or labor dispute.

11.5.2 Compensable Delay. Compensable Delay is limited to delay in the progress of the Work which at the time of the delay was critical path activity as shown on the most recent CPM Schedule of Record and which prevents the Design-Builder from achieving Substantial Completion before the expiration of the Contract Time, caused solely and exclusively by acts or omissions of the Owner (excepting actions taken by the Owner to protect the public health or safety or to conform to law).

11.5.3 Unexcused Delay. Unexcused Delay is delay in Work which at the time of the delay was critical path activity as shown on the most recent CPM Schedule of Record and which prevents the Design-Builder from achieving Substantial Completion before the expiration of the Contract Time, and which is not excusable delay or compensable delay. No increase in the Contract Time or increase in the Contract Price will be provided for an unexcused Delay.

11.6 TIME AND RELATED COST ADJUSTMENTS

11.6.1 Notice of Delay. The Design-Builder must provide written notice of any actual or prospective Delay promptly, and in no event later than five (5) days after the occurrence of the event or omission giving rise to such Delay. The notice must be provided both to the Owner Construction Manager and the Contract Administrator within the specified time.

The written notice must contain the following information:

.1 A detailed statement of the reasons and causes for the Delay;

.2 Inclusive dates of the Delay (start date only if end date is not known);

.3 Specific portions of the Work affected by the actual or prospective Delay; provide specific Activity Names and Numbers from the most recent CPM schedule of record

.4 Status of Work (affected Activities) affected before commencement of the Delay;

.5 Effect of the Delay on available "float" for referenced Activities; and

.6 Specific action (if any) required by the GEC and/or the Owner to remedy or mitigate the Delay.

If the Design-Builder fails to provide the written notice containing the specified information, within the five (5) days, as prescribed above, the Design-Builder will not receive any consideration, in a Claim for an increase in Contract Time and/or for a Claim for an increase in the Contract Price, for the time period before a written notice (containing the specified information) is provided to the Owner and the Owner Construction Manager. Design-Builder shall have an obligation under this section to mitigate any damages due to compensable, excusable or inexcusable delay.

11.6.2 Continuing Delay. In the case of a continuing Delay (an actual or prospective Delay to a activity or activities for which the Design-Builder cannot progress pending further information), the Design-Builder must provide the initial notice (as described in the preceding Section) and a further written notice at each progress meeting throughout the duration of the Delay. The further notices must contain all of the specific information required in the preceding Section. A continuing Delay ends when the Design-Builder has sufficient information to progress the affected work, not when the affected work is completed. The Design-Builder must request an increase in the Contract Time in accordance with Part 1 – GC, Article 11, Section 11.6.3 when the delayed work can progress again.

11.6.3 Request for an Increase in Contract Time. If the Design-Builder contends that the Delay is an excusable or compensable Delay, and it is entitled to an increase in Contract Time, the Design-Builder, in addition to providing the notice in Part 1 – GC, Article 11, Section 11.6.1, must submit a request for additional Contract Time to the Owner and the Owner Construction Manager within fifteen (15) days of the event ending the Delay. The Design-Builder's failure to provide the written request for an increase in Contract Time containing the information specified in the following Section within the fifteen (15) days prescribed above will be conclusively deemed a waiver of any Claim for Delay arising from such occurrence.

11.6.4 Concurrent Delay. Concurrent delay is two or more separate Delays, as defined in Part 1 – GC, Article 11, Section 11.5, in the progress of the Work, one or more which is caused by the Owner and one or more which is caused by the Design-Builder which, at the time of the Delay, delayed critical path activities as shown on the most recent CPM Schedule of Record, that occur during the same time period, and each Delay independently delayed the Design-Builder from achieving Substantial Completion before the expiration of the Contract Time. Any concurrent Delay will be considered an excusable Delay; therefore, the Design-Builder will receive a corresponding increase in Contract Time, but will not receive any compensation for a concurrent Delay.

11.6.5 Supporting Documentation. The Design-Builder's request for an increase in the Contract Time must identify those portions of the latest CPM Schedule of Record affected by the delay and must include an estimate of the cost and probable effect of the delay, if any, on the progress of the Work. Supporting documentation must include, but is not limited to:

.1 A written detailed statement of the reasons and causes for the delay;

.2 Inclusive dates of the delay;

.3 Specific portions of the Work affected by the actual or prospective delay; provide specific Activity Names and Numbers from the most recent CPM schedule of record;

.4 Status of Work affected before commencement of the delay;

.5 Effect of the delay on available "float" time for the referenced activities and the Project;

.6 A critical path method (CPM) analysis demonstrating that the delay has affected an activity (or activities) on the critical path of the most recent CPM schedule of record at the time of the occurrence of the delay; and

.7 If the Design Builder claims that the delay is an excusable delay or compensable delay, evidence that the delay was unforeseeable, beyond the Design-Builder's control, and without the fault or negligence of the Design-Builder or the negligence of anyone for whose acts the Design-Builder is responsible including any Subcontractor, sub-subcontractor or Supplier; and in the case of a compensable delay, was caused solely and exclusively by the acts or omissions of the Owner (excepting actions taken by the Owner to protect the public health or safety or to conform to law) or anyone for whose acts the Owner is responsible, and which are unreasonable under the circumstances involved and not reasonably within the contemplation of the parties.

11.6.6 Additional Time for Unusually Severe Weather. In order for the Design-Builder to be entitled to an increase of the Contract Time under this Section, the following conditions must be satisfied:

.1 The weather experienced at the Project Site during the Contract period must be found to be unusually severe, that is, more severe than the adverse weather anticipated for the Project location during any given month;

.2 The unusually severe weather must delay Work which at the time of the unusually severe weather was a critical path activity as shown on the most recent CPM Schedule of Record and which prevents the Design-Builder from achieving Substantial Completion before expiration of the Contract Time. The delay must be beyond the control and without the fault or negligence of the Design-Builder. For example, the impacted critical activity must not have occurred during unusually severe weather due to previous unexcused delays; and

.3 The Design-Builder must have provided a request for an increase in the Contract Time of the weather-related delay complying with Part 1 – GC, Article 11, Section 11.6.3 above. The last day of the each month will the date of the end of the delay for purposes of the fifteen (15) day requirement for submission. Any request for an increase in the Contract Time for a weather-related delay must be submitted by the 15th of the following month.

The following schedule of monthly anticipated adverse weather delays will constitute the base line for monthly weather time evaluations. The Design-Builder's Progress Schedule including all updates must reflect these anticipated adverse weather delays in all weather dependent activities.

Upon Notice to Proceed and continuing throughout the Contract, the Design-Builder must record on its daily CQC and/or field reports, the occurrence of adverse weather and resultant impact to actual and scheduled Work. Actual adverse weather delay days must prevent Work on critical path activities for

fifty (50) percent or more of the Design-Builder's scheduled workday. The number of actual adverse weather delays must include only the Design-Builder's scheduled workdays impacted by actual adverse weather (even if the adverse weather occurred in the previous month), be calculated chronologically from the first to the last day each month, and be recorded as full days. If the Design-Builder has complied with Section 11.6.3 and the number of actual adverse weather delay workdays exceeds the number of days anticipated in the table above, and have adversely affected critical path weather-dependent activities, the Design-Builder is entitled to an increase in the Contract Time, but not an increase in the Contract Price (i.e. weather delays are excusable delays).

The preceding calculation and methodology is based on work days. To convert any justified time increase to calendars days, the number of justified work days shall be multiplied by (7/5 = 1.4), and rounded to the nearest whole number, to determine justified calendar days [Example: 2 work days would be converted to 2.8 (3) calendar days.]

11.6.7 Strikes and Labor Disputes. If strikes or labor disputes are to be considered as the basis for an excusable delay, they must be documented by data evidencing (i) the trades directly and indirectly involved in or affected by the strike or labor dispute, (ii) reasons for the strike or labor dispute, (iii) the onset and duration of the strike or labor dispute, and (iv) the measures taken by the Design-Builder to avoid or overcome the effects of any delay.

11.6.8 Review and Adjustment of Schedules. Upon receipt of a request for an increase in the Contract Time from the Design-Builder complying with Part 1 – GC, Article 11, Sections 11.6.3 and 11.6.4 (and if applicable 11.6.5) above, the Owner will review the most recent CPM Schedule of Record to determine (i) whether the delay is in fact an excusable or compensable delay, and (ii) whether any adverse effects of the delay can be overcome by an adjustment in the Progress Schedule including the application of any unused "float" time available in the schedule. The Owner may require the Design-Builder to submit a more detailed Progress Schedule than previously required in order to permit the Owner to evaluate the delay. Based on such review, the Design-Builder must, if required by the Owner, submit for the Owner's approval a revised Progress Schedule, which minimizes the adverse effects of the delay. After review, the Owner will issue a determination of the validity of the Design-Builder's request. If justified, the Owner will prepare a Change Order or Contract Amendment for an increase in the Contract Time.

11.6.9 Limitations on Adjustments. No increase in the Contract Time or increase in the Contract Price will be allowed for any delay or part thereof occurring more than fifteen (15) days before written request for an increase in the Contract Time for the delay is provided by the Design-Builder.

1. No increase in the Contract Time or increase in the Contract Price will be made to the extent that performance is, was or would have been suspended, delayed or interrupted by another cause for which the Design-Builder is responsible. No increase in the Contract Price will be made to the extent performance was or would have been suspended, delayed or interrupted by another cause for which the Owner is not solely and exclusively responsible.

2. The Design-Builder will not receive any compensation for profit, additional bond cost or overhead (which includes extended office overhead and site-specific overhead and general conditions) or any other cost or compensation or any other damages of any kind or nature whatsoever whether incurred by the Design-Builder, its Designer, its Subcontractor or Suppliers for delay, all of which are irrevocably waived by Design-Builder where the delay results from performance of additional Work (Change Order or Field Order Work

including bilateral, unilateral, and constructive changes) beyond the Work required by the Contract Documents and the Design-Builder is paid for the additional Work. The Design-Builder acknowledges and agrees that the profit, additional bond cost and overhead (which includes extended office overhead and site-specific overhead and general conditions) if any, incurred by the Design Builder in performing work beyond the Work required by the Contract Documents and any and all other costs, compensation or damages due Design-Builder (including any of its Subcontractors or Suppliers), is included in, and payable to the Design-Builder as part of the Change Order or Field Order Work. Design-Builder waives any and all other damages and cost of any nature or kind whatsoever including Claims for local and cumulative impacts as a result of such Change Order Work and any and all other Claims of any type or nature whatsoever including any Claim for loss of productivity or loss of efficiency.

3. The Design-Builder will be compensated for compensable delays only for actual and direct damages resulting from such compensable delays. Actual direct damages are limited to site specific general conditions and do not include any indirect costs such as home office overhead. The Design-Builder will be compensated for such actual and direct damages for compensable delays not attributable to performance of Change Order. Work for which the Design-Builder is not otherwise compensated in an amount not to exceed the lesser of (i) a daily rate computed by dividing eight percent (8%) of the original Contract Price by the original Contract Time or (ii) a daily rate computed by dividing the Design-Builder's profit, bond cost and site-specific overhead (but not home office overhead) for the original Contract Price by the original Contract Time.

4. The Design-Builder for itself and its Designers, Subcontractors and Suppliers, irrevocably waives any and all other compensation and delay damages as a result of any compensable delays, including without limitations any Claims for any indirect cost and any Claims for loss of productivity or loss of efficiency.

11.6.10 Denial of Adjustments in Time or Money. In the event the Owner denies the Design-Builder's Claim for a change in the Contract Time or, in the case of a compensable delay, a change in the Contract Price, the Design-Builder may, within thirty (30) days after such denial, submit a Claim as provided in Article 16. Submissions made prior to the denial must be resubmitted as part of the Claim after the denial. Any Claim on account of denial of a change which is not made within such thirty (30) days of the denial will be deemed conclusively to have been waived.

11.7 DAMAGES FOR DELAY

11.7.1 Delay Damages.

.1 By executing a Bilateral Change Order, Field Order or Contract Amendment, the Design-Builder represents that the Design-Builder is not entitled to an increase in Contract Time or an increase in the Contract Price beyond that specified in the Bilateral Change Order, Field Order or Contract Amendment for the Work performed or to be performed under the Modification. Nor is the Design-Builder entitled to an increase of the Contract Time or an increase in the Contract Price as a result of the issuance by the Owner of a Unilateral Change Order or Field Order unless a Claim for an increase in the Contract Time and/or a Claim for an increase in the Contract Price is made by the Design-Builder as and when required by Part 1 – GC, Articles 11 and 12.

.2 No Claim for an increase in the Contract Time and/or Claim for an increase in the Contract Price or Claims for damages may be made by the Design-Builder or paid to the Design-Builder

for any delay, disruption, inefficiency, interference or hindrance from any cause whatsoever, whether foreseeable or not, including (i) acts or omissions by the Owner, its agents, employees or consultants, (ii) Contract Documents that are negligently prepared or contain inaccurate statements, or (iii) force majeure and circumstances beyond the Design-Builder's control. The sole remedy for delays, disruptions or hindrances will be non-compensable increases in Contract Time for completion of the Work.

.3 The provisions of the preceding Section do not apply to Claims that meet all of the following conditions: (i) the Claim arises under the Contract; (ii) the Claim is limited to actual and direct damages (i.e. profit, additional bond costs (if any) and overhead (only site-specific overhead and not including home office overhead)) incurred as a result of a delay in completing the Project which the Design-Builder acknowledges are fully compensated for by payment of the adjustment amount specified in Part 1 – GC, Article 11, Section 11.6.9.3; (iii) the Contract establishes a time limit for achieving Substantial Completion and the Claim is for critical path delays that prevent achievement of Substantial Completion of the Contract within that time limit; (iv) the delay for which damages are claimed is caused solely and exclusively by the Owner; (v) the delay is not caused by actions taken by the Owner to protect the public health or safety or to conform to law; and (vi) the Design-Builder has fully complied with Part 1 – GC, Article 11, Section 11.6.

.4 An increase in Contract Time shall be granted only for an excusable delay that is beyond the Design-Builder's control and occurs without the Design-Builder's fault or negligence. No increase in Contract Time will be granted in the absence of a written request for the increase in Contract Time complying with Part 1 – GC, Article 11, Section 11.6.

11.7.2 Liquidated Damages. The Owner will suffer financial loss if Substantial Completion of the Work is not achieved within the Contract Time. Accordingly, and in lieu of actual damages or proof thereof, the Design-Builder agrees to pay, as Liquidated Damages and not as a penalty, the amount stipulated in the Contract for each and every day of unexcused delay in achieving Substantial Completion. For Liquidated Damage assessment, see Part 2 Agreement Article 14).**[NOTE: review your jurisdiction's case law for the standard language permitted and/or used for liquidated damages provisions to ensure Section 11.7.2 will be defensible and not treated as a "penalty." Note further, in some jurisdictions, Liquidated Damages provisions in public contracts on behalf of a government owner are presumptively valid."].**

11.7.3 Assessment of Liquidated Damages. The Owner may assess and deduct the applicable amount of Liquidated Damages from any payment due the Design-Builder. If the unpaid balance of the Contract Price is less than the amount of the Liquidated Damages, the Design-Builder or its Surety must pay the deficiency to the Owner upon demand.

11.7.4 If at anytime the Owner has reasonable belief that the project shall be delayed beyond the scheduled completion date, the Owner may withhold retainage from payments otherwise due the Design-builder in an amount equal to the daily rate for liquidated damages multiplied by the anticipated number of days for the delay.

ARTICLE 12

CHANGES

12.1 CHANGE INSTRUMENTS

12.1.1 Amendment Only by Written Modification. The Contract may be amended or modified only by a written Modification as defined in Part 1 – GC, Article 1, Section 1.1.80.

12.1.2 Change Instruments. Changes in the scope of the Contract may be effected only by a written Amendment signed by the Design-Builder and Owner. Changes in the Work which are within the general scope of the Contract may be effected, without invalidating the Contract, by a Change Order or Field Order. The Contract Time and Contract Price may be changed only by a Change Order or Contract Amendment.

12.1.3 Change Proposals. The Design-Builder must submit a request for change to the Contract Price (change proposal) covering a contemplated change within ten (10) days after request of the Owner or the General Engineering Consultant or within ten (10) days of the event giving rise to the Design-Builder's request for a change in the Contract Price or Contract Time. No increase in the Contract Time or increase in the Contract Price or will be allowed the Design-Builder for the cost or time involved in making change proposals. Change proposals must define or confirm in detail the Work which is proposed to be added, deleted, or changed and must include any adjustment which the Design-Builder believes to be necessary in (i) the Contract Time, or (ii) the Contract Price. Any proposed adjustment must include detailed documentation including but not limited to: cost, properly itemized and supported by sufficient substantiating data to permit evaluation including cost of labor, materials, supplies and equipment, rental cost of machinery and equipment, additional bond cost, plus a fixed fee for profit and overhead (which includes office overhead and site-specific overhead and general conditions) of ten percent (10%) if the Work is performed by the Design-Builder, or five percent (5%) if the Work is performed by a Subcontractor or Sub-subcontractor. The Subcontractors or Sub-subcontractors overhead and profit in turn must not exceed ten percent (10%). Change proposals are binding upon the Design-Builder and may be accepted or rejected by the Owner in its discretion. Acceptance of a change proposal may only be made in a written Modification. The Owner may, at its option, instruct the Design-Builder to proceed with the Work involved in a unilateral Change Order or unilateral Field Order in accordance with this Article 12, without accepting the change proposal in its entirety.

12.1.4 Preparation and Submission of Change Orders and Contract Amendments. If the Owner determines that a change proposal is appropriate, the Contract Administrator or designee will prepare and submit a request for a Change Order or Contract Amendment providing for an appropriate adjustment in the Contract Time or Contract Price, or both, for further action by the Director. No such change is effective until the Change Order has been approved by the Director.

12.1.5 Performance of Changes. Unless otherwise provided, the Design-Builder must perform changes in the Work promptly upon receipt of executed Modifications under applicable provisions of the Contract Documents.

12.2 CHANGE ORDERS

12.2.1 Utilization. A Change Order is a written directive by the Owner to the Design-Builder directing a change in the Work which is within the general scope of the contract and which may increase or decrease the Contract Time and/or the Contract Price issued with or without the consent of the Design-Builder.

12.2.2 Adjustments in Amount Payable to Design-Builder. A Change Order may provide for an adjustment in the amount payable to the Design-Builder based only on one of the following methods:

.1 A fixed or not-to-exceed sum agreed to by the Owner and Design-Builder and stated in the change instrument;

.2 Unit Prices stated in the Contract Documents; or

.3 Reasonable and fair cost estimate, properly itemized and supported by sufficient substantiating data to permit evaluation which will be limited to estimated costs of labor, materials, supplies and equipment, rental cost of machinery and equipment, additional bond cost, plus a fixed fee for profit and overhead (which includes office overhead and site-specific overhead and general conditions) of ten percent (10%) if the Work is performed by the Design-Builder, or five percent (5%) if the Work is performed by a Subcontractor or Sub-subcontractor. The Subcontractors or Sub-subcontractors overhead and profit in turn must not exceed ten percent (10%). The total percentage of overhead and profit payable by the Owner (to both the Design-Builder and all subtier subcontractors), regardless of the subtier which performs the work, shall not exceed twenty percent (20%).

.4 Actual cost, properly itemized and supported by sufficient substantiating data to permit evaluation which will be limited to actual cost of labor, actual cost of materials, supplies and equipment, actual rental cost of machinery and equipment, additional bond cost, plus a fixed fee for profit and overhead (which includes office overhead and site-specific overhead and general conditions) of ten percent (10%) if the Work is performed by the Design-Builder, or five percent (5%) if the Work is performed by a Subcontractor or Sub-subcontractor. The Subcontractors or Sub-subcontractors overhead and profit in turn must not exceed ten percent (10%). The total percentage of overhead and profit payable by the Owner (to both the Design-Builder and all subtier subcontractors), regardless of the subtier which performs the work, shall not exceed twenty percent (20%).

.5 In the absence of an agreement between the Owner and Design-Builder, the amount must be determined in accord with Part 1 – GC, Article 12, Sections 12.2.2.2 or 12.2.2.3 above, using whichever will result in the lowest cost to the Owner.

12.2.3 Adjustments in Progress Schedule. A Change Order may provide for an adjustment in the Contract Time if justified by the requirements of Part 1 – GC, Article 11.

12.2.4 Absence of Proposed Adjustments. If a Change Order is silent as to any adjustment to the Contract Time or the Contract Price, it will be conclusively presumed that none is intended and none will be allowed unless the Design-Builder files an objection as and when specified in the following Section

12.2.5 Action Upon Receipt. Upon receipt of a Unilateral Change Order, the Design-Builder must promptly proceed with the change in the Work involved. The Design-Builder must advise the Owner and the Owner Construction Manager in writing, promptly and in no event later than ten (10) days after issuance of the Change Order, of the Design-Builder's objection (i) to the amount or method, if any, provided for in the Unilateral Change Order for adjustment in the Contract Time or in the amount payable to the Design-Builder, or (ii) to the absence of any adjustment to the Contract Time or the Contract Price. Any objection to be valid must contain the specific adjustment in the Contract Time or the Contract Price to which the Design-Builder claims it is entitled including a detailed explanation of the basis for its request. A Claim for an increase in the Contract Time, to be valid, must contain the supporting documentation specified in Part 1 – GC, Article 11, Section 11.6. A Claim for an increase in the Contract Price, to be valid, must further be documented and calculated as specified in Part 1 – GC, Article 12, Section 12.2.2. Failure of the Design-Builder to object as and when specified in this Section is deemed an acceptance of the Unilateral Change Order as issued and a waiver of any Claim by the Design-Builder to any adjustment to the Contract Time or the Contract Price.

12.3 FIELD ORDERS

12.3.1 Utilization. A Field Order is a written instruction issued by the Owner to the Design-Builder directing a change in the Work when unforeseen and unanticipated conditions arise which require immediate action to mitigate costs or avoid delays. It may provide for additional compensation to be paid to the Design-Builder (outside of the Contract), but does not change the Contract Time or Contract Price.

.1 The Owner may issue a unilateral Field Order to avoid Project Delay before the Design-Builder has prepared its cost proposal. In these instances, the Design-Builder should, unless noted otherwise on the Field Order, submit its cost proposal within ten (10) days and the Owner will review the cost proposal in accordance with Part 1 – GC, Article 12, Section 12.3.

.2 The Owner may issue a Field Order directing the Design-Builder to proceed with work which the Design-Builder and the Owner and/or Owner Construction Manager disagree as to whether it is a Change to the Work. In these instances, the Design-Builder shall submit it's Claims for an increase in the Contract Time and/or an increase in the Contract Price in accordance with Part 1 – GC, Articles 11 and 12 and the Owner will make a determination on the Claims. If the Design-Builder disagrees with the determination, the Design-Builder must file a Dispute in accordance with Part 1 – GC, Article 16.

12.3.2 Adjustments in Amount Payable to Design-Builder. A Field Order may provide for an adjustment in the amount payable to the Design-Builder based only on one of the following methods:

.1 A fixed or not-to-exceed sum stated in the change instrument;

.2 Unit Prices stated in the Contract Documents;

.3 Reasonable and fair cost estimate, properly itemized and supported by sufficient substantiating data to permit evaluation which will be limited to estimated costs of labor, materials, supplies and equipment, rental cost of machinery and equipment, additional bond cost, plus a fixed fee for profit and overhead (which includes office overhead and site-specific overhead and general conditions) of ten percent (10%) if the Work is performed by the Design-Builder, or five percent (5%) if the Work is performed by a Subcontractor or Sub-subcontractor. The Subcontractors or Sub-subcontractors overhead and profit in turn must not exceed ten percent (10%). The total percentage of overhead and profit payable by the Owner (to both the Design-Builder and all subtier subcontractors), regardless of the subtier which performs the work, shall not exceed twenty percent (20%);

.4 Actual cost, properly itemized and supported by sufficient substantiating data to permit evaluation which will be limited to actual cost of labor, actual cost of materials, supplies and equipment, actual rental cost of machinery and equipment, additional bond cost, plus a fixed fee for profit and overhead (which includes office overhead and site-specific overhead and general conditions) of ten percent (10%) if the Work is performed by the Design-Builder, or five percent (5%) if the Work is performed by a Subcontractor or Sub subcontractor. The term 'cost' as used in this Section is limited to the cost incurred in the actual performance of the work. The Subcontractors or Sub-subcontractors overhead and profit in turn must not exceed ten percent (10%). The total percentage of overhead and profit payable by the Owner (to both the Design-Builder and all sub-tier subcontractors), regardless of the sub-tier which performs the work, shall not exceed twenty percent (20%); or

.5 In the absence of an agreement between the Owner and Design-Builder, the amount must be determined in accord with Part 1 – GC, Article 12, Sections 12.3.2.2 or 12.3.2.3 above, using whichever will result in the lowest cost to the Owner.

12.3.3 Adjustments in Progress Schedule. A Field Order may not be used to adjust the Contract Time. If the Design-Builder files an objection under Section 12.3.5 below which results in an entitlement by the Design-Builder to an increase in the Contract Time, it will be implemented by execution of a Change Order or Contract Amendment.

12.3.4 Absence of Proposed Adjustments. If a Field Order is silent as to any adjustment to the Contract Time or the Contract Price, it will be conclusively presumed that none is intended and none will be allowed unless the Design-Builder files an objection as and when specified in the following Section.

12.3.5 Action Upon Receipt. Upon receipt of a (unilateral or bilateral) Field Order, change order or Owner directed change, the Design-Builder must promptly proceed with the change in the Work involved. The Design-Builder must advise the Owner and the Owner Construction Manager in writing, promptly and in no event later than ten (10) days after issuance of the Field Order, of the Design-Builder's objection (i) to the amount or method, if any, provided for in the Field Order for adjustment in the Contract Time or to the Contract Price, or (ii) to the absence of any adjustment in the Contract Time or to the Contract Price. Any objection to be valid must contain the specific adjustment to the Contract Time or the Contract Price to which the Design-Builder claims it is entitled including a detailed explanation of the basis for the Claim. A Claim for an increase in the Contract Time, to be valid, must contain the supporting documentation specified in Part
1 – GC, Article 11, Section 11.6. A Claim for an increase to the Contract Price, to be valid, must further be documented and calculated as specified in Part 1 – GC, Article 12, Section 12.2.2. Failure of the Design-Builder to object as and when specified in this Section is deemed an acceptance of the Field Order as issued and a waiver of any Claim by the Design-Builder to an adjustment to the Contract Time or the Contract Price.

12.4 DIFFERING CONDITIONS (SITE AND STRUCTURAL)

12.4.1 Differing Site Conditions. This Contract contains a Differing Site Condition clause and requests may be made by the Design-Builder and, if justified, approved by the Owner for an increase in Contract Time and an increase in the Contract Price as consequence of differing site or subsurface conditions encountered by the Design-Builder. For Contract Modification purposes, the Geotechnical Baseline Report establishes a baseline for expected subsurface conditions. The Design-Builder must show a material difference between the Geotechnical Baseline Report and actual subsurface conditions to justify a Contract Modification.

The Design-Builder must promptly, before conditions are disturbed and in no event later than five (5) days after first observing such conditions, give written notice to the Owner and Owner Construction Manager of:

.1 Subsurface or latent physical conditions at the site which differ materially from those indicated in the Contract; or

.2 Unknown physical conditions at the site, of an unusual nature, which differ materially from those ordinarily encountered and generally recognized as inhering in work of the character provided for in the Contract.

Failure of the Design-Builder either (i) to provide notice before disturbing the existing conditions or (ii) failure to give notice within five (5) days of first observing such conditions is conclusively deemed a waiver of any Claim relating to such conditions.

12.4.2 Differing Structural Conditions in Remodeling or Renovation Contracts. If this is a Contract for a remodeling or renovation of an existing structure and the Design-Builder encounters conditions in the structure (not as to the site or subsurface conditions) which differ materially from those indicated in the Contract Documents, the Design-Builder must give written notice thereof to the Owner and the General Engineering Consultant promptly before conditions are disturbed and in no event later than five (5) days after first observing such conditions. Failure of the Design-Builder either (i) to provide notice before disturbing the existing conditions or (ii) failure to give notice within five (5) days of first observing such conditions is conclusively deemed a waiver of any entitlement to an increase in the Contract Time and/or an increase in the Contract Price relating to such conditions.

12.4.3 Investigation and Determination by Owner Construction Manager. After receipt of the written notice, the Owner Construction Manager will promptly investigate any alleged differing condition(s) and provide a written report of its findings to the Owner. If the Owner Construction Manager and Owner determine that the conditions vary materially from the Contract Documents, the Design-Builder shall submit Claims for an increase in the Contract Time and/or an increase in the Contract Price in accordance with Part 1 – GC, Articles 11 and 12 and the Owner will issue a corresponding Modification. To avoid Delay, the Owner may issue a unilateral Field Order or Change Order before receipt of the Design-Builder's Claim. In that instance, a second Modification will be issued after review and acceptance of the Design-Builder's Claims. If the Owner determines that the actual conditions are not materially different or that no change in the terms of the Contract is justified, the Owner will so notify the Design-Builder in writing.

12.4.4 Disputes Over Differing Structural Conditions. If the Design Builder objects to the Owner's finding under Part 1 – GC, Article 12, Section 12.4.3, the Design-Builder must file a notice as and when provided in Section 12.5.1 below and the same will be resolved as provided in Part 1 – GC, Article 12, Section 12.5.2 below. Failure of the Design-Builder to file the notice as and when required by Part 1 – GC, Article 12, Section 12.5.1 below and Article 11 of the Contract will be conclusively deemed a waiver of any Claim relating to any such differing condition.

12.5 CONSTRUCTIVE CHANGES AND DISPUTED ADJUSTMENTS

12.5.1 Notice to Owner and Owner Construction Manager. The Design-Builder must advise the Owner (Contract Administrator) and the Owner Construction Manager in writing promptly and in no event later than ten (10) days after (i) issuance of any interpretation, clarification, instruction, direction or order whether orally or in writing from either the Owner or the Owner Construction Manager or the General Engineering Consultant, or (ii) the occurrence of any event or discovery of any condition (including any condition as provided in Part 1 – GC, Article 12, Section 12.4 above), which the Design-Builder believes or has reason to believe entitles the Design-Builder to an increase in the Contract Time or an increase in the Contract Price; and except in the case of an emergency involving possible loss of life or bodily injury or property damage exceeding $50,000, the required written notice must be provided by the Design-Builder prior to proceeding with the Work. Failure of the Design-Builder to provide such notice constitutes an acceptance of the interpretation, clarification, instruction, direction, order, event or condition without adjustment to the amount payable to the Design-Builder and/or the Contract Time and a conclusive waiver of any Claim relating to the same.

Any objection to be valid must contain the specific adjustment to the Contract Time and/or Contract Price to which the Design-Builder claims it is entitled including a detailed explanation of the basis for the request. A Claim for an increase in the Contract Time must further contain the supporting documentation specified in Part 1 – GC, Article 12, Section 11.6.

A Claim for an increase in the Contract Price must further be documented and calculated as specified in Part 1 – GC, Article 12, Section 12.2.2.

12.5.2 Disputed Adjustments. All disputed adjustments under this Contract will be determined in accordance with Part 1 – GC, Article 16 if, as conditions precedent thereto, the Design-Builder has timely provided all notices and objections required under the terms of the Contract.

12.6 SUBSTITUTIONS AND OR-EQUAL ITEMS

12.6.1 Allowance of Substitutions and Or-Equal Items. The Contract Price and Contract Time are based on the requirements of the Contract Documents and use of the materials and equipment specified therein. Proposals to use Substitutions and Or-Equal Items after Contract execution is neither invited nor favored by the Owner. Or-Equal Items will be considered only where permitted by the Specifications, and Substitutions will be considered only where the specified item is not available or where significant overall cost savings are offered to the Owner. No Substitution or Or-Equal Item will be used without specific written acceptance of the Owner, which may be withheld in the sole discretion of the Owner. The determination by the Owner that an item is not an "or-equal" but a proposed Substitution, and any decision by the Owner regarding the acceptability or use of an Or-Equal or Substitution will be final and without further recourse by the Design-Builder. In making such determinations the Owner may, but will not be required, to rely upon the recommendations of the Owner Construction Manager.

12.6.2 Or-Equal Items. The Design-Builder must submit any requests for the use of an Or-Equal Item, if specifically permitted by the Specifications, to the Owner in writing through the Owner Construction Manager. If in the Owner's sole discretion an item of material or equipment proposed by the Design-Builder is functionally equal to that named and sufficiently similar so that no change in design or related Work will be required, it may be considered for eligibility as an Or-Equal Item, in which case further review of the proposed item will, in the Owner's sole discretion, be accomplished subject to compliance with all of the requirements for acceptance of a proposed Substitution except as expressly waived by the Owner. A decision in the Owner's sole discretion that an item of material or equipment proposed by the Design-Builder does not qualify as an Or-Equal Item, does not preclude a request by the Design-Builder that it be considered a proposed Substitution under Part 1 – GC, Article 12, Section 12.6.3. An Or-Equal Item may only be accepted by the Owner in writing.

12.6.3 Substitutions. After the Contract has been executed, the Owner and Owner Construction Manager will consider a formal request submitted by the Design-Builder for the substitution of products or materials in place of those specified when such request is accompanied by:

.1 Evidence that the specified item is unavailable;

.2 Complete data on the proposed Substitution substantiating compliance with the Contract Documents, including product identification and description, performance and test data, references and samples where applicable, and an itemized comparison of the proposed item with the products specified or named in the Contract Documents;

.3 Data indicating the effect of the Substitution on the Progress Schedule and the Contract Time, if any, on the general design and artistic effect where applicable, and its effect on work under separate contracts;

.4 Accurate cost data on the proposed item in comparison with the product specified, whether or not the Substitution of such item will require an adjustment to the Contract Price; and

.5 Any additional information required by the Owner or the Owner Construction Manager to permit evaluation.

12.6.4 Representations by Design-Builder. Requests for Substitution based on Part 1 – GC, Article 12, Section 12.6.3 above are understood to mean that the Design-Builder:

.1 Represents having personally investigated the proposed Substitution and having determined that it is equal or superior in all respects to that specified;

.2 Will warrant the Substitution to the same extent and will provide the same or better special Warranties and Guarantees for the Substitution as was required for the item originally specified;

.3 Certifies that the cost data is complete and includes all related costs under the Contract including, if known to the Design-Builder, cost under separate contracts and the General Engineering Consultant's redesign costs, and that the Design-Builder waives all Claims for additional costs and agrees to pay all such additional costs, whether known or not, related to the Substitution including any cost which subsequently become apparent;

.4 Certifies that the schedule and time data are complete and include all related time under the Contract (excluding time under separate contracts and for the General Engineering Consultant's redesign), and that the Design-Builder waives all Claims for delay related to the Substitution which subsequently become apparent; and

.5 Will coordinate the installation of the proposed Substitute, making such changes as may be required for the Work to be complete in all respects.

12.6.5 Costs Borne by Design-Builder. The Design-Builder must bear all costs of preparing and submitting requests for Substitutions and the use of Or-Equal Items. The Design-Builder bears the risk for the proper fit and performance of substituted and "or-equal" materials and the burden for additional work, time and expense resulting from substituted and "or-equal" materials. The costs of the Owner's and General Engineering Consultant's additional services attributable to their review, evaluation, acceptance, design and implementation must also be borne by the Design-Builder.

12.6.6 Timeliness. All requests for use of an Or-equal or Substitution must be made in a timely manner in sufficient time to permit adequate review and approval or acceptance by the Owner, Owner Construction Manager and the General Engineering Consultant, coordination with Separate Contractors, and preparation of any changes to the Contract Documents which would be required by acceptance of any proposed Substitution or Or-Equal Item so as not to delay the Work or the Project.

12.6.7 Improper Substitutions. Submission of an item as part of a Shop Drawing, Sample or Product Data does not constitute compliance with Part 1 – GC, Article 12, Section 12.6, even if the Shop Drawing, Sample or Product Data is or has been approved. The Owner may direct removal of any unapproved Substitutions and/or Or-Equal items, and replacement with approved items, at Design-Builder's cost and with no increase in the Contract Time.

ARTICLE 13

PAYMENTS

13.1 SCHEDULE OF VALUES

13.1.1 Submission. Within ten (10) days after issuance of a Notice to Proceed, the Design-Builder must submit to the Owner Construction Manager a Schedule of Values which allocates the Contract Price among all portions of the Work.

13.1.2 Form and Contents of Schedule of Values. The Schedule of Values must be prepared in such a manner that each item of Work and each subcontracted item of work is shown as one or more line items on AIA Document G703, Continuation Sheet (latest edition), or such other form as may be prescribed by the Owner. Unless otherwise required, each line item must include its allocable share of the Design-Builder's overhead and profit. The Schedule of Values must be prepared in such detail and must be supported by such data to substantiate its accuracy as required by both the Owner and the Owner Construction Manager.

13.1.3 Review and Approval. The Owner Construction Manager will review the Schedule of Values with the Owner and advise the Design-Builder of its approval or any revisions that may be required for approval. This Schedule of Values as approved by the Owner Construction Manager and Owner, will be used as a basis for reviewing the Design-Builder's Applications for Payment, and must be revised and resubmitted as necessary to reflect adjustments to the Contract Price by approved Contract Modifications.

13.2 APPLICATIONS FOR PAYMENT

13.2.1 Initial Review and Submission. The Design-Builder must submit to the Owner Construction Manager complete and itemized Applications for Payment for Work on a monthly basis in accordance with a schedule approved by the Owner. Each Application for Payment must be consistent with the approved Schedule of Values. In order to expedite the review and approval of Applications for Payment, the Design-Builder may submit to and review with the Owner Construction Manager and Owner a draft Application for Payment at a progress meeting prior to submitting a formal Application for Payment.

13.2.2 Form and Contents of Application. The form of Application for Payment must be a form as may be prescribed by the Owner. The application must be notarized and supported by sufficient data to demonstrate the Design-Builder's right to payment and compliance with the payment provisions of the Contract to the satisfaction of the Owner and the Owner Construction Manager, such as copies of requisitions from Subcontractors and material Suppliers, partial lien waivers, releases and other documents. Each Application for Payment must reflect approved Change Orders and Contract Amendments and the Contract retainage provided for in the Contract Documents.

13.2.3 Inclusion of Stored Materials. Applications for Payment may include materials and equipment delivered and suitably stored at the Site for subsequent incorporation in the Work. The Owner has no obligation or responsibility to pay for materials stored off the Site. If determined to be in the Owner's best interest and specifically approved in writing in advance by the Owner, an Application for Payment may include materials and equipment stored off the Site at a location agreed upon in writing which is within Montgomery Owner.

Payment for materials and equipment stored on or off the Site is conditioned upon compliance by the Design-Builder with procedures satisfactory to the Owner to protect the Owner's interest. Payment for materials and equipment stored off the Site will, in addition, be conditioned upon the Design-Builder's provision of applicable insurance, storage and transportation to the Site.

13.2.5 Contract Retainage. Until final acceptance of the Work, the amount of each monthly Application for Payment must include the value of each line item as indicated on the approved Schedule of Values, to the extent completed, less contract retainage of five percent (5%). Such contract retainage will apply whether or not the Owner is entitled to withhold additional amounts under the Contract. The Design-Builder has no right to receive any such retainage, or interest thereon, until Substantial Completion.

The full five percent (5%) retainage will be reinstated if the manner of completion of the Work and its progress do not remain satisfactory to the Owner and the Owner Construction Manager, or if the Surety withholds its consent, or if there is a failure to properly perform under any of the provisions of the Contract.

13.2.6 Passage of Clear Title. The Design-Builder warrants that title to all Work covered by an Application for Payment will pass to the Owner no later than the time of payment. By submitting an Application for Payment, the Design-Builder further warrants that all Work for which payments have previously been received from the Owner are free and clear of liens, claims, security interests or encumbrances in favor of the Design-Builder, Subcontractors, material Suppliers, or other persons or entities having provided labor, materials and equipment relating to the Work.

13.2.7 Design-Builder's Certification. Before the Design-Builder receives a progress payment, the Design-Builder must certify in writing that, in accordance with contractual arrangements, Subcontractors and Suppliers:

.1 Have been paid from the proceeds of previous progress payments; and

.2 Will be paid in a timely manner from the proceeds of the progress payment currently due.

The foregoing certification will be deemed to have been inserted into any Application for Payment from which it has been omitted.

In the event the Design-Builder has not paid or does not pay as certified, such failure constitutes a ground for Termination under Part 1 – GC, Article 15, Section 15.3.2 of the Contract.

13.2.8 Application of Payments for Field Orders. The Design-Builder shall submit its Application for Payment of Field Orders monthly to the General Engineering Consultant on a separate document from the Contract Application for Payment. The Design-Builder can submit for partial completion of Field Orders and retainage is not applied to Field Order work.

13.3 CERTIFICATES FOR PAYMENT

13.3.1 Issuance of Certificate for Payment. The Owner Construction Manager will, within ten (10) days after receipt of the Design-Builder's Application for Payment, either issue to the Owner a Certificate for Payment for such amount as the Owner Construction Manager determines is properly due, with a copy to the Design-Builder, or notify the Design-Builder and Owner in writing of the Owner Construction Manager's reasons for withholding certification in whole or in part as provided in Part 1 – GC, Article 13, Section 13.3.3.

13.3.2 Representation in Certificate for Payment. The issuance of a Certificate for Payment will constitute a representation by the Owner Construction Manager to the Owner, based on the Owner Construction Manager's observations at the Site and the data comprising the Application for Payment, that to the best of Owner Construction Manager's knowledge, information and belief, (i) the Work has progressed to the point indicated and (ii) the quality of the Work, to the extent certified as having been completed, is in accordance with the Contract Documents. The foregoing representations are subject to an evaluation of the Work for conformance with the Contract Documents upon Substantial Completion, to results of subsequent tests and inspections, to minor deviations from the Contract Documents correctable prior to completion and to specific qualifications expressed by the Owner Construction Manager, in writing in the Certificate for Payment, and are not binding upon the Owner.

The issuance of a Certificate for Payment will not be a representation that the Owner Construction Manager has (i) made exhaustive or continuous on-site inspections to check the quality or quantity of the Work, (ii) reviewed construction means, methods, techniques, sequences or procedures, or (iii) made examination to ascertain how or for what purpose the Design-Builder has used money previously paid on account of the Contract Price.

13.3.3 Withholding Certification. The Owner Construction Manager may decide not to certify payment and may withhold a Certificate for Payment in whole or in part, to the extent reasonably necessary to protect the Owner, if in the Owner Construction Manager's opinion the representations to the Owner required by Part 1 – GC, Article 13, Section 13.3.2 cannot be made. If the Owner Construction Manager is unable to certify payment in the amount of the Application for Payment, the Owner Construction Manager will notify the Design-Builder and Owner as provided in Part 1 – GC, Article 13, Section 13.3.1. If the Design-Builder and Owner Construction Manager cannot agree on a revised amount, the Owner Construction Manager will promptly issue a Certificate for Payment for the amount for which the Owner Construction Manager is able to make such representations to the Owner. The Owner Construction Manager may also decide not to certify payment or may nullify the whole or a part of a Certificate for Payment previously issued, to such extent as may be necessary in the Owner Construction Manager's opinion to protect the Owner from loss because of the causes set forth in Part 1 – GC, Article 13, Section 13.3.4.

13.3.4 Grounds for Withholding Certification. The Owner Construction Manager may withhold certification, or the Owner may withhold payment, to the extent reasonably necessary, to protect the Owner from loss on account of:

.1 The quality of a portion, or all, of the Design-Builder's Work not being in accordance with the requirements of this Contract and with construction industry standards;

.2 Claims made, or likely to be made, against the Owner or its property on account of the Design-Builder's performance;

.3 Reasonable evidence that the Design-Builder has failed to use Contract funds, previously paid the Design-Builder by the Owner, to pay Design-Builder's Work and Project-related obligations including, but not limited to, Subcontractors, laborers and material and equipment Suppliers;

.4 Reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum;

.5 Loss by, or damage to the Owner or another contractor;

.6 Reasonable evidence that the Design-Builder's rate of progress is such that, in the Owner's opinion, Substantial or Final Completion of the Work for the Project, or both, may be inexcusably delayed;

.7 Failure to carry out the Work in accordance with the Contract Documents;

.8 The quantity of the Design-Builder's Work being less than that stated in the Design-Builder's Application for Payment, or otherwise;

.9 Other items which entitle the Owner to a setoff against the amounts due the Design-Builder; or

.10 Failure of the Design-Builder to remove or bond off liens by its Subcontractors or Suppliers.

13.3.5 Release of Certificate When Grounds Removed. When the reasons for withholding certification are removed, the Owner Construction Manager will certify payment for amounts previously withheld.

13.3.6. Design-Builder to Continue Work. Notwithstanding a dispute between the Owner and the Design-Builder regarding certification of a payment requisition under this section, or any other dispute resulting in nonpayment of an amount on a requisition or payment of an amount less than requested by the Design-Builder, the Design-Builder shall continue to perform the Work and shall not withhold services.

13.4 PROGRESS PAYMENTS

13.4.1 Withholding of Payment by Owner. The Owner may withhold payment on a Certificate for Payment in whole or in part, to the extent reasonably necessary to protect the Owner, if the Owner, based on its own Site observations, inspections or other evidence available to the Owner, does not concur with the Owner Construction Manager's representations under Part 1 – GC, Article 13, Section 13.3.2 or with the Owner Construction Manager's finding of removal of conditions as provided in Part 1 – GC, Article 13, Section 13.3.5. In such case the Owner will notify the Owner Construction Manager and the Design-Builder of the reasons for withholding payment in whole or in part as permitted by this Part 1 – GC, Article 13, Section 13.4.1. If the Design-Builder and Owner cannot agree on a revised amount, the Owner will promptly initiate payment for an amount which the Owner determines to be appropriate. The Owner may also decide not to make payment as necessary to protect the Owner from loss because of the causes set forth in Part 1 – GC, Article 13, Section 13.3.4. In that event, Design-Builder must submit a revised Application for Payment for the Owner's review and approval once such causes have been remedied along with evidence reasonably satisfactory to the Owner that such causes have in fact been remedied.

13.4.2 Payment. Payments on Certificates for Payment which are approved by the Owner as "proper invoices" within the meaning of applicable laws and regulations will be paid within thirty (30) days after the Owner approves the Certificate for Payment.

13.4.3 Payment Not Acceptance of Defective Work. Issuance of a Certificate for Payment by the Owner Construction Manager or the making of any progress payment by the Owner does not constitute acceptance of Work that is not in accordance with the Contract Documents.

13.4.4 Payment Contingent on Performance. Progress payments may be withheld to the extent the Design-Builder is not in full compliance with the Contract. The Owner's failure to make progress payments is not an event of default by the Owner under the Contract, nor does it give rise to the right of the Design-Builder to stop work.

13.4.5 Waiver of Claims by Design-Builder. Acceptance of progress payments by the Design-Builder, a Subcontractor, Sub-subcontractor or Supplier (to the extent not previously waived) constitutes a waiver of Claims arising from any occurrence existing prior to payment, or arising from performance of the Work for which payment is made by that payee except those previously made in writing and identified by that payee as unsettled on the Application for Payment and which fully comply with the requirements of Part 1 – GC, Articles 11, 12 and/or 16.

ARTICLE 14

SUBSTANTIAL AND FINAL COMPLETION

14.1 PARTIAL OCCUPANCY OR USE

14.1.1 Occupancy by Owner. The Owner may occupy or use any completed or partially completed portion of the Work prior to Substantial Completion of all of the Work pursuant to Part 1 – GC, Article 14, Section 14.1.2. WMATA will not accept partial occupancy.

14.1.2 Notice by Owner. The Owner may, at any time, request the Design-Builder in writing to permit the Owner to occupy or use any such portion of the Work. Such partial occupancy or use may commence whether or not the portion is Substantially Complete. Consent of the Design-Builder to partial occupancy or use must not be unreasonably withheld.

14.1.3 Notice by Design-Builder. When the Design-Builder considers that a portion of the Work designated in the Contract Documents for partial occupancy or use can be occupied or used for its intended purpose without significant interference with the Design-Builder's performance of the remainder of the Work, the Design-Builder may notify the Owner and the Owner Construction Manager in writing and request an inspection of that portion and a partial Certificate of Substantial Completion. Such notice must be issued not less than ten (10) days in advance of the date that such Work will be ready for inspection. The determination whether the particular portion of the Work may be occupied for its intended use is at the Owner's sole discretion.

14.1.4 Inspection. Following notice by either the Owner or the Design-Builder, the Design-Builder must prepare and submit to the Owner Construction Manager a list of items remaining to be completed or corrected as provided in Part 1 – GC, Article 14, Section 14.2.3. Immediately prior to such partial occupancy or use, the Owner, Design-Builder and Owner Construction Manager will jointly inspect the area to be occupied or portion of the Work to be used in order to determine and record the condition and stage of progress of the Work.

14.1.5 Conditions for Partial Occupancy or Use. Unless otherwise provided in the Contract Documents or by agreement between the Owner and the Design-Builder, such partial occupancy or use will be subject to the Owner's assumption of responsibility for security, operation, safety, maintenance, heat, utilities, damage to the Work (other than damage caused by the Design-Builder) and insurance with respect to the portions of the Work to be occupied or used by the Owner. The period for correction of such portions of the Work and Warranties required by the Contract Documents will commence upon such partial occupancy or use.

14.1.6 Partial Occupancy or Use Not Acceptance of Defective Work. Unless otherwise agreed to in writing by the Owner, partial occupancy or use of a portion or portions of the Work does not constitute acceptance of Work not complying with the requirements of the Contract Documents.

14.2 SUBSTANTIAL COMPLETION

14.2.1 Notice and Request for Preliminary Inspection. When the Design-Builder considers that the Work is substantially complete and that items remaining to be completed or corrected can be accomplished within another sixty (60) days, the Design Builder must give written notice to the Owner and the Owner Construction Manager and request an inspection of the Work as provided in Part 1 – GC, Article 14, Section 14.2.3. The Design-Builder's notice and request for an inspection must be accompanied by a comprehensive Punch List (or Work List) describing all items to be completed or corrected before final completion and the Submittals required by Part 1 – GC, Article 14, Section 14.2.2. The Design-Builder must proceed promptly to complete and correct items on the list. Failure to include an item on such list does not alter the Design-Builder's responsibility to complete all Work in accordance with the Contract Documents.

14.2.2 Submittals on Substantial Completion. In addition to the Punch List (or Work List), the Design-Builder must submit the following with its request for a determination of Substantial Completion:

.1 A use and occupancy permit;

.2 Final test reports as provided in Part 1 – GC, Article 10, Section 10.5.15 and certificates of inspection and approval required for use and occupancy;

.3 Fire Marshal's approval;

.4 Approvals from, and transfer documents for, all utilities;

.5 Warranties and Guarantees as provided in Part 1 – GC, Article 10, Section 10.2.4,

.6 Final, approved operating and maintenance manuals for materials and systems specified in the Contract Documents;

.7 All documents and verification of training required in accordance with any Quality Control or Commissioning Plan;

.8 Schedule to complete the Punch list and value of Work not yet complete; and

14.2.3 Substantial Completion Inspection and Correction. Upon receipt of the Punch List, the Owner Construction Manager will make an inspection to determine whether the Work or designated portion thereof is substantially complete and whether remaining items can be completed or corrected within thirty (30) days. The Owner may make a similar inspection. If such inspection(s) disclose any deficiency not included on the Punch List, the Owner Construction Manager shall add the deficiency to the Punch list If such inspection(s) discloses any item, whether or not included on the Punch List, which, in the opinion of the Owner or the Owner Construction Manager or Owner, (i) must be completed or corrected before the Work can be occupied or used for its intended purpose, or (ii) cannot be completed or corrected within thirty (30) days, the Owner Construction

Manager will so advise the Design-Builder, and the Design-Builder must promptly complete or correct such item prior to Substantial Completion.

14.2.4 Reinspection. If the Owner Construction Manager advises the Design-Builder per Part 1 – GC, Article 14, Section 14.2.3 that Work is required prior to Substantial Completion, the Design-Builder must complete the required Work. Following the completion or correction of Work required by the Owner or the Owner Construction Manager before issuance of a Certificate of Substantial Completion, the Design-Builder must notify the Owner and the Owner Construction Manager and request another inspection by the Owner and the Owner Construction Manager to determine Substantial Completion. The Design-Builder must submit a revised Punch List with such notice. The Owner Construction Manager will promptly notify the Design-Builder if the Owner, WMATA or the Owner Construction Manager do not concur that the Work is substantially complete. In such case, the Design-Builder must bear the cost of any additional services, including monitoring and permitting fees of the Owner or the Owner Construction Manager until the Work is determined to be Substantially Complete.

14.2.5 Certification of Substantial Completion. When the Owner and the Owner Construction Manager concur that the Work is Substantially Complete and that Work remaining to be completed or corrected can be accomplished within a period of thirty (30) days, the Owner Construction Manager will prepare a Certificate of Substantial Completion and a revised (final) Punch List. The Certificate of Substantial Completion must be signed by the Design-Builder, Owner Construction Manager and the Owner with the Owner's signature indicating acceptance of Substantial Completion. The Certificate of Substantial Completion shall include the final Punch List and shall fix the Date of Substantial Completion and the time periods within which the Design-Builder must finish all items on the Punch List accompanying the Certificate.

14.2.6 Execution and Acceptance of Certificate. The Certificate of Substantial Completion and accompanying Punch List must be signed by the Owner (and any applicable Stakeholder) and Design-Builder, which will constitute their written acceptance of responsibilities assigned to them in such Certificate.

14.2.7 Conditions of Substantial Completion. To the extent provided in the Contract Documents or in the Certificate of Substantial Completion, the Owner, upon execution of the Certificate, will assume responsibility for security, operation, safety, maintenance, heat, utilities, damage to the Work (other than damage caused by the Design-Builder) and insurance.

14.2.8 Commencement of Warranties. Warranties required by the Contract Documents will commence on the Date of Substantial Completion of the Work unless otherwise provided in the Certificate of Substantial Completion or the Contract Documents.

14.2.9 Delivery of Premises and Access to Work. Upon execution of the Certificate of Substantial Completion, the Design-Builder will deliver custody and control of such Work to the Owner. The Owner will thereafter provide the Design-Builder reasonable access to such Work to permit the Design Builder to fulfill the correction, completion and other responsibilities remaining under the Contract and the Certificate of Substantial Completion.

14.2.10 Timing of Final Completion. Unless otherwise provided in the Certificate of Substantial Completion, the Design-Builder must complete or correct all items included in the final Punch List within thirty (30) days after the Date of Substantial Completion.

14.2.11 Broom Clean. At the time of Substantial Completion, in addition to removing rubbish and leaving the building "broom clean," the Design-Builder must replace any broken or damaged materials, remove stains, spots, marks and dirt from decorated Work, clean all fixtures, vacuum all carpets and wet mop all other floors, and comply with such additional requirements, if any, which may be specified in the Contract Documents.

14.3 FINAL COMPLETION

14.3.1 Notice and Request for Final Inspection. When the Design-Builder has completed or corrected all items on the final Punch List and considers that the Work is complete and ready for final acceptance, the Design-Builder must give written notice within 15 days to the Owner and the Owner Construction Manager and request a final inspection of the Work as provided in Part 1 – GC, Article 14, Section 14.3.2. The Design Builder's notice and request for a final inspection must be accompanied by a final Application for Payment and the Submittals required by Part 1 – GC, Article 14, Section 14.3.3.

14.3.2 Final Inspection and Certificate of Final Completion. Upon receipt of the Design-Builder's notice and request for final inspection, the Owner and the Owner Construction Manager will promptly make such inspection and, when the Owner and the Owner Construction Manager concur that the Work has been fully completed and is acceptable under the Contract Documents, the Owner Construction Manager will issue a Certificate of Final Completion to the Owner. The Design-Builder's notice and request for final inspection constitutes a representation by the Design-Builder to the Owner that the Work has been completed in full and strict accordance with terms and conditions of the Contract Documents. The Owner Construction Manager will promptly notify the Design Builder if the Owner or the Owner Construction Manager do not concur that the Work is finally complete. In such case, the Design-Builder complete and/or correct the outstanding Work and must bear the cost of any additional services of the Owner or the Owner Construction Manager until Final Completion is achieved.

14.3.3 Final Submittals. Neither final payment nor any remaining retained percentage will become due until the Design-Builder submits the following documents to the Owner Construction Manager:

.1 An affidavit that payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the Owner or the Owner's property might be responsible or encumbered (less amounts withheld by Owner), have been paid or otherwise satisfied, submitted on AIA Document G706, Affidavit of Payment of Debts and Claims (latest edition) or such other form as may be prescribed by the Owner;

.2 A release or waiver of liens on behalf of the Design-Builder and a similar release or waiver on behalf of each Subcontractor and Supplier, accompanied by an Affidavit of Release of Liens or such other form as may be prescribed by the Owner;

.3 A written statement that the Design-Builder knows of no substantial reason that the insurance will not be renewable to cover the period required by the Contract Documents;

.4 Consent of Surety to final payment, submitted on a form prescribed by the Owner;

.5 Other data required by the Owner establishing payment or satisfaction of obligations, such as receipts, releases and waivers of liens, claims, security interests or encumbrances arising out of the Contract, to the extent and in such form as may be prescribed by the Owner;

.6 A certified building location survey and record drawing site plan in the form and number required by the Contract Documents;

.7 All warranties and bonds required by the Contract Documents;

.8 Record Documents as provided in Part 1 – GC, Article 2, Section 2.4.5 and return of Contract Documents as provided therein;

.9 Attic stock (spare parts) items as required by the Contract Documents;

.10 Delivery of all completed Operations and Maintenance Manuals and Training; and

.11 As applicable, documentation of approval by the Department of Permitting Services (DPS) of all Storm Water Management (SWM) work as to allow close-out of the SWM Permit. DPS approval will be based on satisfying all DPS Permit requirements including the submission of acceptable record drawing SWM drawing and other required SWM documents.

14.3.4 USGBC LEED Certification Required for Final Completion. If the Project has LEED requirements, Final Completion will not be granted until the USGBC has issued the LEED certification for the Project at the level required in the Contract Documents or until the USGBC has determined that there are no Design-Builder-responsible LEED deficiencies.

14.4 FINAL ACCEPTANCE AND PAYMENT

14.4.1 Final Certificate for Payment. The Owner Construction Manager and the Owner that all final submittals are acceptable and that the Contract has been fully performed, Owner Construction Manager will issue a final Certificate for Payment. The Design-Builder's Application for final Payment constitutes a further representation that the conditions listed in Part 1 – GC, Article 14, Sections 14.3.2 and 14.3.3 as precedent to the Design-Builder's being entitled to final payment have been fulfilled.

14.4.2 Delay in Final Completion. If, after Substantial Completion of the Work, Final Completion cannot be achieved and is materially delayed through no fault of the Design-Builder or as a result of issuance of Contract Modifications issued after Substantial Completion, and the Owner Construction Manager so confirms, the Owner will, upon Application for Payment by the Design-Builder and Certification of Payment by the Owner Construction Manager, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted, provided that the remaining Contract balance for Work not fully completed or corrected after making such payment is not less than the greater of (i) the amount of the retainage stipulated in the Contract Documents and currently being retained or (ii) the Owner's estimate of the amount necessary to complete and correct any Work not fully completed or corrected after making such payment. Provided further that if bonds have been furnished, the written consent of Surety to payment of the balance due for that portion of the Work fully completed and accepted is submitted by the Design-Builder to the Owner

Construction Manager prior to the Owner Construction Manager's issuance of the Certificate for Payment. Such payment will be subject to the same terms and conditions governing final payment.

.1 Additional Work requested by the Owner after Substantial Completion. If the Owner directs that Work be performed beyond the Work specified in the Contract but within the general scope of the Contract (Change Order or Field Order Work) after Substantial Completion, the Design-Builder is entitled to an increase in the Contract Time equal to the time required to perform the additional Work, but is still liable to the Owner for any prior unexcused delays.

14.4.3 Final Payment. Final payment, constituting the entire unpaid balance of the Contract Price and other amounts payable to the Design-Builder, less any amounts withheld by the Owner under Section 14.4.4, will be made by the Owner to the Design-Builder not more than thirty (30) days after:

.1 The Contract has been fully performed by the Design-Builder except for the Design-Builder's responsibility to correct nonconforming Work as provided in Part 1 – GC, Article 10, Section 10.2.2 and to satisfy other requirements, if any, which necessarily survive final payment; and

.2 A final Certificate for Payment has been issued by the Owner Construction Manager and approved by the Owner as a "proper invoice" within the meaning of applicable laws and regulations.

.3 Receipt of Form 9-11B "General Release".

.4 Design-Builder has, to the Owner's satisfaction and in accordance with the Contact Documents, completed all start up testing, commissioning and acceptance requirements as evidenced by a Certificate of Acceptance.

5. Design-Builder has transferred all warranties to the Owner

14.4.4 Withholding by Owner from Final Payment. The Owner may deduct such sums from final payment as may be due on account of actual or Liquidated Damages or other unsettled obligations under the Contract Documents, such as the acceptance of defective or nonconforming Work and costs payable by the Design-Builder.

14.4.5 Waiver of Claims by Owner. The making of final payment does not constitute a waiver of claims by the Owner arising from the Design-Builder's performance of the Work including but not limited to:

.1 Liens, claims, security interests or encumbrances arising out of the Contract and unsettled;

.2 Failure of the Work to comply with the requirements of the Contract Documents;

.3 Terms of Guarantees or Warranties required by the Contract Documents; and

.4 Unresolved claims or disputes.

14.4.6 Waiver of Claims by Design-Builder. Acceptance of final payment by the Design-Builder, a Designer, a Subcontractor, Sub-subcontractor or Supplier (to the extent not previously waived) constitutes a waiver of Claims arising from any occurrence existing prior to final payment, or arising from, performance of the Work for which final payment is made by that payee except those

previously made in writing and identified by that payee as unsettled on the final Application for Payment and which fully comply with the provisions of Part 1 – GC, Articles 11, 12 and 16.

ARTICLE 15

RIGHTS AND REMEDIES

15.1 OWNER'S RIGHTS AND REMEDIES

15.1.1 Special and Additional Testing and Inspection. The Owner, on its own initiative or upon the recommendation of the Owner Construction Manager, has the right to require additional inspection or testing of the Work as provided in Part 1 – GC, Article 10, Section 10.4.4.

15.1.2 Rejection of Nonconforming Work. The Owner has the right and the Owner Construction Manager has authority to reject Work which does not conform to the Contract Documents as provided in Part 1 – GC, Article 10, Section 10.6.1 and to require its correction or replacement as provided in Part 1 – GC, Article 10, Section 10.6.2 unless accepted by the Owner under Part 1 – GC, Article 10, Section 10.6.3.

15.1.3 Withholding of Certificates and Withholding of Payments. The Owner Construction Manager has the authority to withhold a Certificate for Payment in accordance with Part 1 – GC, Article 13, Sections 13.3.3 and 13.3.4. The Owner has the right to withhold payment on a Certificate for Payment as provided in Part 1 – GC, Article 13, Sections 13.3.4 and 13.4.1.

15.1.4 Additional Bonds and Insurance. The Owner has the right to require the Design-Builder to furnish additional bonds as provided in Part 1 – GC, Article 14, Sections 14.3.4 and 17.1.3 and additional insurance as provided in Part 1 – GC, Article 17, Section 17.4.4.

15.1.5 Removal of Superintendent, Personnel, Subcontractors or Suppliers. The Owner has the right to require the Design-Builder to remove and replace the Design-Builder's Superintendent, Project Manager, Quality Control Manager and/or any of the Design-Builder's key project personnel, at no additional cost to the Owner, if the Design-Builder fails to maintain good order and discipline at the Site under Part 1 – GC, Article 5, Section 5.3.3, if any key personnel proves to be unsatisfactory under Part 1 – GC, Article 5, Section 5.4.2, or if personnel are not properly qualified as required by Part 1 – GC, Article 5, Section 5.5.5. The Owner has the right to require the removal and replacement of any Subcontractor or Supplier as provided in Part 1 – GC, Article 6, Sections 6.1.5 and 6.1.6.

15.1.6 Stopping or Suspending the Work. The Owner has the right to order the Design-Builder to stop the Work as provided in Part 1 – GC, Article 11, Section 11.4.1 or to suspend the Work as provided in Part 1 – GC, Article 11, Section 11.4.2.

15.1.7 Correction of Defective Work by Owner. The Owner has the right to correct rejected or nonconforming or defective Work as provided in Part 1 – GC, Article 10, Section 10.6.6. Owner may, at Owner's sole discretion, agree to accept nonconforming Design-Build work providing the Owner and the Design-Builder agree upon a reduction in the Contract Price to reflect the extent or impact of the nonconforming work on the overall Project value as completed.

15.1.8 Cleaning Up. If the Design-Builder fails to clean up as provided in the Contract Documents, the Owner may do so as provided in Part 1 – GC, Article 5, Section 5.6.7.

15.1.9 Owner Takeover. If the Design-Builder defaults or otherwise neglects to carry out or complete the Work or a designated portion thereof in accordance with the Contract Documents, whether before or after Substantial Completion, the Owner may include with any notice of default in the performance of such Work, notice of the Owner's intent to remedy the default and perform the Work itself or with other forces, if not remedied by the Design-Builder within the time specified in the notice, in which case an appropriate Change Order will be issued deducting from payments then or thereafter due the Design-Builder the cost of correcting the deficiencies or completing such Work, including compensation for the Owner's and the Owner Construction Manager's additional services made necessary by such default, neglect or failure. If payments then or thereafter due the Design-Builder are not sufficient to cover such amounts, the Design-Builder must pay the difference to the Owner upon written demand.

15.2 TERMINATION BY OWNER FOR CONVENIENCE

15.2.1 Owner's Right to Terminate for Convenience. The Owner may, at any time, terminate the Contract or any portion thereof or of the Work for the Owner's convenience and without cause.

15.2.2 Action by Design-Builder Upon Notice. Upon receipt of written notice from the Owner of termination, the Design-Builder must:

.1 Cease operations as directed by the Owner in the notice and, if required by the Owner, participate in an inspection of the Work with the Owner and the Owner Construction Manager to record the extent of completion thereof, to identify the Work remaining to be completed or corrected, and to determine what temporary facilities, tools, equipment and construction machinery are to remain at the Site pending completion of the Work;

.2 Complete or correct the items directed by the Owner, and take actions necessary, or that the Owner may direct, for the protection and preservation of any stored materials and equipment and completed Work;

.3 Unless otherwise directed by the Owner, remove its tools, equipment and construction machinery from the Site, and

.4 Except as directed by the Owner, terminate all existing subcontracts and purchase orders related to the Work and enter into no further subcontracts or purchase orders therefor.

15.2.3 Action by Owner Following Notice. Following written notice from the Owner of termination, the Owner may:

.1 Take possession of the Site and of all materials and equipment thereon, and at the Owner's option, such temporary facilities, tools, construction equipment and machinery thereon owned or rented by the Design-Builder that the Owner elects to utilize in completing the Work;

.2 Accept assignment of subcontracts and purchase orders as provided in Section 6.4, and

.3 Complete the Work by whatever reasonable method the Owner may deem expedient.

15.2.4 Contract Adjustments. In case of termination for the Owner's convenience, the Design Builder will be entitled to compensation only for the following items:

.1 Payment for acceptable Work performed up to the date of termination;

.2 The costs of preservation and protection of the Work if requested to do so by the Owner;

.3 The cost of terminating the following contracts including:

(i.) Purchased materials but only if not returnable and provided to the Owner, or the restocking or return charge, if any, if returnable at the Owner's written election;

(ii.) Equipment rental contracts if not terminable at no cost but not to exceed an amount equal to thirty (30) days rental;

.4 Documented transportation costs associated with removing Design-Builder-owned equipment;

.5 Documented demobilization and close-out costs; and

.6 Overhead and profit on the foregoing not to exceed ten (10%) percent.

The Design-Builder will not be compensated for the cost of terminating subcontracts which must be terminable at no cost to the Owner if the Contract is terminated. The Design-Builder will not be compensated for the cost of any idled employees unless the employee is under a written employment contract entitling the employee to continued employment after termination of the Contract and the employee cannot be assigned to other work provided that in all events the Design-Builder's costs must be limited to thirty (30) days of employment costs from the date of the notice of termination. The Design-Builder is not entitled to any other costs or compensation (including lost or expected profit, uncompensated overhead or related expenses, or the cost of preparing and documenting its compensable expenses under this Part 1 – GC, Article 15, Section 15.2.4 as a consequence of the Owner's termination of the Contract for convenience. The Design-Builder conclusively and irrevocably waives its right to any other compensation or damages (compensatory or punitive) arising from termination of the Contract. If the Owner and the Design-Builder are unable to agree upon the amounts specified in this Section, the Design-Builder may submit a Claim as provided in Article 16. The Claim must be limited to resolution of the amounts specified in Part 1 – GC, Article 15, Sections 15.2.4.1, 15.2.4.2, 15.2.4.3 and 15.2.4.4 of this Section 15.2.4. No other cost, damages or expenses may be claimed or paid to the Design-Builder or considered as part of the Claim, the same being hereby conclusively and irrevocably waived by the Design-Builder. Any such Claim must be filed with the Director within thirty (30) days of the termination of the Contract and must contain a written statement setting forth the specific reasons and supporting calculations as to the amounts the Design-Builder claims to be entitled to under this Section, all with supporting documentation of all cost claimed as a result of the termination of the Contract.

15.2.5 Obligations to Continue. The Design-Builder's obligations surviving final payment under the Contract, including without limitation those with respect to insurance, indemnification, and correction of Work which has been completed at the time of termination, remains effective notwithstanding termination for convenience of the Owner.

15.3 TERMINATION BY THE Owner FOR CAUSE

15.3.1 Owner's Right to Terminate for Cause. The Owner may terminate the Contract for cause for any of the reasons set forth in the following Part 1 – GC, Article 15, Section 15.3.2.

15.3.2 Grounds for Termination. The Owner has the right to terminate the Contract for cause if the Design-Builder:

.1 Fails to supply adequate properly skilled workers or proper materials;

.2 Fails to make payment to Subcontractors or Suppliers for materials or labor in accordance with the respective agreements between the Design-Builder and the Subcontractors or Suppliers;

.3 Fails to comply with any laws, ordinances, or rules, regulations or orders of a public authority having jurisdiction;

.4 Fails to perform the Work in accordance with the Contract Documents or otherwise breaches any provision of the Contract Documents;

.5 Files for bankruptcy (voluntary or involuntary);

.6 Is guilty of an anticipatory breach or repudiation of the Contract;

.7 Fails to make satisfactory progress in the prosecution of the Contract; or

.8 Endangers the performance of this Contract.

.9 Design-Builder fails, after notice, to implement and Owner Directed Change Order

.10 Design-Builder ceases work in violation of Section 15.4

15.3.3 Notice of Termination. The Director may terminate the Contract, in whole or in part, whenever the Director determines that sufficient grounds for termination exist as provided in Part 1 – GC, Article 15, Section 15.3.2. The Director will provide the Design-Builder with a written notice to cure the default. If the default is not cured, the termination for default is effective on the date specified in the Director's written notice. However, if the Director determines that default contributes to the curtailment of an essential service or poses an immediate threat to life, health, or property, the Director may terminate the Contract immediately upon issuing oral or written notice to the Design-Builder without any prior notice or opportunity to cure. In addition to any other remedies provided by law or the Contract, the Design-Builder must compensate the Owner for additional costs that foreseeably would be incurred by the Owner, whether the costs are actually incurred or not, to obtain substitute performance. A termination for default is a termination for convenience if the termination for default is later found to be without justification.

15.3.4 Action by Design-Builder and Owner. Upon termination for cause, the Design-Builder must take those actions described in Part 1 – GC, Article 15, Section 15.2.2, and the Owner may take those actions described in Part 1 – GC, Article 15, Section 15.2.3, subject to the prior rights of the Design-Builder's Surety.

15.3.5 Suspension of Payments. When the Owner terminates the Contract for cause, the Design-Builder is not entitled to receive further payment until the Work is completed and the costs of completion have been established.

15.3.6 Adjustments and Payments. If the unpaid balance of the Contract Price less amounts which the Owner is entitled to offset from the unpaid Contract balance including actual or Liquidated Damages, exceeds the costs of completing the Work, including compensation for the Owner's and the Owner Construction Manager's services made necessary thereby, such excess will be paid to the Design-Builder or Surety, as directed by the Surety. If such costs exceed the unpaid Contract balance, the Design-Builder must pay the difference to the Owner upon written demand. This obligation for payment survives

termination of the Contract.

15.3.7 Termination As If For Convenience. If, after termination of the Contract, it is determined that the Owner did not have sufficient grounds to terminate for cause, the rights and obligations of the parties will be the same as if the termination had been issued for the convenience of the Owner, and the provisions of Part 1 – GC, Article 15, Section 15.2, including Section 15.2.4, will apply.

15.4 DESIGN-BUILDER'S NO RIGHT TO STOP WORK

The Design-Builder has no right to stop Work as a consequence of non-payment. In the event of any disagreement between the Design-Builder and Owner involving the Design-Builder's entitlement to payment, the Design-Builder's only remedy is to file a Claim in accordance with Part 1 – GC, Article 16. The Design-Builder must diligently proceed with the Work pending resolution of the Claim, Dispute and/or Dispute Appeal. If, however, an Application for Payment has been approved for payment by the Owner, and the Owner fails to make payment within sixty (60) days of the approval for payment by the Owner, the Design-Builder may upon ten (10) days written notice to the Owner, stop work if payment is not made by the Owner within ten (10) days following the notice.

ARTICLE 16

CLAIMS, DISPUTES, AND DISPUTE APPEALS

16.1 CLAIM

A Claim is a written request by the Design-Builder that seeks the payment of money, an adjustment of time, an adjustment or interpretation of a Contract provision, or other relief arising under or relating to the Contract. Claims include all requests for additional Contract Time and/or Contract Price in accordance with Part 1 – GC, Articles 11 and/or 12.

A Claim must be filed, in writing, with the Contract Administrator within the time and containing the information required in:

.1 Part 1 – GC, Article 11, Section 11.6, as to an excusable or compensable delay;

.2 Part 1 – GC, Article 12, Section 12.2.5, as to a unilateral Change Order;

.3 Part 1 – GC, Article 12, Section 12.5.1, as to a Constructive Change;

.4 Part 1 – GC, Article 12, Section 12.3.5 as to a unilateral Field Order;

.5 Part 1 – GC, Article 12, Sections 12.4.3, 12.4.4 and 12.5.1 as to differing Site and Structural conditions; and

.6 Part 1 – GC, Article 15, Section 15.2.4 as to a disagreement arising from termination of the Contract.

As to a disagreement over interpretation of a Contract provision or the Contract Documents, the Design-Builder must file a Claim within ten (10) days of issuance or statement of the contrary interpretation by Owner.

As to any other Claim arising under or relating to the Contract, the Work or the Project, the Design-Builder must file a Claim within ten (10) days of the event giving rise to the Claim, unless otherwise specified in the Contract Documents.

A Claim will be deemed to have been conclusively waived by the Design-Builder if it is not filed within the specified time or it does not contain the required information.

16.2 CONTRACT ADMINISTRATOR'S DECISION ON DESIGN-BUILDER'S CLAIM

The Contract Administrator is responsible for issuing decisions on Claims. The Contract Administrator's final decision on a Claim shall be considered an event giving rise to a Dispute and the Design-Builder must file any Dispute within the time period stated in Part 1 – GC, Article 16, Section 16.3 from the date of the Contract Administrator's final decision.

16.3 DISPUTE

A Dispute means an unresolved Claim. If a Design-Builder's Claim is denied, in whole or in part, by the Contract Administrator, the Design-Builder must file any Dispute the Design-Builder may wish to take, with the Director, within thirty (30) days of the event giving rise to the Dispute. The Design-Builder waives any Dispute not timely filed. The Director must dismiss a Dispute that is not timely filed.

16.4 APPEAL OF THE DIRECTOR'S DECISION (DISPUTE APPEAL).

The Director must decide a Dispute within 45 days after receiving the Dispute unless the Design-Builder agrees to extend the time for a decision. If the Director denies a Dispute, in whole or in part, the Design-Builder may file a Dispute Appeal with the Chief Administrative Officer for Montgomery Owner, Maryland. The Design-Builder must file a Dispute Appeal within 30 days after receiving the Director's decision, or if no decision is rendered by the Director within 45 days, within 75 days after submitting the Dispute. The Dispute Appeal will thereafter be resolved as provided by Section 11B-35 of the Montgomery Owner Code and Section 14.2 of the Montgomery Owner Procurement Regulations or their respective successor provisions. Part 1 – GC, Article 16 is the Design-Builder's sole and exclusive remedy for resolution of any and all Disputes arising under or relating in any way to the Contract, the Work or the Project. The deadlines set forth in Part 1 – GC, Article 16 and in the Montgomery Owner Code and Procurement Regulations are jurisdictional and if not complied with will result in denial and dismissal of the Dispute and Dispute Appeal.

16.5 INCORPORATION OF THE MONTGOMERY Owner CODE AND PROCUREMENT REGULATIONS

All Disputes must be decided under the Montgomery Owner Code and the Montgomery Owner Procurement Regulations which is the Design-Builder's sole and exclusive remedy for resolving Disputes under this Contract.

ARTICLE 17

INSURANCE AND BONDS

17.1 PERFORMANCE AND PAYMENT BONDS

17.1.1 Requirement for Bonds. The Design-Builder must furnish a Performance Bond (one hundred percent (100%) of the Contract Price) and a Payment Bond (one hundred percent (100%) of the Contract Price) as security for the faithful performance of the Contract and as security for the payment of all persons performing labor and furnishing materials in connection with the Work. The Performance Bond and the Payment Bond must be in such form as the Owner may require and must be delivered to the Owner prior to execution of the Contract by the Owner. The Surety must be acceptable to the Owner and must be approved to transact business in the State of Maryland. The Design-Builder shall also be required, at no cost to the Owner, to provide Performance and Payment Bonds required by any utilities for performance of any utility Work or Work on utility lines or within utility easements.

17.1.2 Copies to be Furnished to Beneficiaries. Upon the request of any person or entity appearing to be a potential beneficiary of bonds covering payment of obligations arising under the Contract, the Design-Builder must promptly furnish a copy of the bonds to such person or entity.

17.1.3 Owner's Right to Require Additional Bonds. The Owner has the right to require the Design Builder, or any Subcontractor or Sub-subcontractor under any contract over $50,000.00 in amount, to furnish such additional bonds as are reasonably required by the Owner, the cost of which will be borne by the Owner, unless otherwise specified in the Contract Documents. To the extent that, in the sole judgment of the Owner, there is a material decline in the financial position of any Surety providing security under this provision, the Owner may, in its discretion, require the Design-Builder to provide a substitute for the Surety or additional security.

17.2 DESIGN-BUILDER'S LIABILITY INSURANCE

17.2.1 Requirement for Insurance. The Design-Builder must purchase from and maintain with a company or companies licensed to do business in the State of Maryland such insurance as will protect the Design-Builder from claims set forth in Part 1 – GC, Article 17, Section 17.2.2 which may arise out of or result from the Design-Builder's operations under the Contract and for which the Design-Builder may be legally liable, whether such operations be by the Design Builder or by a Designer, Subcontractor, Supplier, or Sub-subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable. All insurance policies required under the Contract shall specifically delete any design-build or similar exclusions that could compromise coverages because of the design-build delivery of the Project.

17.2.2 Scope of Coverage. The scope of the Design-Builder's liability insurance coverage must include the following:

.1 Claims under workers' compensation, disability benefit and other similar employee benefit acts which are applicable to the Work to be performed;

.2 Claims for damages because of bodily injury, occupational sickness or disease, or death of the Design-Builder's employees;

.3 Claims for damages because of bodily injury, sickness or disease, or death of any person other than the Design-Builder's employees;

.4 Claims for damages from personal injury which are sustained (i) by a person as a result of an offense directly or indirectly related to employment of such person by the Design-Builder, or (ii) by another person;

.5 Claims for damages, other than to the Work itself, because of injury to or destruction of tangible property, including loss of use resulting therefrom;

.6 Claims for damages because of bodily injury, death of a person or property damage arising out of Ownership, maintenance or use of a motor vehicle;

.7 Claims for damages arising from the Design-Builder's provision of professional services; and

.8 Claims for which the Design-Builder is obligated to indemnify others under the requirements of Section 8.4.

17.2.3 Additional Insureds. The Owner and the Owner Construction Manager and any additional consultants of either, or any Stakeholders who are identified to the Design-Builder in writing must be included as additional insureds by endorsement to the policies, except for the policy required by Section 17.2.2.7.

17.2.4 Insurance Coverage and Limits of Liability. The insurance coverage and limits required by Part 1 – GC, Article 17, Sections 17.2.1, 17.2.2, 17.4.5 and Part 2 – Design-Build Agreement must be written for not less than limits of liability specified in the Contract Documents or required by law, whichever is greater.

SUGGESTED REQUIREMENTS:

1. Commercial General Liability – ISO CG 0001 or equivalent. Coverage to include:
(a) Premises and Operations
(b) Explosions, Collapse and Underground Hazards
(c) Personal/Advertising Injury
(d) Products/Completed Operations
(e) Liability assumed under an Insured Contract (including defense costs assumed under contract),
(f) Independent Contractors
(g) Designated Construction Project(s) General Aggregate Limit, ISO CG 2503 (1997 Edition) or equivalent
(h) Additional Insured – Owners, Lessees or Contractors Endorsement, ISO Form 2010 (2004 Edition) or equivalent
(i) Additional Insured – Owners, Lessees or Contractors Endorsement (Completed Operations), ISO CG 2037 (7/2004 Edition) or equivalent

The policy shall be endorsed to include the following additional insured language on the Additional Insured Endorsements specified above: "The [name of owner and other additional insureds], named as

additional insureds with respect to liability and defense of suits arising out of the activities performed by, or on behalf of [name of Design-Builder], including completed operations." Commercial General Liability Completed Operations policies must be kept in effect for at least three (3) years after the completion of the project. For buildings with construction cost greater than $99 million, the Commercial General Liability Completed Operations policies must be kept in effect for at least eight (8) years after the completion of the project. An umbrella and/or excess liability policy may be used to meet minimum liability requirements provided that the coverage is written on a "following form" basis.

Liability Limits	General Aggregate	Products/Completed Operations Aggregate	Each Occurrence	Personal/Advertising Injury
Primary General Liability	$2,000,000	$2,000,000	$1,000,000	$1,000,000
Umbrella or Excess Liability	$5,000,000	$5,000,000	$5,000,000	$5,000,000

The following exclusionary endorsements are prohibited in the CGL policy:

1. Damage to work performed by subcontract/vendor (CG 22-94 or similar);
2. Contractual liability coverage exclusion modifying or deleting the definition of an "insured contract";
3. If applicable to the work to be performed: Residential or multi-family;
4. If applicable to the work to be performed: Exterior insulation finish systems;
5. If applicable to the work to be performed: Subsidence or earth movement.

2. Automobile Liability – Bodily Injury and Property Damage for any owned, hired, and non-owned vehicles used in the performance of this contract.

Minimum Limits: Bodily Injury/Property Damage (each accident) $1,000,000

3. Workers' Compensation

Statutory limits for Coverage A (workers' compensation)
Coverage B (employer's liability) – Each accident $100,000 / Disease each employee $100,000 / Disease Policy Limit $500,000

The policy shall contain a waiver of subrogation in favor of the Owner.

4. Contractors Pollution Liability

If Design-Builder is providing directly or indirectly working with pollution/environmental hazards, Design-Builder must provide or cause those conducting the work to provide Pollution Liability Insurance coverage. Pollution Liability policy must include contractual liability coverage. Coverage shall apply to sudden and gradual pollution conditions resulting from the escape of release of smoke, vapors, fumes, acids, alkalis, toxic chemicals, liquids, or gases, natural gas, waste materials, or other irritants, contaminants, or pollutants (including asbestos). Policy shall cover the Contractor's completed operations. If the coverage is written on a claims-made basis, the Contractor warrants that any retroactive date applicable to coverage under the policy precedes the effective date of this Contract; and that continuous coverage will be maintained or an extended discovery period will be exercised for a period of three (3) years beginning from the time that work under this contract is completed. The policy shall be endorsed to include the following as Additional Insureds: [list additional insureds] named as additional insureds with respect to liability and defense of suits

arising out of the activities performed by, or on behalf of the Design-Builder, including completed operations. Endorsements CA9948 and MCS-90 are required on the Automobile Liability Coverage if the Design-Builder is transporting any type of hazardous materials. Contractors Pollution Liability policies must be kept in effect for at least three (3) years after completion of the project.

Minimum Limits: Per Loss $1,000,000 / Aggregate $1,000,000

5. Professional Liability (Errors and Omissions)

The Design-Builder shall maintain Errors and Omissions Liability covering negligent acts, errors and/or omissions, including design errors of the Design-Builder for damage sustained by reason of or in the course of operations under this Contract. The policy/coverages shall be amended to include the following:

> Amendment of any Contractual Liability Exclusion to state: "This exclusion does not apply to any liability of others which you assume under a written contract provided such liability is caused by your negligent acts."

In the event that any professional liability insurance required by this Contract is written on a claims-made basis, Design-Builder warrants that any retroactive date under the policy shall precede the effective date of this Contract; and that either continuous coverage will be maintained or an extended discovery period will be exercised for a period of three (3) years beginning at the time work under this Contract is completed. The Policy shall contain a waiver of subrogation against the Owner.

Minimum Limits:

Wrongful Act	$2,000,000
General Aggregate	$2,000,000

6. Builders' Risk/Installation Floater

Unless otherwise provided or instructed by the Owner, the Design-Builder shall purchase and maintain, in a company or companies lawfully authorized to do business in the jurisdiction in which the project is located, Builders' Risk Insurance in the amount of the initial contract amount as well as subsequent modifications for the entire project at the site on a replacement cost basis without optional deductibles. This coverage is required for new buildings or additions to existing buildings and for materials and equipment to be installed in existing structures.

- Covered Cause of Loss: Special Form
- Include Theft and Vandalism
- Labor costs to repair damaged work
- Shall be written for 100% of the completed value (replacement cost basis)
- Deductible maximum is $50,000.00
- Waiver of Subrogation is to apply
- The Owner shall be added as Additional Named Insured on Builders Risk.

Policy must provide coverage from the time any covered property becomes the responsibility of the Design-Builder, and continue without interruption during construction, renovation, or installation, including any time during which the covered property is being transported to the construction installation site, or awaiting installation, whether on or off site. The Policy shall be maintained, unless otherwise provided in the Contract Documents or otherwise agreed in writing by all persons and entities who are beneficiaries of such insurance, until final payment has been made or until no person or entity other than the Owner has insurable interest in the property to be covered, whichever is later. The Builder's Risk insurance shall include interests of the

Owner, and if applicable, affiliated or associated entities, the Design-Builder, subcontractors and sub-tier contractors in the project.

Builders' Risk Coverage shall be on a Special Covered Cause of Loss Form and shall include theft, vandalism, malicious mischief, collapse, false-work, temporary buildings and debris removal including demolition, increased cost of construction, architect's fees and expenses, flood (including water damage), earthquake, and if applicable, all below and above ground structures, piping, foundations including underground water and sewer mains, piling including the ground on which the structure rests and excavation, backfilling, filling, and grading. Equipment Breakdown Coverage (a.k.a. Boiler & Machinery) shall be included as required by the Contract Documents or by law, which shall specifically cover insured equipment during installation and testing (including hot testing, where applicable). Other coverages may be required if provided in Contract Documents.

The Builders' Risk shall be written for 100% of the completed value (replacement cost basis) of the work being performed. The Builders' Risk shall include the following provisions:

a. Replacement Cost Basis - including modification of the valuation clause to cover all costs needed to repair the structure or work (including overhead and profits) and will pay based on the values figured at the time of rebuilding or repairing, not at the time of loss

b. Modify or delete exclusion pertaining to damage to interior of building caused by any perils insured against are covered; also provide coverage for water damage. Note, if the addition, or renovation is to an existing building, the Owner requires that the Design-Builder provide as an option to include the existing building into the Builders' Risk Policy. The Owner shall provide the replacement cost value of the existing building for the Design-Builder to obtain a cost for this option from the Builder's Risk carrier.

At the option of the Owner, the Owner may include Soft Costs (including Loss of Use)/Delay in Opening Endorsement under the Builders' Risk Policy. The Owner agrees to provide the necessary exposure base information for quotation by the Builders' Risk carrier. The Owner agrees to pay the premium associated with the Soft Costs coverage if the Owner decides to purchase this coverage.

The Builders' Risk Policy shall specifically permit occupancy of the building during construction. Partial occupancy or use of the work shall not commence until the insurance company or companies providing insurance have consented to such partial occupancy or use. The Owner and Design-Builder shall take reasonable steps to obtain consent of the insurance company or companies and delete any provisions with regard to restrictions within any Occupancy Clauses within the Builders' Risk Policy. The Builders' Risk Policy shall remain in force until acceptance of the project by the Owner. The deductible shall not exceed $50,000 and shall be the responsibility of the Design-Builder except for losses such as flood (not water damage), earthquake, windstorm, tsunami, volcano, etc. Losses in excess of $50,000 insured shall be adjusted in conjunction with the Owner. Any insurance payments/proceeds shall be made payable to the Owner subject to requirements of any applicable mortgagee clause. The Design-Builder shall pay subcontractors their just shares of insurance proceeds received by the Design-Builder, and by appropriate agreements, written where legally required for validity, shall require subcontractors to make payments to their sub-subcontractors in similar manner. The Owner shall have the authority to adjust and settle any losses in excess of $50,000 with insurers unless one of the parties in interest shall object in writing within five days after occurrence of loss to the Owner exercise of this power. It is expressly agreed that nothing in this section shall be subject to arbitration and any references to arbitration are expressly deleted.

The Design-Builder is responsible for providing 45 days' notice of cancellation to the Owner. The policy shall contain all generally applicable conditions, definitions, exclusions and endorsements related to the Project.

17.2.5 Duration of Coverage. Coverages, whether written on an occurrence or claims-made basis, must be maintained without interruption from Notice to Proceed until Final Completion or subsequent termination of any coverage required by the Contract Documents to be maintained after final payment.

17.2.6 Notice of Cancellation, Expiration or Non-renewal. The insurance policies required by this Section 17.2 must contain a provision that coverages afforded under the policies will not be canceled or allowed to expire until at least sixty (60) days prior written notice has been given to the Owner. The Certificates of Insurance and certified copies of the policies furnished by the Design-Builder to the Owner under the following Part 1 – GC, Article 17, Section 17.2.7 must evidence compliance with this requirement. The Design-Builder must promptly furnish to the Owner any information of which it is aware concerning reduction or lapse including non-renewal of coverage.

17.2.7 Certificates and Policies of Insurance. Certificates of Insurance acceptable to the Owner and evidencing compliance with this Section 17.2 must be filed with the Owner and WMATA prior to commencement of the Work. At the request of the Owner throughout the Contract term, the Design Builder must promptly submit certified copies of such policies. If any of the insurance coverages are required to remain in force after final payment, additional certificates evidencing continuation of such coverage must be submitted with the Design Builder's final Application for Payment.

17.2.8 Acceptance or Approval by Owner. The form and substance of all insurance policies required to be obtained by the Design-Builder are subject to the approval of the Owner and WMATA.

17.3 PROPERTY INSURANCE

17.3.1 Owner's Coverage Limited. The Owner does not provide property insurance coverage for the Work or the Project. The Owner's property insurance specifically excludes coverage of projects under construction, renovations or supplies, materials and equipment stored at the Site for incorporation into the Work.

17.3.2 Builder's All Risk Property Insurance Coverage to Be Provided by Design-Builder. The Design Builder must provide Builder's All Risk Property Insurance with a company or companies lawfully authorized to do business in the State of Maryland. This insurance must include the interests of the Owner, the Design-Builder and its Subcontractors, Sub-subcontractors and Suppliers.

17.3.3 Policy Form. Builder's All Risk Property Insurance must be written on a Risk of Loss basis (Special Coverage) including collapse and debris removal, on a Completed Value form of policy. Cost for reasonable compensation for the General Engineering Consultant's services and expenses required as a result of such insured loss must be included as part of the amount of insurance.

17.3.4 Amount of Coverage. The Builder's All Risk Property Insurance policy furnished by the Design-Builder must be written in an amount equal to one hundred percent (100%) of the insurable value of the Work as well as subsequent modifications thereto for the entire Work at the Site.

17.3.5 Scope of Coverage. The Builder's All Risk Property Insurance policy furnished by the Design-Builder must include coverage for items of labor and materials in place or to be used as part of the permanent Work, including surplus materials, temporary structures, and miscellaneous materials and

supplies incidental to the Work.

17.3.6 Work Stored or in Transit. Unless otherwise provided in the Contract Documents, the Builder's All Risk insurance must cover portions of the Work stored off the Site pursuant to the written approval of the Owner at the value established in the approval or if not established in the approval notice, at one hundred percent (100%) of the replacement value, and also portions of the Work in transit.

17.3.7 Duration of Builder's All Risk Property Insurance Coverage. Such Builder's All Risk Insurance must be maintained, unless otherwise provided in the Contract Documents or otherwise agreed in writing by all persons and entities who are beneficiaries of such insurance, until Substantial Completion.

17.3.8 Notice of Cancellation, Expiration or Non-renewal. The Builder's All Risk policy furnished by the Design-Builder must contain a provision that coverages afforded under the policy will not be cancelled or allowed to expire until at least sixty (60) days' prior written notice has been given to the Owner. The policies and Certificates of Insurance furnished by the Design-Builder to the Owner under the following Part 1 – GC, Article 17, Section 17.3.9 must evidence compliance with this requirement. The Design-Builder must promptly furnish to the Owner any information of which it is aware concerning reduction or lapse including non-renewal of coverage.

17.3.9 Certificates and Policies of Insurance. Certificates of Insurance acceptable to the Owner and WMATA and evidencing compliance with this Section 17.3 must be filed with the Owner and WMATA along with a certified copy of the Builder's All Risk policy prior to commencement of the Work and as requested by the Owner, during the Work. If the insurance coverages are required to remain in force after final payment, additional certificates evidencing continuation of such coverage must be submitted with the Design-Builder's final Application for Payment.

17.3.10 Absence of Coverage. If the Design-Builder is unable to purchase such insurance required by the Contract and with all of the coverages described in this Part 1 – GC, Article 17, and in the amounts specified in the Contract Documents, the Design-Builder must so inform the Owner in writing prior to commencement of the Work. The Owner may then obtain insurance which will protect its interests and those of the Design-Builder, Designer, Subcontractors, Sub-subcontractors and Suppliers in the Work, and the cost thereof will be charged to the Design-Builder. If the Owner is damaged by the failure or neglect of the Design-Builder to purchase or maintain insurance as described above, without so notifying the Owner, then the Design-Builder must bear all reasonable costs properly attributable thereto.

17.4 OTHER INSURANCE

17.4.1 Owner's Liability Insurance. The Owner is responsible for purchasing and maintaining its own liability insurance and, at its option, may purchase or self-insure and maintain other insurance to protect itself against claims which may arise from operations under the Contract. The Design-Builder is not responsible for purchasing and maintaining such Owner's liability insurance unless specifically required by the Contract Documents.

17.4.2 Boiler and Machinery Insurance. The Owner, at its option, after Substantial Completion or acceptance of a portion of the Work, and until final acceptance, may require the Design-Builder to extend or purchase boiler and machinery insurance to cover such boilers and machinery, the cost of which will be borne by the Design-Builder.

17.4.3 Insurance Covering Partial Use or Occupancy. Partial occupancy or use in accordance with Part 1 – GC, Article 14, Section 14.1 will not commence until the insurance company or companies providing property insurance have consented to such partial occupancy or use by endorsement or otherwise. The Owner and the Design-Builder will take reasonable steps to obtain consent of the insurance company or companies and will not, without mutual written consent, take any action with respect to partial occupancy or use that would cause cancellation, lapse or reduction of insurance.

17.4.4 Other Insurance Required by Owner. The Owner has the right to require the Design-Builder, Designer, or any Subcontractor or Sub-subcontractor, to furnish such additional insurance coverage as is reasonably required by the Owner. The additional costs of such insurance will be borne by the Owner, unless otherwise specified in the Contract Documents, who will issue an appropriate Modification to the Contract adjusting the Contract Price. If the Design-Builder disagrees with the adjustment made in the Contract Price, the Design-Builder must file a Claim as and when provided in Part
1 – GC, Article 16. A claim for an increase in the Contract Price, to be valid, must further be documented and calculated as specified in Section 12.2.2. Failure of the Design-Builder to file a Claim as and when specified in this Section is deemed a waiver of any claim by the Design Builder to an adjustment in the Contract Price.

17.4.5 Insurance Requirements. See Part 2 – Agreement, Article 14.1 Insurance Program.

17.5 GENERAL PROVISIONS

17.5.1 Adjustment of Insured Losses by Owner. A loss insured under the Builder's All Risk insurance will be adjusted by the Owner and the Design-Builder and made payable to the Owner as fiduciary for the insureds, as their interests may appear.

17.5.2 Distribution of Proceeds by Owner and Design-Builder. Upon the settlement of an insured loss, the Owner will deposit in a separate account proceeds received, which the Owner will distribute in accordance with such agreement as the parties in interest may reach, or in accordance with a final determination under the disputes provisions of Part 1 – GC, Article 16. The Owner, during the pendency of any such dispute, in its discretion, may apply the proceeds to the reconstruction of the Work, and to payment of the Owner's extended performance costs including but not limited to Liquidated Damages, Owner Construction Manager and staff costs and loss of use costs. The Design-Builder must pay Subcontractors their just shares of insurance proceeds received by the Design-Builder, and by appropriate written agreements must require Subcontractors to make payments to their Sub- subcontractors in similar manner.

ARTICLE 18

NONDISCRIMINATION IN EMPLOYMENT

The Design-Builder agrees to comply with the nondiscrimination in employment policies and provisions prohibiting unlawful employment practices in Montgomery Owner contracts as required by Section 11B-
33 and Section 27-19 of the Montgomery Owner Code, as well as all other applicable state and federal laws and regulations regarding employment discrimination.

The Design-Builder assures the Owner that, in accordance with applicable law, it does not, and agrees that it will not discriminate in any manner on the basis of race, color, religious creed, ancestry, national origin, age, sex, marital status, disability, or
sexual orientation. The Design-Builder must bind its Designers, Subcontractors to the provisions of this Article 18; and by appropriate written agreements must require subcontractors to similarly bind their sub- subcontractors to the provisions of this Part 1 – GC, Article 18.

ARTICLE 19

STATUTORY REQUIREMENTS

19.1 ETHICS REQUIREMENTS/POLITICAL CONTRIBUTIONS

The Design-Builder must comply with the ethics provisions contained in chapters 11B and 19A, Montgomery Owner Code, which include the following: (i) a prohibition against making or offering to make certain gifts, Section 11B-51(a); (ii) a prohibition against kickbacks, Section 11B-51(b); (iii) a prohibition against a person engaged in a procurement from employing or offering to employ a public employee, Section 11B-52(a); (iv) a prohibition against a contractor that is providing a recommendation to Montgomery Owner from assisting another party or seeking to obtain an economic benefit beyond payment under the contract Section 11B-52(b); (v) a restriction on the use of confidential information obtained in performing a contract, Section 11B-52(c); (vi) a prohibition against contingent fees, Section
11B-53. Furthermore, the Design-Builder specifically agrees not to violate Sections 11B-51, 11B-52,
11B-53, 19A-12 and/or 19A-13 of the Montgomery Owner Code. In addition, the Design-Builder must comply with the political contribution reporting requirements currently codified under Title 14 of Article 33 of the Annotated Code of Maryland.

19.2 MINORITY CONTRACTING

See Part 2, Appendix B – Federal Requirements.

19.3 AMERICAN STEEL

See Part 0 Section 4.1.4 Buy America.

19.4 PREVAILING WAGE

19.4.1 Requirement State of Maryland.

See Part 2, Appendix B – Federal Requirements.

19.4.2 Bond. If required to comply with Md. Code Ann., State Fin. & Proc., § 17-213(b), the Design-Builder must provide a suitable bond or guarantee, in a form approved by Owner, to insure the proper payment of the prevailing wage as required thereunder.

19.5 COST AND PRICING DATA

Chapter 11B of the Montgomery Owner Code and the Montgomery Owner Procurement Regulations require that cost and pricing data be obtained from contractors in certain situations. The Design-Builder

guarantees that any cost and pricing data provided to the Owner will be accurate and complete. The Design-Builder grants the Director access to all books, records, documents, and other supporting data in order to permit adequate evaluation of the Design-Builder's proposed price(s). The Design-Builder also agrees that, in addition to all other remedies, the price to the Owner, including profit or fee, may, at the option of the Owner, be reduced to the extent that the price was based on inaccurate, incomplete, or noncurrent data supplied by the Design-Builder.

19.6 HAZARDOUS AND TOXIC SUBSTANCES

Manufacturers and distributors are required by federal "Hazard Communication" provisions (29 CFR §1910.1200), and the Maryland "Access to Information About Hazardous and Toxic Substances" Law, to label each hazardous material or chemical container, and to provide Material Safety Data Sheets to the purchaser. The Design-Builder must comply with these laws and must provide the Owner with copies of all relevant documents, including Material Safety Data Sheets, prior to performance of services or contemporaneous with delivery of goods.

19.7 HEALTH INSURANCE PORTABILITY AND ACCOUNTABILITY ACT (HIPAA) COMPLIANCE

Design-Builder must comply with all requirements in the federal Health Insurance Portability and Accountability Act (HIPAA), to the extent that HIPAA is applicable to this Contract. Furthermore, Design-Builder must enter into the Owner's standard Business Associate Agreement when Design-Builder or the Owner, as part of this Contract, may use or disclose to one another, to the individual whose health information is at issue, or to a third-party, any protected health information that is obtained from, provided to, made available to, or created by, or for, the Design-Builder or the Owner.

19.8 IMMIGRATION REFORM AND CONTROL ACT

The Design-Builder warrants that both the Design-Builder and its Designer and Subcontractors do not, and shall not, hire, recruit or refer for a fee, for employment under this Contract or any Subcontract, an alien while knowing the alien is an unauthorized alien, or any individual without complying with the requirements of the federal Immigration and Nationality laws, including any verification and record keeping requirements. The Design-Builder further assures the Owner that, in accordance with those laws, it does not, and will not, discriminate against an individual with respect to hiring, recruitment, or referral for a fee, of an individual for employment or the discharge of an individual from employment, because of the individual's national origin or, in the case of a citizen or prospective citizen, because of the individual's citizenship status.

19.9 PROTECTION OF PERSONAL INFORMATION BY GOVERNMENT AGENCIES.

Consistent with Maryland State Government Article, Title 10, Subtitle 13, entitled "Protection of Personal Information by Government Agencies, "in any contract under which Contractor is to perform services and the Owner may disclose to Contractor personal information about an individual, Contractor must implement and maintain reasonable security procedures and practices that: (a) are appropriate to the nature of the personal information disclosed to the Contractor; and (b) are reasonably designed to help protect the personal information from unauthorized access, use, modification, disclosure, or destruction.

Contractor's requirement to implement and maintain reasonable security practices and procedures must include requiring any third-party to whom it discloses personal information originally disclosed to Contractor by the Owner to also implement and maintain reasonable security practices and procedures related to protecting the personal information.

Contractor must notify the Owner of a breach of the security of a system if the unauthorized acquisition of an individuals personal information has occurred or is reasonably likely to occur, and also must share with the Owner all information related to the breach. Contractor must provide the above notification to the Owner as soon as reasonably practicable after Contractor discovers or is notified of the breach of the security of a system

ARTICLE 20

MISCELLANEOUS PROVISIONS

20.1 MISCELLANEOUS PROVISIONS.

20.1.1 Assignment. The Design-Builder may not assign any part of the Contract without written consent of the Owner which consent is within the Owner's sole discretion.

20.1.2 Assignment of Payments. In the event the Design-Builder desires to make an assignment of any monies due or to become due under the Contract, the Design-Builder must file a copy of consent of Surety and a fully executed copy of the assignment with the Owner and the General Engineering Consultant. Any such assignment must be approved by the Director.

20.1.3 Audit Provisions. The Owner has the right to examine the Design-Builder's, its Designers', Subcontractors', Sub-subcontractors' and Suppliers' records directly or indirectly pertaining or relating to the Work or the Contract. The Owner must be granted access to and an opportunity to copy such records at all reasonable times during the Contract period and for three (3) years thereafter.

20.1.4 Extent of Contract. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations or agreements, either written or oral.

20.1.5 Governing Law. The Contract is governed by the laws of the State of Maryland and of
Montgomery, Maryland.

20.1.6 Obligations Surviving Termination. The Design-Builder's obligations under the correction of Work provisions of the Contract, Warranties, representations, indemnification obligations and other continuing obligations survive acceptance of the Work under the Contract and termination of the Contract; and do not relieve the Design-Builder of the Design-Builder's obligations thereunder.

20.1.7 Severability of Provisions. If any one or more of the provisions contained in the Contract Documents should be deemed invalid, illegal or unenforceable in any respect, the validity, legality, and enforceability of the remaining provisions contained herein are not to be affected or impaired thereby; provided the same does not materially alter the rights or obligations of the parties.

20.1.8 Third Parties. The Contract Documents are not to be construed to create a contractual

relationship of any kind other than between the Owner and Design-Builder except as specified in Section 3.1.2.

20.1.9 Venue and Jurisdiction: The Parties agree that in the event any claim or dispute arise under the terms of this Contract, that they shall use their best efforts to resolve the same. If however, a dispute arising under the Contract remains after the Parties best efforts to resolve it, and either of the Parties elects to bring a claim or file suit or any legal proceeding, the Parties expressly acknowledge and agree that such claim or legal proceeding or cause of action shall be filed, remain, tried and resolved in the State Courts of the State of _____ in ____ County. The Parties expressly waive any right otherwise provided by any Applicable Law to remove the matter to any other state or federal venue.

20.1.10 Waiver of Breach. Any action or failure to act by the Owner, General Engineering Consultant or Design-Builder does not constitute a waiver of any of their rights or obligations under the Contract. No such action or failure to act, whether or not repeated, constitutes a continuing waiver of any requirements of the Contract or any approval of or acquiescence in any breach.

20.1.11 Written Notice. Written notices are to be given to the representatives of the parties designated in the Contract. Written notice are deemed to have been duly served if delivered in person to the addressee for which it was intended, or if delivered or sent by mail to the last business address known to the party giving notice, provided that if sent by mail it must be by first class mail postage prepaid except, if to the Owner in which case it must be by registered or certified mail. Any notice given by facsimile or e- mail must be confirmed by a copy delivered personally or by mail, and in the case of the Owner, by registered or certified mail. The date of any notice is deemed to be the earlier of the date of personal delivery or receipt by facsimile or e-mail or similar means, or if mailed, the earlier of actual receipt or three (3) days after the postmark date.

20.1.12 Intellectual Property Approval And Indemnification – Infringement

If the Design-Builder will be preparing, displaying, publicly performing, reproducing, or otherwise using, in any manner or form, any information, document, or material that is subject to a copyright, trademark, patent, or other property or privacy right, then the Design-Builder must:

.1 At its expense obtains all necessary licenses, authorizations, and approvals related to its use;

.2 Include the Owner in any approval, authorization, or license related to its use at no cost to the Owner; and

.3 Indemnify and hold harmless the Owner from and against all liabilities, actions, damages, claims, demands, judgments, losses, costs, expenses, suits, or actions, and attorneys' fees and the costs of the defense of the Owner, in any suit, including appeals, based upon or arising out of any allegation of infringement, violation, unauthorized use, or conversion of any patent, copyright, trademark or trade name, license, proprietary right, or other related property or privacy interest.

ARTICLE 21

PARTNERING

21.1 PARTNERING

Partnering on this project will be mandatory. The partnership will be structured to draw on the strengths of each organization through open communication, teamwork and cooperative action to identify and achieve mutual goals. The objective is to create an atmosphere of trust and honest dialogue among all stakeholders. This partnership will not change the legal relationship of the parties to the Contract nor relieve any party from any of the terms of the Contract.

The Owner, WMATA, SHA, NAVY and NIH and the Design-Builder's Project Design Engineer and management representative(s) will organize a partnering project team. Persons recommended being on the team and guidelines for partnering are included in the Partnering Field Guide at www.mdqi.org.

The kick-off workshop meeting will be held soon after execution of the Contract. All stakeholders will attend the kick-off workshop to develop and commit to the Partnering Charter and Issue Resolution/Escalation process. Follow-up meetings will be held monthly by the Design-Builder and the Owner, with other stakeholders attending as needed. Coordination meetings will be held with nearby projects as agreed by the Design-Builder and the Owner.

Measuring the partnering on the project is a key element to its success. All stakeholders will participate in the process. The Partnering Project Rating form will be completed monthly and then entered into a Partnering Data Base. Summaries of the ratings will then be shared with the team. The Owner's and Design-Builder's management team will review the partnering ratings and intervene if necessary on a monthly basis.

All costs of partnering meetings shall be shared equally between the Design-Builder and the Owner.

END GENERAL CONDITIONS OF CONSTRUCTION CONTRACT