INTERNATIONAL MUNICIPAL LAWYERS ASSOCIATION

Work Session VI – Construction Law
Tuesday, September 16, 2008

Title: Improving the House Odds -
Risk Allocation in Construction Contracts
Select Contract Provisions

Presenters:

Roy Cooper
Senior Vice President
PinnacleOne
Middletown, Connecticut

Edwin Levy
Senior Counsel
New York City Law Department
Commercial & Real Estate Litigation
New York, New York

John P. Markovs
Associate County Attorney
Office of the County Attorney
Montgomery County, Maryland

Christopher J. Petrini
Petrini & Associates, P.C.
Town Counsel
Town of Framingham, Massachusetts

John Rannestad
Senior Consultant
PinnacleOne
Middletown, Connecticut

© 2008 International Municipal Lawyers Association. The following informational and educational materials were distributed by the International Municipal Lawyers Association during its 2008 Annual Conference, held September 14-17, 2008 in Las Vegas, Nevada. IMLA assumes no responsibility for the policies or positions presented in the materials or for the presentation of its contents.

Contract Provisions
Related to Seven Risk Allocation Topics

Table of Contents

Topics: **Page**

1. **Schedule……... 3**
2. **Bonds and Insurance……..44**
3. **Regulatory Impacts……70**
4. **Subsurface Conditions……...77**
5. **Environmental Conditions and Hazards……..84**
6. **Delay……95**
7. **A/E Performance……111**

Contract Provisions
Related to Seven Risk Allocation Topics

1. Schedule.

From Montgomery County, Maryland:

ARTICLE 11 TIME

11.1 COMMENCEMENT

11.1.1 Date of Commencement and Notice to Proceed. The Owner will issue a Notice to Proceed and make the Site available to the Contractor 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 Contractor or persons or entities for whom the Contractor is responsible.

11.1.2 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 Contractor and any Separate Contractors to review 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.

11.1.3 Commencement of Work at the Site. The Contractor may not commence operations on the Site prior to issuance of the Notice to Proceed.

11.2 CONSTRUCTION SCHEDULES

11.2.1 Contractor's Progress Schedule. Within fifteen (15) days after issuance of the Notice to Proceed, the Contractor must prepare and submit for the Owner's and Architect/Engineer's approval a proposed initial CPM Progress Schedule for performance of the Work, which schedule may be a cost and man-loaded Progress Schedule, if so specified in the Contract Documents. The Contractor will not receive any payments until such time the initial CPM Progress Schedule has been submitted and approved. 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, including all testing, inspections and punch list required by the Contract Documents and (iv) provide for expeditious and practicable execution and completion of the Work within the Contract Time. Unless otherwise required by the Contract Documents, the Progress Schedule must include the activities of and be signed by the principal Subcontractors described in Subsection 6.1.1.

11.2.2 Requirements of the Progress Schedule. The CPM Progress Schedule for performance of the Work 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 Contractor must plan, schedule, and construct the Work using a Critical Path Method Project Schedule (CPM). The CPM will be used for coordinating and monitoring all the work specified in the

Contract Documents including all activities of subcontractors, vendors, suppliers, utilities, the Owner, Separate Contractors 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, including bid items, quantified 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 Contractor 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 Contractor 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 Contractor's CPM schedule. The scheduling representative will represent the Contractor in all matters regarding the schedule and must attend all schedule related meetings.

The Contractor must submit the qualifications of the designated scheduling representative to the Owner for approval. This approval is required before the ICPM will be accepted. The designated scheduling representative must have at least three years of verifiable experience for preparing and maintaining CPM project schedules on contracts of the same or similar size and complexity. Replacement of the scheduling representative by the Contractor 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 Architect/Engineer. 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)

(6) Project Phase (if applicable)

(7) Responsibility e.g., Contractor, 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 required to complete all the work required in the Contract. The calendars must delineate the holidays and anticipated nonwork days or periods. An explanation of the Contractor's basis for determining each nonwork day or period must be included in the WN.

(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 Architect/Engineer. Activities required for review and approval of the submittals and shop drawings by the Architect/Engineer must be given a duration of not less than 30 calendar days. The Contractor may submit a short list of highly critical approval activities to the Architect/Engineer. The Architect/Engineer 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 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 completion specified in the Contract Documents. If the Contractor submits an earlier completion date than specified in the Contract Documents, the Owner, upon approval of the ICPM, may issue a change order to adjust the Contract time to the completion date shown on the ICPM.

The Contactor must resource load all construction activities in its schedule and schedule updates with the material, equipment, and manpower planned to be utilized by the Contractor and its subcontractor in accomplishing each activity. Resource loading of the CPM must be fully explained in the WN.

The Owner and/or Architect/Engineer reserve the right to require specific activities and/or milestones to be added to the CPM (consistent with the Work).

The Contractor 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 Contractor 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, nonwork days, or periods, maintenance of traffic, and labor and equipment resources. In addition, the Contractor must explain how it has provided for: permit requirements, environmental requirements, coordination with other public Contractors, milestone dates (for the Contract or other related contracts), coordination with other entities, coordination with all utility companies, special nonwork days or periods, and weather in its ICPM. The WN must be used to explain the specific scope of each activity and the basis used to determine the original duration of each activity, i.e., production rate and anticipated quantities.

All activities quantified in the Contract Documents must be addressed in the WN. The Contractor 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) Use of additional shifts and overtime.

(e) Activity codes, abbreviations, and activity identification system.

(f) All Calendars utilized in the CPM.

(g) Date or time constraints.

(h) All abbreviations in the ICPM.

(i) Use of calendars.

(j) Scheduling of weather and temperature sensitive activities.

The Contractor must complete and submit the proposed ICPM within 15 calendar days after issuance of the Notice to Proceed and must submit five sets of all information required to the Architect/Engineer and Owner for review and acceptance.

The Architect/Engineer and Owner will complete the review of the Contractor's ICPM within 30 calendar days after the submittal. If required, the Architect/Engineer will convene a Joint Review Conference at which time the Architect/Engineer, Owner and Contractor will make

corrections and adjustments to the proposed ICPM. If a revision is necessary due to the Owner's or Architect/Engineer's review or the Joint Review Conference, the proposed revision must be submitted by the Contractor within seven calendar days after the Contractor received the Owner's and/or Architect/Engineer'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 Architect/Engineer 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 Architect/Engineer will not be considered as a basis for any adjustments in the Contract Sum or Time.

When the Architect/Engineer and/or the Owner notifies the Contractor that the ICPM has been accepted, that document will become the CPM of record. The Contractor will be responsible for implementing and executing the work specified in the Contract in strict conformance with the CPM of record. The CPM of record will be the Contractor's work plan for completing the entire Contract as specified in the Contract Documents.

CPM Updates. Monthly updates of the CPM of record are required. CPM update submissions must contain the activity data as specified in (a) through (e) of the ICPM. The update will be used to 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 Contractor during the period of the update, any change in manpower or equipment, and any potential delays or disruptions.

The Contractor's scheduling representative, the Owner, and the Architect/Engineer will meet to review, mutually agree to, and sign-off on the information required to update (actual start and finish dates, remaining durations and percentages complete) the schedule. The Contractor must use an update form acceptable to the Architect/Engineer. The update shall be submitted by the Contractor within seven calendar days from the data date. Failure to timely submit the update may result in the Architect/Engineer or Owner withholding payment. Upon acceptance by the Owner and Architect/Engineer, the update will become the CPM of record for the period between its data date and the data date of the next approved update or revision.

Updates will not include any revision to the CPM, unless prior approval by the Owner and Architect/Engineer is received for the insertion of revisions.

Revisions to the Schedule of Record. Revisions are defined as one or more of the following:

(a) A change in the 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.

(j) Any change order than updating an activity.

When the Contractor proposes to make a revision to the CPM, the Contractor must verbally discuss the proposed revision with the Owner and Architect/Engineer. If the revision is minor in mature, the Owner and Architect/Engineer may allow the Contractor to include the revision on the next Update of the CPM. If the Architect/Engineer determines that the revision is not minor in nature, the Contractor will submit the proposed revision to the Owner and Architect/Engineer for review and approval prior to deviating from the approved CPM.

The Owner and Architect/Engineer may allow the Contractor to deviate from the approved CPM for specific mitigating activities.

The proposed revision must be submitted to the Owner and Architect/Engineer in the same format and with the same requirements used for the ICPM. The proposed revision must be made to the CPM of record at the time the revision is made, i.e. the revision will include all update information and revisions previously approved and the additional progress to the date of the revision. The WN accompanying the proposed revision must describe the reason for the revision, 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 specifications, changes in resources, addition or deletion of work, increased or decreased quantities, defective work, and acceleration of work.

The Owner and Architect/Engineer will review and respond to the Contractor's proposed revision within a reasonable time. Resubmittal by the Contractor, if required, must be made within seven calendar days after receipt of the Owner and/or Architect/Engineer's review comments. The Owner reserves the right to reject any proposed revision which adversely impacts the Owner, utilities, or other concerned parties.

When the Contractor fails to submit an acceptable Update or Revision within the time limits prescribed above, the Owner or Architect/Engineer may withhold payment until an acceptable Update or Revision is submitted.

11.2.3 Coordination with Other Schedules. The Contractor must revise its Progress Schedule as necessary to conform with the overall Project Progress Schedule incorporating schedules of the Owner and any Separate Contractors as provided in Subsection 7.1.4.

11.2.4 Review and Approval of Schedules. The Contractor's Progress Schedule must include, at no additional cost, details requested by the Owner or the Architect/Engineer and be in the format specified in the Contract Documents and as provided in this Article 11. The Owner and the Architect/Engineer will review and approve or take other appropriate action on the Contractor'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 Architect/Engineer must be made by the Contractor and the schedule resubmitted to the Owner for approval. Review and approval of the schedule does not relieve the Contractor 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 of any schedule or any schedule adjustment made as part of the approval of any schedule does not constitute, nor does it provide the basis for, any extension of the Contract Time or any claim for an increase in the Contract Sum.

11.2.5 Schedule Updates. The Contractor must update the Progress Schedule and submit to the Owner for approval 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 Contractor will not receive progress payments until such time as the updated Progress Schedule has been submitted and approved.

The Contractor will attend bi-weekly progress meetings at the project site. At these meetings, the Contractor will provide a report on the actual status of the Work as compared to the latest approved Project Schedule.

11.2.6 Schedule of Submittals. The Contractor must prepare and keep current, for the Architect/Engineer'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 Architect/Engineer, and sufficient additional time, if required, for (i) review and approval by regulatory bodies and (ii) their correction and resubmission by the Contractor 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 Architect/Engineer, which indicates the dates or times which the Contractor 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 Contractor confirms that the Contract Time is a reasonable period for performing the Work.

11.3.2 Time is of Essence. The Contractor 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 Contractor to Proceed Expeditiously. The Contractor must proceed expeditiously with adequate forces and maintain progress in accordance with the approved Progress Schedule.

11.3.4 Conformance to Schedules. The Contractor must conform to the most recently approved Progress Schedule. The Contractor 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 Contractor must maintain at the Site, available to the Owner and the Architect/Engineer for their reference during the progress of the Work, a copy of the approved Progress Schedule and any approved revisions thereto. **The Contractor must keep current records of and mark on a copy of the approved Progress Schedule 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 Contractor must achieve Substantial Completion within the Contract Time.

11.3.7 No Damages for Prevention of Early Completion The Contractor 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 Contractor may not make any claim for delay damages based in whole or in part on the premise that the Contractor 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 Contractor's progress is not maintained in accordance with the approved Progress Schedule, or the Owner determines that the Contractor is not diligently proceeding with the Work or has evidence reasonably indicating that the Contractor will not be able to conform to the most recently approved Progress Schedule, the Contractor 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 Architect/Engineer 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 Sum. **If the Owner requires an acceleration of the Project Schedule and no adjustment is made in the Contract Sum, or if the Contractor disagrees with any adjustment made, the Contractor must file a claim as provided in Article 12 or the same will be deemed to be conclusively waived.**

11.3.10 Ownership of the Float. The float is a shared commodity for use of the Owner and the Contractor (and if applicable any Separate Contractors) and is not for the exclusive use or benefit of any one party. The parties have full use of the float until it is depleted.

11.4 SUSPENSION OR STOPPAGE OF WORK

11.4.1 Owner's Right to Stop the Work. If the Contractor fails to correct Work 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 Contractor 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 Subsection does not entitle the Contractor to an extension of the Contract Time or damages for delay. If the Contractor disagrees with the Owner's right to stop the Work, the Contractor must file a claim under this Article 11 and/or Article 12 as applicable or the same 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 Contractor 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 Sum, Progress Schedule or Contract Time. **The Contractor is not entitled to profit on any adjustment to the Contract Sum due to any such stoppage, suspension, interruption or delay. If no adjustment is made in the Contract Sum as a consequence, or if the Contractor disagrees with any adjustment made, the Contractor must file a claim as provided in Article 12 or the same will be deemed to be conclusively waived.**

11.4.3 Disputes Involving Non-payment. In the event of any dispute between the Contractor and the Owner involving the Contractor's claim to entitlement of any payment, the Contractor must diligently proceed with the Work pending resolution of the dispute.

From PinnacleOne:

1.03.02—Award and Execution of Contract: Except as otherwise authorized by the Commissioner, all contracts will be awarded and executed in accordance with the order of the Commissioner. The award, if made, will be made within 60 days after the opening of the proposals unless otherwise agreed upon by the Commissioner, the successful bidder, and the surety. The successful bidder, upon receipt of notice from the Department that the contract is ready for execution, shall, at the time and place designated in said notice, be present in person or be represented by an official legally authorized to sign the Contract, and shall there and then sign the necessary Project contract with the State. No proposal shall be considered binding upon the State until the proper execution of the Contract by both parties.

1.03.08—Notice to Proceed and Commencement of Work: The Contractor shall commence and proceed with the Contract work on the date specified in a written Notice to Proceed issued by the Engineer to the Contractor. The date specified will be no later than 45 calendar days after the date of the execution of the Contract by the Department, except that if the expiration of said 45 calendar days occurs during the period between November 30 and April 1 of the following year, the Engineer may specify that the April 1 following said expiration shall be the date for the Contractor to proceed with the work. If the Engineer does not issue a Notice to Proceed to the Contractor within the said 45 calendar days, the Contractor shall have the option of canceling the Contract and its payment and performance bonds for the Project. Any failure by the Department to issue a notice to proceed, or to issue one on a timely basis, shall not, however, constitute a breach of the Contract. Neither the Contractor nor any other party may use such a failure as a basis for any claim against the Department for damages. The Contractor shall not begin physical Project construction prior to the date specified for same by the Engineer in the Notice to Proceed, except as may be otherwise authorized by the Engineer in writing.

1.05.02—Plans, Working Drawings and Shop Drawings: The Contractor shall submit any drawings to the Engineer at least 30 calendar days in advance of their proposed use in order to allow for their review by the Engineer, as well as for any necessary revision and approval of the drawing, without undue delay of the Project construction. No work covered by shop drawings shall be done until the drawings have been submitted to the Engineer for review and approved by the Engineer. There will be

no direct payment for furnishing any shop drawings, but the cost thereof shall be considered as included in the general Project costs.

1.05.01—Authority of Engineer: All work shall be subject to the review of the Engineer. He shall decide all questions as to interpretation of the plans and specifications, and questions of mutual or respective rights of the Contractor and other Department contractors. The Engineer shall decide on an acceptable rate of progress, on the manner of performance, and on what shall be deemed acceptable fulfillment of the Contract. The Engineer shall have the right to determine the points at which the Contractor may begin work and the order in which the work shall be prosecuted in the best interests of the State
within the intent of the terms in the Contract.

1.05.06—Cooperation with Utilities (Including Railroads): The Engineer may anticipate that a Project construction activity will require the removal, repair, replacement or relocation of a utility appurtenance. In such an instance, the Engineer, in advance of the commencement of such activity, will notify the affected utilities, either directly or through the local government, of the anticipated nature and timing of said activity. The Engineer will endeavor to have all necessary adjustments of public or private utility fixtures, pipelines, and other appurtenances within or adjacent to the limits of Project construction made as soon as practicable, when such changes are required by the State or local government.

Whenever the Engineer determines that the relocation or adjustment of poles or the overhead plant of public or private utilities or railroad facilities is dependent upon the completion of certain required Contract activities, the Contractor shall complete those activities within a reasonable length of time.

Temporary and permanent changes required by the State or local government in water lines, gas lines, sewer lines, wire lines, service connections, water or gas meter boxes, water or gas valve boxes, light standards, cableways, signals and all other utility (including railroad) appurtenances within the site of the proposed Project construction are to be made by others at no expense to the Contractor, except as otherwise provided for in the Special Provisions or as noted on the plans.

When the Contractor is required by the Engineer to relocate utility appurtenances, such work will be paid for as extra work unless specific bid items for such work appear in the Contract.

If the Contractor, for its convenience or for any other reason, desires a change in the location of a water line, gas line, sewer line, wire line, service connection, water or gas meter box, valve box, light standard, cableway, signal or any other utility (including railroad) appurtenances, the Contractor shall satisfy the Department that the proposed relocation will not interfere with the Contractor's or other contractors' Project operations or their fulfillment of the requirements of the plans, and that said change will not create an obstruction or hazard to traffic. If the requested change of location is acceptable to the Engineer, the Contractor shall make its own request for such relocation work to the utility companies, pipe owners or other parties likely to be affected by said work. Such relocation work shall be done at the Contractor's sole expense.

The Contractor shall schedule its operations in such a manner as to minimize interference with the operations of the utility companies or local governments in effecting the installation of new facilities,

as shown on the plans, or the relocation of their existing facilities. The Contractor shall consider in its bid all permanent and temporary utility appurtenances in their present or relocated positions and any installation of new facilities required for the Project. The Department will not make any additional compensation to the Contractor for delays, inconvenience or damage sustained by the Contractor due to (i) interference with Project construction caused by the location, condition or operation of utility (including railroad) appurtenances or (ii) the installation, removal, or relocation of such appurtenances; and the Contractor may not make a claim for any such compensation.

1.05.07—Coordination with Work by Other Parties: The Contractor shall make every effort to perform its work so as not to interfere with other work for the State or other parties. In the case of a dispute with another contractor working for the Department regarding their work for the State, or in the case of a conflict between their planned operations or the needs of their projects, the Contractor shall bring that dispute or conflict to the Engineer's attention, and the Engineer shall decide how it shall be resolved. The Engineer's decision shall be binding upon all of the contractors working for the Department who are involved in the matter.

The Contractor shall, as far as possible, schedule and otherwise plan and arrange its work, and place and dispose of its Project materials, so as not to interfere with the operations of other contractors working for the State. The Contractor shall, as necessary to accomplish this goal, endeavor to coordinate and schedule its work in the way which will interfere least with the work of other parties.

If the Contractor's work or activities under the Contract come into conflict with other activities or work for the State, any financial or other liability arising from such conflicts shall be the Contractor's; and the Contractor shall protect and save harmless the State from any and all damages or claims, and the costs of defending same, which may arise because of inconvenience, delay, financial hardship, or injuries caused to the Contractor or to other contractors as a result of such conflicts, unless: (a) The Contractor notifies the Engineer of such conflicts as soon as the likelihood of such a conflict becomes apparent; or, if such likelihood could not have been foreseen earlier, then as soon as the conflict becomes apparent. (b) The Contractor waits for direction from the Engineer as to how the conflict should be avoided or resolved, and the Contractor does not proceed with the provided the Contractor with such direction. (c) The Contractor follows the directions given by the Engineer for avoiding, resolving, or minimizing the conflict.

The Contractor shall be responsible for the completion of its Contract work, regardless of any interference with, or delay of, that work which may be caused by the presence or activities of other contractors working for the State.

1.05.14—Termination for Convenience Clause: The State may terminate the Contract whenever the Engineer determines that such termination is in the best interests of the State. Any such termination shall be effected by delivery to the Contractor of a written Notice of Termination specifying the extent to which performance of work under the Contract is terminated and the date upon which said termination shall be effective. In the case of such a termination, the Department will pay the Contractor at the Contract unit prices for the actual number of units or items of Contract work completed prior to the effective date of termination, or as may be agreed by the parties for such items of work partially completed. No claim for loss of overhead or anticipated profits shall be allowed.

When the volume of work completed is too small to compensate the Contractor under Contract unit prices for its related expenses, the Department may consider reimbursing the Contractor for such expenses.

Materials obtained by the Contractor for the Project, if they have been inspected, tested as required, and accepted by the Engineer, but have not been incorporated into the Project construction, shall, if the Engineer and the Contractor so agree, be purchased by the Department from the Contractor at their actual cost as shown by receipted bills. To this cost shall be added all actual costs for delivery at such points of delivery as may be designated by the Engineer, as shown by actual cost records. If the Engineer does not agree to purchase such materials, the Department shall reimburse the Contractor for any reasonable restocking fees and handling costs incurred by the Contractor in returning said materials to the vendor.

Termination of the Contract shall not relieve the Contractor of its responsibilities for the completed Project, nor shall it relieve the Contractor's surety of its obligation concerning any claims arising out of the work performed, until the requirements of Article 1.08.13 and 1.08.14 have been met.

1.06.01—Source of Supply and Quality: The Contractor must obtain the Engineer's approval of the source of supply for each of the materials specified in the Contract before beginning delivery of such materials to the Project site. If, at any time, the Department discovers that a source of supply that had been approved does not furnish uniform materials, or if the material from any source proves unacceptable to the Engineer, the Engineer will so notify the Contractor. Thereafter, the Contractor shall furnish only approved materials from other approved sources for the Project, and shall use such approved materials to replace any previously-furnished materials that have been rejected by the Engineer. Only materials conforming to the requirements of these specifications and approved by the Engineer shall be used for the Project. No material that, after approval, has in any way become unfit for use shall be used for the Project. When the Contractor proposes to use materials from a source not currently approved by the Engineer, the Contractor shall submit as a prerequisite to consideration for source approval such evidence as the Engineer may request, showing that the materials from the proposed source meet the Contract requirements and will be available to the Contractor in sufficient quantity to assure continuous and satisfactory progress of the Project. For any material that requires more than one month for delivery, the Contractor shall provide the Engineer with documentary proof that said material has been ordered in sufficient time to complete the Project as planned. Failure to produce such documentary proof will result in a denial of any claim for a time extension based on late delivery of such material.

1.08.03—Prosecution of Work: The Contractor shall commence construction operations with that part of the Project designated for such commencement in the progress schedule which it has submitted to the Department, unless the Engineer directs the Contractor to commence with a different part of the Project. The work shall be conducted in such manner and with sufficient materials, equipment and labor as are necessary to ensure completion of the Project in accordance with the Contract within the time set forth in the Contract. The Contractor shall notify the Engineer of its intention to commence or recommence any Project operation at least 48 hours in advance of doing so. The Contractor shall also give the Engineer such advance notice of any intent to discontinue any Project operation, unless

emergency conditions make it impracticable to give such notice so far in advance. The Engineer retains the right to disallow such commencement, recommencement or discontinuance of operations.

1.08.07—Determination of Contract Time: Unless the Contract requires the Project completion by a specified date, the number of calendar days allowed for the completion of the Project will be fixed by the Department, will be stated in the Contract, and will be known (with any subsequent adjustments) as the "Contract time." The chart or schedule upon which the Contract time is based is available from the Division of Contracts, at the Department headquarters, 2800 Berlin Turnpike, Newington, CT. If at any time the Contractor submits a schedule showing completion of the work more than 30 calendar days in advance of the Contract completion date, the Department will issue a no-cost construction order revising the allowable Contract time to that shown on the Contractor's schedule.

Submittal Preparation and Processing: The Contractor shall: (a) Coordinate preparation and processing of submittals with performance of construction activities; (b) Transmit each submittal sufficiently in advance of performance of related construction activities to avoid delay; (c) Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals and related activities that require sequential activity; (d) Coordinate transmittal of different types of submittals for related elements of the Project so that processing will not be delayed by the Designer's need to review submittals concurrently. The Contractor shall allow at least 21 calendar days for initial submittal review by the Designer, and allow additional time for such review if processing must be delayed to permit coordination with subsequent submittals. If a re-submittal is necessary, the Contractor shall allow at least 21 additional calendar days for processing each resubmittal. The Designer reserves the right to withhold action on a submittal if coordination with other submittals is necessary, until all related submittals are received The Designer will promptly inform the Contractor when a submittal being processed must be delayed for such coordination. The Contractor shall allow at least 60 calendar days for review of any submittal requiring approval by an outside agency (such as FAA, FTA, Metro-North Railroad, DEP, U.S. Coast Guard, Army Corps of Engineers). The Engineer will not authorize an extension of Contract time because of the Contractor's failure to transmit submittals to the Designer or outside agencies sufficiently in advance of the work to permit processing.

Submittal Schedule: At the Pre-Construction Meeting, the Contractor must provide a submittal schedule with its construction schedule. Following the Engineer's response to the initial submittal, the Contractor shall print and distribute copies of the schedule to the Engineer, Designer, the Contractor's subcontractors, and other parties required to comply with submittal dates indicated. The Contractor shall post copies of same in the Department field office. The Contractor must update its submittal schedule at least once a month, and distribute and post each update schedule in the manner described above. The Designer will not review submittals until the initial submittal schedule has been provided. Any delays in construction due to the Contractor's failure to provide a submittal schedule shall be the responsibility of the Contractor. The submittal schedule shall be complete, comprehensive, and chronological, providing the following: scheduled date for submittal; related Contract provision number or plan sheet number of the submitted item (include part number and paragraph or the detail number, as applicable); submittal category; name of subcontractor; and date by which the Designer's action will be needed in order for the Contractor to adhere to its construction schedule.

1.20-1.05.10—Inspection: For work requiring inspection by a building code official, the Contractor shall: 1. Provide a minimum 3 days, excluding weekends and State holidays, notice to the Engineer to

perform such inspection; 2. Not enclose, cover, or impair any system or component that will require inspecting, testing, or viewing for compliance with the codes defined in Article 1.20- 1.02.13.

Schedule Specification Sample #1

DESCRIPTION: Under this item the Contractor shall furnish the services of one of his administrative employees, entitled the Project Coordinator for this project and to coordinate and expedite all phases of the work required for the project to ensure that the construction schedule is maintained.

The Project Coordinator shall be designated by name, in writing with a resume of his qualifications, within ten (10) calendar days of the award of the Contract and shall not be changed without prior written notice to the Department.

If, in the judgment of the Engineer, the Project Coordinator is not sufficiently experienced and versatile in the preparation, interpretation and modification of the construction schedules, the Contractor shall engage the services of a Consultant, subject to the approval of the Engineer, for the scheduling work required. If a Consultant is engaged, he shall be present at the first meeting, along with the Project Coordinator, prepared to discuss, in detail, the methods and techniques he proposes to use. Thereafter, the Project Coordinator or the Consultant responsible for updating the Critical Path Schedule shall attend all meetings between the Contractor, his Subcontractors, and any other meetings, which will affect the CPM schedule. The Contractor shall prepare Critical Path Schedules utilizing the latest version of Primavera Project Planner software as described more fully hereinafter.

Computer Software and Printer: The Contractor shall provide the following equipment with all the required maintenance and repairs (to include labor and parts) throughout the contract life. The Engineer reserves the right to expand or relax the specification to adapt to the software and hardware limitations and availability.

The Contractor shall provide the Engineer with a licensed copy registered in the Department's name of the latest versions of the software listed and maintain customer support services offered by each software producer for the duration of the project. The Contractor shall deliver to the Engineer all supporting documentation for the software and hardware including any instructions or manuals.

A) Software -Minimum Specification:

The Contractor shall provide the Engineer with a licensed copy of the latest version of the Primavera Project Planner scheduling software, registered in the Department's name, and maintain the Primavera customer support service contract over the duration of the project.

B) BP Color Inkjet 2000C Printer - Minimum or equivalent: Resolution - 600x600 DPI
RAM - 2 MB RAM'"
Print speed - 2 ppm - color, 8 ppm - black
Printer cable -1.8 m (6 ft).

The contractor is responsible for service and repairs to all computer hardware. All repairs must be performed with-in 24 hours. If the repairs require more than a 24 hours then a replacement must be provided.

Construction Methods: The Project Coordinator shall attend all meetings between the Contractor and the Department, the Contractor and his Subcontractors, and any other meetings that effect the progress of the job. The Project Coordinator shall be knowledgeable of the status of all parts of the work throughout the length of the Contract.

The Contractor shall prepare a Critical Path Schedule in accordance with the pertinent provisions of "Section 1.03 - Award and Execution of Contract," "Section 1.05 - Control of the Work," and "Section 1.08 - Prosecution of Progress" of the Standard Specifications. The schedules shall incorporate the Sequence of Construction as outlined on the Plans and in the Specifications. All other limiting factors that affect construction shall also be incorporated into the Schedules. All milestones or constrained dates within the schedule shall be clearly indicated.

All major elements of the work shall be shown (on a structure by structure basis where applicable), and also be broken out further into their minor components and sequence of assembly.

For this project, the major elements may be indicated to include, but are not limited to, the following items:

- Permit Acquisition
- Shop Drawings
- Utility Relocations
- Engineer's Office
- Construction Staking
- Clearing & Grubbing
- Maintenance & Protection of Traffic
- Erosion Control
- Adjacent Contract Work by Others
- Drainage (Breakdown into Excavation, Bedding Materials, Pipe, Manholes, Catch Basins, Fill, Riprap, etc.)
- Removal of Superstructure
- Roadway Construction (Breakdown into Excavation, Fill Subbase, Pavement, Drainage, Curbing, Guiderail, etc.)
- Signing (Breakdown Signs Individually)
- Illumination
- Pavement Markings
- Signalization
- Temporary Markings
- Clean-up

All documents, which require approval by the Department, shall be clearly identified within the schedule. The Department shall be allocated a minimum of thirty (30) calendar days (exclusive of weekends and holidays) for review and approval of each submittal. Any submittals requiring approval by an outside Agency (ConnDEP, Coast Guard, Army Corps of Engineers, etc.) shall be allocated a minimum of sixty (60) calendar days. The Department shall not be held responsible for any delay associated with the approval or rejection of any substitution or other revisions proposed by the Contractor.

The schedule shall indicate the logic of the work for the major elements and components of work under the Contract, such as the planned mobilization of plant and equipment, sequences of operations, procurement of materials and equipment, duration of activities, type of relationship, lag time (if any), and such other information as it is necessary to present a clear statement of the intended activities.

The schedules shall consist of a network technique of planning, scheduling and control, shall be a clear statement of the logical sequence of work to be done, and shall be prepared in such a manner that the Contractor's work sequence shall be optimized between early start and late start restraints. The Contractor shall utilize the same criteria in a consistent manner throughout the term of the project. If, at any time, the Contractor alters his logic, original durations, descriptions, adds activities, or activity codes or in any way modifies the Baseline Schedule, he must notify the Engineer of the change, in writing, with presentation detailing the reasons for the change. The Engineer reserves the right to approve or reject any such change.

Each Critical Path Schedule submittal shall be in the form of an activity on node diagram (precedence diagramming method) and shall include at a minimum; an Early Start computer sort, a Total Float computer sort, an Activity Number computer sort, a Schedule Diagram in the Time Scaled Logic format and a backup data diskette which includes all Primavera project files. The diagrams shall be on 2' x 3' sheets. Additional, more detailed, diagrams for important aspects or phases of the work will be required on large or complex projects.

Activity I.D. numbers shall be keyed to the item numbers assigned on the detailed estimate sheet. The first three digits (four digits for highway illumination, signing, traffic signals and utility work) of the activity I.D. number shall be identical to the first three digits of the item number in the contract. The remaining digits may be used to provide unique, orderly and sequential I.D. numbers for each activity.

Activity codes shall be added to the schedule dictionary at the direction of the Engineer. At a minimum, activity codes for responsibility (prime, subcontractor by name), location (bridge #, span #, sta. #, etc.) and stage or phase number should be included.

The Project Coordinator shall be required to prepare and submit the following documents:

1.) Baseline Submittal Requirements: The Contractor shall be guided by the following requirements when submitting the Critical Path Schedules for review and approval.

a.) Within twenty (20) calendar days after contract award, the Contractor shall prepare and submit for review and approval a detailed Critical Path Schedule for all work contemplated for the first construction season. The review and approval process is more fully described in paragraph (c) of this section.

The detailed Critical Patch Schedule for the first construction season shall be prepared in accordance with all requirements of this specification. The work shall be broken out into sufficient detail such that no activity has a duration greater than fifteen (15) days, unless approved by the Engineer. The Engineer shall be the sole judge as to whether the schedule is sufficiently detailed.

All work contemplated beyond the first construction season shall be shown in sufficient detail such that the Critical Path may be identified and shall incorporate all contract milestones. Upon approval this schedule shall be designated the "Initial Baseline". Failure to submit and gain approval for the "Initial Baseline" shall delay issuance of the "Notice to Proceed".

b.) Within 180 days after contract award the Contractor shall submit to the Engineer, for review and approval, a detailed Critical Path Schedule for all contract work. This schedule shall be prepared in accordance with all requirements of this specification. The work shall be broken out into sufficient detail such that no activity has a duration greater than fifteen (15) calendar day, unless approved by the Engineer. As a guide 25 to 35 activities should be provided per $1 million of contract work. The Engineer shall be the sole judge as to whether the schedule is sufficiently detailed.

On extremely long or complex projects the Contractor may be allowed, with the approval of the Engineer, to submit Baseline Schedules for each calendar year, construction stage, or other meaningful basis. The proposed Baseline Schedule shall be submitted for review and approval a minimum of-ninety (90) calendar days prior to the start of any subsequent work. Proposed Baseline Schedules shall be prepared in compliance with this specification in all other respects.

In no instance will the Contractor be permitted to commence work on any significant portion of the work for which a Baseline Schedule has not been approved.

c.) The Contractor, represented by the Project Coordinator and/or the Consultant, shall participate with the Engineer in the review and evaluation of each Baseline Schedule submitted. Any and all revisions made necessary as a result of this review shall be made by the Contractor and a revised Baseline Schedule submitted within ten (10) calendar days. Any further revisions required thereafter shall also be submitted for approval within (10) calendar days.

The approval of a Baseline Schedule shall in no way waive the requirements of the contract nor shall it excuse the Contractor from any obligations under the contract.

If the Contractor fails to submit a Baseline Schedule acceptable to the Department for any portion of the work, the Contractor may be found in violation of Article 1.02.02 of the Standard Specifications "for having failed to prosecute work continuously, diligently and cooperatively in an orderly sequence."

2.) Monthly Updates: Each month, as of a calendar date mutually acceptable to the Contractor and to the Engineer, the Contractor shall deliver to the Engineer three (3) prints of all required schedule diagrams and tabulations. In addition, the Contractor shall deliver one (1) copy of the project backup data diskette(s), which includes all Primavera project files. The schedule shall be updated to show the work actually accomplished during the preceding months, the actual time consumed for each activity, and the estimated time remaining for any activity which as been started but not completed.

The monthly update shall also include revisions to the CPM schedule necessitated by revisions to the project, which have been directed by the Engineer during the month preceding the update. Similarly, any changes to the schedule due to Contractor influences shall also be included within the schedule.

Any changes or revisions made to the approved Baseline shall be identified in narrative form in a cover letter accompanying the monthly update. The Engineer reserves the right to approve or reject any such changes. The narrative shall also describe in general terms the progress of the work since the last schedule update and shall identify any items of special interest.

Except as otherwise authorized by the Engineer, monthly submissions received after the due date are considered late.

The reports required for each monthly update shall include all reports generated for approval of the Critical Path Schedule for that particular portion of the work. On larger or complex projects, the Engineer may require the schedule data sorted by an activity code to better reflect the progression of the work. Summary barcharts may also be required.

3.) Biweekly Schedules: The Contractor shall be required to produce and submit to the Engineer a biweekly schedule. This short term schedule may be handwritten but shall clearly indicate all work planned for the two week period.

4.) Recovery Schedules: If, in the opinion of the Engineer, the updated schedule indicates that the Contractor has fallen behind schedule, or that a revision in sequence of operations may be necessary for any other reason, the Contractor shall immediately institute all necessary steps to improve his progress, and shall submit such revised network diagrams, tabulations and operational plans, as may be deemed necessary by the Engineer, to demonstrate the manner in which an acceptable rate of progress will be regained.

Should the Contractor not demonstrate an ability to regain an acceptable rate of progress, the Engineer shall require the schedule to be resource loaded with the next monthly update. No additional compensation will be allowed for resource loading the schedule.

5.) As-Built Schedules: Within thirty (30) days of completion of each stage or construction season, including all corrective work, the Contractor shall submit an "As-Built Schedule" showing the actual progress of work. The Contractor shall submit three prints of this final Critical Path Schedule and one project backup data diskette which includes all Primavera project files for the Engineer's exclusive use.
Method of Measurement: Within ten (10) calendar days of the award of the Contract, the Contractor shall submit to the Engineer for approval a breakdown of his lump sum bid price for this item detailing:

1.) The development cost to prepare the Critical Path Schedule in accordance with these specifications.
2.) The cost per month to provide the services of the Project Coordinator and to update the Critical Path Schedule.
3.) Substantiation showing that the costs submitted are reasonable based on the Contractor's lump sum bid.

Upon approval of the payment schedule by the Engineer, payments for work performed will be made as follows:

1.) Upon approval of the Critical Path Schedule for a particular portion of the work by the Engineer, the lump sum development cost will be certified for payment.

2.) Upon receipt of each monthly updated Critical Path Schedule, the per month cost for the services of the Project Coordinator will be certified for payment.

Basis of Payment: This service will be paid for at the contract lump sum price for "Project Coordinator" complete, which price sha11 include the preparation and submission of all schedules, updates and submittals. The lump sum price shall also include the cost of providing a complete, licensed copy of the Primavera software which will remain the property of the Engineer, and all materials, equipment, labor and work incidental of this service.

The lump sum price will be certified for payment as described in "Method of Measurement" subject to the following conditions:

1.) Any month where the CPM schedule is submitted late, without authorization from the Engineer, will result in the following actions:

a.) The monthly payment for the Project Coordinator item shall be deferred to the next monthly payment estimate. If any monthly submittal is more than thirty (30) calendar days late, there will be no monthly payment for the services of the Project Coordinator.

b.) The lessor of 5% of the monthly payment estimate or $25,000 shall be retained until such time as the Contractor submits all required reports.

2.) In the event the project extends beyond the original completion date by more than thirty (30) calendar days, and a time extension is granted to the Contractor, the Department may require additional CPM updates which will be paid at the per month cost for the services of the Project Coordinator.

3.) Failure of the Contractor to submit a Critical Path Schedule for any portion of the work in accordance with this specification shall result in the withholding of all contract payments until the schedule is submitted to, and approved by, the Engineer.

Pay Item	Pay Unit
Project Coordinator	L.S.

Schedule Specification Sample #2

CONSTRUCTION SCHEDULES - PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and General Provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes: Preparation, submittal, and maintenance of computerized progress schedule and reports, Contract time adjustments, including the following:

1. Preliminary Schedule..
2. Baseline Schedule.
3. Schedule Updates.
4. Two Week Look Ahead Schedules.
5. Schedule Revisions.
6. Recovery Schedules.
7. Narratives
8. Schedule Time Extensions
9. Payment for Scheduling Services

B. Related Sections: The following Sections contain requirements that relate to this Section:

1. Division 1 Section 01010 “Summary of Work” specifies the scope of work for the various Phases, requirements regarding the Contractor’s use of Premises, Occupancy Requirements, Products ordered in Advance and Owner Furnished Products.
2. Division 1 Section 01035 “Modification Procedures” specifies the administrative requirements for handling and processing Contract Modifications.
3. Division 1 Section 01040 “Coordination” specifies the administrative and supervising requirements necessary for coordinating construction operations.
4. Division 1 Section 01200 “Project Meetings” specifies requirements for submitting and distributing meeting and conference minutes.
5. Division 1 Section 01300 “Submittals” specifies requirements for submitting the preliminary Construction Schedule and the monthly CPM Construction Schedules.
6. Division 1 Section 01400 “Quality Control” specifies requirements for submitting inspection and test reports.
7. Division 1 Section 01500”Construction Facilities and Temporary Controls” specifies the requirements for construction facilities and temporary controls including temporary utilities, support facilities and security protection.
8. Division 1 Section 01600 “Materials and Equipment” specifies requirements for submitting the list of products.
9. Division 1 Section 01631 “Equals and Substitutions” specifies the administrative and procedural requirements for handling request for equals and substitutions.

10. Division 1 Section 01700 specifies the administrative and procedural requirements for Contract close out.

C. The above listed Project schedules shall be used for evaluating all issues related to time for this Contract. The Project schedules shall be updated in accordance with the requirements of this Section to reflect the actual progress of the Work and the Contractor's current plan for the timely completion of the Work. The Project schedules shall be used by the Owner and Contractor for the following purposes as well as any other purpose where the issue of time is relevant:

1. To communicate to the Owner the Contractor's current plan for carrying out the Work;
2. To identify work paths that are critical to the timely completion of the Work;
3. To identify upcoming activities on the Critical Path(s);
4. To evaluate the best course of action for mitigating the impact of unforeseen events;
5. As the basis for analyzing the time impact of changes in the Work;
6. As a reference in determining the cost associated with increases or decreases in the Work;
7. To identify when submittals will be submitted to the Owner;
8. To prioritize the Owner's review of submittals;
9. To document the actual progress of the Work;
10. To evaluate resource requirements of the Contractor and the Owner;
11. To integrate the Work with the operational requirements of the Owner's facilities;
12. To facilitate efforts to complete the Work in a timely manner.
13. To document the history of the Work.

1.02 CONSTRUCTION SCHEDULER

A. The Contractor is required to employ or retain the services of an individual skilled in construction scheduling ("Construction Scheduler"). The Construction Scheduler shall have at least five (5) years of verifiable experience as the person primarily responsible for preparing and maintaining detailed project schedules on projects of the same or similar size and nature as this project. When the project construction contract value is over $35 million, the Construction Scheduler is required to attend all meetings pertaining to scheduling and progress of the work including all progress meetings.

B. Within five (5) calendar days after the Notice of Award the Contractor shall provide a statement to the Owner with the following:

1. Identification, qualifications, and experience of the Contractor's Construction Scheduler and all other members of the Contractor's scheduling staff.

2. References of not less than two (2) previous projects on which the Contractor's Construction Scheduler has utilized CPM scheduling.

C. The Owner reserve the right to disapprove any Construction Scheduler candidate proposed for the project and/or remove, without rights to work on the project, any member of the Contractor's scheduling staff that is, in the Owner's opinion, not qualified. In case of disapproval, the Contractor shall resubmit the qualifications and references of the proposed alternate Construction Scheduler within ten 10 calendar days. The Contractor must have its Construction Scheduler approved prior to the issuance of the Notice to Proceed and the submission of any schedule.

D. Should the Construction Scheduler leave the employ of the Contractor or be re-assigned or relieved of his/her responsibilities as the Construction Scheduler on the project, the Contractor will be required to submit the qualifications of the proposed replacement Construction Scheduler within ten (10) calendar days after the date the former Construction Scheduler is no longer responsible for his/her duties on this Project.

1.03 SCHEDULING SOFTWARE

A. For Contracts greater than $5 million the Contractor shall use the latest version of Primavera Project Planner (P3) as the scheduling software system for use on this project. The Contractor shall use the latest version of the software program Claim Digger as the schedule comparison software for use on this project.

B. The Contractor shall provide one licensed copy of the scheduling and schedule comparison software to the Owner, registered in the Owner's name, complete with the entire manufacturer's manual, within five (5) calendar days after the award. The software manuals and license shall become the permanent property of the Owner.

1.04 DEFINITIONS

A. **Critical Path:** The longest continuous series of activities through the network at a given data date for the Schedule to a Contract Milestone or Contract Completion. Where the path to a specific Milestone has become negative the Critical Path shall be the longest continuous chain of activities with the greatest amount of negative float.

B. **Near Critical Path:** Any continuous series of activities through the network to the Contract Milestone or the Contract Completion Date where the Total Float of the activity at the data date along that path is within 11 work days of the Total Float possessed by the activity at the data date along the Critical Path.

C. **Total Float:** The number of work days from the late finish date (LF) to the early finish date (EF) of an activity at a given data date for the Schedule. When the LF is later than the EF, the Total Float shall be positive. When the LF and the EF are the same, the Total Float shall be zero. When the LF is earlier than the EF, the Total Float shall be negative. Unless otherwise specified all references to "float" shall mean "Total Float."

D. **Fragnet:** The sequence of new activities and/or activity revisions, logic or resource changes that are proposed to be added to the existing schedule to demonstrate the influence of impacts to the schedule. The Fragnet shall identify the predecessors to the new activities and demonstrate the impacts to successor activities.

E. Unless otherwise defined, terms used that relate to the scheduling software shall be as defined by the P3 Reference Manual and P3 Planning and Control Guide, 1999.

1.05 SCHEDULE FORMAT/CONTENT

A. Electronic Schedule Naming: The Contractor shall not submit any two schedule files with the same file name. For names shall be in accordance with the following requirements:

1. Proposal/final Preliminary Schedules shall be name P001, P002, P003, etc.
2. Proposed/final Baseline Schedules shall be name B001, B002, B003, etc.
3. Schedule final updates shall be named U001, U002, U003, etc. Any revisions that are required at a particular update on a data date shall be numbered UA01, UB01, UC01, etc.

B. Schedule Type: All Schedules required by this section shall be computer generated, critical path method (CPM) networks utilizing the precedence diagram method of scheduling.

C. Activity Identification: Each activity in the Project schedules shall have an activity Identifier (activity ID). The Contractor is encouraged to utilize the activity ID to contain a structure enabling easy identification of work type, location, subcontractor, etc. The activity ID of an existing activity shall not be modified or assigned to another activity.

D. Activity Description: The activity description shall identify the scope of the activity and shall include a verb or work function (i.e. form, pour, execute, etc.), an object (i.e. slab, footing, wall, etc.), and location (i.e., first floor, roof, etc.). There shall not be any two activities with the same activity description. It shall not be necessary to investigate activity code assignments or logic relationships to identify the scope of an activity. For example, the description "Pour Footing" will not be acceptable: the description "Pour Footing" West Wall, Section 2 will be acceptable. The terms "Miscellaneous," "Misc." and other vague adjectives shall not be used in an activity description. The Contractor shall standardize the use of terms and their spelling in all activity description. Abbreviation used in activity descriptions shall be consistent with the abbreviations used throughout the Contract Documents and summarized on the Contract Drawings.

E. Work Activities: The Contractor shall include activities for work in the following list:

1. Mobilization.
2. The preparation of all significant submittals and the review of those submittals.
3. Equipment and materials procurement/fabrication/deliver

4. Installing/operating temporary heat and utilities.
5. Preliminary testing of equipment, instrumentation and controls.
6. Final testing, including preparation time.
7. Substantial completion. Substantial completion activity shall meet all requirements set forth in Section 00800, supplementary Conditions.
8. Punch list work.
9. Operation and maintenance training.
10. Demobilization.
11. Final cleaning
12. Interim project phases or Completion Milestones
13. Issuance of certificate of occupancy
14. Certificate of Final Acceptance
15. (Specifier to list other project specific tasks / events needing to be expressly identified in the schedule here)

F. Maximum Activity Durations: The Contractor shall prepare schedule utilizing activity durations in terms of working days. Do not exceed fifteen (15) working day duration on activities except concrete curing, submittal review and equipment fabrication and deliveries. Where duration of continuous work exceeds fifteen (15) working days, subdivide activities by location or other sub-element of the work. At the request of the Owner, the Contractor shall substantiate the need for specific activities having longer durations than stated herein. If the Contractor fails to substantiate this need, then the Contractor shall modify activity durations and the corresponding work scope of the activities to the satisfaction of the Owner.

G. Activity Dates: Early and late start and finish dates of activities shall be calculated for each activity based upon the schedule data date, actual dates, schedule logic, schedule constraints, calendars and original duration or remaining duration, in accordance with the schedule parameters defined by this section. If the use of multiple calendars causes the Contractor shall be responsible for schedule, therefore is responsible for its errors.

H. Activity Predecessors and Successors: Every activity shall have logically assigned predecessors and successors in conformance with the requirements of this section. Unless otherwise specified, Notice to Proceed shall be the only activity in the Project Schedules without a predecessor. Unless otherwise specified, Contract Completion and each Contract Milestone(s) shall be the only activity in the Project Schedules without a successor.

I. Activity Constraints: Activity Constraints can affect activity float calculations and shall not be used unless accepted by the Owner. The imposition of a date constraint on any activity shall only be permitted when the Contractor demonstrates the need for such a constraint to the satisfaction of the Owner.

J. Imposed Project Finish Date**:** The imposed project finish date shall be the Contract Completion date, or if the Contractor plans an early completion date, the date it plans to complete the work.

K. Negative Float: Negative float is calculated when the user imposes a finish date or other constraint on the schedule and when an activity can only finish after its late finish date. The Contractor shall remove the imposed finish date and/or constraint causing the negative float when directed to do so by the Owner.

L. Activity Codes: The schedules shall contain activity code classifications and code values. The coding structure if applicable to the Project shall, at a minimum, include code fields for the following: phase, location, design, bid & award, shop drawings/fabrication, new construction, renovation, responsibility, and division. All activities in the schedule must have non-blank values for the required codes when possible.

M. Calendars: The planning unit for the Work shall be days. The global calendar shall contain all union holidays. The Contractors shall coordinate holidays to be observed with the Owner and incorporate them into the schedule as non-working days. Calendar No. 1 shall be a 5-day workweek, Monday through Friday. Calendar No. 2 shall be a 6-day workweek, Monday-Saturday. Calendar No. 3 shall be a 7-day workweek, Monday-Sunday. Calendar No. 4 shall be a 7-Day workweek with no holidays. Other calendar shall be incorporated for multiple shift work, cold weather restrictions and Contract restrictions. Every activity shall be assigned a working day calendar based on when the activity is planned to occur and when it is contractually permitted to occur. The Contractor shall define and submit additional working day calendars for acceptance by the Owner that are necessary for completion of work in accordance with the requirements of the Contract Documents. Only Owner defined or Owner accepted working day calendars shall be utilized in the Project Schedules. A "Calendar Day" includes all days (365 Days/Yr.). a "Work Day" normally means Monday – Friday excluding Holidays, except when a specific calendar has been applied.

N. Logic: The Contractor shall be responsible for developing the logic of the Preliminary, Baseline and Recovery Schedules and for updating that logic each month to accurately reflect the progress of the Work to-date and the Contractor's current plan for the timely completion of the work.

1. The following criteria shall form the basis for assembly of the schedule logic:
    - Which activity must be completed before a subsequent activity can be started?
    - Which activities can be done concurrently?
    - Which activities must be started immediately following a completed activity?
    - What major economic facility or manpower restrictions are required for sequencing these activities?

2. All paths through the Project schedules shall proceed in the direction representing the progression of time. Activity lag duration shall not have a negative value unless the Contractor substantiates to the satisfaction of the Owner that this is the best representation of reality. The use of activity lags shall be kept to a minimum. The Contractor shall eliminate lags by creating new activities, when the creation of new activities will perform the same function of the lag and when requested to do so by the Owner.

3. Redundant ties to preceding activities in a sequential series of activities will not be permitted. For example, if activity C is the successor in a finish-start relationship to activity B, and activity B is the successor in a finish-start relationship to activity A, then activity A shall not have a redundant finish-start relationship to activity C. A tie representing a different constraint will not be considered redundant. For example, a logic tie showing that the completion of the work scope of a predecessor is required before the successor can start is different from a logic tie representing a resource limitation and will not be considered redundant.

4. The Contractor is permitted to use manpower and equipment logic restraintsto reflect manpower and equipment requirements. Such resource restraints shall reflect a reasonable plan for accomplishing the work. The individual activities involved shall be sequenced within the limits of the available Total Float. Critical or near Critical Paths resulting from the use of manpower restraints shall be kept to a minimum.

5. The Contractor shall correct all incorrect logic relationships in the Schedule Updates to eliminate any out-of-sequenced logic. The Contractor shall make all changes in the logic or other adjustments found to be incorrect by the Owner.

O. Progress Data: Actual start and finish dates shall not be automatically updated by default mechanisms that may be included in the CPM scheduling software systems. The primary source of actual starts and finishes and period percentage completes shall be by field verification. The Contractor is to insure that progress is based of a current estimate of remaining duration to complete the Work and not the activity percent complete which calculates the remaining duration based on the original estimated duration.

P. Submittals:

1. Each significant submission that is required by the Contract Documents and any submissions the DPW warrants representation in the schedule shall have a corresponding activity, for the preparation and review and approval at the submission. When the Contractor plans on making a submission in parts, each part of the submission shall have corresponding preparation and review and approval activities.

2. The timing, sequencing and duration of all submitted review and approval activities shall be in accordance with the Contract documents.

3. All submissions designated “Revise and Resubmit” shall require that the Contractor insert new submittal preparation and review and approved activities with appropriate logic into the schedule.

4. When submittal receives a partial approval and the partial approval is sufficient to enable the commencement of a successor activity, then the original submittal activity shall be broken down into multiple activities as necessary to accurately reflect the logic of the Contractor's current plan.
5. When multiple items are included in a single submittal, the "Review and Approve" activity for the submittal shall be a predecessor to every activity representing the fabrication and delivery of any of the materials.

Q. Delivery Activities: The schedules shall include activities for all fabrication and delivery work except for short lead time items. "Short lead time" shall be defined as a period of two weeks or less from placement of order to delivery of material to the project site. Activities representing the delivery of materials or equipment for more than one installation activity will permitted in accordance with the following conditions.

1. The material delivery activity shall be a predecessor to the first activity representing the installation of the material in each area.
2. When partial deliveries are received and those deliveries are adequate to enable the commencement of some, but not all, successor activities, then the original delivery activity shall be broken down into multiple activities as necessary to accurately reflect the logic of the Contractor's current plan.

R. Inspections/Testing: The Contractor shall include an activity for each significant inspection and test required by the various officials and agencies, including the Building Inspector, and Fire Marshall and any test or inspection the DPW warrant representation in the schedule. The Contractor shall schedule these activities in accordance with the availability of the corresponding agency/official.

S. Progress Override/Retained Logic: The Contractor shall use retained logic to calculate all schedules required by this section. The use of progress override is not allowed without prior approval of the Owner.

T. Weather Days

1. The contractor shall consider foreseeable weather impacts when preparing its schedules.
2. Foreseeable weather impacts are those which could have been anticipated based on the 30-year average weather data for the project location.
3. The contractor shall insert an activity to reflect a weather delay on the critical path in its schedule update following weather delay when more than 2/3rds of a crew scheduled to work in a critical path activity could not work due to weather.
4. The contractor shall be entitled to a non-compensable time extension if the number of weather delays identified in the manner above, and to the extent they are accepted by the Owner, exceed the number of days of foreseeable weather impacts.

U. Regulatory/Third Party Approvals: the Contractor shall include activities in its schedule for all approvals required by regulatory agencies or other third parties.

V. Resource Loading: The Contractor shall resource load the schedules when requested to do so by the Owner in accordance with the Recovery Schedule requirements. When required, the schedules shall be resource loaded for both the Contractor and all of its subcontractors as detailed below or as otherwise directed by the Owner. The Contractor may propose additional or alternative resource loading for the Owner review and acceptance. Defining a resource shall consist of identifying the resource name, resource description, unit of measure, and calendar assignment.

1. Labor Resources: Labor shall refer to all craft labor including foreman. Labor shall be measured in person-days. The labor resource definitions shall be consistent with the subcontractor work scope.
2. Construction Equipment Resources: The planned use of equipment requiring a licensed operator shall be reflected in equipment resource assignments to activities.
3. Limits on Resources: The Contractor shall indicate in its Narrative the expected amount of resource and shall define the normal or expected usage along with a maximum limit available to the Contractor. Resource limits may vary for different stages of the work. Resource limits shall be revised to reflect the Contractor's current plan for the timely completion of the work.

W. Activity Logs:

1. Activities that are modified or added by change order shall be identified in the activity log. The change order number, as issued by the Owner, and the date the activity was modified or added shall be clearly recorded.
2. Activities affected by logic changes, resource changes, duration changes and calendar changes shall be identified in the activity log. The date the activity was modified, the nature of the change and the reason for the change shall be clearly recorded.

1.06 PRELIMINARY SCHEDULE & PRELIMINARY SCHEDULE UPDATES

A. The Contractor shall submit a Preliminary Schedule and Preliminary Schedule Updates. The Notice to Proceed will not be issued and the Contractor will not be allowed to start work at the project site until the Preliminary Schedule has been submitted and accepted.

B. The Preliminary Schedule shall contain detailed plan of operations for first ninety (90) calendar days of Work after receipt of Notice to Proceed.

C. The Owner and Contractor shall meet after receipt of Preliminary Schedule to review and make necessary adjustments. Contractor shall submit a revised Preliminary Schedule incorporating the adjustments within five (5) calendar days after meeting.

D. All work contemplated beyond the first ninety (90) days shall be shown in sufficient detail such that the Critical Path and all Contract Milestones may be identified.

E. The Preliminary Schedule shall be updated monthly during first ninety (90) calendar days after Notice to Proceed. The first update of the Preliminary Schedule shall show the progress on the actual Notice to Proceed date and shall be submitted to the Owner within five (5) calendar days after the issuance of the Notice to Proceed. Subsequent updates shall show the progress through the last day of the month and shall be submitted to the Owner by the fifth (5^{th}) business day of each month.

F. Preliminary Schedule Update revisions that are required as a result of review comments by the Owner shall be submitted within five (5) calendar days of the Contractor's receipt of the Owner's comments. The data date of the revised Preliminary Update shall remain on the first day of the month.

G. The Contractor shall not be permitted to make any schedule revisions (besides progress) to the Preliminary Schedule Update unless approved by the Owner. When schedule revisions are required, the Contractor shall submit a Schedule Revision per Section 1.11.

1.07 BASELINE SCHEDULE

A. The Contractor shall submit to the Owner the proposed Baseline Schedule for all the work at the project no later than forty-five (45) calendar days after the Notice to Proceed. The Accepted Preliminary Schedule shall be incorporated unchanged, as first ninety (90) calendar days activity in Contractor's Baseline Schedule

B. The proposed Baseline Schedule shall show sequence and interdependence of all activities required for complete performance of all Work, beginning with date of Notice to Proceed and concluding with date of final completion of the Contract. The Baseline Schedule shall depict the work as bid and as planned as of the Notice to Proceed. The data date shall be the actual date of the Notice to Proceed.

C. The Owner and the Contractor shall meet after the Owner's receipt of the Baseline Schedule to review and make necessary adjustments. Should adjustments be required, the Contractor shall submit a revised Baseline Schedule within five (5) calendar days after the meeting and receipt of the Owner's comments. Subsequent follow-up meetings and resubmissions may continue until the Owner accepts the Baseline Schedule.

D. The Contractor shall require each major subcontractor and major supplier, upon entering into a contract, to submit in writing a statement certifying that the major subcontractor or major supplier has concurred with the Contractor's Baseline Schedule, the major subcontractor's or major supplier's related schedule has been incorporated accurately, including the duration of activities, crew allocations. The definition of a "major subcontractor" is one that provides services valued in excess of five percent (5%) of the

Contract value. The definition of "major supplier" is one that provides material(s) or services valued in excess of one percent (1%) of the Contract value. Failure of the Contractor to provide the required information will delay the approval of the Baseline Schedule.

1.08 SCHEDULE UPDATES

A. The Contractor shall update and progress the CPM schedule through the last day of each month (the Data Date is the 1st day of the month). Updating and progressing the CPM schedule shall be completed and submitted by the fifth (5th) business day each month. Except as otherwise authorized by the Owner, monthly submissions received after the due date are considered late.

B. The first update will consist of the approved Baseline Schedule updated as of the first day of the first month which starts after ninety (90) days from the Notice to Proceed. Subsequent monthly Schedule Updates will be the previous month's approved Schedule Update or approved Revision Schedule updated to reflect progress over the last month. Schedule revisions, apart from the statusing of the remaining durations and percent completes of the various work activities will not be permitted in the Schedule Update.

C. The Contractor shall create a copy of the previous month Schedule Update for the purpose of updating and progressing it. The schedule shall be updated to show the work actually accomplished during the preceding month, the actual time consumed for each activity, and the estimated time remaining for any activity that has been started but not completed. The updating of the percent complete and the remaining duration of any activity shall be independent functions; program features that calculate one of these parameters from the other shall be disabled.

D. The Contractor shall make the necessary adjustments to the Schedule Update in accordance with the Owner's Schedule Update review comments and shall re-submit the Schedule Update within five (5) calendar days after receipt of those comments.

E. The Contractor shall prepare the monthly Schedule Updates every month starting on the month described above through the actual substantial completion date.

1.09 TWO-WEEK LOOK AHEAD SCHEDULES

A. The Contractor shall be required to produce and submit to the Owner a Two-Week Look Ahead Schedule, to be updated and submitted the first business day of each week. Except as otherwise authorized by the Owner, submissions received after the due date are considered late.

B. The Two-Week Look Ahead Schedule may be a CPM schedule or a bar chart; it shall be consistent with the previously approved Schedule Update or approved Schedule Revision.

1.10 SCHEDULE REVISIONS

A. If at any time, the Contractor alters its logic, original durations, or descriptions, adds activities or activity codes, or in any way modifies the accepted Preliminary Schedule, accepted Preliminary Schedule Update, Baseline Schedule or Schedule Update, the Contractor must notify the Owner of the change(s), in writing and submit a Revision Schedule to the Owner for review.

B. The preparation and submission of Revision Schedules will also be required to reflect any Contract Modifications that were approved and Construction Change Directives that were issued during the preceding period and any extra or changed work that the Contractor has started during the preceding period.

C. With each Revision Schedule, the Contractor shall submit written Narrative explaining the nature of the change(s), the schedule, the reason for the change(s) and the impact on the schedule as a result of the change(s).

D. All changes (i.e. duration changes, logic changes, new logic, new or modified activities changes in work sequence, etc.) shall be recorded and a note added to the activity log. The record shall include at a minimum, the date and the reason for the change, and description of the change.

E. The required Revisions Schedules and Narratives are in addition to the regular Schedule Update. They shall be separate submittals and shall be noted as Schedule Revisions.

F. Proposed Revision Schedules shall be submitted by the fifth (5^{th}) calendar day of the month and shall reflect status as of the first calendar day of the month.

G. The Owner and Contractor shall meet after the Owner's receipt of the Revision Schedule and Narrative to review and make necessary adjustments. Should adjustments be required, the Contractor shall submit a revised Revision Schedule to the Owner within five (5) calendar days after the meeting and receipt of the Owner Comments. Subsequent follow-up meetings and resubmissions may continue until after the Owner accepts the Revision Schedule.

H. Only upon acceptance of a revision to the Schedule by the Owner shall the revision be reflected in the next Schedule Update and Two-Week Look-Ahead Schedule.

I. The Owner reserves the right to accept or reject any schedule revisions proposed by the Contractor.

1.11 RECOVERY SCHEDULES

A. If, in opinion of the Owner, a Schedule Update indicates that the Contractor has fallen behind schedule, or that a revision in sequence or operations may be necessary for any other reason, the Contractor shall within five (5) business days of receiving a written request to perform "Recovery" from the Owner, immediately institute all necessary steps to improve his progress and shall submit such revised network diagrams, tabulations, operational plans and any supplementary information, as may be deemed necessary by the Owner, to demonstrate the manner in which an acceptance rate of progress will be regained.

B. Should the Contractor's "Recovery" efforts not demonstrate an ability to regain an acceptable rate of progress, the Owner may require the development of a "Recovery Schedule" and the Contractor shall submit the Recovery Schedule within fifteen (15) business days of receiving a written request for the Recovery Schedule from the Owner.

C. The Contractor shall resource load the Recovery Schedule if requested to do so by the Owner. The resource loading shall be in accordance with Section 1.05.V.

D. The Owner shall be the sole judge as to whether the Recovery Schedule is sufficiently detailed. Upon acceptance of this Recovery Schedule, it shall form the basis of the new Monthly Schedule Updates going forward.

E. No additional compensation will be allowed for the production of Recovery Schedules, whether resource loaded or not.

1.12 NARRATIVES

A. The Contractor shall prepare and submit Narratives to accompany the Baseline Schedule, the Preliminary Schedule, and all Preliminary Schedule Updates, Monthly Schedule Updates and Recovery Schedules. The Narratives shall include:

1. Identification of the update period, the data date and the schedule file name.
2. A description of the current Critical and Near Critical Paths activities that are supposed to start or to be worked on over the coming month.
3. Changes to the Critical Path, intermediate and completion Milestones
4. Description of problem areas.
5. Current or anticipated delays:
    - Cause of delay.
    - Impact of delay on other activities, Milestones, and completion dates.
    - Corrective action and schedule adjustments to correct the delay.
6. A discussion of work completed during the period.

7. A comparison of the planned versus schedule progress on Critical Path and near Critical Path activities that were to have been worked on over the last month.
8. A description of any interdependencies between the work of the Contractor and any work by other Contractors, third parties, and/or the Owner and its representatives.
9. A description of the current status of float created by any previous or ongoing compensable delay(s) and explanation regarding any reduction of this float from the previous update.
10. An explanation of any weather delays incorporated into the schedule.
11. A description of planned labor resources to be utilized to complete Critical and near Critical Path work as requested by the Owner.
12. A description of actual and potential equipment resource limitations.

1.13 NETWORK FILES, GRAPHICAL OUTPUT AND REPORTS

A. With each Preliminary Schedule, Preliminary Schedule Update, Baseline Schedule, Schedule Update, Revision Schedule and Recovery Schedule required by these specifications, the Contractor shall submit to the Owner the following electronic schedule reports/graphics/files:

Three (3) compact disc sets that each include:

1. A compressed back up of the entire schedule.

2. Gantt charts in Adobe Acrobat PDF file format, formatted to fit 8 ½" x 11" paper, showing the Activity ID, Activity Description, Original Duration, Remaining Duration, Total Float, Early Start and Finish Dates, and Calendar ID. Grouping to be by building, area and level and sorted by early start or as requested by the Owner. Types of Gantt Charts to be included are:

   - The project critical (longest) path and near critical path.
   - Bid & award activities, shop drawing, sorted by bid package
   - Milestone or summary schedule
   - All uncompleted work activities as of the data date.

3. Tabular reports in Adobe Acrobat PDF file format, formatted to fit 8 ½" x 11" paper. Tabular reports shall include:

   - A listing of all activities, by activity code, with early & late starts and Total Float.
   - A Claim Digger Report that details all changes between the current schedule submittal and the previous month's update submittal.

- Detailed Predecessor/Successor Report which included a listing of all activities that immediately precede and immediately succeed that activity in the schedule logic.

B. The Contractor shall submit three (3) paper copies of each of the Gantt Charts and tabular reports specified above.

C. Schedule submittals will only be considered complete when all materials have been submitted.

.

1.14 FLOAT/CRITICAL PATH

A. With the exception of the Float described in Parts B and C, Float is not for the exclusive use or benefit of either the Contractor or the Owner but is an expiring resource available to all parties acting in good faith as needed to meet any Contract Milestone(s).

B. As float is an expiring resource, if the Work is delayed on the Critical Path due to an excusable delay (either compensable or non-compensable) or by any delay for which responsibility has not yet been agreed upon, the Contractor may not use any float created by such delay on any other path without the express written approval of the Owner or unless at the time of the float consumption a time extension had been issued for the delay that created the float being consumed. Use of such float on any parallel path without the approval of the Owner shall be construed as a concurrent inexcusable delay to any delay caused by the Owner.

C. It is acknowledged and agreed by the Contractor that Owner caused delays on the project may be offset by Owner caused time savings (including, but not limited to: Critical Path submittals returned in less time than allowed for in the Contract, approval of substitution requests which result in a savings of time along the Critical Path for the Contractor, etc.). In such an event, the Contractor shall not be entitled to receive an extension of time or delay damages until the Owner caused time savings are exceeded and the Contract completion date also exceeded.

1.15 EARLY COMPLETION

A. Should Contractor submit a Preliminary Schedule, Baseline Schedule, Schedule Update or Schedule Revision showing Project Completion more than twenty (20) working days prior to Contract Completion Date, the Owner may issue a Change Order, at no cost to Owner, revising the time of performance of Work and Contract completion date to match Contractor's schedule. Contract Milestone dates, if any, shall be adjusted accordingly. The assessment of liquidated damages shall be measured based on the new Milestone and Contract completion dates.

1.16 CONTRACT TIME EXTENSIONS

A. Mitigation of Delays

1. The Contractor shall develop mitigation measures for all delays regardless of responsibility for the delays and identify all time and cost impacts to the work associated with those mitigation measures. Unless circumstances otherwise require, the Contractor shall not pursue mitigation action for which it expects the Owner to be liable prior to notifying the Owner and receiving Owner authorization to proceed with the mitigation action. Any action taken by the Contractor prior to receiving approval from the Owner shall be at the Contractor's risk.

2. When the need for mitigation arises to ensure timely completion, the Contractor shall review all uncompleted activities on the Critical and Near Critical Paths to the Contract Completion Date for errors in scope, duration, and logic and for the feasibility of performing in parallel work currently scheduled sequentially.

3. Whenever is possible for the Contractor to mitigate delay without added cost, the Contractor shall do so. The Contractor shall mitigate all delays as efficiently and economically as possible, with the objective of minimizing both the time and cost impact of the delay regardless of responsibility for the delay. The Owner will not be liable for damages which the Contractor could have avoided by reasonable means such as prudent scheduling of the work and judicious handling of forces equipment or plant. The Owner will not be liable for damages incurred by the Contractor during any period of time when the Contractor has failed to provide notification of delay in accordance with the Contract requirements when having the notification at the specified time could have influenced the Owner's decision or actions.

B. Time Impact Analysis

1. Time impact analysis shall be required for contested or disputed time extension requests submitted by the Contractor prior to the work being performed

2. If the Contractor believes that a proposed change will impact the Project Completion Date or interim Milestones the Contractor shall submit an analysis with its Change Order Proposal demonstrating the delay to the Critical Path. This analysis shall be in the form of a Time Impact Analysis.

3. The Time Impact Analysis shall consist of 1) a Fragnet of the portion of the schedule that will be affected by the incorporation of the change, which shall include the new activities, revised logic and durations associated with the proposal change; 2) a narrative explanation of how the proposed change would impact the schedule; 3) an impact schedule which shall be developed by incorporating the Fragnet and required changes, including any delay mitigation measures, into the most recent accepted schedule update and; 4) electronic copies of the Fragnet and impact schedule.

4. The Contractor shall submit its TIA in sufficient time to allow it to be incorporated into a Revision Schedule prior to the change order work proceeding, allowing the Owner

thirty (30) days after receipt of the Time Impact Analysis and all the supporting information required with the Change Order Proposal to approve or reject the analysis.

5. Upon agreement on the schedule impact due to the proposed change and the issuance of a time extension, the Contractor shall incorporate the agreed upon Fragnet/schedule revisions in the next monthly update.
6. The Owner reserves the right to have the Contractor proceed with the change order related work without agreeing on the time associated with it and to measure the actual schedule impact via Contemporaneous Period Analysis.
7. In cases where the Contractor has not submitted a Time Impact Analysis with its Change Order Proposal for a particular proposed change, the Contractor agrees that the particular proposed change has no impact on the Contract Completion Date or interim Milestones and no time extension is required.

.

C. Contemporaneous Period Analysis

1. The Contractor shall utilize Contemporaneous Period Analysis (CPA) to establish entitlement for all time extension requests submitted to the Owner after performance of the work that is the subject of the time extension request.
2. The CPA shall quantify the delay by comparing the completion dates and Milestone dates on an update by update basis, starting with the update just prior to the delaying event and ending with the update just after the conclusion of the delaying event. Only the accepted schedules/Schedule Updates shall be used in the Contractors CPA.
3. The Contractor shall demonstrate the cause and the Owner's sole responsibility for critical delay by correlating slippage with relevant contract language and project documentation supporting the Contractor's assessment.
4. The CPA will consist of 1) an update by update accounting of all delay(s) during the period in question; 2) an update by update narrative explanation of how the delay(s) affected the completion date or would have affected the completion date but for other concurrent delay(s); 3) chronologies of the issues affecting the schedule period in question; and 4) a day by day accounting and description of the unanticipated work/work stoppage on the Critical Path and/or path in question; 5) a Gantt chart comparing the as-planned schedule just prior to the start of the delay to the actual as-built for the path(s) in question.

D. Owner may require the Contractor to correct errors in its TIA or CPA at anytime, whether or not the schedules have been accepted and/or time extension issued and agreed upon. Should the errors affect the outcome of the TIA or CPA, the Owner reserves the right to adjust the time extension accordingly. Generally, a schedule will be found to be in error if it does not properly reflect the sequencing, timing and durations of all the work and required events as well as mitigation efforts contemplated or which should have been contemplated at the time of the data date of the schedule.

E. Time Extensions will be granted only to the extent that equitable adjustments for the activity of activities affected exceed or exceeded the total or remaining float along the Critical path or activities at the time of the actual delay. Actual delays in activities which

do not affect the Critical Path work or which do not move the Contractor's planned completion date beyond the Contract completion date or current completion date as affected by previous delays, will not be the basis for an adjustment to the Contract time. Time Extensions shall not be granted until a delay occurs that is:

1. Beyond control of and without fault of or negligence of the Contractor and its Subcontractors or Suppliers at any time.
2. Extends the actual performance of the work beyond the Contract completion date or other specified Interim Milestones.

F. Should a non-compensable excusable delay be concurrent with one or more compensable delays, the Contractor and Owner agree that the net result is a non-compensable, excusable delay to the extent the delay is caused by the non-compensable event.

G. The Contractor shall have no claim for damages of any kind, or extensions or increase to the Contract time(s) or Contract Milestone(s), or adjustments of Contract Price on account of any delay, interruption or suspension of the Work or any portion thereof (herein after collectively referred to as "Delay"), due to whatever cause unless the prerequisites of this Subsection are met. The requirements of this Subsection are in addition to and not in lieu of the requirements of any other applicable subsection.

1.17 REVIEW AND ACCEPTANCE OF PROJECT SCHEDULE SUBMITTALS

A. The Owner shall review schedule submittals for conformance with the requirements of the Contract Documents. Schedule review comments by the Owner may address whether items of Work are omitted, activity durations are reasonable or that the level of labor, materials, and equipment, the means, methods, timing, and sequencing of the Work are practicable. The planning, scheduling or execution of the Work and the accuracy of any Project Schedule shall remain the sole responsibility of the Contractor.

B. During the review of any of the submissions required by this section, if any of the following conditions are discovered the submittal shall be returned by the Owner without further review for correction and re-submittal:

1. The submittal is incomplete.
2. The submittal does not comply with the specified format.
3. A component of the submittal has not been prepared in accordance with all of the requirements of this section.
4. The quality of the submittal indicates that the Contractor has failed to perform an internal quality control review prior to submission.
5. There is an inconsistency between electronic files and printed material.

C. It is the Contractor's responsibility to ensure that all Project Schedules are in compliance with all of the requirements of the Contract Documents. The Owner's failure to return a submittal shall not be construed to mean that the submittal is in compliance with the requirements of the Contract Documents. The Owner, at its discretion, may choose to complete a submittal review even though the submittal fails to meet one of more of the conditions for rejection stated herein.

D. The acceptance of any Project Schedule by the Owner does not constitute acceptance or approval of any change to the requirements of the Contract Documents including but not limited to any mandated construction sequences. The Owner is not responsible for any erroneous assumptions or information in any Project Schedules regardless of origin.

E. The Contractor shall be responsible for all delays due to its failure to submit complete submittals in accordance with the requirements of the Contract Documents.

F. The Schedule submitted will not be considered acceptable until all of the Owner's comments are incorporated into the schedule to the Owner's satisfaction.

G. Errors in any Project Schedule accepted by the Owner, including but not limited to activity durations, relationships between activities, resource allocation or other float suppression techniques that do not accurately reflect the work may be identified at any time and once identified shall be corrected by the Contractor.

H. Owner's acceptance of a Schedule Update shall not constitute the approval of a time extension should the Project Completion Date or Contract Milestone(s) be shown as delayed.

I. Notwithstanding any review, review comments, acceptance, scheduling assistance or direction to change an/or revise any schedule by the Owner the schedules shall at all times be the Contractor's schedule for performing the Work and not be considered as any Owner direction constituting a change unless the Contractor gives appropriate notice and the other Contract provisions for determining merit and entitlement are met.

1.18 PAYMENT

A. When the Contractor submits its schedule of values in accordance with the General Conditions, it shall include an amount equal to the greater of $5,000 times the contract duration in months or 0.75% of the total contract price for the scheduling work associated with this section and shall break down this amount as follows:

1. The development cost to prepare the Preliminary Schedule in accordance with these specifications. Development costs shall not exceed 15% of the total amount for the scheduling work and shall include costs to maintain and submit all monthly updates prior to acceptance of the Baseline Schedule and to furnish and install all specified hardware.

2. The development cost to prepare the Baseline Schedule in accordance with these specifications. Development costs shall not exceed 10% of the total amount for the scheduling work.
3. The cost to provide the ongoing monthly update services required by this specification including the costs to prepare and submit the Updates; furnish and submit any Revision Schedule. A per month cost will be derived by taking the Contractor's total cost for scheduling work, subtracting the amounts for the Preliminary Schedule and Baseline Schedule, and dividing this amount by the number Monthly Schedule Updates, not including Preliminary Schedule Updates, prescribed by the Contractor's schedule.

B. Upon acceptance of the Schedule by the Owner, payments for work performed will be made as follows.

1. Upon acceptance of the Preliminary Schedule by the Owner, the development cost from the payment schedule will be certified for payment.
2. Upon acceptance of the Baseline Schedule by the Owner, the development cost from the payment schedule will be certified for payment
3. Upon receipt and acceptance of each Monthly CPM Schedule Update, Revision Schedule and Narrative, 100% of the per month cost for the scheduling services will be certified for payment.
4. Payment for a Monthly Update will be reduced by 6.5% per day for each day that the submission is late. This amount will be deducted through a credit Contract Modification.

C. Any month where the Monthly CPM Schedule Update, Revision Schedule or Narrative is submitted late, without authorization from the Owner, will result in the following actions:

1. 2.5% of the monthly payment estimate or $25,000, whichever is greater, shall be retained until such time as the Contractor submits all required schedules and reports.
2. The payment to provide the ongoing monthly update services shall be reduced by 6.5% per calendar day for each day the submissions are late. This amount will be deducted through a credit Contract Modification.

D. Any week where the Two Week Look Ahead Schedule is submitted late, without authorization from the Owner, will result in a 2% per day reduction of the entire monthly schedule update services payment for each day the schedule has been submitted late, up to a maximum of five (5) days (or 10%) per Two Week Look Ahead Schedule. This amount will be deducted through a credit Contract Modification.

E. Failure of the Contractor to submit a Baseline Schedule or Revised Baseline Schedule for any portion of the work in accordance with this specification may result in the withholding all Contract payment until the schedule is submitted to, and accepted by, the Owner.

F. In the event the project extends beyond the original completion date by more than thirty (30) calendar days, and a time extension is granted to the Contractor, the Owner may require additional CPM updates which will be paid at the per month cost for the Scheduling Update services.

From Petrini & Associates:

3.0 CONTRACTOR'S CONSTRUCTION SCHEDULES

3.1.1 The Contractor shall prepare and submit to the Architect a progress schedule, and shall comply with such schedule, as described in subparagraphs 8.2.4 through 8.2.10.

3.1.2 The Contractor shall prepare and keep current, for the Architect's approval, a schedule of submittals coordinated with the Contractor's construction schedule and allows the Architect reasonable time to review submittals.

3.1.3 A copy of the progress schedule shall be kept in the Contractor's field office and be brought up to date each month to show the actual progress of the Work.

4.2 PROGRESS AND COMPLETION

4.2.1 Time limits stated in the Contract Documents are of the essence of the Contract. By executing the Agreement the Contractor confirms that the Contract Time is a reasonable period for performing the Work.

4.2.2 The Contractor shall prosecute the work with the diligence necessary to ensure its completion within the required time. The Contractor shall provide sufficient labor, materials & equipment, and shall promptly take such appropriate action as is determined by the Owner or Architect to be necessary to keep the work on schedule. The Contractor shall carry on the work and adhere to the schedule during all disputes and disagreements with the Owner. No work shall be delayed or postponed pending resolution of any disputes or disagreements. The Contractor shall exercise reasonable precautions, efforts, & measures to avoid or mitigate situations which would cause delays.

4.2.3 The Contractor shall proceed expeditiously with adequate forces and shall achieve Substantial Completion within the Contract Time.

4.2.4 Within two weeks after award of the Contract, the Contractor shall submit to the Architect a Progress Schedule showing for each class of work included the Schedule of Values, the percentage completion to be obtained and the total dollar value of work to be completed as of the first of each month until Substantial Completion. All calculations shall be on the basis of work in place, but not including the value of materials delivered but not in place.

4.2.5 The Progress Schedule shall be based on an orderly progression of the Work, allowing adequate time for each operation (including adequate time for submission and review of submittals), and leading to a reasonable certainty of Substantial Completion by the date established in the Agreement. The Progress Schedule will be reviewed by the Architect for compliance with the

requirements of this Article and will be accepted by the Architect or returned to the Contractor for revision and resubmittal. Unless specifically required by law, no payment under this Contract shall be due until the Progress Schedule has been approved by the Architect.

4.2.6 If in any Application for Payment the total value of the completed Work in place, as certified by the Architect, is less than 90% of the total value of the Work in place estimated in the Progress Schedule, the Owner may, at the Owner's option, require the Contractor to accelerate the progress of the Work without cost to the Owner by increasing the work force or hours of work, or by other reasonable means approved by the Architect.

4.2.7 If each of three successive applications, as certified by the Architect, indicate that the Actual Work completed is less than 90% of the values estimated in the Progress Schedule to be completed by the respective dates, the Owner may at the Owner's option, treat the Contractor's delinquency as a default justifying the action permitted under Paragraph 14.2.

4.2.8 If the Architect has determined that the Contractor should be permitted to extend the time for completion as provided in Paragraph 8.3, the calendar dates in the Progress Schedule shall be adjusted accordingly to retain their same relationship to the adjusted date of Substantial Completion, and the dollar value of Work to be completed as of the first of each month shall be adjusted pro rata.

4.2.9 If the Contractor fails to submit any Application for Payment in any month, the Architect shall, for the purpose of this evaluation of progress, certify separately to the actual value of the Work in place completed as of the first of the month to the best of the Architect's knowledge.

4.2.10 Nothing herein shall limit the Owner's right to liquidated or other damages for delays by the Contractor or to any other remedy which the Owner may possess under other provisions of the Contract Documents or by law.

2. Bonds and Insurance.

From Montgomery County, Maryland:

17.1 PERFORMANCE AND PAYMENT BONDS

17.1.1 Requirement for Bonds. For construction Contracts exceeding one hundred thousand dollars ($100,000.00) in amount, the Contractor must furnish a performance bond and a payment bond, each in an amount equal to ninety five percent **(95%)** of the Contract Sum, for construction Contracts exceeding fifty thousand dollars ($50,000.00) but not exceeding one hundred thousand dollars ($100,000.00) the Contractor must furnish a performance bond and a payment bond, each in an amount equal to fifty percent (50%) of the Contract Sum 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. No bond will be required for Contracts under fifty thousand dollars ($50,000.00). The Contractor 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 Contractor 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 Contractor, 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.

17.2 CONTRACTOR'S LIABILITY INSURANCE

17.2.1 Requirement for Insurance. The Contractor 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 Contractor from claims set forth in Subsection 17.2.2 which may arise out of or result from the Contractor's operations under the Contract and for which the Contractor may be legally liable, whether such operations be by the Contractor or by a Subcontractor 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.

17.2.2 Scope of Coverage. The scope of the Contractor'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 Contractor's employees;

.3 claims for damages because of bodily injury, sickness or disease, or death of any person other than the Contractor'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 Contractor, 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 there from;

.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; and

.7 claims for which the Contractor is obligated to indemnify others under the requirements of Section 8.4.

17.2.3 Additional Insureds. The Owner and the Architect/Engineer and any additional consultants of either who are identified to the Contractor in writing must be included as additional insureds by endorsement to the policies.

17.2.4 Insurance Coverage and Limits of Liability. The insurance coverage and limits required by Subsections 17.2.1 and 17.2.2 must be written for not less than limits of liability specified in the Contract Documents or required by law, whichever is greater.

17.2.5 Duration of Coverage. Coverages, whether written on an occurrence or claims-made basis, must be maintained without interruption from the date of commencement of the Work until the date of final payment 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 Contractor to the Owner under the following Subsection 17.2.7 must evidence compliance with this requirement. The Contractor 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 prior to commencement of the Work**. At the request of the Owner, the Contractor 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 Contractor'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 Contractor are subject to the approval of the Owner.

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 Coverage to Be Provided by Contractor. The Contractor must provide Builder's All Risk 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 Contractor and its Subcontractors, Sub-subcontractors and Suppliers.

17.3.3 Policy Form. Builder's All Risk 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 Architect/Engineer'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 policy furnished by the Contractor 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 policy furnished by the Contractor 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 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 final payment has been made by the Owner as provided in Subsection 14.4.3.

17.3.8 Notice of Cancellation, Expiration or Non-renewal. The Builder's All Risk policy furnished by the Contractor 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 Contractor to the Owner under the following Subsection 17.3.9 must evidence compliance with this requirement. The Contractor 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 evidencing compliance with this Section 17.3 must be filed with the Owner along with a certified copy of the Builder's All Risk policy prior to commencement of 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 Contractor's final Application for Payment.

17.3.10 Absence of Coverage. If the Contractor is unable to purchase such insurance required by the Contract and with all of the coverages described in this Article 17, and in the amounts specified in the Contract Documents, the Contractor 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 Contractor, Subcontractors, Sub-subcontractors and Suppliers in the Work, and the cost thereof will be charged to the Contractor. If the Owner is damaged by the failure or neglect of the Contractor to purchase or maintain insurance as described above, without so notifying the Owner, then the Contractor 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 Contractor 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 Contractor to extend or purchase boiler and machinery insurance to cover such boilers and machinery, the cost of which will be borne by the Contractor.

17.4.3 Insurance Covering Partial Use or Occupancy. Partial occupancy or use in accordance with 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 Contractor 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 Contractor, 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 Sum. If the Contractor disagrees with the adjustment made in the Contract Sum, the Contractor must file a claim as and when provided in Article 16. A claim for an increase in the Contract Sum, to be valid, must further be documented and calculated as specified in Subsection 12.2.2. **Failure of the Contractor to file a claim as and when specified in this Subsection is deemed a waiver of any claim by the Contractor to an adjustment in the Contract Sum.**

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 Contractor 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 Contractor. 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 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, A/E and staff costs and loss of use costs. The Contractor must pay Subcontractors their just shares of insurance proceeds received by the Contractor, and by appropriate written agreements must require Subcontractors to make payments to their Sub-subcontractors in similar manner.

8.4 INDEMNIFICATION

8.4.1 Indemnity and Duty to Defend. The Contractor shall defend, indemnify and hold harmless the Owner, its consultants and Separate Contractors, the Architect/Engineer, the Architect/Engineer's consultants, and any of their Subcontractors, sub-subcontractor, Suppliers, agents and employees 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 Contractor. Such performance, operations, acts or omissions of the Contractor include the performance, operations, acts or omissions of the Contractor's Subcontractors, sub-subcontractors, Suppliers 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 Contractor, 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). For purposes of this Subsection 8.4.1, the term Owner includes its boards, agencies, agents, officials and employees.

8.4.2 Effect of Limitations on Statutory Benefits. In claims against any indemnitee hereunder by an employee of the Contractor, 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 Subsection 8.4.1 are not limited by the amount or type of damages, compensation or benefits payable by or for the Contractor or a 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 Contractor's obligations under Subsection 8.4.1 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 Contractor's obligation under Subsection 8.4.1 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 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).

Bond Forms - Montgomery County, Maryland:

PERFORMANCE BOND
(95% of the Contract Sum)

_____, as surety ("Surety"), and _____, as principal ("Contractor"), enter into and execute this bond ("Performance Bond"), and bind themselves in favor of the Montgomery County Government, as obligee ("Owner"), in the initial amount of $_____(ninety-five percent (95%) of the Contract Sum or such greater amount as the Contract Sum may be adjusted to from time to time in accordance with the Contract between the Contractor and Owner) (the "Penal Sum").

WHEREAS, the Contractor has executed a contract with the Owner dated _____ (the "Contract") for construction of the XXXXXXXXXXX XXXXXXXXX XXXXXX Project in Montgomery County, Maryland (the "Project") and,

WHEREAS, the Owner has required the Contractor to furnish this Performance Bond as a condition to executing the Contract with the Contractor;

NOW THEREFORE, the Surety and the Contractor, both jointly and severally, and for themselves, their heirs, administrators, executors, successors and assigns agree:

1. **CONTRACT INCORPORATED; SURETY AND CONTRACTOR BOUND FOR FULL PERFORMANCE.** The Contract is incorporated by reference and made a part of this bond. The Surety and the Contractor are bound for the full performance of the Contract including without exception all of the Contract Documents (as defined in the Contract) and all of their terms and conditions, both express and implied.

2. **OWNER'S AFFIDAVIT OF CONTRACTOR BREACH OR DEFAULT.** If the Owner shall provide to Surety the written affidavit of the Owner stating that the Contractor is in breach or default of the Contract, and that such breach or default remains uncured by the Contractor, then upon delivery of such affidavit to the Surety in the method for providing notices as set forth in Paragraph 7 below, Surety must promptly notify the Owner in writing which action it will take as permitted in Paragraph 3.

3. **SURETY'S OBLIGATION UPON DELIVERY OF OWNER'S AFFIDAVIT OF CONTRACOR'S BREACH OR DEFAULT.** Upon the delivery of the Owner's affidavit of breach or default by the Contractor as provided in Paragraph 2 above, the Surety may promptly remedy the breach or default or must, within ten (10) days, proceed to take one of the following courses of action:

    a. **Proceed Itself.** Complete performance of the Contract including correction of defective and nonconforming Work through its own contractors or employees, approved as being acceptable to the Owner, in the Owner's sole discretion, provided, however, that

Owner's discretion to approve Surety's contractor will not be unreasonably withheld as to any contractor who would have qualified to offer a proposal on the Contract and is not affiliated (as defined in the General Conditions of Contract) with the Contractor. During this performance by the Surety the Owner will pay the Surety from its own funds only those sums as would have been due and payable to the Contractor under the Contract as and when they would have been due and payable to the Contractor in the absence of the breach or default not to exceed the amount of the remaining Contract balance less any sums due the Owner under the Contract. During this performance Surety's payment bond must remain in full force and effect; or

b. **Tender a completing contractor acceptable to Owner.** Tender a contractor, approved as being acceptable to the Owner (in the Owner's sole discretion), together with a contract for fulfillment and completion of the Contract executed by the completing contractor, to the Owner for the Owner's execution. Owner's discretion to approve Surety's completing contractor will not be unreasonably withheld as to any contractor who would have qualified to offer a proposal on the Contract and is not affiliated (as defined in the General Conditions of Contract) with the Contractor. Owner's discretion to approve Contractor as the completing contractor, however, shall be in Owner's sole subjective discretion. Upon execution by the Owner of the contract for fulfillment and completion of the Contract, the completing contractor must furnish to the Owner a performance bond and a separate payment bond, each in the form of those bonds previously furnished to the Owner for the Project by the Contractor. Each such bond must be in the Penal Sum of the full cost to complete the Contract. The Owner will pay the completing contractor from its own funds only those sums as would have been due and payable to the Contractor under the Contract as and when they would have been due and payable to the Contractor in the absence of the breach or default not to exceed the amount of the remaining Contract balance less any sums due the Owner under the Contract. To the extent that the Owner is obligated to pay the completing contractor sums which would not have then been due and payable to the Contractor under the Contract (any sums in excess of the then remaining Contract balance less any sums due the Owner under the Contract), the Surety must pay to the Owner the full amount of those sums at the time the completing Contractor is tendered to the Owner so that the Owner can utilize those sums in making timely payment to the completing contractor; or

c. **Tender the Full Penal Sum.** Tender to the Owner the full Penal Sum of the surety bond. The Owner will refund to the Surety without interest any unused portion not spent by the Owner procuring and paying a completing contractor or completing the construction contract itself, plus the cost allowed under Section 4, after completion of the contract for fulfillment and completion of the Contract and the expiration of any applicable warranties; or

d. **Other Acts.** Take any other acts mutually agreed upon in writing by the Owner and the Surety.

e. **IT SHALL BE NO DEFENSE TO SURETY'S OBLIGATION TO UNDERTAKE ONE OF THE PRECEDING COURSES OF ACTION THAT THE**

CONTRACTOR CONTENDS THAT IT IS NOT IN BREACH OR DEFAULT OF THE CONTRACT, OR THAT THE NOTICE OF BREACH OR DEFAULT WAS DEFECTIVE, OR THAT THE CONTRACTOR HAS RAISED ANY OTHER CLAIM OF DEFENSE OR OFFSET, PROVIDED ONLY THAT SURETY HAS RECEIVED THE AFFIDAVIT OF THE OWNER AS SPECIFIED IN PARAGRAPH 2.

4. **SURETY'S ADDITIONAL OBLIGATIONS.** In addition to those duties set forth herein above, the Surety must promptly pay the Owner (i) all losses, costs and expenses resulting from the Contractor's breach(es) or default(s), including, without limitation, fees, expenses and costs for architects, engineers, consultants, testing, surveying and attorneys, plus (ii) liquidated or actual damages, whichever may be provided for in the contract, for lost use of the Project, plus (iii) reprocurement costs and fees and expenses, plus (iv) costs incurred at the direction, request, or as a result of the acts or omissions of the Surety; provided that in no event shall Surety's liability exceed the Penal Sum of this Bond.

5. **SURETY'S WAIVER OF NOTICE.** The Surety waives notice of any Modifications to the Contract, including changes in the Contract Time, the Contract Sum, the amount of liquidated damages, or the Work to be performed.

6. **NO THIRD PARTY BENEFICIARIES.** The Surety provides this Performance Bond for the sole and exclusive benefit of the Owner and, if applicable, any dual obligee designated by attached rider, together with their heirs, administrators, executors, successors and assigns. No other party, person or entity has any rights against the Surety.

7. **METHOD OF NOTICE.** All notices to the Surety, the Contractor or the Owner must be given by Certified Mail, Return Receipt Requested, to the address set forth for each party below:

SURETY:

Name: _____
Attention: _____
Street: _____
City, State, Zip _____

CONTRACTOR:

Name: _____
Attention: _____
Street: _____
City, State, Zip _____

OWNER:

Montgomery County Government
Bruce Johnston, Chief, Division of Capital Development
101 Monroe Street, 9th Floor
Rockville, Maryland 20850

with a copy to:

Office of the County Attorney
John Markovs, Associate County Attorney
101 Monroe Street, Third Floor
Rockville, Maryland 20850

8. **STATUTE OF LIMITATIONS.** Any statutory limitation, which may be contractually superseded, to the contrary notwithstanding, any action hereon may be instituted so long as the applicable statute of limitations governing the Contract (including any warranty period) has not run or expired or within three (3) years following Final Completion of the Contract (including any warranty period) and acceptance of the Work performed under the Contract by the Owner, whichever is longer.

9. **RECITALS.** The recitals contained in this Performance Bond are incorporated by reference herein and are expressly made a part of this Performance Bond.

10. **GOVERNING LAW.** This Performance Bond shall be governed by, and construed in accordance with the laws of the State of Maryland without regard to its conflict of laws provisions.

11. **VENUE.** In the event any legal action shall be filed upon this Performance Bond, venue shall lie exclusively in the Circuit Court for Montgomery County, Maryland.

Contractor	**Surety**
(Typed Firm Name)	(Typed Firm Name)
(Seal)	(Seal)
By:	By:
(Signature)	(Signature)
(Printed Name)	(Printed Name)
(Title)	(Title)
(Address)	(Address)
(Date of Execution)	(Date of Execution)

END OF DOCUMENT

PAYMENT BOND
(95% of the Contract Sum)

_____, as surety ("Surety"), and _____, as principal ("Contractor"), enter into and execute this bond ("Payment Bond"), and bind themselves in favor of, the Montgomery County Government, as obligee ("Owner") in the initial amount of $_____ (ninety-five percent (95%) of the Contract Sum or such greater amount as the Contract Sum may be adjusted to from time to time in accordance with the Contract between Contractor and Owner) (the "Penal Sum").

WHEREAS, the Contractor has executed a contract with the Owner dated _____ (the "Contract") for construction of the XXXXXXXXXXX XXXXXXXXX XXXXXX Project in Montgomery County, Maryland (the "Project") and,

WHEREAS, the Owner has required the Contractor to furnish this Payment Bond containing the terms and conditions set forth herein as a condition to executing the Contract with the Contractor;

NOW THEREFORE, the Surety and the Contractor, both jointly and severally, and for themselves, their heirs, administrators, executors, successors and assigns agree:

1. The Contract is incorporated by reference and made a part of this Agreement. The Surety and the Contractor are bound for the full performance of the Contract including without exception all of the Contract Documents (as defined in the Contract) and all of their terms and conditions, both express and implied, and, without limitation, specifically including Contractor's obligation to pay for labor, materials, services and equipment provided in connection with the Contract performance;

2. For purposes of this Payment Bond, Beneficiary is defined as a person or entity who has actually provided labor, material, equipment, services or other items for use in furtherance of the Contract, labor and material being construed to include that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental of equipment directly applicable to the Contract and having:

a. a direct contract with the Contractor; or

b. a direct contract with a subcontractor or sub-subcontractor of the Contractor; or

c. rights, under the laws applicable in Montgomery County, Maryland, to file a lien, a claim or notice of lien, or otherwise make a claim against the Project, the Site, or against funds held by the Owner, if the Project is, or were, subject to such filing.

3. The Surety is not obligated hereunder to a Beneficiary other than a Beneficiary having a direct contract with the Contractor unless such Beneficiary has given written notice of its claim to the Contractor and the Surety within the longer of:

a. ninety (90) days after such Beneficiary provided labor, material, equipment, services or other items for use in furtherance of the Contract; or,

b. the period of time under the laws applicable in Montgomery County, Maryland for (1) filing of a lien, claim of lien, or notice of lien, if the Project is, or were, subject to such filing, or (2) otherwise making a claim against the Project or against funds held by the Owner; stating the amount claimed and identifying, by name and address, the person or entity to whom such labor, material, equipment, services or other items were provided.

4. In no event is the Surety obligated hereunder for sums in excess of the Penal Sum.

5. Upon receipt of a claim from a Beneficiary hereunder, the Surety must promptly, and in no event later than thirty (30) days after receipt of such claim, respond to such claim in writing (furnishing a copy of such response to the Owner) by:

a. making payment of all sums not in dispute; and,

b. stating the basis for disputing any sums not paid.

6. No action shall be commenced by a Beneficiary hereunder after the passage of the longer of one (1) year following final completion of the Contract (including any warranty period) and acceptance of the Work performed under the Contract by the Owner or any limitation period provided under the laws applicable in Montgomery County, Maryland.

7. The Surety waives notice of any Modifications to the Contract, including changes in the Contract Time, the Contract Sum, the amount of liquidated damages, or the Work to be performed.

8. All notices to the Surety, the Contractor or the Owner must be given by Certified Mail, Return Receipt Requested, to the address set forth for each party below:

SURETY:

Name: _____
Attention: _____
Street: _____
City, State, Zip _____

CONTRACTOR:

Name: _____
Attention: _____

Street: _____

City, State, Zip _____

OWNER:

Montgomery County Government
Bruce Johnston, Chief, Division of Capital Development
101 Monroe Street, 9th Floor
Rockville, Maryland 20850

with a copy to:

Office of the County Attorney
John Markovs, Associate County Attorney
101 Monroe Street, Third Floor
Rockville, Maryland 20850

9. The recitals contained in this Payment Bond are incorporated by reference herein and are expressly made a part of this Payment Bond.

10. This Payment Bond shall be governed by, and construed in accordance with the laws of the State of Maryland without regard to its conflict of laws provisions.

11. In the event any legal action shall be filed upon this Payment Bond, venue shall lie exclusively in the Circuit Court for Montgomery County, Maryland.

Contractor	**Surety**
_____	_____
(Typed Firm Name)	(Typed Firm Name)
_____	_____
(Seal)	(Seal)
By:	By:
_____	_____
(Signature)	(Signature)
_____	_____
(Printed Name)	(Printed Name)
_____	_____
(Title)	(Title)
_____	_____

(Address)	(Address)
(Date of Execution)	(Date of Execution)

END OF DOCUMENT

Bond Forms - New York, New York:

PERFORMANCE BOND

KNOW ALL PERSONS BY THESE PRESENTS, That we, _____

_____

_____

_____

hereinafter referred to as the "Principal", and _____

_____

_____

_____

_____

hereinafter referred to as the "Surety" ("Sureties") are held and firmly bound to THE CITY OF NEW YORK, hereinafter referred to as the "City" or to its successors and assigns, in the penal sum of

_____

_____

_____

($_____) Dollars, lawful money of the United States, for the payment of which said sum of money well and truly to be made, we, and each of us, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal is about to enter, or has entered, into a Contract in writing with the City for

_____

_____

_____

a copy of which Contract is annexed to and hereby made a part of this bond as though herein set forth in full;

NOW, THEREFORE, the conditions of this obligation are such that if the Principal, his or its representatives or assigns, shall well and faithfully perform the said Contract and all modifications, amendments, additions and alterations thereto that may hereafter be made, according to its terms and its true intent and meaning, including repair and/or replacement of defective work and guarantees of maintenance for the periods stated in the Contract, and shall fully indemnify and save harmless the City from all cost and damage which it may suffer by reason of failure so to do, and shall fully reimburse and repay the City for all outlay and expense which the City may incur in making good any such default, and shall protect the said City of New York against, and pay any and all amounts, damages, costs and judgments which may or shall be recovered against said City or its officers or agents of which the said City of New York may be called upon to pay any person or corporation by reason of any damages arising or growing out of the doing of said work, or the repair or maintenance thereof, or the manner of doing the same, or the neglect of the said PRINCIPAL, or his (their, its) agents or servants, or the improper performance of the said work by the said PRINCIPAL, or his (their, its) agents or servants, or the infringement of any patent or patent rights by reason of the use of any materials furnished or work done as aforesaid or otherwise, then this obligation shall be null and void, otherwise to remain in full force and effect.

The Surety (Sureties), for value received, hereby stipulates and agrees, if requested to do so by the City, to fully perform and complete the Work to be performed under the Contract, pursuant to the terms, conditions, and covenants thereof, if the City determines that the Principal, for any cause, has failed or neglected to fully perform and complete such Work. The Surety (Sureties) further agrees to commence and diligently perform the Work specified in the Contract, including physical site work, within twenty-five (25) business days after written notice thereof from the City and to complete all Work within such time as the City may fix. The Surety and the City reserve all rights and defenses each may have against the other; provided, however, that the Surety expressly agrees that its reservation of rights shall not provide a basis for non-performance of its obligation to commence and to complete all Work as provided herein.

The Surety (Sureties), for value received, for itself and its successors and assigns, hereby stipulates and agrees that the obligation of said Surety (Sureties) and its bond shall be in no way impaired or affected by any extension of time, modification, omission, addition, or change in or to the said Contract or Work to be performed thereunder, or by any payment thereunder, or by any payment thereunder before the time required therein, or by any waiver of any provisions thereof, or by any assignment, subletting or other transfer thereof or of any Work to be performed or any moneys due or to become due thereunder; and said Surety (Sureties) does hereby waive notice of any and all of such extensions, modifications, omissions, additions, changes, payments, waivers, assignments, subcontracts and transfers, and hereby expressly stipulates and agrees that any and all things done and omitted to be done by and in relation to assignees, subcontractors, and other transferees shall have the same effect as to said Surety (Sureties) as though done or omitted to be done by or in relation to said Principal.

IN WITNESS WHEREOF, the Principal and the Surety (Sureties) have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereunto affixed and these presents to be signed by their proper officers, this _____ day of _____, _____.

(Seal) _____(L.S.)
Principal

By:_____

(Seal) _____
Surety

By: _____

(Seal) _____
Surety

By: _____

(Seal) _____
Surety

By: _____

Bond Premium Rate _____

Bond Premium Cost _____

If the Contractor (Principal) is a partnership, the bond should be signed by each of the individuals who are partners.

If the Contractor (Principal) is a corporation, the bond should be signed in its correct corporate name by a duly authorized officer, agent, or attorney-in-fact.

There should be executed an appropriate number of counterparts of the bond corresponding to the number of counterparts of the Contract.

ACKNOWLEDGMENT OF PRINCIPAL, IF A CORPORATION

State of _____ County of _____ ss:

On this _____ day of _____, before me personally came _____ to me known, who, being by me duly sworn did depose and say that he resides at _____ _____ that he is the _____ of the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that one of the seals affixed to said instrument is such seal; that it was so affixed by order of the directors of said corporation, and that he signed his name thereto by like order.

_____
Notary Public or Commissioner of Deeds

ACKNOWLEDGMENT OF PRINCIPAL, IF A PARTNERSHIP

State of _____ County of _____ ss:

On this _____ day of _____, before me personally appeared _____ to me known, and known to me to be one of the members of the firm of _____ _____ described in and who executed the foregoing instrument; and he acknowledged to me that he executed the same as and for the act and deed of said firm.

_____
Notary Public or Commissioner of Deeds

ACKNOWLEDGMENT OF PRINCIPAL, IF AN INDIVIDUAL

State of _____ County of _____ ss:

On this _____ day of _____, before me personally appeared _____ to me known, and known to me to be the person described in and who executed the foregoing instrument; and acknowledged that he executed the same.

_____
Notary Public or Commissioner of Deeds

Each executed bond should be accompanied by: (a) appropriate acknowledgments of the respective parties; (b) appropriate duly certified copy of Power of Attorney or other certificate of authority where bond is executed by agent, officer or other representative of Principal or Surety; (c) a duly certified extract from By-Laws or resolutions of Surety under which Power of Attorney or other certificate of authority of its agent, officer or representative was issued, and (d) certified copy of latest published financial statement of assets and liabilities of Surety.

* * * * * * * *

Affix Acknowledgments and Justification of Sureties.

PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS, That we, _____

_____

_____

_____

hereinafter referred to as the "Principal", and _____

_____

_____

_____

_____

hereinafter referred to as the "Surety" ("Sureties") are held and firmly bound to THE CITY OF NEW YORK, hereinafter referred to as the "City" or to its successors and assigns, in the penal sum of

_____

_____

_____

($_____) Dollars, lawful money of the United States, for the payment of which said sum of money well and truly to be made, we, and each of us, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal is about to enter, or has entered, into a Contract in writing with the City for

_____

_____

_____

a copy of which Contract is annexed to and hereby made a part of this bond as though herein set forth in full;

NOW, THEREFORE, the conditions of this obligation are such that if the Principal, his or its representatives or assigns and other Subcontractors to whom Work under this Contract is sublet and his or their successors and assigns shall promptly pay or cause to be paid all lawful claims for

(a) Wages and compensation for labor performed and services rendered by all persons engaged in the prosecution of the Work under said Contract, and any amendment or extension thereof or addition thereto, whether such persons be agents servants or employees of the Principal or any such Subcontractor, including all persons so engaged who perform the work of laborers or mechanics at or in the vicinity of the site of the Project regardless of any contractual relationship between the Principal or such Subcontractors, or his or their successors or assigns, on the one hand and such laborers or mechanics on the other, but not including office employees not regularly stationed at the site of the project; and

(b) Materials and supplies (whether incorporated in the permanent structure or not), as well as teams, fuels, oils, implements or machinery furnished, used or consumed by said Principal or any subcontractor at or in the vicinity of the site of the Project in the prosecution of the Work under said Contract and any amendment or extension thereof or addition thereto; then this obligation shall be void, otherwise to remain in full force and effect.

This bond is subject to the following additional conditions, limitations and agreements:

(a) The Principal and Surety (Sureties) agree that this bond shall be for the benefit of any materialmen or laborer having a just claim, as well as the City itself.

(b) All persons who have performed labor, rendered services or furnished materials and supplies, as aforesaid, shall have a direct right of action against the Principal and his, its or their successors and assigns, and the Surety (Sureties) herein, or against either or both or any of them and their successors and assigns. Such persons may sue in their own name, and may prosecute the suit to judgment and execution without the necessity of joining with any other persons as party plaintiff.

(c) The Principal and Surety (Sureties) agree that neither of them will hold the City liable for any judgment for costs of otherwise, obtained by either or both of them against a laborer or materialman in a suit brought by either a laborer or materialman under this bond for moneys allegedly due for performing work or furnishing material.

(d) The Surety (Sureties) or its successors and assigns shall not be liable for any compensation recoverable by an employee or laborer under the Workmen's Compensation Law.

(e) In no event shall the Surety (Sureties), or its successors or assigns, be liable for a greater sum than the penalty of this bond or be subject to any suit, action or proceeding hereon that is instituted by any person, firm, or corporation hereunder later than two years after the complete performance of said Contract and final settlement thereof.

The Principal, for himself and his successors and assigns, and the Surety (Sureties), for itself and its successors and assigns, do hereby expressly waive any objection that might be interposed as to the right of the City to require a bond containing the foregoing provisions, and they do hereby further expressly waive any defense which they or either of them might interpose to an action brought hereon by any person, firm or corporation, including subcontractors, materialmen and third persons, for work, labor, services, supplies or material performed rendered, or furnished as aforesaid upon the ground that there is no law authorizing the City to require the foregoing provisions to be placed in this bond.

And the Surety (Sureties), for value received, for itself and its successors and assigns, hereby stipulates and agrees that the obligation of said Surety (Sureties), and its bonds shall be in no way impaired or affected by any extension of time, modification, omission, addition, or change in or of the said Contract or the work to be performed thereunder, or by any payment thereunder before the time required therein, or by any waiver of any provisions thereof, or by any assignment, subletting or other transfer thereof or of any part thereof, or of any Work to be performed, or any moneys due to become due thereunder and said Surety (Sureties) does hereby waive notice of any and all of such extensions, modifications, omissions, additions, changes, payments,waivers, assignments, subcontracts and transfers, and hereby expressly stipulates and agrees that any and all things done and omitted to be done by and in relation to assignees, Subcontractors, and other transferees shall have the same effect as to said Surety (Sureties) as though done or omitted to be done or in relation to said Principal.

IN WITNESS HEREOF, the Principal and the Surety (Sureties) have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereunto affixed and these presents to be signed by their proper officers, this _____ day of _____, _____.

(Seal) _____(L.S.)
Principal

By:_____

(Seal) _____
Surety

By: _____

(Seal) _____
Surety

By: _____

(Seal) _____
Surety

By: _____

(Seal) _____
Surety

By: _____

If the Contractor (Principal) is a partnership, the bond should be signed by each of the individuals who are partners.

If the Contractor (Principal) is a corporation, the bond should be signed in its correct corporate name by a duly authorized officer, agent, or attorney-in-fact.

There should be executed an appropriate number of counterparts of the bond corresponding to the number of counterparts of the Contract.

ACKNOWLEDGMENT OF PRINCIPAL, IF A CORPORATION

State of _____ County of _____ ss:

On this _____ day of _____, before me personally came _____ to me known, who, being by me duly sworn did depose and say that he resides at _____ _____ that he is the _____ of the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that one of the seals affixed to said instrument is such seal; that it was so affixed by order of the directors of said corporation, and that he signed his name thereto by like order.

_____
Notary Public or Commissioner of Deeds

ACKNOWLEDGMENT OF PRINCIPAL, IF A PARTNERSHIP

State of _____ County of _____ ss:

On this _____ day of _____, before me personally appeared _____ to me known, and known to me to be one of the members of the firm of _____ _____ described in and who executed the foregoing instrument; and he acknowledged to me that he executed the same as and for the act and deed of said firm.

_____
Notary Public or Commissioner of Deeds

ACKNOWLEDGMENT OF PRINCIPAL, IF AN INDIVIDUAL

State of _____ County of _____ ss:

On this _____ day of _____, before me personally appeared _____ to me known, and known to me to be the person described in and who executed the foregoing instrument; and acknowledged that he executed the same.

_____
Notary Public or Commissioner of Deeds

Each executed bond should be accompanied by: (a) appropriate acknowledgments of the respective parties; (b) appropriate duly certified copy of Power of Attorney or other certificate of authority where bond is executed by agent, officer or other representative of Principal or Surety; (c) a duly certified extract from By-Laws or resolutions of Surety under which Power of Attorney or other certificate of authority of its agent, officer or representative was issued, and (d) certified copy of latest published financial statement of assets and liabilities of Surety.

* * * * * * * *

Affix Acknowledgments and Justification of Sureties

From Petrini & Associates, P.C.:

PERFORMANCE AND PAYMENT BONDS

11.4.1 The Contractor shall furnish a performance bond and a labor and material payment bond, each in the penal sum of the total amount of the Contract Sum and in the form set forth in the Bidding Documents.

11.4.2 Each bonding company shall be a surety company acceptable to the Owner and shall be qualified to do business in the Commonwealth of Massachusetts and appear on the current list of bonding companies approved by the State Treasurer's Office, and be qualified in its own right by the Treasury Department of the United States to execute a bond by its sole signature in an amount not less than the Contract Sum.

11.4.3 The obtaining of the aforesaid bonds by the Contractor shall be a condition precedent to the effectuation of the contract between the Owner and the Contractor. The premium for the bonds shall be paid for by the Contractor.

XI. INDEMNIFICATION

Consultant hereby agrees to indemnify, defend, and hold harmless Town, and its officers, attorneys, employees, attorneys, and agents from and against any and all claims (including workers' compensation and wage claims) demands, suits, actions, liabilities, damages, penalties, judgments, and costs and expenses, including without limitation the costs and expenses of litigation and attorney's fees, of or by anyone that in any way is caused by, arises out of, or is occasioned by, the acts, omissions, or provision of Consultant's services, or any activities, operations, conducts, negligence, or omissions of Consultant or its agents, as described below, regardless of whether same is caused in part by Town or any third party.

From PinnacleOne:

1.03.04—Requirements of Performance Contract Bond and Payment Bond: See Article 1.02.01. In conformance with Section 49-41a of the Connecticut General Statutes, as revised, the Contractor (1) shall, within 30 days after any given Contract payment to the Contractor by the State, pay any amounts due any subcontractor, whether for labor performed or materials furnished, when charges for such labor or materials have been included in a payment estimate paid by the State; (2) and shall include in each of its subcontracts a provision requiring each subcontractor to pay any amounts due any of its subcontractors on the Project, whether for labor performed or materials furnished, within 30 days after such subcontractor receives a payment from the Contractor which encompasses labor or materials furnished by such subcontractor for the Project. If the Contractor believes that it has a valid reason for withholding payment for particular work or materials from a subcontractor or supplier, then the Contractor, within 30 days of receiving payment from the State for that work or materials, shall notify the subcontractor or supplier and the Department of its reasons for withholding payment.

1.03.07—Insurance: Before the Contract is executed, the Contractor must file with the Commissioner a certificate of insurance, executed by an insurance company satisfactory to the Commissioner, on the form provided by the Department, stating that with respect to the Contract, the Contractor carries insurance at least in accordance with the requirements and stipulations listed below. State of Connecticut, Department of Transportation, Form Number CON-32 entitled "CERTIFICATE OF INSURANCE" shall be the only acceptable form to be used by the Contractor as evidence of required insurance coverage. Continuance of the required insurance during the entire term of the Contract shall be the responsibility of the Contractor and is a condition of the Contract. The Contractor and its insurer may not assert the defense of sovereign immunity in the adjustment of claims or in the defense of any claim or suit brought against the Contractor or the State, unless the State, in writing, requests it to do so or consents to its doing so. The Contractor shall assume and pay all costs and billings for premiums and audit charges earned and payable under the required insurance. The State must be named as an additional insured party for the insurance required under paragraphs 2, 3, and 6 stipulated below. In the event that the Contractor secures Excess/Umbrella Liability Insurance to meet the minimum requirements specified in paragraph 2, 3, or 6 below, the State shall be named as an additional insured.

1. Worker's Compensation Insurance: With respect to all operations the Contractor performs and all those performed for it by subcontractors, the Contractor and each such subcontractor shall carry Workers' Compensation Insurance in accordance with the requirements of State law. Each such contractor' Workers' Compensation policy shall contain the U.S. Longshoreman's and Harbor Workers' Act endorsement when work is to be performed over or adjacent to a navigable water.

2. Commercial General Liability Insurance: With respect to the operations it performs and also those performed for it by subcontractors, the Contractor shall carry commercial general liability insurance, including Contractual Liability Insurance, which shall provide coverage of at least $1,000,000 for each accident or occurrence resulting in damages from (1) bodily injury to or death of persons and/or (2) injury to or destruction of property. Subject to that limit per accident or occurrence, the policy shall provide a total or aggregate coverage of at least $2,000,000 for all pertinent damages arising during the policy period.

3. Automobile Liability Insurance: The Contractor shall obtain automobile liability insurance covering the operation of all motor vehicles, including those hired or borrowed, that are used in connection with the Project; said insurance shall provide coverage of at least $1,000,000 for each accident or occurrence resulting in damages from (1) bodily injury to or death of persons and/or (2) injury to or destruction of property. If an insurance policy shows an aggregate limit as part of the automobile liability coverage, the aggregate limit must be at least $2,000,000.

4. Owner’s and Contractor’s Protective Liability Insurance for and in the Name of the State: With respect to the Contractor's Project operations and also those of its subcontractors, the Contractor shall carry, for and on behalf of the State, insurance which shall provide coverage of at least $2,000,000 for each accident or occurrence resulting in damages from (1) bodily injury to or death of persons and/or (2) injury to or destruction of property. Subject to that limit per accident or occurrence, the policy shall provide an aggregate coverage of at least $2,000,000 for all pertinent damages arising during the policy period.

5. Railroad Protective Liability Insurance: When the Contract involves work on, over or under the right-of way of any railroad company, the Contractor shall carry, with respect to its Project operations and also those of its subcontractors, Railroad Protective Liability Insurance for, and on behalf of, the railroad company as named insured and the State as additional insured, providing coverage of at least $1,000,000 for each accident or occurrence resulting in damages from (1) bodily injury to or death of all persons and/or (2) injury to or destruction of property. Subject to that limit per accident or occurrence, the policy shall provide an aggregate coverage of at least $6,000,000 for all damages during the policy period.

6. Blasting: When explosives are to be used for the Project, the insurance required under paragraphs 2, 4 and 5 above shall also contain provisions for protection, in the amounts stated, against damage claims regarding such use of explosives.

7. Termination or Change of Insurance: Each insurance policy required by this Article must be endorsed to provide that the insurance company shall notify the Department by certified mail at least 30 days in advance of the termination or any alteration of the terms of the policy. No such change shall be made without the prior written approval of the Commissioner. The Contractor shall keep all the required insurance in continuous effect until the date that the Department designates for the termination of the Contractor's responsibility, as determined under Article 1.08.13.

8. Claims: Each insurance policy required by this Article must state that the insurance company shall agree to investigate and defend the insured parties, at the insurer’s expense, against all claims for damages, even if groundless.

9. Compensation: There shall be no direct compensation allowed the Contractor on account of any premium or other charge necessary to obtain and keep in effect any insurance or bonds in connection with the Project, but the cost thereof shall be considered included in the general cost of the Project work.

10. Protection and Indemnity Insurance for Marine Construction Operations in Navigable Waters: If a vessel of any kind will be involved in Project work, the Contractor shall obtain the following additional insurance coverage: **A**. Protection and Indemnity Coverage of at least $300,000 per vessel or equal to at least the value of hull and machinery, whichever is greater. **B**. If there is any limitation or exclusion with regard to crew and employees under the protection and indemnity form, the Contractor must obtain and keep in effect throughout the Project a workers’ compensation policy, including coverage for operations under admiralty jurisdiction, with a limit of liability of at least $300,000 per accident or a limit equal to at least the value of the hull and machinery, whichever is greater, or for any amount otherwise required by statute.

3. Regulatory Impacts.

From Montgomery County, Maryland:

ARTICLE 18
NONDISCRIMINATION IN EMPLOYMENT

The Contractor agrees to comply with the nondiscrimination in employment policies and provisions prohibiting unlawful employment practices in Montgomery County contracts as required by Section 11B-33 and Section 27-19 of the Montgomery County Code, as well as all other applicable state and federal laws and regulations regarding employment discrimination. The Contractor 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 Contractor must bind its 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 Article 18.

ARTICLE 19
STATUTORY REQUIREMENTS

19.1 ETHICS REQUIREMENTS/POLITICAL CONTRIBUTIONS

The Contractor must comply with the ethics provisions contained in chapters 11B and 19A, Montgomery County 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 County 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 Contractor specifically agrees not to violate Sections 11B-51, 11B-52, 11B-53, 19A-12 and/or 19A-13 of the Montgomery County Code. In addition, the Contractor 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

19.2.1 Policy. Pursuant to Section 11B-57 of the Montgomery County Code, it is the policy of the Owner to actively recruit minority businesses to provide goods and services for the performance of governmental functions. Minority-owned businesses are described in Montgomery County law as Minority/Female/Disabled-owned businesses (MFD). MFD businesses include certain non-profit entities organized to promote the interest of persons with a disability demonstrating (on a contract-by-contract basis) that at least 51% of the persons used by the non-profit entity to perform the services or manufacture the goods contracted for by the Owner, are persons with a disability. MFD firms also include firms that are 51% owned, controlled and managed by one or more member(s) of socially or economically disadvantaged minority groups, which include: African-Americans (not of Hispanic

origin), Hispanic Americans, Native Americans, Asian Americans, women and the mentally or physically disabled.

19.2.2 Applicable Regulations. Montgomery County Procurement Regulations, Section 7, "Minority Contracting," delineate the procedure to be followed, and will govern the evaluation of offers received pursuant to this solicitation. A copy of Section 7 of the Procurement Regulations, is available on request.

19.2.3 Minority Business Addendum. The Minority Business Addendum, PMMD 91, is incorporated into and made a part of the Contract.

19.3 AMERICAN STEEL

19.3.1 American Steel. To the extent required in Md. Code Ann., State Fin. & Proc., §17-303 (2006 Repl. Vol.), Contractor must use or supply only American steel products; provided, however, Contractor must notify Owner if Owner is entitled to an exception under Section 17-303 because:

.1 The price of American steel products is not reasonable as provided in Md. Code Ann., State Fin. & Proc., §17-304 (2006 Repl. Vol.);

.2 American steel products are not produced in sufficient quantity to meet the requirements of the Contract; or

.3 The purchase of American steel products would be inconsistent with the public interest.

Should Contractor fail to notify Owner as required by this Subsection, Owner is entitled to a reduction in the total cost of the Contract by an amount equal to the savings which would have resulted had Owner not bought American steel products.

19.4 PREVAILING WAGE

19.4.1 Requirement. If the funds for the Project are less than fifty percent (50%) State money, the Contractor is excused from performing all acts required of a Contractor under Md. Code Ann., State Fin. & Proc., §17-201 et seq. (2006 Repl. Vol.), otherwise the Contractor must perform all acts required by that law and refrain from doing all acts prohibited by that law, unless therein exempted or excluded. It is the Contractor's responsibility to determine from the Owner the percentage of State money allocated to the Work.

19.4.2 Bond. If required to comply with Md. Code Ann., State Fin. & Proc., § 17-213(b), the Contractor must provide a suitable bond or guarantee, in a form approved by Owner, to insure the proper payment of the prevailing wage as required there under.

19.5 COST AND PRICING DATA

Chapter 11B of the Montgomery County Code and the Montgomery County Procurement Regulations require that cost and pricing data be obtained from contractors in certain situations. The Contractor guarantees that any cost and pricing data provided to the Owner will be accurate and complete. The Contractor grants the Director, Office of Procurement, access to all books, records, documents, and other supporting data in order to permit adequate evaluation of the Contractor's proposed price(s). The Contractor 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 Contractor.

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 Contractor 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

Contractor 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, contractor must enter into the Owner's standard Business Associate Agreement when Contractor 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 Contractor or the Owner.

19.8 IMMIGRATION REFORM AND CONTROL ACT

The Contractor warrants that both the Contractor and its 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 Contractor 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.

5.2 LEGAL REQUIREMENTS

5.2.1 Compliance with Laws, Regulations and Orders. The Contractor 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. If additional Work is required because the Contract Documents do not comply with such laws and regulations, the Contractor must give notice as provided in Subsections 5.1.6 and 12.5.1. If the Contractor performs Work that does not comply with applicable laws and regulations, without such notice to the Architect/Engineer and Owner, the Contractor assumes full responsibility for such Work and must bear all costs required for such compliance or for the correction and replacement of such Work.

5.2.2 Taxes. The Contractor 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 Contractor is on notice that under Md. Code Ann., Tax-Gen'l, §11-220(b) (2004 Repl. Vol.), purchases made by the Contractor 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:

.1 the Contractor must obtain and pay for all permits and governmental fees, licenses and inspections necessary for proper execution and completion of the Work, including 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 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;

.2 the Owner will be responsible for securing and paying for (i) the building permit, (ii) fees and surcharges for front footage, (iii) fees and surcharges for water, sewer and gas extensions and (iv) fees and permits for construction in the County and/or State road rights-of-way. **The Contractor will be responsible for obtaining and paying the costs of all other permits and licenses and governmental approvals, except as otherwise indicated in the Contract Documents.**

5.6.1 Working Hours. Except as otherwise provided in the Contract Documents, all Work must be performed between the hours of 7:00 a.m. and 4:00 p.m. Monday through Friday exclusive of County, State and federal holidays unless more restrictive hours are required by the Montgomery County Code or other applicable law governing the Contractor's performance of the Work. The Owner has the right to impose further restrictions on working hours reasonably related to the use of occupied facilities. **No delays resulting from compliance with applicable laws or regulations may form the basis for any claim by the Contractor for delay damages or additional compensation or for any extensions of the Contract Time; any delays arising from restrictions related to the use of occupied facilities are non- compensable and any claims for extensions of the Contract Time relating to them must be filed in accord with Article 11 or the same will be conclusively deemed to have been waived.** The Contractor must not permit work outside of such hours or on a Saturday, Sunday or other County, State or federal holiday without the written consent of the Owner, given after prior written notice to the Architect/Engineer; such consent, if given, may be conditioned upon payment by the Contractor of the Owner's and Architect/Engineer's additional costs and fees incurred in monitoring such off-hours Work. The Contractor 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 Contractor permit Work to be performed at the Site without the presence of the Contractor's Superintendent and person responsible **for the protection of persons and property at the Site and compliance with all applicable Laws and Regulations, if different from the Superintendent.**

5.6.2 Noise Ordinance. The Contractor must comply with the Montgomery County Noise Ordinance (Chapter 31B) of the Montgomery County Code and any successor or substitute provisions covering the regulation of noise levels. It is the duty of the Contractor to familiarize itself with those provisions and perform the Work in compliance with those provisions.

6.1.7 Limitations on Subcontracting. The Contractor shall perform at least 15 percent of the cost of the Contract, not including the cost of materials, with its own employees. Indirect costs including but not limited to home office and field overhead, bonds, insurance, and mobilization shall not be claimed as a portion of the 15% requirement. The execution of Work by the employees of a subsidiary wholly owned and controlled by the Contractor will be considered performance of the Work by the Contractor's employees for purposes of satisfying the 15% requirement.

From PinnacleOne:

1.02.13—Knowledge of Applicable Laws: Bidders shall be deemed to know and understand all federal, state and local laws, ordinances and regulations and municipal bylaws which in any manner apply to projects for which they bid; such legal requirements shall include, but not necessarily be limited to, those which apply to the conduct of the Contract work, the equipment and materials to be used on the Project, or the treatment of individuals or classes of individuals in relationship to their involvement with the Project. A Contractor's ignorance of such requirements shall not, in any internal Department proceeding or in any claims or other legal proceeding, constitute justification for the Contractor's failure to consider such requirements in formulating a bid proposal, or for the Contractor's failure to ensure that such legal requirements are met with regard to any Department project in which that Contractor participates. The Department expects the Contractor to obey municipal laws and regulations and cooperate with municipal officials. In some instances, however, municipal laws or regulations, or the orders of municipal officials, may conflict with necessary Project activities. In most such cases, the municipality does not have the legal power to enforce its laws and regulations upon the State or upon a State project. This is because the State is protected by its sovereign immunity. If local police or other authorities should attempt to stop the Contractor from carrying out activities that are necessary in order for the Contractor to comply with Contract requirements, the Contractor should politely inform the municipal authorities that they probably do not have jurisdiction over the State's project, and the Contractor should immediately inform the Engineer of the attempted interference with Project activities. If the municipal authorities continue to insist upon preventing the Contractor from carrying out Project activities, the Contractor should not defy the authorities, but, to the extent possible, should await directions from the Engineer.

1.07.01—Laws to Be Observed: The Contractor at all times shall observe and comply with all laws, ordinances, government bylaws, permits, regulations, orders and decrees which in any manner affect the conduct of the Contract work. The Contractor shall indemnify and save harmless the State and all of its officers, employees and agents against any claim, fine, or other liability arising from or based on the violation of any such law, bylaw, permit, ordinance, regulation, order or decree, whether by the Contractor, its subcontractors or any of their officers, employees or agents. See the last paragraph in Article 1.02.13, however, regarding conflicts between municipal law or authorities and the requirements of Project construction.

1.07.02—Permits and Licenses: Except as may be provided otherwise in a specific Contract provision or a written direction from the Engineer, the Contractor shall procure all permits and licenses, pay all charges and fees, and give all notices required by government authorities in connection with the due prosecution of the Project.

1.10.01—General: This Section identifies those construction activities and other activities under the Department's control or jurisdiction which may have a negative effect on the environment, including the State's native waters and natural resources; and to prevent or minimize any damage to the environment which might result from such activities, either during or following the completion of any transportation Project.

The Contractor shall comply with all Project permits and permit applications as though the Contractor were the permittee. If at the time the permit is issued, its contents differ from those outlined in the application, the permit shall govern. Should the permit be issued after the solicitation of bid proposals, and should the permit requirements significantly change the character of the work as described in the proposals, Contract adjustments will be made in accordance with the applicable articles in Section 1.04.

This Section reinforces those environmental protection requirements which the Contractor is bound to meet under the Contract, or under Federal or State laws or regulations. If the Contractor fails to comply with environmental provisions of the Contract or the law, the Contractor shall be penalized as prescribed in this Section and elsewhere in the Contract.

1.10.02—Compliance With Laws and Regulations: The Contractor shall conduct its operations in conformance with Federal and State permit requirements concerning water, air and noise pollution, and the disposal of controlled or hazardous materials. Permit requirements include, but are not limited to, those established by Federal regulations Guard, Army Corps of Engineers, or Environmental Protection Agency.

Appropriate permits shall be required for all activities associated with or incidental to the Contractor's operations, including, but not limited to, those regarding the Project site or adjacent areas, waste and disposal areas, borrow and gravel banks, storage areas, haul roads, access roads, detours, field offices, or any other temporary staging areas. The Contractor shall be responsible for, and hold the State harmless from, any penalties or fines which may be assessed by any authority due to the Contractor's failure to comply with any term of an applicable permit.

The Department will be responsible for obtaining all environmental permits required for Contract work.

Any request by the Contractor for authorization of activities or methods not specifically called for or allowed by the applicable permits issued for the Project must be submitted by the Contractor in writing to the Engineer. Such a request must include a detailed description of the proposed activities or methods, and must include justifications for same, along with supporting documentation, showing that the proposed activity or method will not create a risk of damage to the environment. If such request is granted by the Engineer, the Department will process an application to the appropriate regulatory agency or agencies for any permit amendment, modification, revision or new permit required for the Contractor to carry out the changed activities or methods in question. The Department does not, however, guarantee that it will be able to obtain the desired permit amendment, modification or revision; and the Department will not be liable for the effects of any inability to do so.

The Contractor will not be entitled to any extension of Contract time as a result of the Engineer's granting of the Contractor's request. If the amendment, modification, or revision of the permit is not necessary except to make possible the changes requested by the Contractor, then no claim may be made by the Contractor based on the amount of time taken by the Department to review the Contractor's proposal, or to apply for or secure the permit amendment, modification or revision. No such proposed additional activity shall commence, nor shall such a changed method be used, until and unless the Engineer approves in writing the Contractor's request.

In case of a failure by the Contractor to perform pollution control work as required by the Engineer, the Engineer may, after having given the Contractor 24 hours advance written notice of its intention to do so, arrange for said work to be performed by other forces, and will deduct the cost from any monies due or which may become due to the Contractor under the Contract or under any other State contract.

1.20-1.02.13—Knowledge of Applicable Laws: Al work to be performed by the Contractor shall comply with, as a minimum, The State of Connecticut Building Code as adopted pursuant to CGS 29-252, as amended; and the Connecticut Fire Safety Code as adopted pursuant to CGS 29-292, as amended. These codes include, but are not limited to, the following: 1. The BOCA National Building Code with the State Building Code, including latest Connecticut Supplement and Amendments 2. The International Plumbing Code, including supplement 3. The International Mechanical Code 4. The Model Energy Code 5. ICC/ANSI A117.1, "Accessible and Usable Buildings and Facilities" 6. The National Electrical Code 7. The Fire Safety Code, including latest Connecticut Supplement 8. The Life Safety Code - NFPA 101, including latest Connecticut Supplement 9. The "Americans with Disabilities Act Accessibility Guidelines" The edition of the code governing the Project shall be the code which is in effect as per the above CGS Sections on the date that the Contract is advertised for solicitation of bids.

4. Subsurface Conditions.

From Montgomery County, Maryland:

12.4 DIFFERING CONDITIONS (SITE AND STRUCTURAL)

12.4.1 Notice of Concealed or Unknown Site Conditions. No Differing Site Conditions Claims All Sites are considered Unwarranted. This Contract contains no differing site conditions clause and no claim may be made and no additional compensation, or time extension, will be granted as a consequence of any differing site or subsurface conditions encountered by the Contractor. Unwarranted Site means the Contractor is responsible for undertaking and completing all excavation work specified in the Contract at the Contract Sum and within the Contract Time regardless of subsurface conditions encountered whether those conditions be naturally occurring, man-made or artificial and includes all unexpected, unanticipated or unforeseen geotechnical conditions, materials dumped or artificially placed on the Site or buried, man-made obstacles or debris such as rubble, underground tanks, abandoned or unknown utilities or pipes or similar artificial or man-made conditions. The presence of differing subsurface conditions (whether naturally occurring or man-made or artificial) or increases or decreases in quantities of subsurface conditions indicated, does not entitle the Contractor to additional compensation or any extension of time beyond the Contract Sum and Contract Time for completion of the Work specified in the Contract.

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 Contractor encounters conditions in the structure (not as to the site or subsurface conditions) which differ materially from those indicated in the Contract Documents provided by the Owner as part of the Bid or Proposal Documents, the Contractor must give written notice thereof to the Owner and the Architect/Engineer promptly before conditions are disturbed and in no event later than ten (10) days after first observing such conditions. **Failure of the Contractor either (i) to provide notice before disturbing the existing conditions or (ii) failure to give notice within ten (10) days of first observing such conditions is conclusively deemed a waiver of any claim relating to such conditions.**

12.4.3 Investigation and Determination by Architect/Engineer. The Architect/Engineer will promptly investigate any alleged differing conditions as to the structure (but not as to the site or subsurface conditions) and provide a written report of its findings to the Owner. If the Owner finds that the conditions of the structure differ materially and require a change in the Work and cause an increase or decrease in the Contractor's cost of, or time required for, performance of any part of the Work, the Owner may make an adjustment in the amount payable to the Contractor or the Contract Time, as applicable. If the Owner determines that the conditions of the structure are not materially different or that no change in the terms of the Contract is justified, the Owner will so notify the Contractor in writing.

12.4.4 Disputes Over Differing Structural Conditions. If the Contractor objects to the Owner's finding under Subsection 12.4.3, the Contractor must file a notice as and when provided in Subsection 12.5.1 below and the same will be resolved as provided in Subsection 12.5.2 below. **Failure of the Contractor to file the notice as and when required by Subsection 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.**

5.1 REVIEW OF CONTRACT DOCUMENTS AND FIELD CONDITIONS

5.1.1 Review of Site Conditions. By executing the Contract, the Contractor represents that the Contractor 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 Architect/Engineer 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 Contractor 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 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 Contractor must take field measurements and verify Site conditions, and must carefully compare such field measurements and Site conditions and other information known to the Contractor with the Contract Documents, before ordering any material or doing any Work at the Site.

5.1.4 Inspection of Work. The Contractor must make frequent inspections during the progress of the Work to confirm that Work previously performed by the Contractor is in compliance with the Contract Documents and applicable laws and regulations and Referenced Standards and that portion of Work previously performed by the Contractor 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 Contractor 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 Contractor must promptly notify the Owner and the Architect/Engineer of the non-compliance as provided in Subsection 5.1.6 and request direction before proceeding with the affected Work.

5.1.6 Notice of Errors. The Contractor must promptly notify the Owner and the Architect/Engineer in writing of any apparent errors, inconsistencies, omissions, ambiguities, construction impracticalities or code violations discovered as a result of the Contractor's review of the Contract Documents including any differences between actual and indicated dimensions, locations and descriptions, and must give the Owner and the Architect/Engineer 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 Contractor must provide similar notice with respect to any variance between its review of the Site and physical data and Site conditions observed.

Risk of Performance. If the Contractor performs any Work involving an apparent error, inconsistency, ambiguity, construction impracticality, omission or code violation in the Contract Documents of which the Contractor is aware, or which could reasonably have been discovered by the review required by Subsections 5.1.1 through 5.1.4, without prompt written notice to the Owner and the Architect/Engineer and request for correction, clarification or additional information, as

appropriate, the Contractor does so at its own risk and expense and all claims relating thereafter are specifically waived.

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; however, the Owner makes no representation as to the accuracy of topographic surveys or any information regarding the existence of utilities or their depths and locations, and it is the Contractor's sole responsibility to determine and verify all grades, elevations, and 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, obtained by the Contractor upon request as specified in the Contract **do not necessarily reflect Site conditions in general or at other locations. Such information and any conclusions, analyses or opinions included in the Site or physical data (including the Geotechnical Studies and Site Surveys) are for the exclusive use of the Owner in designing the project and no representations as to their accuracy and completeness are made by the Owner. The Contractor is further again reminded that all sites are Unwarranted and the Contractor is responsible at its costs for remediating all unsuitable subsurface (above and below grade) conditions encountered regardless of what may be disclosed or represented in the Site and Physical Data.**

3.2.3 Reliance by Contractor. The Contractor may not rely upon surface or Site and physical data with respect to, but not limited to:

.1 the completeness of any reports and drawings for the Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by the Contractor or any of the Contractor's safety precautions and programs;

.2 the completeness of any other data, interpretations, opinions and information contained in such reports, or indicated in such drawings; or

.3 any interpretation of or conclusion drawn by, the preparer or the Contractor from any technical data or any such data, interpretations, opinions or information.

**Use this Form with Bid Documents to defeat superior knowledge claims

Document 3.1 **DISCLAIMER OF ACCURACY OF SUBSURFACE INVESTIGATION REPORT**

FOR

RFP #_____

The Contractor: _____, acknowledges that information contained in the [Name of the Report/Study, i.e. GEOTECHNICAL REPORT OF SUBSURFACE EXPLORATION AND GEOTECHNICAL ENGINEERING EVALUATION], prepared by _____, dated _____, _____ (the "Report") may not reflect actual conditions and is not warranted by Montgomery County, its employees, agents, assigns, or officers.

The Contractor acknowledges that the County does not warrant (either expressly or impliedly) the degree (if any) to which the above referenced information may factually represent the actual condition of the existing soils or subsurface conditions. By affixing its signature below, the Contractor expressly and affirmatively warrants that any information obtained from the subject Report shall not be used as the basis for any component of its bid or for planning earthwork activities. Further, the Contractor agrees to hold the County, its employees, agents, assigns, and officers harmless from any claim or event which arises from the use of this information; and conclusively and irrevocably waives its right to file any claim against the County relating to information contained in or omitted from the Report. The Contractor releases the County and its Consultants from any obligation as to the accuracy or completeness of the subject Report and for any additional compensation or time extensions for Work performed under the Contract.

The Contractor further acknowledges that there exists a risk in excavation that unexpected or unforeseen conditions will be encountered. The Contractor further acknowledges that there exists a risk that the Report being provided to the Contractor may turn out not to be reliable and may not reflect the actual Site subsurface conditions encountered during performance of the Work. The Contractor in accord with the provisions of the Contract and General Conditions of Construction Contract acknowledges that this risk has been placed entirely upon the Contractor and that the Contract does not contain a differing site conditions clause. The Contractor, as provided in the Contract and General Conditions of Construction Contract, therefore, acknowledges and agrees that no claim may be asserted by the Contractor based on Site soils or subsurface conditions which are different from those disclosed or depicted in the Report being provided or anticipated by the Contractor or for any other reason.

[Depending on the project circumstances - Add clause related to a specific situation – i.e. "The County acknowledges that the site was previously used as a parking garage, which was constructed as a cast-in-place concrete structure. The structure was demolished during the Downtown Silver Spring Retail Redevelopment project in about 2003. Portion of the site were filled with recycled concrete material, which was processed on site. Efforts were made to remove existing foundations and infrastructure."]

The Contractor further acknowledges that the County is providing the Report only to avoid a claim by the Contractor of superior knowledge on the part of the County and that the Contractor is being required to execute this disclaimer to verify that it understands that the Contract contains no differing site conditions clause and that all risk of unknown or unforeseen Site subsurface conditions or of the unreliability or inaccuracy of the Report is borne by the Contractor and that no adjustment will be made in the Contract Sum or Contract Time due to Site subsurface soil conditions that are different from those anticipated by the Contractor or depicted or disclosed in the Report.

The Contractor is strongly urged to undertake its own subsurface investigation and by signing this disclaimer acknowledges that it has been so informed and that it has sufficient time within which to undertake its own subsurface investigations. The Contractor further acknowledges that the Report being provided is not part of the Contract and notwithstanding any statements contained in the Report such as "it may be assumed" or "the reports reflect" or any similar or other language suggesting that the Report purports to describe accurately the conditions that will be encountered, that any such statements contained in the Report are not representations or warranties that are part of the Contract or being made by the County and the same are hereby specifically disclaimed; and the Contractor agrees and acknowledges that no claims shall be made for, and no increase in the Contract Sum or Contract Time shall be allowed, due to the subsurface conditions encountered in the performance of the Work as provided for in the Contract. All risks with respect to the same being hereby assumed by the Contractor. The Contractor further acknowledges that since the Contractor assumes all risks for subsurface conditions that the Contractor has accordingly taken this risk into account in establishing its bid amount.

The Contractor representative signing this disclaimer on behalf of the Contractor represents and warrants that he/she has full power and legal authority to execute this disclaimer on behalf of the Contractor.

Contractor: _____

Contractor Representative (print): _____

Title: _____

Contractor Representative Signature: _____

Date: _____

Montgomery County Witness (print): _____

Department / Division: _____

Montgomery County Witness Signature: _____

Date: _____

From New York, New York:

8. Examination and Viewing of Site, Consideration and other Sources of Information and Changed Conditions.

(A) Pre-Bidding (Investigation) Viewing of Site - Bidders must carefully view and examine the site of the proposed work, as well as its adjacent area, and seek other usual sources of information, for they will be conclusively presumed to have full knowledge of any and all conditions on, about or above the site relating to or affecting in any way the performance of the work to be done under the Contract which were or should have been indicated to a reasonably prudent bidder. To arrange a date for visiting the work site, bidders are to contact the Agency Contact person specified in Attachment 1.

(B) Should the contractor encounter during the progress of the work subsurface conditions at the site materially differing from any shown on the Contract Drawings or indicated in the Specifications or such subsurface conditions as could not reasonably have been anticipated by the contractor and were not anticipated by the City, which conditions will materially affect the cost of the work to be done under the Contract, the attention of the Commissioner must be called immediately to such conditions before they are disturbed. The Commissioner shall thereupon promptly investigate the conditions. If he finds that they do so materially differ, or that they could not reasonably have been anticipated by the contractor and were not anticipated by the City, the Contract may be modified with his written approval.

From Petrini & Associates, P.C.:

1.2.12 Test boring or soil test information included with the Contract Documents or otherwise made available to the Contractor was obtained by the Owner for use by the Architect in the design of the Project or Work. The Owner does not hold out such information to the Contractor as a completely accurate indication of subsurface conditions, and no claim for extra cost or extension of time resulting from reliance by the Contractor on such information shall be allowed except as provided in subparagraph 4.3.6.

From PinnacleOne:

1.02.04—Examination of Plans, Specifications, Special Provisions and Site of Work: The bidder is required to examine carefully the site of the Contract work and the proposal form, plans, special provisions, specifications, supplemental specifications, Contract form and other Contract documents for the work contemplated, as well as any permits or permit applications that are likely to affect the Contract work. The bidder must judge for itself and satisfy itself as to the conditions to be encountered; the character, quality and quantities of the work to be performed; the materials to be furnished; and the requirements of the above documents, particularly the requirements under each Contract item, under the general cost of the work, or under other applicable, but more general, provisions, of the Contract. The subsurface information furnished in the Contract is based on the interpretation, by the Department, of investigations made only at the specific locations indicated; and the Department gives no assurance

that the conditions discovered are typical of the conditions at other Project site locations or that those conditions will have remained unchanged since the field data were obtained. The Department also gives no assurance that the presence or absence of subsurface water at the time and locations of these explorations will be representative of actual conditions at the time of construction. Such subsurface information as was obtained by the Department for its use in the design of the Project will be available for inspection by bidders through the Division of Contracts. Also, bidders may arrange through the Division of Contracts an opportunity to examine, in advance of bidding, at a location to be specified by the Department, any available samples of the materials encountered in the Department's subsurface explorations. The Contractor shall be solely responsible for all assumptions, deductions, or conclusions it may make or derive from its examination of any Department subsurface information, document or sample. In furnishing or making available such information, the Department makes no warranty or representation as to the actual conditions that may be encountered or actual quantities or distribution of quantities of work that will be required in the course of the Project. The Department does not intend or warrant that plan sheets furnished to the State by utility companies whose facilities may be affected by the proposed construction will show all proposed utility work that will be done by utility companies or municipal authorities or both before, during, or after the life of this Contract. In addition to the work indicated on such plan sheets, the utility companies and authorities may make adjustments to or remove certain of their installations other than those indicated on the plans, or may install facilities not so indicated.

1.04.04—Differing Site Conditions:

(1) During the progress of the work, if subsurface or latent physical conditions are encountered at the site differing materially from those indicated in the Contract or if unknown physical conditions of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in the work provided for in the Contract, are encountered at the site, the party discovering such conditions shall promptly notify the other party in writing of the specific differing conditions before they are disturbed and before the affected work is performed. (2) Upon written notification, the Engineer will investigate the conditions, and if he/she determines that the conditions materially differ and cause an increase or decrease in the cost or time required for the performance of any work under the Contract, an adjustment, excluding loss of anticipated profits, will be made and the Contract modified in writing accordingly. The Engineer will notify the Contractor of his/her determination whether or not an adjustment of the Contract is warranted. (3) No Contract adjustment that results in a benefit to the Contractor will be allowed unless the Contractor has provided the required written notice. (4) No Contract adjustment will be allowed under this clause for any effects caused on unchanged work.

5. Environmental Issues and Hazards.

From Montgomery County, Maryland:

8.3 HAZARDOUS MATERIALS

8.3.1 Disclosure, Identification and Handling
8.3.2 Discovery of Hazardous Materials at the Site
8.3.3 Investigation and Remediation
8.3.4 Resumption of Work
8.3.5 Adjustments for PCBs and Asbestos
8.3.6 No Adjustment for Other Hazardous Materials

8.3 HAZARDOUS MATERIALS

8.3.1 Disclosure, Identification and Handling. The Contractor must maintain at the Site, available to the Owner and the Architect/Engineer, appropriate information pertaining to all Hazardous Materials brought to the Site. Such materials must be properly labeled or identified, and the Contractor 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 Contractor must comply with these laws and must provide the Owner and Architect/Engineer with copies of all relevant documents, including Material Safety Data sheets prior to performance of services or contemporaneous with delivery of goods. The Contractor must provide and designate appropriate and secure areas for their storage and must notify the Owner and Architect/Engineer of their presence and location at the Site. The Contractor must not store Hazardous Materials at the Site in excess of those reasonably needed for the Contractor'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 Contractor encounters on the Site material reasonably believed to be a Hazardous Material (other than those for which the Contractor may have specific responsibility for remediation under the Contract), and the Contractor's reasonable precautions will be inadequate to prevent foreseeable damage or injury and the Contractor cannot proceed with the Work in the absence of the removal, containment or remediation of the Hazardous Material, the Contractor must immediately stop Work in the area affected and report the condition to the Owner and the Architect/Engineer 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 Contractor'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 PCBs and Asbestos. If the Contractor incurs additional costs on account of or is delayed by the need to remove, contain or remediate **asbestos or polychlorinated biphenyl (PCB) which has not been rendered harmless** at the Site unless the Contractor is responsible for same under the Contract, the Contractor may request a change in the Contract Sum or Contract Time to account for such action. **Any such requested change in the Contract Sum or Contract Time must be made in writing within ten (10) days of discovery of the asbestos or polychlorinated biphenyl (PCB) which has not been rendered harmless giving rise to the request for the change and must fully comply with Articles 11, 12 and 16 or any claim will be deemed conclusively waived by the Contractor.**

8.3.6 No Adjustment for Other Hazardous Materials. Unless the Contract Documents provide that the Contractor is not responsible for Differing Site Conditions, no adjustment in the Contract Sum or the Contract Time will be made as a consequence of Hazardous Materials at the Site excepting PCBs and Asbestos.

8.1 RESPONSIBILITY FOR SAFETY

8.1.1 Responsibility for Site Safety. The Contractor is responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the performance of the Contract.

8.1.2 Appointment of Safety Officer. The Contractor must designate a responsible, properly trained and qualified member of the Contractor'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 Contractor's Superintendent unless otherwise permitted or required by the Contract Documents, in which case the safety officer must be designated by the Contractor in writing to the Owner and Architect/Engineer.

8.1.3 Compliance with Legal Requirements. The Contractor 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.

8.2 SAFETY OF PERSONS AND PROPERTY

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

.1 All persons at the Site and other persons who may be affected by the Work or other operations of the Contractor;

.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 Contractor or the Contractor'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.

8.2.2 Notices and Safeguards. The Contractor must implement and maintain, as required by the Contract Documents, applicable laws and regulations and orders of public authorities having jurisdiction (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 owners and users of adjacent sites and utilities.

8.2.3 Loading. The Contractor 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 in the performance of the Work, the Contractor must exercise utmost care and conduct such activities under supervision of properly qualified personnel.

8.2.5 Emergencies. In an emergency affecting safety of persons or property, the Contractor must take all necessary action, without the necessity for any special instruction or authorization from the Owner or the Architect/Engineer, to prevent threatened damage, injury or loss. The Contractor must promptly but in all events within twenty-four (24) hours of the occurrence report such action in writing to the Owner and the Architect/Engineer. If the Contractor incurs additional costs on account of or is delayed by such action, the Contractor may request a change in the Contract Sum or Contract Time to account for such action in accord with Articles 11 and 12. **Any such request 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 Sum or Contract Time shall be limited to the extent that the emergency work is not attributable to the fault or neglect of the Contractor or otherwise the responsibility of the Contractor under the Contract Documents.

8.2.6 Notice of Injury or Damage. If the Contractor suffers 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 ten (10) days after the onset or occurrence of such damage or injury or such shorter time as may be required by the Occupational Safety Hazards 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 subsection may not be used by the Contractor in lieu of the requirements of Article 12 when the Contractor is seeking an adjustment in the Contract Sum and are in addition to the requirements of Article 11 when the Contractor is seeking an adjustment in the Contract Time.**

8.2.7 Remedy of Property Damage. The Contractor must promptly remedy damage and loss to property referred to in Subsections 8.2.1.2 and 8.2.1.3 caused in whole or in part by the Contractor, a Subcontractor, a Sub-subcontractor, 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 Contractor's obligations for indemnification

under Section 8.4. and the Contractor's responsibility to repair and or replace that portion of the Work and any materials and equipment to be incorporated therein which are damaged as a result of criminal mischief as specified in Subsection 8.2.8.

8.2.8 Responsibility for Site Security. The Contractor 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 Contractor necessary or beneficial to the performance of the Work from damage due to vandalism, theft, or other criminal mischief. The Contractor 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 Contractor necessary or beneficial to performance of the Work which are damaged or stolen due to vandalism, theft or any other criminal mischief at its expense whether or not covered by insurance. No extension of the Contract Time or increase in the Contract Sum will be granted to the Contractor as a consequence of any delay, impacts or inefficiencies resulting from any act of vandalism, theft or other criminal mischief whether or not caused or contributed to by the Contractor's negligence.

From Petrini & Associates, P.C.:

10.2 SAFETY OF PERSONS AND PROPERTY

10.2.1 The Contractor shall take reasonable precautions for safety of, and shall provide reasonable protection to prevent damage, injury or loss to:

a. Workers on the Project, whether Contractor's, subcontractors separate contractors, all other persons lawfully on the Project site and pedestrians and other persons in the area of the Project site.

b. The Work and materials and equipment to be incorporated therein, whether in storage on or off the site, under care, custody or control of the Contractor or the Contractor's Subcontractors or Sub-subcontractors; and

c. Other property at the site or adjacent thereto, such as trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction; and

d. Any other property of the Owner, whether or not forming part of the Work, located at the site or adjacent thereto in areas to which the Contractor has access.

10.2.2 The Contractor shall give notices and comply with 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.

10.2.3 The Contractor shall erect and maintain, as required by existing conditions and performance of the Contract, reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards, promulgating safety regulations and notifying owners and users of adjacent

sites and utilities. The Contractor shall also be responsible for the erection of fencing, barriers and other safety structures as deemed necessary by Town's Chief of Police.

10.2.4 When use of explosives or other hazardous materials or equipment or unusual methods are necessary for execution of the Work, the Contractor shall exercise utmost care and carry on such activities under supervision of properly qualified personnel. Explosives or other hazardous materials or equipment shall not be stored or otherwise permitted to remain on the site outside of work hours.

10.2.5 The Contractor shall promptly remedy damage and loss to property referred to in Clauses 10.2.1.2, 10.2.1.3 and 10.2.1.4. If the damage or loss is due in whole or in part to the Contractor's failure to take the precautions required by this Paragraph 10.2, the Contractor shall, subject to any reimbursement to which the Contractor is entitled under property insurance required by the Contract Documents, bear the cost.

10.2.6 The Contractor shall designate a responsible member of the Contractor's organization at the site whose duty shall be the prevention of accidents. This person shall be the Contractor's superintendent unless otherwise designated by the Contractor in writing to the Owner and Architect.

10.2.7 The Contractor shall not load or permit any part of the construction or site to be loaded so as to endanger its safety.

10.2.8 The Contractor shall provide and maintain in good operating condition suitable and adequate fire protection equipment and services, and shall comply with all reasonable recommendations regarding fire protection made by the representatives of the fire insurance company carrying insurance on the Work or by the local fire chief or fire marshal. The area within the site limits shall be kept orderly and clean, and all combustible rubbish and other construction debris shall be promptly removed from the site.

10.2.9 The Contractor shall at all times protect excavations, trenches, buildings and materials, from rain water, ground water, backup or leakage of sewers, drains and other piping, and from water or moisture of any other origin and shall remove promptly any accumulation of water and remediate any other source of moisture. The Contractor shall provide and operate all pumps, piping and other equipment necessary to this end.

10.2.10 The Contractor shall remove snow and ice which might result in damage or delay.

10.2.11 During the progress of the Work and at all times prior to the date of Substantial Completion or occupancy of the Work by the Owner, which ever is earlier, the Contractor shall provide temporary heat, ventilation, and enclosure, adequate to permit the Work to proceed in a timely fashion, and to prevent damage to completed Work or Work in progress, or to materials stored on the premises. Without limiting the foregoing, Contractor shall take all actions necessary to prevent the growth of mold or fungus and shall at its expense, promptly take all action necessary to eliminate mold or fungus caused or permitted during construction operations. The permanent heating and ventilation systems may be used for these purposes when available and approved by the Owner.

10.2.12 Contractor shall comply with all Digsafe Laws and shall indemnify and hold Owner and Architect harmless from any and all liability, loss, damage or expense resulting from his failure to do so.

From PinnacleOne:

1.07.18—Use of State Property: The Contractor may not use State property for any purpose or activity other than carrying out the construction activities required by the Contract, except with the prior written consent of the Engineer. Such other activities, which require the Engineer's advance consent, include, but are not limited to, the establishment of staging areas, storage areas, asphalt plants, concrete plants, or gravel/borrow pits; or the conduct of screening, crushing, manufacturing, or mining operations. Any permitted use of the Project site or other State property for such other purposes or activities must be for the performance of the specific Contract only, and must be at no cost to the State. In addition, the Contractor may not assert or bring any claim or formal proceeding for damages or additional compensation based on either the approval or denial of a request to make such use of the Project site or other State property. Under no circumstances shall the bulk storage of fuel or lubricants by the Contractor or its agents be permitted on State property. Nor shall the Contractor store any hazardous materials on State property other than those that are integral to the Contractor's performance of the Contract, as allowed by the Contract or in a writing from the Engineer. The Contractor shall have the responsibility and duty to ensure the proper storage, handling, management and disposal of any such hazardous materials. The Contractor shall be liable to the Department for all remedial or punitive costs, damages or penalties incurred by the Department as a result of the Contractor's failure to fulfill this duty. The Engineer may require environmental testing of the affected site at the Contractor's expense both prior to and upon completion of the Contractor's permitted use of the site or of other related State property. The Contractor shall be responsible for ensuring that such a site is restored to the condition required by the Engineer and that all contaminants deposited on the site by the Contractor or its agents are removed and properly disposed of. All such restoration and removal activities must be carried out at the Contractor's expense, and must be carried out in accordance with the provisions of the Department's Best Management Practices, any applicable environmental permits, and all other applicable State or Federal laws or regulations. The Contractor must submit any request to use State property for a staging or storage area to the District Engineer at the District Construction Office.

1.10.03—Water Pollution Control:

1. In relation to its Project work, the Contractor shall, throughout the duration of the Contract, control and abate siltation, sedimentation and pollution of all waters, including but not limited to under ground water systems, inland wetlands, and tidal, coastal, or navigable waters. Construction methods proposed by the Contractor must conform to permit application and permit requirements. The Contractor shall assume responsibility for all obligations and costs incurred as a result of the Contractor's failure to comply with the terms and conditions of such applications or permits. The Contractor shall obtain any permits and pay any fees required for the performance of Project work which is not in the original Contract and (i) which has been made necessary by a failure of the Contractor to comply with any Contract water pollution control requirement, (ii) which is proposed by the Contractor and accepted by the Engineer, (iii) which is to be performed outside the Project limits, (iv) which will involve or

necessitate water-handling activities, including, but not limited to, the removal of material from, deposit of materials into, obstruction of, construction within, alteration or pollution of, any inland wetland, tidal wetland, coastal or navigable water, stream, pond, lake, water supply, other body of water or other regulated area.

2. Provisions of the Best Management Practices may be superseded by specific permits from the D.E.P. The Contractor shall not make any design change in the Contract work which requires a variance from the requirements of the following items until and unless the Contractor has first submitted a detailed written proposal for such change to the Engineer for review by the Department and for transmittal to and review by the D.E.P, and has then received written approval from the Department of the proposed variance.

BEST MANAGEMENT PRACTICES

1. No Project construction shall proceed until (i) the Contractor has submitted in writing to the Engineer its erosion and sedimentation control plans for all Project construction; (ii) the Engineer has given in writing his approval of said plans; and (iii) the Contractor has installed all erosion and sedimentation controls called for by said plans approved by the Engineer. Such plans shall be consistent with the Connecticut Council on Soil & Water Conservation's "Connecticut Guidelines for Soil Erosion and Sediment Control" (which is available from the D.E.P.) and with the version of the Department's "On Site Mitigation for Construction Activities" which is in effect at the time that Contract bid proposals are solicited.

2. Fueling of equipment or machinery within 25 feet (8 m) of any wetland or watercourse shall be allowed only with the advance written approval of the Engineer.

3. No Project construction shall proceed unless and until a written proposal of methods to prevent construction debris, paint, spent blast materials, or other materials from entering any wetland or watercourse has been submitted by the Contractor and approved by the Engineer in writing; and until such methods have been implemented as the Engineer directs. Such materials shall be collected and disposed of in accordance with all applicable Federal and State laws and regulations. The Engineer may order the Contractor to cease such activity if, in the opinion of the Engineer, weather conditions threaten to cause the deposit of such materials into a wetland or watercourse.

4. No materials resulting from Project construction activities shall be placed in or allowed to contribute to the degradation of a wetland or watercourse. Disposal of any material shall be in accordance with Federal and State laws and regulations.

5. Fording of streams with equipment shall be prohibited, except as approved by the Engineer. Such equipment travel shall be minimized. When frequent equipment travel on stream banks and beds is necessary, the Contractor shall place washed stone as and where necessary in order to minimize erosion, scour, and turbidity; but the Contractor must not do so in a way that will create a significant grade change in the wetland or watercourse.

6. All off-site disposal locations for material and debris resulting from Project construction shall be submitted in writing to the Engineer in advance of their use, and the Engineer shall determine if they

are acceptable. The Contractor shall ensure that such locations are outside of wetlands or watercourses, floodplains and stream channel encroachment lines, unless otherwise approved by local, state, or Federal agencies with jurisdiction over the matter. Copies of such approvals shall be kept at the Project site by the Engineer in the environmental inspection folder. Furthermore, the Contractor shall ensure that material from the Project is not placed within an area that has a better water quality classification than does the area from which it was taken, as indicated by the latest D.E.P. Water Quality Classifications Maps. Any proposed location for disposal of material within a State right-of-way must also be submitted in advance by the Contractor in writing to the Engineer for subsequent review and approval by the Office of Environmental Planning and the Office of Engineering.

7. A construction-sequencing plan and a waterhandling plan, including a contingency plan for flood events, must be submitted by the Contractor in writing to the Engineer, and approved by the Engineer, prior to the commencement of any Project construction in a waterway. Water shall be kept deep enough in the channel to allow for the passage of fish and the continuous flow of the watercourse unless the Engineer directs otherwise. Any revised version of the water-handling plan must be capable of accommodating a two-year storm. Any waterhandling system that may be in place longer than 6 months must be designed in accordance with the Department's Drainage Manual.

8. When dewatering is necessary, pumps used for same shall not be allowed to discharge directly into a wetland or watercourse. Prior to any dewatering, the Contractor must submit to the Engineer a written proposal for specific methods and devices to be used for same, and must obtain the Engineer's written approval of such methods and devices, including, but not limited to, the pumping of water into a temporary sedimentation basin, providing surge protection at the inlet or outlet of pumps, floating the intake of a pump, or any other method for minimizing and retaining the suspended solids. If the Engineer determines that a pumping operation is causing turbidity problems, the Contractor shall halt said operation until a means of controlling the turbidity is submitted by the Contractor in writing to the Engineer, approved in writing by the Engineer and implemented by the Contractor.

9. Work within or adjacent to watercourses shall be conducted during periods of low flow, whenever possible. The Engineer shall remain aware of flow conditions during the conduct of such work, and shall order such work stopped if flow conditions threaten to cause excessive erosion, siltation or turbidity. The Contractor shall make every effort to secure the work site before predicted major storms. A major storm shall be defined as a storm predicted by NOAA Weather Service with warnings of flooding, severe thunderstorms, or similarly severe weather conditions or effects. Unless allowed by a D.E.P. permit, no materials shall be stored and no staging areas shall be placed below the 100-year elevation. Materials which are buoyant, hazardous, flammable, explosive, soluble, expansive, radioactive, and any other materials that could be injurious to human, animal or plant life in the event of a flood shall not be stored below the 500-year flood level.

10. All temporary fill shall be stabilized to prevent erosion and shall be contained so as to prevent sediment or other particulate matter from entering a wetland or watercourse. All areas affected by temporary fills must be restored to their original contours or as directed by the Engineer, and vegetated. Temporary fill shall be placed and excavation shall occur only as and where necessary for Project construction, as determined by the Engineer.

11. The Contractor shall perform seeding within 7 days of reaching an appropriate grading increment, as determined by the Engineer. If the Engineer directs the Contractor, or if the Contractor intends, that a grading operation will be suspended for a period of 30 or more consecutive days, the Contractor shall, within the first 7 days of that period, accomplish required seeding, or take such other measures to stabilize the soil as may be required by the Engineer.

12. Dumping of oil, chemicals or other deleterious materials on the ground or into a watercourse is forbidden. The Contractor shall provide a means of catching, retaining, and properly disposing of drained oil, removed oil filters, and other deleterious material. The Contractor shall immediately report all spills of such materials to the Engineer and the D.E.P.

13. All application of herbicides or pesticides within 25 feet (8 m) of any wetland or watercourse is prohibited. All permitted applications of such materials must be done by a Connecticut-licensed applicator. The Contractor shall submit in writing to the Engineer the proposed applicator's name and license number, and must receive the Engineer's approval of the proposed applicator, before such application may be performed.

14. During spawning seasons and in spawning areas, as defined in the Contract, discharges and construction activities shall be restricted so as not to disturb or inhibit aquatic species indigenous to the waters.

3. If the Contractor wants to make a change in construction operations or scheduling which would affect the use of or necessity for any pollution controls, the Contractor must submit before beginning to implement those changes a written proposal detailing them to the Engineer, and must receive the Engineer's approval of those changes before beginning to make them. Such submission must include a plan showing what erosion and sedimentation controls above and beyond those called for in the Contract would be necessitated by the proposed change. 4. The Contractor shall inspect erosion and sedimentation controls immediately after each rainfall of at least .1 inch (3 mm), and at least daily during prolonged rainfall. The Contractor shall maintain all erosion and sedimentation control devices in a functional condition, in accordance with the "Connecticut Guidelines for Soil Erosion and Sediment Control," as revised, and the Department's "On Site Mitigation for Construction Activities," as revised. In the event that the Contractor fails to maintain such devices in accordance with such documents, and the Contractor does not correct said failures within 24 hours after receipt of written notice of such failures from the Engineer, the Department may proceed with its own or other forces to remedy such failures. The cost to the Department of curing any such specified failure will be deducted from monies owed to the Contractor under the Contract or under any other State contract.

1.10.04—Air Quality Control: The Contractor shall exercise every reasonable precaution throughout the duration of the Contract to safeguard the air resources of the State by controlling and abating air pollution in accordance with the D.E.P.'s regulations. These measures shall include the control and abatement of dust, mist, smoke, vapor, gas, aerosol, other particulate matter, odorous substances and any combination thereof arising from Project operations, hauling, storage, or manufacture of materials. The Contractor shall be responsible for obtaining any permits necessary for the operation of its Project equipment including but not limited to crushers, compressors and generators.

1.10.05—Noise Pollution: The Contractor shall take measures to control the noise caused by its construction operations, including but not limited to noise generated by equipment used for drilling, pile-driving, blasting, excavation or hauling. All methods and devices employed to minimize noise shall be subject to the continuing approval of the Engineer. The maximum allowable level of noise at the residence or occupied building nearest to the Project site shall be 90 decibels on the "A" weighted scale (dBA). The Contractor shall halt any Project operation that violates this standard until the Contractor develops and implements a methodology that enables it to conduct its Project operations within the 90-dBA limit.

1.10.07—Controlled and Hazardous Materials: The Department will acquire any "Hazardous Waste Generator Permit(s)" required under the Resource Conservation and Recovery Act, for the management and disposal of hazardous materials on the Project site, provided that: 1. Such material is within the construction limits defined in the Contract, 2. Such material is not comprised of waste materials generated by the Contractor.

If the Department has designated in the Contract, an area of known or suspected contamination within the Project limits, the Contractor shall dispose of such material in accordance with the relevant special provisions.

In the event that the Contractor encounters or exposes any material, not previously known or suspected to be contaminated, but which exhibits properties that may indicate the presence of controlled or hazardous material, the Contractor shall cease all operations in the material's vicinity, and shall immediately notify the Engineer of the material's discovery. The presence of barrels, discolored earth, metal, wood, visible fumes or smoke, abnormal odors or excessively hot earth may indicate the presence of controlled or hazardous material, and shall be treated with extreme caution. If controlled or hazardous materials, other than those required for Contract operations, are discovered at the Project site, the Department may engage a specialty contractor to handle and dispose of the materials.

When the Contractor performs support work incidental to the removal, treatment or disposal of controlled or hazardous material, the Department will pay for same at the applicable Contract unit prices. When the Contract does not include appropriate pay items, payment will be made in accordance with Article 1.04.05. The Contractor shall observe all security precautions established pursuant to 29 CFR 1910.120 and 1926.65, including all revisions and amendments thereof, and shall not work in any area known to contain or suspected of containing controlled or hazardous material without prior written approval from the Engineer.

The Contractor shall assume sole responsibility for the proper storage, handling, management, and disposal of all regulated materials and wastes associated with its operations, including, but not limited to, lubricants, antifreeze, engine fluids, paints, and solvents. All costs associated with any failure by the Contractor to properly manage such materials in accordance with Federal and State regulations, and all remedial and punitive costs incurred by the Department as a result of such failure shall be borne by the Contractor. This article does not apply to coatings removed by the Contractor.

From New York, New York:

Section 3.7. Protection of the Work and of Persons and Property. (A) During performance of the Work and up to the date of Final Inspection, the Contractor shall have a duty to protect the finished (but unaccepted) and unfinished Work against any damage, loss or destruction. In the event of such damage, loss or destruction, the Contractor shall, at the direction of the Commissioner acting in the reasonable exercise of his/her discretion, either promptly repair or replace such Work or, as appropriate, direct its Subcontractor(s) to promptly repair or replace such Work. Subject to Section 15.6 of this Contract, such repair or replacement shall be at no cost to the City.

(B) During the performance of the Work and up to the date of Final Inspection of the Work, the Contractor and its Subcontractors, as appropriate, shall have a duty to protect the property of the City from loss, damage or destruction resulting from its or *its* Subcontractors' operations under this Contract. If City property is lost, damaged or destroyed as a result of any acts of the Contractor or its Subcontractors in the performance of this Contract, or from its or their failure to comply with any applicable laws or with the provisions of this Contract, subject to Section 15.6 of *this* Contract, the Contractor or the Subcontractor as the case may be, shall at its own cost, indemnify and hold the City harmless from any and all costs and expenses to which the City may be subjected by reason thereof.

(C) During performance of the Work and until Final Inspection, the Contractor and its Subcontractors, as appropriate, shall take all reasonable precautions necessary to protect the persons and property of others from damage, loss or injury from its operations or those of its Subcontractors under this Contract, except such property as the owners thereof may themselves be under legal duty to protect. The Contractor shall, as required, place and adequately maintain at or about the Site suitable and sufficient guards, lights and barricades.

(D) Within five (5) Business Days after notice of the occurrence of any such loss under paragraphs (A) through (C) above, the Contractor shall make a report in writing to the Commissioner of all information it has and shall provide additional information as it becomes known.

(E) If the persons or property of others sustain loss, damage or injury resulting from any acts of the Contractor or its Subcontractors, in the performance of this Contract or from the failure to comply with any of the provisions of this Contract or of law, subject to Section 15.6 of this Contract, the Contractor and its Subcontractor(s), as appropriate, shall indemnify and bold the City harmless from any and all claims and judgments for damages and from costs and expenses to which the City may be subjected or which it may suffer or incur by reason thereof.

(F) The provisions of this Section 3.7 shall not be deemed to create any new right of action in favor of third parties against the Contractor or the City.

6. Delay:

From Montgomery County, Maryland:

11.5 DELAYS

11.5.1 Excusable Delays. Excusable Delays are Delays in the progress of the Work which at the time of the Delays were critical path activities as shown on the most recently approved Progress Schedule and which prevent the Contractor 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 Owner, as set forth in 11.5.2, the Contractor or anyone for whose acts the Contractor is responsible**. Excusable delays do not include any delays caused in whole or in part by any Subcontractor, Sub-subcontractor or Supplier which are considered unexcused delays. There shall be no compensation whatsoever for excusable delays.** Excusable delays may, but do not necessarily, include:

- **.1** weather delays as further defined in Subsection 11.6.3;
- **.2** acts of government and regulatory agencies and officials (other than the Owner in its capacity as Owner);
- **.3** catastrophic events such as fire, flood and unavoidable casualties; and
- **.4** strikes or labor disputes.

11.5.2 Compensable Delays. Compensable delays are limited to delays in the progress of the Work which at the time of the delays were critical path activities as shown on the most recently approved Progress Schedule and which prevent the Contractor 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 Delays. Unexcused delays are delays in Work which at the time of the delays were critical path activities as shown on the most recently approved Progress Schedule and which prevent the Contractor from achieving Substantial Completion before the expiration of the Contract Time, and which are not excusable delays or compensable delays. No increase in the Contract Sum or extension of the Contract Time will be made for an unexcused delay.

11.6 TIME AND RELATED COST ADJUSTMENTS

11.6.1 Notice of Delay. The Contractor must provide written notice of any actual or prospective delay promptly, and in no event later than ten (10) days after the occurrence of the event giving rise to such delay. The notice must be given both to the Architect/Engineer and the Contract Administrator within the specified time. In the case of a continuing delay, the Contractor must provide an initial notice and a further notice at each progress meeting throughout the duration of the delay. The notice must contain all of the specific information required in the following Subsection. **The Contractor's failure to provide the written notice containing the information specified in the following Subsection within**

the ten (10) days prescribed above will be conclusively deemed a waiver of any claim for delay arising from such occurrence.

11.6.2 Supporting Documentation. The Contractor's notice must identify those portions of the Progress Schedule 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 trades and portions of the Work affected by the delay;

.4 status of Work affected before commencement of the delay;

.5 effect of the delay on available "float" time;

.6 a critical path method (CPM) analysis demonstrating that the delay has affected an activity then on the critical path at the time of the occurrence of the delay as shown on the most recently approved Progress Schedule; and

.7 if the Contractor claims that the delay is an excusable delay or compensable delay, evidence that the delay was unforeseeable, beyond the Contractor's control, and without the fault or negligence of the Contractor or the negligence of anyone for whose acts the Contractor 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.

11.6.3 Time Extensions for Unusually Severe Weather. In order for the Contractor to be entitled to an extension of the Contract Time under this Subsection, 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 unusual severe weather was a critical path activity as shown on the most recently approved Progress Schedule and which prevents the Contractor 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 Contractor. For example, the impacted critical activity must not have occurred during unusually severe weather due to previous unexcused delays; and

.3 The Contractor must have provided written notice of the weather-related delay complying with Subsections 11.6.1 and 11.6.2 above.

The following schedule of monthly anticipated adverse weather delays will constitute the base line for monthly weather time evaluations. The Contractor's Progress Schedule must reflect these anticipated adverse weather delays in all weather dependent activities.

MONTHLY ANTICIPATED ADVERSE WEATHER DELAY.

Jan	Feb	Mar	Apr	May	Jun
7	6	6	7	7	6
Jul	Aug	Sep	Oct	Nov	Dec
4	5	3	5	4	4

Upon acknowledgement of the Notice to Proceed and continuing throughout the Contract, the Contractor must record on the daily CQC report, the occurrence of adverse weather and resultant impact to normally scheduled Work. Actual adverse weather delay days must prevent Work on critical path activities for fifty (50) percent or more of the Contractor's scheduled workday. The number of actual adverse weather delays must include Contractor'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 Contractor has complied with Subsections 11.6.1 and 11.6.2 above and the provisions of this Subsection 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 Contractor is entitled to a Modification of the Contract Time but not the Contract Sum.

11.6.4 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 Contractor to avoid or overcome the effects of any delay.

11.6.5 Review and Adjustment of Schedules. Upon receipt of a notice from the Contractor of the occurrence of a delay complying with Subsections 11.6.1 and 11.6.2 (and if applicable 11.6.3 or 11.6.4) above, the Owner will review the most recently approved Progress Schedule 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 Contractor 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 Contractor must, if required by the Owner, submit for the Owner's approval a revised Progress Schedule, which minimizes the adverse effects of the delay.

11.6.6 Limitation on Adjustments. No extension of the Contract Time or increase in the Contract Sum will be allowed for any delay or part thereof occurring more than ten (10) days before written notice of the delay is provided by the Contractor. No extension of the Contract Time or increase in the Contract Sum will be made to the extent that performance is, was or would have been suspended, delayed or interrupted by another cause for which the Contractor is responsible. No increase in the Contract Sum 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. **The Contractor 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 Contractor, its Subcontractor or Suppliers for delay, all of which are irrevocably waived by Contractor 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 Contractor is paid for the additional Work. The Contractor 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 Contractor in performing work beyond the Work required by the Contract Documents and any and all other costs, compensation or damages due Contractor (including any of its Subcontractors or Suppliers), is included in, and payable to the Contractor as part of the Change Order or Field Order Work. Contractor 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. The Contractor 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 Contractor will be compensated for such actual and direct damages for compensable delays not attributable to performance of Change Order. Work for which the Contractor is not otherwise compensated in an amount not to exceed the lesser of (ii) a daily rate computed by dividing eight percent (8%) of the original Contract Sum by the original Contract Time or (ii) a daily rate computed by dividing the Contractor's profit, bond cost and site-specific overhead (but not home office overhead) for the original Contract Sum by the original Contract Time. **The Contractor for itself and its 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.**

11.6.7 Denial of Adjustments in Time or Money. In the event the Owner denies the Contractor's request for a change in the Contract Time or, in the case of a compensable delay, a change in the Contract Sum, the Contractor 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 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 Contractor represents that the Contractor is not entitled to an increase in the Contract Sum or an extension of the Contract Time beyond that specified in the Bilateral Change Order, Field Order or Contract Amendment for the Work performed or to be performed under the Change Order. Nor is the Contractor entitled to an increase in the Contract Sum or extension of the Contract Time as a result of the issuance by the Owner of a Unilateral Change Order or a Field Order unless a claim is made by the Contractor as and when required by this Article 11 and Article 12;

.2 No charges or claims for damages may be made by the Contractor or paid to the Contractor 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 Contractor's control. The sole remedy for delays, disruptions or hindrances will be non-compensable time extensions for completion of the Work;

.3 The provisions of the preceding subsection 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 Contractor acknowledges are fully compensated for by payment of the adjustment amount specified in Subsection 11.6.6; (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 Contractor has fully complied with Subsections 11.6.1 and 11.6.2;

.4 A time extension may be granted only for an excusable delay that is beyond the Contractor's control and occurs without the Contractor's fault or negligence. No time extension will be granted in the absence of a written claim for the time extension complying with Subsections 11.6.1 and 11.6.2 (and if applicable, 11.6.3 or 11.6.4).

11.7.2 Liquidated Damages. The Owner will suffer financial loss if Substantial Completion and/or Final Completion of the Work is not achieved within the Contract Time. Accordingly, and in lieu of actual damages or proof thereof, the Contractor 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. If the Contractor fails to achieve Final Completion within thirty (30) days after Substantial Completion, the Contractor shall pay to the Owner, as Liquidated Damages and not as a penalty, the amount stipulated in the Contract for each and every day of unexcused delay in achieving Final Completion.

11.7.3 Assessment of Liquidated Damages. The Owner may assess and deduct the applicable amount of Liquidated Damages from any payment due the Contractor. If the unpaid balance of the Contract Sum is less than the amount of the Liquidated Damages, the Contractor or its Surety must pay the deficiency to the Owner upon demand.

From PinnacleOne:

1.04.05—Extra Work: Unforeseen work made necessary by the Engineer's changes of the Contract plans or specifications, or work that is necessary for completion of the Project, but for which no price is provided in the Contract, shall be done in accordance with the requirements of the specifications and as directed by the Engineer. The Engineer shall notify the Contractor of the necessity for such extra work, stipulating its character and extent, and shall notify the Contractor as to whether the Engineer wants the Contractor to propose a unit price or, instead, a lump sum, for the extra work. Within 5 days of receipt of such notification, the Contractor shall advise the Engineer, in writing, of the compensation (as a unit price or lump sum, whichever has been requested by the Engineer) that the Contractor requests as compensation for the required extra work.

The Contractor's request shall be itemized and reasonably detailed, and shall include all known or anticipated direct and indirect costs of the work, including but not limited to, the costs of all safety and other equipment, small tools, labor, subcontractor quotes, consumables, field office overhead, home office overhead, insurance, bonding, and profit. The character and extent of the extra work, together with the basis of compensation, shall be communicated to the Contractor by means of a construction order which, when signed by the Engineer, shall become a part of the Contract.

If a Contractor objects to any portion of a construction order submitted to it by the Engineer for signing, and if the Contractor is not willing to sign that order or some portion of that order, the Contractor must, within 15 days of its receipt of said order, return the order with a letter to the Department's Assistant District Engineer administering the Contract, describing specifically what portions of the order the Contractor finds objectionable, the nature of its objections, and the bases for its objections. If the Contractor does not do so, it shall be deemed to have accepted the terms of the construction order.

If the Engineer changes the scope of Contract work, the Contractor shall submit a proposed revised schedule and a cost revision proposal, which takes all such changes into account, if the Contractor believes that such revisions are warranted. If the schedule is to be revised, it will be revised in accordance with Article1.08.08.

1.05.01—Authority of Engineer: If a Project-related dispute arises between the Contractor and Department personnel assigned to the Project, and if those parties prove unable to resolve it, the Contractor may submit a detailed written description of the dispute to the Department's Assistant District Engineer administering the Contract. It must be understood, though, that at no time may the Contractor, because of its disagreement with the Engineer, either disregard the orders of the Engineer or halt Project construction. If the Contractor cannot resolve a Project work or pricing dispute with the Engineer, the Contractor's proper remedy is a claim under Connecticut General Statutes Section 4-61. A Contractor that disregards the orders of the Engineer with regard to the prosecution of Project work, or who refuses to continue Project work because of a disagreement with the Engineer, may be subject

to termination of its Contract, to a subsequent finding that it is nonresponsible as an apparent low bidder for a Department contract, to the assessment of liquidated damages, and to other adverse legal or administrative action by the Department.

1.05.06—Cooperation with Utilities (Including Railroads): The Contractor shall schedule its operations in such a manner as to minimize interference with the operations of the utility companies or local governments in effecting the installation of new facilities, as shown on the plans, or the relocation of their existing facilities. The Contractor shall consider in its bid all permanent and temporary utility appurtenances in their present or relocated positions and any installation of new facilities required for the Project. The Department will not make any additional compensation to the Contractor for delays, inconvenience or damage sustained by the Contractor due to (i) interference with Project construction caused by the location, condition or operation of utility (including railroad) appurtenances or (ii) the installation, removal, or relocation of such appurtenances; and the Contractor may not make a claim for any such compensation.

1.08.06—Suspensions of Work Ordered by the Engineer: The Engineer may suspend the Project wholly or in part, for such period or periods as he considers to be in the best interests of the State, including, but not limited to, the interests of public necessity, convenience, or safety.

During such periods of suspension, and subject to any related directions from the Engineer, the Contractor shall store all materials and equipment in a way that will keep them from obstructing or impeding the traveling public unnecessarily, and that will keep the materials from being damaged; shall take all reasonable measures to prevent damage to the work performed; shall provide suitable drainage of the roadway and Project site by opening ditches, shoulder drains, etc., as appropriate; and shall erect temporary structures to prevent damage to the Project or to other property, and to protect the public, where and when necessary.

The Contractor shall maintain the Project site and all roadways and buildings thereon in a condition safe for travel or occupancy, and shall maintain all required barricades, signs, and lights during the period of suspension: (1) If the Engineer orders in writing that performance of all or any portion of the Project shall be suspended, or that it shall be delayed for an unreasonable period of time (not customary, within the scope of possibilities that an experienced contractor should know might occur on a construction project, or inherent in the nature of construction activities), and if the Contractor believes that additional compensation or Contract time is due to it as a result of such suspension or delay, the Contractor shall submit to the Engineer in writing a request for a related Contract adjustment within 7 calendar days of the Contractor's receipt of a direction from the Engineer to resume work. The request shall set forth the specific reasons and support for the requested adjustment. (2) Upon his receipt of the Contractor's request, the Engineer will evaluate the request. If the Engineer agrees that the expenditures or time required for the Contractor's performance of the Contract have increased as a result of such suspension or delay, and if the suspension or delay was caused by conditions beyond the control of and not the fault of the Contractor, its suppliers, or subcontractors at any approved tier, and was not caused by weather, the Engineer will make an appropriate adjustment (excluding any profit) of the written terms of the Contract. The Engineer will give the Contractor written notice of his determination as to whether or not the requested adjustment of the Contract is warranted and will be made. (3) No Contract adjustment will be made unless the Contractor has submitted the request for adjustment within the time prescribed. (4) In addition to the other limits and requirements imposed by

this article, no Contract adjustment will be allowed under this article to the extent (a) that the Project work would have been suspended or delayed by any cause other than the ones identified in the Contractor's request, or (b) that the requested adjustment or type of adjustment is provided for or barred by another provision of the Contract.

1.08.08—Extension of Time: The Contractor may present to the Engineer a request in writing for an extension of Contract time if the time necessary for completion of the Project has been increased due to extra or added work or delays resulting from unforeseeable causes beyond the control and without the fault or negligence of the Contractor, except for weather or seasonal conditions (unless extraordinary and catastrophic). Such causes include, but are not restricted to, natural catastrophes, acts of the State in either its sovereign or contractual capacity, acts of another contractor in the performance of a contract with the State, the presence of utility facilities (including railroads), fires, strikes, floods, or delays by suppliers arising from unforeseeable causes beyond the control and without the fault or negligence of either the Contractor or such suppliers. The Contractor's plea that insufficient Contract time was allowed under the Contract before commencement of the Project is not a valid reason for extending the Contract time. Requests for an extension of time, with adequate substantiation, must be presented within 60 calendar days from the event that is the basis of the request or from the first effect of such an event on the Project. The Contractor will be responsible for providing all the documentation necessary to support the reasonableness of the additional time requested. Such requests will be considered by the Engineer and granted to the extent that he deems to be fair and reasonable. Requests will not be considered if based on delays caused by conditions existing at the time the bids were received and of which the Contractor might reasonably be expected to have had full knowledge at that time, or upon delays caused by failure on the part of the Contractor to anticipate properly the requirements of the Project as to materials, labor or equipment.

For all Project delays or time increases, except as provided below, additional Contract time is the sole remedy that the Contractor may have, and such periods of additional Contract time shall be deemed "Non-Compensable Delays." For delays caused by the State in its Contractual capacity, the Contractor may, in addition to a time extension, request additional compensation to reimburse it for damages sustained as a direct result of such delay, and such periods of extended Contract time may be deemed "Compensable Delays." The period of a compensable delay is limited as follows: (1) it may not include time more than 60 days prior to the Engineer's receiving written notice from the Contractor. with adequate substantiation, of its intent to claim damages for the delay, (2) and it may not include periods of delay for which the State was responsible, but during which the Contractor experienced concurrent delays for which the State was not responsible.

Damages for periods of Project delay for which the State had sole responsibility shall be limited to the increased costs incurred by the Contractor (which shall not include lost profits), which the Contractor substantiates and which the Contractor shows were caused by such delays.

1.08.09—Failure to Complete Work on Time: Time is an essential element of the Contract. Since the prosecution of the Project may obstruct traffic, interfere with business, and otherwise inconvenience the public, it is important that the Project be pressed vigorously to completion. The cost to the Department of the administration of the Contract, including engineering, inspection and supervision, will also be increased as the time for Project completion is lengthened. Therefore, for each calendar day that any work shall remain uncompleted after the Contract time has expired, the per diem sum of liquidated damages specified in the Contract shall be deducted from any money due to the Contractor. Liquidated damages are not a penalty, but are a reasonable estimate of the damages caused by such delay. If the last day of the initial Contract time or the initial Contract date specified for Project completion is before December 1 in the given year, liquidated damages as specified in the Contract shall be assessed against the Contractor per calendar day (including any days during a winter shutdown period) from that day until the date on which the Project is completed. The Engineer has the right to deduct the amount of the liquidated damages assessed against the Contractor from any estimated payment for work performed under the Contract or under any other State contract, or from any other sums owed by the State to the Contractor; or to claim and recover such sums by process of law.

1.08.10—Annulment of Contract: The Commissioner may give notice in writing to the Contractor and its surety of any delay, neglect, or default of the Contractor which the Commissioner believes has occurred, including one or more of the following: 1. Failure to begin the Project on the date specified in the Notice to Proceed. 2. Failure to perform the Project with sufficient personnel, equipment or materials to ensure timely Project completion. 3. Unsuitable performance of the Project or failure to perform Project work in accordance with the Contract. 4. Failure or refusal to remove or correct work rejected by the Engineer. 5. Discontinuance of suitable prosecution of the Project for a period of 72 hours, excluding Sundays and holidays, without written authorization to do so from the Engineer. 6. Failure to recommence discontinued work within 48 hours (excluding Sundays and holidays) after being ordered to do so by the Engineer. 7. Insolvency, filing for bankruptcy, or any act or occurrence which may render the Contractor financially incapable of completing the Project. 8. Failure to satisfy any final judgment for a period of 30 calendar days. 9. Making of any assignment for the benefit of creditors. 10. Violation of any provisions of the Contract. 11. Any other cause which, in the judgment of the Commissioner, warrants annulment, including, but not limited to, violations of the antitrust or criminal laws, and attempts to deceive or defraud the Department in material matters.

If the Contractor or surety within a period of 10 calendar days after such notice does not proceed in conformance with the directions set forth in the notification, or fails to present a remedial plan of operation satisfactory to the Commissioner, then the Commissioner may, at his discretion, order the surety to complete the Project or, without violating the Contract, take the right to control and prosecute the Project out of the hands of said Contractor and surety. No annulment or termination of the Contract for such cause will be deemed to have occurred, however, unless the Commissioner himself or herself (and not merely a designated representative of his or hers) expressly declares it in a writing to the Contractor.

The Department may acquire or rent whatever materials or equipment are necessary in order to complete the Project and may seize and use for purposes of the Project (with any appropriate

compensation to the Contractor) any material or equipment that the Contractor acquired or purchased expressly for the Project in accordance with a specific Contract requirement.

The Department may also enter into an agreement, either by negotiation or public letting, for the completion of the Contract according to the terms and provisions thereof, or use such other methods or combinations thereof as in the Commissioner's opinion shall be required or desirable for the completion of the Contract in an acceptable manner. All costs and charges incurred by the Department, in connection with completing the Project under the Contract, or as a result of the Contractor's default, shall be deducted from any monies due to or which may become due to the Contractor. In case such expense exceeds the sum which would have been payable under the Contract, then the Contractor and the surety shall be liable for, and shall pay to the State, the amount of the excess.

1.09.04—Extra and Cost-Plus Work: Extra work shall be performed only under the conditions and subject to the requirements outlined in Article 1.04.05. Payment for such work shall be based either on a unit price or on a lump sum, to be agreed upon before the extra work is started; or, if no agreement as to price can be reached, the Engineer may order that the work will be paid for on a cost-plus basis.

The compensation provided for if paid on a cost plus basis shall be deemed to be payment in full for the extra work and shall be deemed as full compensation for same, including costs of superintendence, use of small tools, equipment for which no rental is allowed, safety equipment, consumables, field office overhead, home office overhead, bonding, other insurance, and profit.

Excerpts From Scheduling Specifications:

Recovery Schedules:

If, in the opinion of the Engineer, the updated schedule indicates that the Contractor has fallen behind schedule, or that a revision in sequence of operations may be necessary for any other reason, the Contractor shall immediately institute all necessary steps to improve his progress, and shall submit such revised network diagrams, tabulations and operational plans, as may be deemed necessary by the Engineer, to demonstrate the manner in which an acceptable rate of progress will be regained.

Should the Contractor not demonstrate an ability to regain an acceptable rate of progress, the Engineer shall require the schedule to be resource loaded with the next monthly update. No additional compensation will be allowed for resource loading the schedule.

Weather Days

A. The contractor shall consider foreseeable weather impacts when preparing its schedules.
B. Foreseeable weather impacts are those which could have been anticipated based on the 30-year average weather data for the project location.
C. The contractor shall insert an activity to reflect a weather delay on the critical path in its schedule update following weather delay when more than 2/3rds of a crew scheduled to work in a critical path activity could not work due to weather.

The contractor shall be entitled to a non-compensable time extension if the number of weather delays identified in the manner above, and to the extent they are accepted by the Owner, exceed the number of days of foreseeable weather impacts.

Contract Time Extensions

A. Mitigation of Delays

1. The Contractor shall develop mitigation measures for all delays regardless of responsibility for the delays and identify all time and cost impacts to the work associated with those mitigation measures. Unless circumstances otherwise require, the Contractor shall not pursue mitigation action for which it expects the Owner to be liable prior to notifying the Owner and receiving Owner authorization to proceed with the mitigation action. Any action taken by the Contractor prior to receiving approval from the Owner shall be at the Contractor's risk.

2. When the need for mitigation arises to ensure timely completion, the Contractor shall review all uncompleted activities on the Critical and Near Critical Paths to the Contract Completion Date for errors in scope, duration, and logic and for the feasibility of performing in parallel work currently scheduled sequentially.

3. Whenever is possible for the Contractor to mitigate delay without added cost, the Contractor shall do so. The Contractor shall mitigate all delays as efficiently and economically as possible, with the objective of minimizing both the time and cost impact of the delay regardless of responsibility for the delay. The Owner will not be liable for damages which the Contractor could have avoided by reasonable means such as prudent scheduling of the work and judicious handling of forces equipment or plant. The Owner will not be liable for damages incurred by the Contractor during any period of time when the Contractor has failed to provide notification of delay in accordance with the Contract requirements when having the notification at the specified time could have influenced the Owner's decision or actions.

B. Time Impact Analysis

1. Time impact analysis shall be required for contested or disputed time extension requests submitted by the Contractor prior to the work being performed

2. If the Contractor believes that a proposed change will impact the Project Completion Date or interim Milestones the Contractor shall submit an analysis with its Change Order Proposal demonstrating the delay to the Critical Path. This analysis shall be in the form of a Time Impact Analysis.

3. The Time Impact Analysis shall consist of 1) a Fragnet of the portion of the schedule that will be affected by the incorporation of the change, which shall include the new activities, revised logic and durations associated with the proposal change; 2) a narrative explanation of how the proposed change would impact the schedule; 3) an impact schedule which shall

be developed by incorporating the Fragnet and required changes, including any delay mitigation measures, into the most recent accepted schedule update and; 4) electronic copies of the Fragnet and impact schedule.

4. The Contractor shall submit its TIA in sufficient time to allow it to be incorporated into a Revision Schedule prior to the change order work proceeding, allowing the Owner thirty (30) days after receipt of the Time Impact Analysis and all the supporting information required with the Change Order Proposal to approve or reject the analysis.

5. Upon agreement on the schedule impact due to the proposed change and the issuance of a time extension, the Contractor shall incorporate the agreed upon Fragnet/schedule revisions in the next monthly update.

6. The Owner reserves the right to have the Contractor proceed with the change order related work without agreeing on the time associated with it and to measure the actual schedule impact via Contemporaneous Period Analysis.

7. In cases where the Contractor has not submitted a Time Impact Analysis with its Change Order Proposal for a particular proposed change, the Contractor agrees that the particular proposed change has no impact on the Contract Completion Date or interim Milestones and no time extension is required.

C. Contemporaneous Period Analysis

1. The Contractor shall utilize Contemporaneous Period Analysis (CPA) to establish entitlement for all time extension requests submitted to the Owner after performance of the work that is the subject of the time extension request.

2. The CPA shall quantify the delay by comparing the completion dates and Milestone dates on an update by update basis, starting with the update just prior to the delaying event and ending with the update just after the conclusion of the delaying event. Only the accepted schedules/Schedule Updates shall be used in the Contractors CPA.

3. The Contractor shall demonstrate the cause and the Owner's sole responsibility for critical delay by correlating slippage with relevant contract language and project documentation supporting the Contractor's assessment.

4. The CPA will consist of 1) an update by update accounting of all delay(s) during the period in question; 2) an update by update narrative explanation of how the delay(s) affected the completion date or would have affected the completion date but for other concurrent delay(s); 3) chronologies of the issues affecting the schedule period in question; and 4) a day by day accounting and description of the unanticipated work/work stoppage on the Critical Path and/or path in question; 5) a Gantt chart comparing the as-planned schedule just prior to the start of the delay to the actual as-built for the path(s) in question.

D. Owner may require the Contractor to correct errors in its TIA or CPA at anytime, whether or not the schedules have been accepted and/or time extension issued and agreed upon. Should the errors affect the outcome of the TIA or CPA, the Owner reserves the right to adjust the time extension accordingly. Generally, a schedule will be found to be in error if it does not properly reflect the sequencing, timing and durations of all the work and required events as well as

mitigation efforts contemplated or which should have been contemplated at the time of the data date of the schedule.

E. Time Extensions will be granted only to the extent that equitable adjustments for the activity of activities affected exceed or exceeded the total or remaining float along the Critical path or activities at the time of the actual delay. Actual delays in activities which do not affect the Critical Path work or which do not move the Contractor's planned completion date beyond the Contract completion date or current completion date as affected by previous delays, will not be the basis for an adjustment to the Contract time. Time Extensions shall not be granted until a delay occurs that is:

1. Beyond control of and without fault of or negligence of the Contractor and its Subcontractors or Suppliers at any time.
2. Extends the actual performance of the work beyond the Contract completion date or other specified Interim Milestones.

F. Should a non-compensable excusable delay be concurrent with one or more compensable delays, the Contractor and Owner agree that the net result is a non-compensable, excusable delay to the extent the delay is caused by the non-compensable event.

G. The Contractor shall have no claim for damages of any kind, or extensions or increase to the Contract time(s) or Contract Milestone(s), or adjustments of Contract Price on account of any delay, interruption or suspension of the Work or any portion thereof (herein after collectively referred to as "Delay"), due to whatever cause unless the prerequisites of this Subsection are met. The requirements of this Subsection are in addition to and not in lieu of the requirements of any other applicable subsection.

From Petrini & Associates, P.C.:

"No damages for delay" clause:

The Contractor shall have no claims for any damages, costs, or expenses of any kind or nature, for any suspension, delay, interruption, or acceleration of the work on the part of the Owner, Architect, or any of their consultants in performing or furnishing any work, or resulting from problems or deficiencies with materials, information, or documentation and/or decisions in connection with the execution of the Work. The General Contractor's sole remedy for any such delay shall be for a claim for an extension of time to its period of contract performance.

From New York, New York:

Section 4.3. Requests for Information or Approval. (A) From time to time as the Work progresses and in the sequence indicated by the approved progress schedule, the Contractor shall submit to the Commissioner a specific written request specifying each *item* of information or approval desired by the Contractor from the Commissioner. These requests must state the latest date upon which the information or approval is actually required by the Contractor but **in no event shall be less than ten (10)**

Business Days. Except as provided in Section 5.1, the **Commissioner** shall use his/her best efforts to act on any such request within ten (10) Business Days; provided that the Contractor may request that such period be shortened or lengthened, which request will not be unreasonably denied; and provided further that the City *may,* upon notice to the Contractor, take an additional ten (10) Business Days to act on such request. If no reply to a request by the Contractor is given within the relevant time period, the request shall be deemed to have been approved.

(B) The Contractor shall not have *any* right to an extension of *time* on account of delays due to its failure to submit requests for required information or required approval in accordance with the above requirements.

Section 4.4. Delays. (A) If performance by the Contractor is delayed for a reason set forth in this Contract, the Contractor may be allowed a reasonable extension of time in conformance with this Article 4 and Section 6-03 of the Procurement Policy Board Rules.

(B) Any extension of time may be granted as set forth below only by *the* Commissioner or by the Board for the Extension of Time (sometimes in this Article 4 referred to as the "Board"), upon written application by the Contractor.

Section 4.5. Extension of Time. (A) If such application is made, the Contractor shall be entitled to an extension of time for delay in completion of the Work caused solely: (1) by the acts or omissions of the City, its officers, agents or employees; or (2) by the *acts* **or omissions of other** contractors on this Project; or (3) by supervening conditions entirely beyond the control of either party hereto (such as, but not limited to, acts of God or the public enemy, excessive inclement weather, war or other national emergency making performance temporarily impossible or illegal, or strikes or labor disputes not brought about by any act or omission of the Contractor).

(B) The Contractor *shall,* however, be entitled to an extension of *time* for such causes only for the number of Days of delay which the Commissioner or the Board may determine to be due solely to such *causes,* and then only if the Contractor shall have strictly complied with all of the requirements of Sections 4.2, 4.3, and 4.7 hereof.

Section 4.6. Extension for Concurrent Causes of Delay. (A) The Contractor shall not be entitled to receive a separate extension of time for each of several causes of delay operating concurrently, but, if at all, only for the actual period of delay in completion of the work as determined by the Commissioner or the Board for the Extension of Time irrespective-of the number of causes contributing to produce such delay. If one of several causes of delay operating concurrently results from any act, fault or omission of the Contractor or of his subcontractors or materialmen, and would of itself (irrespective of the concurrent causes) have delayed the Work, no extension of time will be allowed for the period of delay resulting from such act, fault or omission.

(B) The determination made by the Commissioner or the Board on an application for an extension of **time** shall be binding and conclusive on the Contractor.

(C) The granting of an application for an extension of time for causes of delay other than those herein referred to shall be entirely within the discretion of the Commissioner or the Board. In the absence of special circumstances, applications for extensions of time not exceeding sixty (60) days in the aggregate will be acted upon by the Department within thirty (30) days after

request therefor. -

(D) Permitting the Contractor to continue with the work after the time fixed for its completion has expired, or after the time to which such completion may have been extended has expired, or the making of any payment to the Contractor after such time, shall in no way operate as a waiver on the part of the City of any of its rights under this Contract.

Section 4.7. Application for Extension of Time. (A) Before the Contractor time extension request may be approved, the Contractor must within five (5) days after commencement of the condition which allegedly has caused or is causing the delay, submit a written application to the Commissioner identifying:

(1) The Contractor; the Contract registration number; and project description;

(2) (intentionally omitted;]

(3) Contract Price;

(4) the original contract start date and completion date;

(5) any previous time extensions granted (number and duration); and

(6) the extension of time requested.

(B) In addition, the application for extension of time shall set forth in detail:

(1) the nature of each alleged cause of delay in completing the work

(2) the date upon which each such cause of delay began and ended and the number of days attributable to each such cause;

(3) a statement that the Contractor waives all claims except for those delineated in the application, and the particulars of any claims which the Contractor does not agree to waive. For time extensions for substantial and final completion payments, the application shall include detailed statement of the dollar amounts of each element of claim item reserved; and

(4) a statement indicating the Contractor's understanding that the time extension is granted only for the purpose of permitting continuation of Contract performance and payment for Work performed and that the City retains its rights to conduct an investigation in the future.

Section 4.8. Analysis and Approval of Time Extensions. (A) For time extensions for partial payments, a written determination shall be made by the Commissioner who may, for good and sufficient cause, extend the time for the performance of the Contract as follows:

(1) if the Work is to be completed within 6 months, the time for performance may be extended for 60 days;

(2) if the Work is to be completed within *less than* one *year* but more than six months, an extension of 90 days may be granted;

(3) if the contract period exceeds one year, besides the extension granted in subparagraph (2) above, an additional 30 days may be granted for each multiple of 6 months involved beyond the one year period; or

(4) if exceptional circumstances exist, the Commissioner may extend the time for performance beyond the extensions in 1, 2 and 3 above. In that event, the Commissioner shall file with the Director of the Office of Construction a written explanation of the exceptional circumstances.

(B) For extension of time for substantial completion and final completion payments, the agency engineering staff, in consultation with the Agency Chief Contracting Officer, shall review and approve a written analysis of the delay prepared by the Contractor (including a preliminary determination of the causes of delay, the beginning and end dates for each such cause of delay, and whether the delays are excusable under the terms of the construction contract). The report shall be subject to review by and approval of the Board, which shall have authority to question its analysis and determinations and request additional facts or documentation. The report as reviewed and made final by the Board shall be made a part of the agency contract file.

(C) Approval Mechanism for Time Extensions for Final or Substantial *Completion Payments*_ An extension of time for a final or substantial completion payment shall be granted only with the approval of a Board comprised of the Commissioner, the Corporation Counsel and the Comptroller, or their authorized representatives.

7. A/E Performance.

From Montgomery County, Maryland:

4.3 ADMINISTRATION OF CONSTRUCTION

4.3.1 Interpretation and Clarification of Drawings and Specifications. The Architect/Engineer, with the approval of the Owner, may issue interpretations and clarifications of the Drawings and Specifications, in graphic or written form as appropriate, on written request of either the Owner or Contractor (Requests for Information (RFIs)), or when otherwise deemed advisable by the Architect/Engineer (Architect's Supplemental Instructions (ASIs)). The Architect/Engineer's response to requests from the Owner or Contractor for interpretations or clarifications (RFIs) will be made within fifteen (15) days of receipt of the written request. Any response is presumed to be a clarification of the Drawings and Specifications reasonably inferable from them and necessary to produce the intended results and will not form the basis for any claim by either party for a change in the Contract Sum or the Contract Time. **If the Contractor contends that the response constitutes a change in the Work, the Contractor must obtain written direction from the Contract Administrator before proceeding with the Work as set forth in Subsection 4.3.12 titled Changes in the Work, and must file a claim in accordance with Article 12 and/or Article 11 or the Contractor will be conclusively deemed to have waived any claim for an increase in the Contract Sum or an extension of the Contract Time based on the interpretation or instruction contained in any RFI or ASI, or otherwise.**

4.3.2 Standard of Interpretation. Interpretations and clarifications by the Architect/Engineer will be consistent with the intent of, and reasonably inferable from, the Contract Documents. When making such interpretations and clarifications, the Architect/Engineer will endeavor to secure faithful performance by both Owner and Contractor, will not show partiality to either and will not be liable to the Contractor 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 Contractor 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 necessary to produce the intended results and may not form the basis for any claim by the Contractor for a change in the Contract Sum or the Contract time**. If the Contractor contends that the interpretation or decision constitutes a change in the Work, the Contractor must file a claim in accordance with Article 12 and/or Article 11 or the Contractor will be conclusively deemed to have waived any claim for an increase in the Contract Sum or an extension of the Contract Time based on the interpretation or decision.**

4.3.4 Acceptability of Superintendent and Key Personnel. The Contractor will be advised in writing if the Superintendent or other supervisory personnel prove unsatisfactory to the Owner as provided in Subsection 5.4.2.

4.3.5 Approval of Subcontractors and Suppliers. The Contractor 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 Subsection 6.1.2.

4.3.6 Approval of Submittals. The Architect/Engineer and the Owner, as appropriate, will review the Contractor'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 Section 9.2.

4.3.7 Site Visits. The Architect/Engineer will make Site visits as provided in Subsection 10.3.2.

4.3.8 Rejection of Work. The Owner, in consultation with the Architect/Engineer, may reject Work as provided in Subsection 10.6.1.

4.3.9 Additional Inspection, Testing or Specific Approvals. The Architect/Engineer has authority to recommend, and the Owner has the authority to require, additional inspection, testing or specific approval of the Work as provided in Subsection 10.5.3.

4.3.10 Authority to Stop or Suspend Work. The Owner has the authority to stop or suspend the Work as provided in Subsections 11.4.1 and 11.4.2. The Architect/Engineer 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 Architect/Engineer's observations and evaluations of the Contractor's Applications for Payment and the Work, the Architect/Engineer will certify the amounts due the Contractor and will issue Certificates for Payment in such amounts to the Owner as provided in Section 13.3. The Owner will review and approve such Applications and Certificates and make payment on approved amounts within the time specified in the Section 13.4.

4.3.12 Changes in the Work. The Architect/Engineer will assist the Owner in preparing and issuing Change Orders and Field Orders as provided in Sections 12.2 and 12.3. The Architect/Engineer may, with the Owner's concurrence, authorize minor changes in the Work not involving an increase in the Contract Sum or an extension of the Contract Time.

.1 Notwithstanding the foregoing or any other provision of the Contract, no additions or changes in the Work or other extra Work may be performed and no claim for additional compensation, credit, or extension of time is valid without written authorization by the Contract Administrator or such person as is designated in writing by the Contract Administrator. 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 to an increase in the Contract Sum, or the Contract Time.

4.3.13 Substantial and Final Completion. As provided in Article 14, the Architect/Engineer and Owner will conduct inspections to determine the date or dates of Substantial Completion and the date of final completion. The Architect/Engineer and Owner will issue Certificates of Substantial and final Completion and a final Certificate for Payment upon the Architect/Engineer's recommendation and Owner's determination that the Contractor has fully completed the Contract. The Architect/Engineer may issue partial Substantial Completions with the Owner's approval 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 Architect/Engineer 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 Architect/Engineer will have control over or charge of or be 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 Contractor's responsibility as provided in Subsection 5.3.2 and Article 8. Neither the Owner nor the Architect/Engineer will be responsible for the Contractor's failure to carry out the Work in accordance with the Contract Documents.

4.4.2 Actions not to Relieve Contractor. No action or failure to act on the part of the Owner or the Architect/Engineer, 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, or (iv) the acceptance or failure to accept any portion of the Work, relieves the Contractor of responsibility for performing the Work in accordance with the Contract Documents.

4.4.3 Responsibility for Others. Neither the Owner nor the Architect/Engineer will have control over or charge of and will not be responsible for acts or omissions of the Contractor, Subcontractors, 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 Contractor of any of its obligations under the Contract Documents. The Owner's and the Architect/Engineer's authority to require and the Architect/Engineer's authority to recommend additional testing, inspection or approval of Work, and the Owner's and the Architect/Engineer'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 Contractor or any other person or entity.

4.4.5 Stopping or Suspension of Work. The authority of the Owner to stop the Work under Subsections 11.4.1 or to suspend the Work under Subsection 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 Contractor or any other person or entity.

4.4.6 Payments. The issuance of a Certificate for Payment by the Architect/Engineer under Subsection 13.3.1 or the making of any progress payment or final payment by the Owner under Subsections 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 Subsection 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 Section 14.1 does not constitute 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 Architect/Engineer of a Certificate of Substantial or Final Completion under Subsections 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.

From PinnacleOne:

1.05.04—Coordination of Special Provisions, Plans, Supplemental Specifications and Standard Specifications and Other Contract Requirements: All requirements indicated on the plans or in the Standard Specifications, the Supplemental Specifications, Special Provisions or other Contract provisions shall be equally binding on the Contractor, unless there is a conflict between or among any of those requirements. In the case of such a conflict, the order of governance among those requirements, in order of descending authority, shall be as follows: 1. Environmental Permits 2. Environmental Permit Applications 3. Special Provisions 4. Plans other than Standard Sheets (enlarged details on plans, used to clarify construction, shall take precedence over smaller details of the same area; and information contained in schedules or tables, titled as such, shall take precedence over other data on plans) 5. Standard Sheets 6. Supplemental Specifications 7. Standard Specifications and other Contract requirements

Numerical designations of dimensions shall take precedence over dimensions calculated by applying a scale to graphic representations. Neither party to the Contract may take advantage of any obvious error or omission in the Contract. Should either party to the Contract discover such an error or omission, that party shall notify the other party of same immediately in writing. The Engineer will make such corrections and interpretations of the Contract as are necessary, in his judgment, to fulfill the purposes of the Contract that are evident from examining the Contract as a whole.

If the Contract includes an item that does not have a corresponding specification for either performance or payment purposes, the Contractor shall notify the Engineer of that fact in writing at least 2 weeks prior to ordering materials for or commencing work on the item. If the Department's documents do not contain such a specification, the Engineer shall, if possible, derive an appropriate specification from applicable AASHTO Specifications or, if necessary, ASTM Specifications. If neither of those sources provides a suitable specification, the Contractor shall seek guidance from the Engineer with regard to the item, and the Engineer will formulate a reasonable specification for the item. When compliance with 2 or more standards is specified, and the standards may establish different or conflicting requirements for minimum quantities or quality levels, the Contractor shall refer such issues to the Engineer for a decision before proceeding with the pertinent work.

1.05.10—Inspection: All materials and each part or detail of the Project work shall be subject at all times to inspection by the Engineer. Such inspection may include mill, plant, shop or other types of inspection; and any material furnished under the Contract is subject to such inspection. The Engineer shall be allowed access to all parts of the work and shall be furnished with such information and assistance by the Contractor as the Engineer deems necessary to make complete, detailed and timely inspections.

The Contractor shall always notify the Engineer of its intention to perform work on the Project, including the nature of the particular work it intends to perform, at least 48 hours before the Contractor commences that work. If, after receiving such notice, the Engineer decides that he needs more than 48 hours to arrange for and conduct inspection related to that work, he shall so notify the Contractor, and the Contractor shall refrain from commencing the work until the Engineer has arranged for such

inspection. The Contractor may not commence any portion of its work without prior related inspection by the Engineer unless the Engineer agrees otherwise. In the absence of such advance agreement by the Engineer, any work done or material used without inspection by a Department representative may be ordered exposed for examination and testing, and then corrected or restored, all at the Contractor's expense.

If, at any time before the Department's acceptance of the Project, the Engineer requests the Contractor to remove or uncover any portion of the Project work for inspection by the Engineer, the Contractor shall do so. After such inspection is completed, the Contractor shall restore such portions of the work to the condition required by the Contract as construed by the Engineer. If the work or material exposed and inspected under this provision proves acceptable to the Engineer, the Department shall pay the Contractor for any removal, uncovering or restoration of its previous Contract work. The Department shall pay the Contractor for such removal, uncovering, and restoration of the prior work as extra work. If the work or material exposed and inspected proves, in the opinion of the Engineer, not to conform with Contract requirements, the Contractor shall be responsible for the costs of the removal, uncovering, correction and restoration of the work and material in accordance with the Contract or as the Engineer requires.

1.05.11—Removal of Defective or Unauthorized Work: Work that does not conform to the requirements of the Contract shall be remedied in a manner acceptable to the Engineer or removed and replaced at the Contractor's expense in a manner acceptable to the Engineer.

No work shall be done without appropriate lines and grades having been established in the field. Work done contrary to the instructions of the Engineer, work done beyond the lines shown on the plans, or extra work done without the Engineer's prior written direction to perform it will be considered as unauthorized and the Department will not pay for it. Work so done may be ordered removed or replaced at the Contractor's expense.

If the Contractor fails to comply with any order of the Engineer made under the provisions of this Article, the Engineer has the authority to cause unacceptable or unauthorized work to be remedied or removed and replaced by a party or parties other than the Contractor, and to deduct the costs of such activities from any monies due or to become due to the Contractor from the Department or any other agency of the State.

1.05.16—Dimensions and Measurements: The Contractor or one of its subcontractors shall verify each dimension that is needed in order to ensure that its work complies with the Contract, and must do so before ordering any material or doing any work for which such dimension is needed. Such dimensions include, but are not limited to, dimensions given on the plans, as well as dimensions of structures in place prior to Project construction or installed in the course of construction. The Contractor or any subcontractor that finds a discrepancy or error in dimensions must report it promptly to the Engineer and may proceed with affected work only after receiving clarification and direction from the Engineer regarding the matter. Any costs for delays, changes, cutting or repairs that are incurred due to the Contractor's failure to observe the above requirements shall be borne by the Contractor.