§104-02

104-02 ALTERATIONS AND OMISSIONS. The specifications of 102-17 Sample Form of Agreement, Article 5, shall apply.

104-03 CONTINGENCIES, EXTRA WORK AND DEDUCTIONS. Whenever the Commissioner of Transportation determines that from any unforeseen cause the terms of any contract should be altered to provide for changes, contingencies or extra work, he/she may issue an order on contract therefor to the Contractor who shall forthwith proceed with the performance of the work and the furnishing of the materials and equipment necessary for its accomplishment in accordance with the pertinent specifications.

No instructions, either written or verbal from any Department employee or agent shall be construed as an order for changes until receipt by the Contractor of written notification that an order-on-contract has been approved by the Department, or written notification from the Engineer that changes in the work are eligible and authorized for payment in accord with Section 697, Interim Payments. The Contractor may proceed with the work in advance of the approved order-on-contract if the Contractor has received an approved Authorization of Additional Work from the Construction Division.

Otherwise, payment for any unforeseen work shall be made only if the contractor complies or has complied with all of the provisions of §105-14, §109-05 and §109-16 as applicable.

104-04 CLOSING OF HIGHWAY. The legal closing of a highway to public travel in the manner provided by 104 of the Highway Law will be done by the Commissioner of Transportation or by the County Superintendent of Highways when requested by the Department. All highways are not so closed during highway construction operations.

When a highway is legally closed and public travel diverted therefrom to adequate warning, danger and direction signs and lights shall be erected and maintained by the Contractor to properly protect and direct public travel by day and by night. Suitable barricades shall also be erected at the ends of such closed sections of highways and large signs displayed indicating such closure. All signs, barricades and other traffic control devices used shall conform to the New York State Manual of Uniform Traffic Control Devices.

104-05 RESTRICTED HIGHWAY USE. With the award of a contract the Commissioner of Transportation will, unless otherwise specified, designate the section of highway under contract a “Restricted Highway” pursuant to Section 104A of the Highway Law and Section 1625 of the Vehicle and Traffic Law. Pursuant to these legal sections, the Commissioner has the authority to (1) establish maximum and minimum speed limits at which vehicles may proceed along any such Restricted Highway; (2) establish weight and dimension limits of vehicles; (3) regulate the use of such Restricted Highway by pedestrians, equestrians, and animals; (4) regulate parking, standing, stopping, and backing of vehicles; (5) control persons and equipment engaged in work on such highway. When used on such Restricted Highways, all traffic control devices shall be considered as official traffic control devices and shall conform to the Manual of Uniform Traffic Control Devices.

The Commissioner will therefore cause signs indicating such restrictions to be placed at such points as deemed necessary for the safe use of the Restricted Highway. The traveling public and the Contractor must observe and comply with these restrictions, as posted, except that the Contractor may be allowed greater latitude with respect to size and weight of construction equipment.

Construction equipment or vehicles shall be operated on Restricted Highways as provided under §105-12, Construction Equipment.

104-06 SITE HOUSEKEEPING The project site shall be cleaned up at the close of each work day, and be left in an orderly condition. Waste and debris shall be removed from the work site and surrounding areas cleaned of debris or waste generated from the work site. Containers shall be provided for the collection and separation of waste, and garbage and other waste shall be disposed of at frequent and regular intervals. Any salvaged material not specified to be disposed of otherwise, shall become

1-54

NEW YORK STATE DEPARTMENT OF TRANSPORTATION
STANDARD SPECIFICATIONS of January 2, 2002
the property of the Contractor and shall be removed from the site.

104-07 METHODS AND EQUIPMENT. Where particular methods or equipment are specifically required in these specifications, the Contractor may apply in writing to the Regional Director to use alternate methods and equipment to provide the same results. Such alternates may be used only after favorable recommendation by the Regional Director and the written approval of the Director, Construction Division. When, in the opinion of the Regional Director satisfactory results are not being obtained using the Contractor’s alternate methods and equipment the methods and/or equipment shall be immediately modified to produce satisfactory results.

104-08 WARRANTIES AND GUARANTEES. The Contractor shall provide to the Department, or the authority having jurisdiction of the facility, any manufacturer’s warranties and guarantees normally given as customary trade practice. Manufacturer’s warranty periods shall begin on the date the item is installed and/or incorporated into the work. All warranty documentation, including but not limited to operating instructions, schematics, parts lists and/or repair information shall be turned over to the Engineer. For contracts involving the furnishing and/or installing of electrical and mechanical equipment, the Contractor, in addition to the requirements above, shall guarantee the satisfactory in service operation of mechanical and electrical equipment and related components for a period of 6 months following contract acceptance, at no cost to the State for either parts or labor. The requirements of this subsection do not apply where the mechanical and electrical equipment is furnished by the State.

104-09 RETENTION OF RECORDS. The Contractor shall retain all records for the balance of the calendar year in which they were made and for six (6) additional years thereafter. Required records shall include all accounts, papers, maps, photographs, or other documentary materials, regardless of physical form or characteristics, made or received by the Contractor in connection with the contract. Legible copies including microfilm copies, are acceptable, provided they are so arranged, identified, and indexed that any individual document, or component of the records, can be located with reasonable facility.

104-10 VALUE ENGINEERING CHANGE PROPOSAL (VECP).

A. Purpose and Scope. The purpose of a Value Engineering Change Proposal (VECP) is to encourage the use of the Contractor’s ingenuity and experience in arriving at alternative construction designs, methods, and procedures that result in a lower direct cost to accomplish a contract requirement. It is the intent of this provision to share with the Contractor any substantial direct cost savings which may be generated as a result of a VECP offered by the Contractor and approved by the Department. A VECP is a Contractor-initiated change request. If approved, the changes and payments will be authorized through the order-on-contract process (see Section 109, Measurement and Payment). Before a VECP can be implemented, it must pass through three approval processes: conceptual approval, formal approval, and order-on-contract approval. To expedite the review process, the Contractor has the option of jointly submitting the conceptual VECP and the formal VECP for simultaneous review. In addition, if the VECP receives formal approval, as part of the order-on-contract process the Contractor can request that the Department consider granting advanced authorization of additional work.

The VECP should produce direct cost savings to the Department and the public without, in the sole judgement of the Department, impairing essential functions and characteristics of the facility including but not limited to service life, economy of operation, ease of maintenance, desired appearance, and safety. The Contractor when developing a VECP must address the designer’s objectives, environmental permit requirements and regulations, commitments made to the public to mitigate the impact of construction, and other such concerns.

The ‘direct cost savings’ is the difference of the ‘construction savings’ generated by
implementing the VECP minus reasonable ‘design costs’ associated with the VECP. The ‘construction savings’ is the amount saved between what it would cost to construct the entire project without implementing the VECP and the cost to construct the entire project if the VECP is implemented. This includes any changes to quantities or unit prices across the entire project if affected by the VECP. If the estimated cost to construct the entire project without implementing the VECP differs from the contract bid for the project, supporting documentation to explain the variance must be provided. Reimbursable ‘design costs’ are specific to engineering changes (examples: design changes, plan sheet revisions, and quantity estimating). Expenditures toward proposal preparation (examples: scheduling, documentation, cost analysis, material research, etc.) are not reimbursable.

Indirect cost savings (time, user delay, railroad force account costs, inspection costs, etc.), although considered when reviewing the merits of the VECP, are not reimbursed. A VECP may alter the project schedule and milestone dates, which in turn could affect time-related contract provisions.

Proposals that reduce the time to complete the project, and only result in indirect cost savings, may be accepted based on the mutual benefit derived. These proposals will be evaluated in accordance with §104-10(F), Time Savings.

B. Submittal of Conceptual VECP. A conceptual proposal is required for all VECP. It should outline the general technical concepts associated with the VECP and the estimated direct cost savings which may result. Upon review by the Department, one of the following actions will be taken:

- Conceptual approval, and a request for the Contractor to submit a formal VECP.
- Request for additional information
- Rejection of the VECP

The conceptual VECP should contain sufficient information for concept review and evaluation. An original and three copies of the conceptual VECP shall be submitted to the Engineer along with any additional information requested by the Department. The conceptual VECP will include the following as a minimum:

1. A summary of the VECP identified as ‘Conceptual VECP’ which includes:
   a. Short title (description) of the VECP (10 or less words).
   b. Contract information (Contract D number, PIN, project description, contractor, federal aid number if applicable, letting date, Region, and county).
   c. Original contract bid for the entire project.
   d. Estimated contract cost. This may be different from the original contract bid due to addition or alteration of work (i.e., the estimated cost to construct the project if the VECP is not implemented). The Engineer must concur with the estimated contract cost.
   e. Estimated contract cost if the VECP is implemented (excludes VECP design cost and any VECP construction savings reimbursement).
   f. Estimated VECP construction savings (Item d. minus Item e.).
   g. Estimated VECP design cost (Not all VECP will have design cost).
   h. Estimated direct cost savings due to the VECP (Item f. minus Item g.).
   i. Fifty percent (50%) of the estimated direct cost savings (This should equal the overall savings to the State).
   j. Estimated total adjusted contract cost if VECP is implemented (includes VECP savings and design cost reimbursements).
   k. The type of VECP (either ‘Cost Savings’ or ‘Time Savings Only’).
   l. Any date by which the authorization of additional work (O.O.C.) must be granted. (If time sensitive, requests for advance Authorization of Additional Work per §104-03, Contingencies, Extra Work and Deductions will be considered.)
   m. Identify any new or existing pay items requiring agreed prices.
n. Identify any materials with long lead times (to order, fabricate, deliver, etc.) that may require purchase authorization from the Engineer prior to formal approval/disapproval of the VECP, or may delay the implementation of the VECP. Identify any date by which authorization to order these materials must be received without affecting the project schedule.

o. A basic description of the VECP and associated benefits and impacts (project schedule, environmental, maintenance & protection of traffic, quality, etc.).

2. Conceptual plan drawings.
3. If the VECP proposes design changes, supporting technical design criteria shall be provided.
4. Schedules.
   a. The most recently approved baseline project schedule.
   b. The most recently approved construction progress schedule.
   c. A draft, proposed, revised project schedule illustrating the impacts of the VECP. The schedule shall identify:
      (1) the time required to develop a formal VECP;
      (2) the time required to order, fabricate, and deliver materials with long lead times;
      (3) the time required to obtain any environmental permits or other required approvals;
      (4) any anticipated project schedule changes (contract completion date, milestone dates, task durations, etc.);
      (5) the latest date by which authorization of the VECP order-on-contract work must be granted without affecting the schedule. The draft project schedule should provide a sufficient level of detail upon which the reasonableness of the VECP can be determined.

Should the Department find that insufficient time is available for review and processing, it may reject the VECP solely on such basis. If the Department fails to respond to the VECP by the date specified, the Contractor will consider the VECP rejected and will have no claims against the State as a result thereof. The Department may accept a VECP that requires a contract time extension if sufficient cost savings are anticipated.

5. Estimate of costs. The conceptual VECP estimate of costs should include sufficient information to determine the reasonableness of the VECP. If the proposal requires the ordering of materials, the Contractor needs to provide documentation from the suppliers to justify the cost of the materials.

6. A description of any previous use or testing of the VECP on another Department project or elsewhere and the conditions and results therewith. The Contractor shall submit the technical aspects of the VECP in sufficient detail so the Department can determine the suitability of the VECP from an engineering perspective. If the technology is new, test information must be provided to the Department’s satisfaction. If a similar VECP was previously submitted on another Department project, indicate the date, contract number, and the action taken by the Department.

C. Submittal of Formal VECP. Upon notification by the Engineer that the conceptual VECP is approved and a formal VECP is necessary, the Contractor will submit to the Engineer an original and three copies of the following materials and information for each formal VECP along with any additional information requested by the Department:

1. A summary of the VECP, identified as ‘Formal VECP’, which follows the conceptual VECP summary format and information requirements (Information and estimates may have changed since the conceptual VECP).

2. Complete plans and specifications, which meet Department standards, showing the proposed changes relative to the original contract features and requirements. The Department requires a Professional Engineer’s stamp and signature on any significant engineering changes.
§104-10

3. Field change sheets and/or shop drawings. If the VECP results in a field change, and those items affected require the submission of shop drawings, the shop drawings will not be accepted unless accompanied by corresponding field change sheets. Documents shall be developed in compliance with Department requirements. The Department requires a Professional Engineer’s stamp and signature on any significant engineering changes.

4. Schedules. The same information requirements as for the conceptual VECP apply. Except a formal (not draft), proposed, revised project schedule is required which meets Department standards.

5. A complete cost analysis indicating quantity changes, unit price changes, and new pay items. As a minimum it shall include:
   a. An itemized comparison of estimated costs to construct the entire project with implementing the VECP and without implementing the VECP.
   b. Proposed unit prices for any new pay items introduced by the VECP and appropriate documentation for review under the Agreed Price process.
   c. Proposed unit prices for any existing pay items for which agreed prices are sought due to a significant change in character of work (quantity or complexity), see §109-16A(3), Significant Changes in the Character of Work. Appropriate documentation for review under the Agreed Price process is required.
   d. The cost of any items with long lead times (e.g., materials ordered) required after conceptual approval and before final approval shall be identified.

6. Full descriptions of the difference between the existing contract requirements and the proposed changes, and the comparative advantages and disadvantages of each, including considerations of service life, economy of operation, ease of maintenance, traffic flow, safety, desired appearance, project schedule, and any increase/reduction of environmental impacts.

7. The Contractor may be required to conduct a technical presentation as part of the review process.

8. All formal VECP costs submitted must be supported by documentation as required in §109-05, Extra Work, Force Account Work, Dispute Compensation, and Recordkeeping.

The Department will not formally approve any VECP until all required VECP documentation has been submitted and is acceptable to the Department.

A formal VECP may be submitted concurrently with the conceptual VECP. However, the Contractor assumes any costs associated with the formal VECP at their own risk. Reimbursable costs will be considered only if the conceptual VECP is approved. Clearly identify whether a VECP is being submitted for conceptual approval, formal approval, or both.

Once a VECP has been formally approved, the VECP must then be submitted as an order-on-contract and processed accordingly (see Section 109, Measurement and Payment). If time sensitive, requests for advance Authorization of Additional Work per §104-03, Contingencies, Extra Work and Deductions will be considered, but only after formal VECP approval. The Contractor is responsible for submitting all appropriate information to the Engineer in a timely manner.

**D. Conditions.** The Contractor shall not base any bid prices on the anticipated approval of a VECP and should recognize that any VECP may be rejected. The following terms and conditions apply to VECP.

1. A VECP will only be considered after the contract is awarded.
2. A VECP applies only to the contract for which it was submitted. One VECP shall not be submitted for multiple contracts. Approval or disapproval of a VECP on one contract does not guarantee approval or disapproval on another contract.
3. The VECP becomes the property of the Department and will contain no restrictions imposed by the Contractor on its use or disclosure. The Department will have the right to use,
duplicate, and disclose in whole or in part any data necessary for the utilization of the VECP. The Department retains the right to utilize any accepted or rejected VECP or part thereof on any other project without any obligation to the Contractor.

4. Approval of the conceptual VECP in no way obligates the Department to approve the formal VECP. Further, the Contractor will have no claim against the Department as a result of the rejection of any such conceptual or formal VECP except as otherwise provided in §104-10(E)(4), Payment.

5. When the Department is in the process of making design and specification revisions and a Contractor submits a VECP with similar revisions, the Department will reject the VECP and proceed without any obligation to the Contractor.

6. A VECP will be considered only if reasonable, cost-effective options are not provided in the contract documents.

7. The Department will be the sole judge as to whether a VECP qualifies for consideration and evaluation. It may reject any VECP that requires excessive time or costs for design review, evaluation, and/or investigations. The Department will be the sole judge in determining if the proposed VECP will result in a sufficient amount of direct or indirect cost savings to offset the Department’s effort to review the VECP.

8. A VECP must be consistent with the Department’s design policies and basic design criteria, provide the same service life or more, facilitate economy of operations, ease of maintenance, and achieve the desired appearance and safety. Otherwise, the VECP will not be approved.

9. A VECP will not be allowed that changes the type and/or thickness of the pavement structure and material, or solely substitutes one material for another. Examples of materials that may fall into this inappropriate substitution situation are drainage pipes, bridge coatings, pavement markings, etc. Also, the simple elimination of work does not necessarily constitute a VECP. However, a VECP which introduces a simple material substitution, or elimination of work, may be considered if it is accompanied by a design change or change in the construction method. Also, a simple material substitution which introduces a new material to the Department may be considered.

10. The VECP will not be experimental in nature, but will have been proven to the Department’s satisfaction under similar or acceptable conditions on another Department project or at another location acceptable to the Department.

11. If the Department requires any additional information to evaluate the VECP, this information must be provided in a timely manner. Unless otherwise mutually agreed upon, failure to do so will result in the rejection of the VECP. An incomplete or a poor quality VECP which hinders the Department’s review may also result in the rejection of the VECP.

12. The Contractor shall encourage submissions of VECP from an approved Subcontractor, provided that reimbursement is made by the Department to the Contractor and that the terms of payment to the subcontractor are satisfactorily negotiated and accepted before the VECP is submitted to the Department. Subcontractors may not submit a VECP except through the prime Contractor.

13. A VECP approved by the Department is considered to be a revision to the plans, specifications, estimates, and project schedule for the project. Consequently, if unsatisfactory results are being achieved or adjustments are necessary during implementation of a VECP, the rejection of work, removal of work, addition of work, or revision of work shall be evaluated in accordance with the Standard Specifications.

14. All pay items and quantities referenced in the VECP construction savings analysis must be Department-approved contract provisions. Any additional work, inclusion of an omission of work, or other field changes must be authorized prior to use in VECP savings calculations.

15. No work related to a VECP shall be performed under force account. Agreed prices must be reached for any pay items related to the VECP before the VECP is approved. However, if the Contractor is deemed to have taken reasonable diligence in determining the work involved.
but if during the construction of VECP work a significant change in the character of work occurs, the Department may consider new agreed prices.

16. The Contractor will receive written notification from the Department when the VECP is approved. The Contractor will not order any materials until they have received the approval. Otherwise, the Contractor does so at their own risk.

17. Once a VECP has been submitted, no work, whether it is the original contract work that might be affected by the VECP or the proposed VECP work, should be performed until the VECP has been formally approved or disapproved. If the Contractor opts to perform work during the approval process, they do so at their own risk. If a VECP is approved and implemented, no payments will be made toward any original contract work affected by the VECP which the Contractor may have performed at risk. If a VECP is disapproved or not implemented, no payments will be made toward any VECP work that the Contractor may have performed at risk. The Contractor should consider potential impacts to the project schedule and work limitations during the VECP approval process before submitting a VECP.

E. Payment. If the VECP is accepted by the Department, the changes and payments will be authorized through the order-on-contract process (see Section 109, Measurement and Payment).

Reimbursement to the Contractor will be made as follows:

1. A VECP introduces two individual payments, one for VECP construction savings, and one for VECP design cost. The pay item changes along with the VECP construction savings and design cost reimbursements to the Contractor should be submitted in one order-on-contract.

2. The Department will pay to the Contractor fifty percent (50%) of the VECP construction savings. The VECP construction savings is the difference between the actual contract costs with the VECP implemented and a detailed estimate of what it would have actually cost to construct the project without implementing the VECP, based on final construction. If final actual construction savings differs from the amount estimated in the formal VECP, an adjustment may be made and included in another order-on-contract. The VECP construction savings reimbursement to the Contractor will not be paid until the VECP work has been completed (progress payments on the actual VECP work are allowed). Furthermore, the Department may withhold all or a portion of the payment for the Contractor’s share of the VECP construction savings until the final project accounting. In the event that at final contract accountings the implementation of VECP actually results in no construction savings, then the necessary adjustments shall be made such that the Contractor receives no VECP construction savings payment. The Department is the sole judge in deciding on the actual construction savings due to the implementation of the VECP. Until the Contractor supplies all the VECP documents required by the Department, the Department can withhold the VECP construction savings reimbursement.

3. If a design cost is submitted for a VECP, the Department will pay to the Contractor a fifty percent (50%) share of the Contractor’s reasonable cost for design incurred after conceptual VECP approval. If the design cost submitted for Department approval is deemed unreasonable, only fifty percent (50%) of the design cost deemed to be reasonable will be reimbursed. Not every VECP will have a design cost associated with it. The Department is the sole judge in determining the reasonableness of the design cost. Reimbursable design costs are for engineering changes. Preparation and submission of the proposal (e.g., savings analysis, project scheduling, etc.) are not considered design costs and are not reimbursable. Reimbursable VECP design may be performed by a consultant or directly by the Contractor. The Contractor shall not be charged for, nor can the Contractor claim, any VECP design performed by the Department.

The design cost shall be submitted as a lump sum item with supporting documentation. The supporting documentation shall include itemized direct salary costs (rates & hours), overhead (only for consultant design), and direct non-salary costs. Payment for direct salary costs and overhead will be limited to the current Department reimbursement policies for
Consultant Engineering agreements.

For consultant design, reasonable overhead on the direct technical salaries will be reimbursed. For Contractor design, overhead is not reimbursable for direct salary costs. Overhead shall not be charged for direct non-salary costs whether incurred by the Contractor or by a consultant. Payment for direct non-salary costs will be made at actual cost paid. Although for certain direct non-salary costs (lodging, meals, mileage) there are prevailing maximum rates established by the State Comptroller which the reimbursement rates shall not exceed.

The subtotal of all direct salary costs, overhead, and direct non-salary costs shall be considered a ‘professional service fee’ and handled as per §109-05(B)(2)(c), Service Charges. Thus, a maximum five percent (5%) additional payment for the Contractor’s contract supervision and overhead is applicable. This is on top of any overhead submitted for consultant direct salary costs. The lump sum for the VECP design cost shall be the sum of the professional service fee and the additional (5% maximum) payment.

All design costs are subject to audit. Additional supporting documentation (recepits, time sheets, etc.) must be supplied in a timely manner if requested by the Department.

In the case of a formal VECP being jointly submitted with the conceptual VECP, the Department will pay to the Contractor a fifty percent (50%) share of the Contractor’s reasonable cost for design specific to the development of the formal VECP (nothing toward the conceptual VECP) if the conceptual VECP is approved.

4. In the event of the Department’s conceptual approval of a direct cost savings VECP, and the Contractor is directed to proceed with the VECP implementation steps and final approval is not reached, regardless of whether due to the actions of the Department or the Contractor, fifty percent (50%) of the total reasonable design costs will still be reimbursed to the Contractor.

If “advance” written approval was given to proceed with the work, procure materials, and begin fabrication; and rejection occurs, the work and fabrication costs will be reimbursed in accordance with §109-05, Extra Work, Force Account Work, Dispute Compensation, and Recordkeeping. Regarding materials, only those items not incorporated and unique to the project (i.e., not restockable) will be evaluated for payment under §109-05, Extra Work, Force Account Work, Dispute Compensation, and Recordkeeping.

5. There will be no reimbursement for any costs incurred for the conceptual VECP or prior preparations.

6. If more than one VECP is approved for a contract, construction savings and design costs shall be tracked separately for each VECP.

7. When multiple submittals of information for a VECP are required to satisfy the information needs of the conceptual or formal VECP procedure, and contract timing will be negatively impacted before review and subsequent approval can be given by the Department, then the VECP may be rejected. In such cases, there will be no claim by the Contractor for design costs or loss of anticipated savings and/or profits.

8. VECP payments only involve direct savings or costs. Indirect savings or costs (time, user delay, project delay, etc.) are not included in VECP payment calculations. The calculations of VECP payments are independent from the payments or penalties for contract time related issues. If a VECP revises the project schedule, the project milestones upon which time related contract provisions are based may be affected. Time savings resulting from a VECP can be realized in a time-related contract provision. Conversely, if a VECP negatively affects a project schedule, time-related contract provisions may be negatively affected.

F. Time Savings. The Department will consider proposals that result in time savings and at the same time may increase the cost of the project. The Department will be the sole judge as to whether the benefits of completing the project, or a project phase, before the scheduled completion date or milestone offsets any increase to the cost of the project. These submittals, while not constituting a Value Engineering Change Proposal, will be reviewed using the VECP approval
process. In addition to information required in §104-10(B), Submittal of Conceptual VECP and §104-10(C) Submittal of Formal VECP, the Contractor shall provide the Department the anticipated amount of time to be saved and sufficient information to enable the Department to calculate and evaluate the cost benefit of the savings in user delay. Time savings generated by the VECP may be claimed under an existing time-related contract provision. If the time savings VECP increases the cost of the project, the additional cost shall not be subtracted from any time-related contract provision payments.

G. Significant Changes. The description of what shall be construed as a ‘significant change’ and the specifications identified in §109-16A(3), Significant Changes in the Character of Work apply to significant changes associated with a VECP. Although once a VECP is approved, any future significant change is no longer based on the original contract bid conditions (quantity, nature or kind of a material involved), but rather on the conditions as adjusted by the VECP (adjusted quantities, anticipated site conditions and materials, etc.). In addition, any item that was identified as a ‘major item of work’ as per the original contract bid conditions, is still considered a major item of work regardless of the change in quantity or price due to the VECP.

Due diligence should be made to account for and agree upon all significant changes prior to formal VECP approval. However, if after formal VECP approval an unforeseen change in the VECP work causes a significant change in the character of work, quantities and prices may be adjusted and the VECP savings shall be adjusted accordingly.

SECTION 105 - CONTROL OF WORK

105-01 STOPPING WORK. The Engineer may stop by written order any work or any part of the work under the contract if the methods or conditions are such that unsatisfactory work might result, or if improper material or procedure is being used or if the Contractor fails to comply with any contract requirement or with any provision of the contract specifications, proposal or contract plans or with any State or Federal law or regulation or the conditions of the project are considered to be sufficiently deficient as to seriously affect the safety of the public or the persons employed for the construction of the project, or major non-conformance with the maintenance and protection of traffic provisions in the contract is causing serious disruptions to traffic operations. The Contractor shall not be entitled to any additional monetary compensation for such a work stoppage. Any work completed in violation of a written stop order will not be paid for even if subsequently determined to be acceptable.

Any work completed in violation of a written stop order will not be paid for even if subsequently determined to be acceptable.

105-02 ORDERS TO FOREMAN. Whenever the Contractor or its superintendent is not present on any part of the work where it may be desired to give directions, orders will be given by the Engineer or his/her representative and shall be received and obeyed by the Foreman who may have charge of the particular work in reference to which the orders are given. All Foremen shall speak English.

105-03 ACCURACY OF PLANS AND SPECIFICATIONS. The detail plans and specifications for the contract have been prepared with care and are intended to show as clearly as is practicable the work required to be done. The Contractor must realize, however, that construction details can not always be accurately anticipated and that in executing the work, field conditions may require reasonable modifications in the details of plans and quantities of work involved. Work under all items in the contract must be carried out to meet these field conditions to the satisfaction of the Engineer and in accordance with his/her instructions and the contract specifications.

The Contractor shall take no advantage of any apparent error or omission in the plans or specifications. In the event the Contractor discovers an error or omission in the plans or specifications, it shall immediately notify the Engineer. The Engineer will then make such corrections and
105-04 CONFORMITY WITH PLANS AND SPECIFICATIONS. All work performed and all materials furnished shall be in reasonably close conformity with the lines, grades, cross sections, dimensions and materials requirements, including tolerances, shown on the plans or indicated in the specifications.

Plan dimensions and contract specification values are to be considered as the target value to be strived for and complied with as the design value from which any deviations are allowed. It is the intent of the specifications that the materials and work quality shall be uniform in character and shall conform as nearly as realistically possible to the prescribed target value or to the middle portion of the tolerance range. The purpose of the tolerance range is to accommodate occasional minor variations from the median zone that are unavoidable for practical reasons. When a maximum or minimum value is specified, the production and processing of the material and the performance of the work shall be so controlled that material or work will not be preponderantly of borderline quality or dimension.

In the event the Engineer finds the materials or the finished product in which the materials are used not within reasonably close conformity with the plans and specifications but that reasonably acceptable work has been produced, he/she shall then make a determination if the work shall be accepted and remain in place. In this event, the Engineer will document the basis of acceptance by contract modification which will provide for an appropriate adjustment in the contract price for such work or materials as he/she deems necessary to conform to his/her determination based on engineering judgment.

In the event the Engineer finds the materials or the finished product in which the materials are used or the work performed are not in reasonably close conformity with the plans and specifications and have resulted in an inferior or unsatisfactory product, the work or materials shall be removed and replaced or otherwise corrected by and at the expense of the Contractor.

All traffic control devices (signs, signals, markings and devices placed by the authority of a public body or official having jurisdiction for the purpose of regulating, warning or guiding traffic) shall be in conformity with the edition of the New York State Manual of Uniform Traffic Control Devices which is current on the date of advertisement for bids.

105-05 PROJECT RECORDS. The Engineer will keep project records in accordance with the Manual of Uniform Record Keeping (MURK). Such changes as are made in subsequent revisions of the Manual will be incorporated in the project procedures and records unless authorized to the contrary in writing by the Director, Construction Division. The Contractor is invited to review the MURK with the Engineer if desired. In several instances (such as Force Account work, application for approval of subcontractors, etc.) the Contractor shall furnish such data and information on the forms as established in MURK. The Engineer will furnish the appropriate forms.

105-06 INTERPRETATION OF PLANS. In case of any difference in the interpretation of the plans, specifications or maps, or between them, the matter must be immediately submitted to the Commissioner of Transportation, who shall adjust the same, and his/her decision in relation thereto shall be final and conclusive.

105-07 TERMINATION CLAUSE. The Commissioner may, by written notice, terminate the contract or any portion thereof after determining that for reasons beyond either Department or Contractor control it is not feasible to proceed with or complete the work originally contracted for, and that termination would therefore be in the public interest. Such reasons for termination may include, but need not be necessarily limited to, executive orders of the President relating the prosecution of war or national defense, national emergency which creates a serious shortage of materials, orders from duly constituted authorities relating to energy conservation, and restraining orders or injunctions obtained by third-party citizen action resulting from national or local laws or regulations, or where the issuance of such order...
§105-07

or injunction is primarily caused by acts or omissions of persons or agencies other than the Contractor, or where the orderly progression of a project is interfered with or delayed by acts or omissions of persons or agencies other than the Contractor. The Contractor specifically understands that the issuance of such notice by the Commissioner shall be conclusive as to its necessity.

When the contract, or any portion thereof is terminated, for any of the above mentioned reasons, before completion of all items of work in the contract, payment will be made for the actual numbers of units or items of work completed at the contract unit price, or as mutually agreed for items of work partially completed, but no claim for loss of anticipated profits on uncompleted work shall be made by the Contractor nor shall the State of New York be liable for the loss of anticipated profits for such uncompleted work.

In such cases of termination, reimbursement for organization of the work (when not otherwise included in the contract) and moving equipment to and from the job will be considered where the volume of work completed is too small to compensate the Contractor for these expenses under the contract unit prices, the intent being that an equitable settlement will be made with the Contractor.

Acceptable materials, obtained by the Contractor for the work, that have been inspected, tested and accepted by the Engineer, and that are not incorporated in the work, shall be returned to the supplier or manufacturer whenever it is possible to do so at nominal or no cost. Where the Contractor returns such materials to its supplier or manufacturer, the State will pay the Contractor the actual documented costs connected with returning such materials to the extent such costs are reasonable as determined by the Department. In the event the Contractor is unable to return such material at reasonable or no cost, and provides documentation satisfactory to the Department that such material can not be economically returned, the State shall be responsible for all such material and shall either direct the manner of disposition or purchase such material from the Contractor at actual cost as shown by receipted bills and actual cost records to the extent such costs are reasonable as determined by the Department, at such points of delivery as may be designated by the Engineer.

Termination of a contract or a portion thereof shall not relieve the Contractor of its responsibilities for the completed work, nor shall it relieve its surety of its obligation for and concerning any just claims arising out of the work performed.

105-08 COOPERATION BY THE CONTRACTOR. The Contractor shall give its constant personal attention to the work while it is in progress or it shall place it in charge of a competent and reliable English speaking superintendent, who shall have authority to act for the Contractor and who shall be acceptable to the Engineer. The Contractor shall, at all times, employ labor and equipment which shall be sufficient to prosecute the several classes of work to full completion in the manner and time specified. All workers must have sufficient skill and experience to properly perform the work assigned them. All workers engaged on special or skilled work shall have had sufficient experience in such work to properly and satisfactorily perform it and operate the equipment involved. Any person employed by the Contractor whom the Engineer may deem incompetent or unfit to perform the work shall be at once discharged, and shall not be again employed. In case of a disagreement with the Contractor regarding the discharge of such employees, the matter may be reviewed by the Commissioner.

105-09 WORK AFFECTING RAILROADS

A. Supervision. All work on any project affecting a railroad company’s property, right-of-way facilities, including temporary track detour, shall be carried out under the joint supervision of the Department of Transportation and the railroad company or companies in a manner satisfactory to both these agencies.

B. Railroad Approval. The Contractor shall obtain the written approval of the Chief Engineer of the railroad company or companies affected in respect to the details and methods to be employed in constructing any structures, track detours, falsework, removal of structures, allowable track clearances, and any or all other details that may in any manner affect the operation or maintenance
§105-09

of any or all railroad facilities. Equipment used for the erection, or removal of structures over railroad facilities, shall have a minimum lifting capacity of one hundred-fifty percent (150%) of the lift weight (Operational capacity limited to sixty-six and two-thirds (66⅔%) of the tipping load). The requirement that written approval shall be obtained from the Chief Engineer of the railroad company shall be complied with before the Contractor begins actual construction work. The Contractor shall include in its unit prices bid for this work all the costs of these requirements including any expense occasioned by delay or interruption of its work by reason of the operation or maintenance of the railroad facilities. Approval by the Chief Engineer of the railroad company or companies affected does not absolve the Contractor from any liability resulting from its contractual operations.

C. Railroad Clearances. No temporary bridge, falsework, staging or obstructions shall be erected over the track or tracks where the vertical underclearance is less than 22 feet (6706 mm) over top of rail until the existing bridge warnings have been relocated or new or temporary bridge warnings are installed by the railroad company or companies affected and are in service.

The Contractor shall so conduct its work and handle its equipment that no part of any material or equipment shall foul an operated track or wire lines without written permission of the Chief Engineer of the railroad company or companies affected. When the Contractor desires to foul an operated track it must give the Chief Engineer of the railroad company or companies affected at least eight days notice, in writing, of its intentions so that the proper protection can be arranged. An operated track is fouled when any object is brought closer than the clearances set forth by the railroad company. Absolute minimum temporary underclearance above top of high rail shall be as indicated on the plan or in the proposal. Cranes, shovels and any other equipment shall be considered to be fouling the track when located in such a position that failure of same with or without load brings the equipment within the fouling limit. A power line wire is fouled when any object is brought to a point less than six feet (1829 mm) therefrom.

D. Railroad Employees. When, in the opinion of the Chief Engineer of the railroad company or companies the Contractor's normal operations in progressing its contract are such that an operated track is or might be fouled or railroad traffic endangered, the railroad company or companies will employ protective labor, when found necessary for railroad operations. Unless an item for railroad protection is included in the contract, payment for the services described above shall be made to the railroad company directly by the State pursuant to the terms of a State-Railroad agreement negotiated for the contract. When an item for railroad protection is included in the contract, the Contractor shall pay for such services.

All services for protective labor and similar protective service occasioned by the operation of the Contractor, except as noted in the preceding paragraph shall be at the sole expense of the Contractor and the Contractor shall include all such costs in its unit bid prices for such protection.

The Contractor shall, at its own expense, carry compensation and other insurance for protective labor furnished by the railroad company or companies.

It is agreed that the furnishing of any protective labor shall not relieve the Contractor from any liability of payment for any damage caused by its operations.

E. Foundations. Foundations may be extended or lowered if deemed necessary by the D.C.E.S. of the Department of Transportation and the Chief Engineer of the railroad company or companies affected only if such change is ordered by the D.C.E.S. of the Department of Transportation. Any and all increases in quantities caused by changes of this character will be paid for at the unit prices bid for the respective items involved.

F. Contractor's Private Grade Crossing. If the Contractor elects, and the railroad company or companies approve, to have installed for its own use, a private grade crossing at the site of the work, it shall make a formal request to the railroad company or companies for such a crossing. After it has entered into an agreement with the railroad company or companies pertaining to the
§105-09

size and type of crossing, the payment of the cost for installing, and removing the crossing, the obtaining of the necessary insurance for the protection of the railroad company or companies, and the agreement as to the required protection to railroad traffic when the crossing is in use, the railroad company or companies will install and remove the temporary crossing at the sole expense of the Contractor.

G. Sidetrack Facilities. When sidetrack facilities are required by the Contractor, it shall at its sole cost and expense, make the necessary arrangements for the use of existing sidings, tracks not in service or the construction of new sidings. It shall, at its sole cost and expense, restore any and all existing sidings and tracks used for sidetrack facilities to the condition existing prior to its or their use by the Contractor. The construction location and use of all sidetrack facilities are to be subject to the approval of the Chief Engineer of the railroad company affected.

It shall be understood that the railroad company may move the Contractor’s cars, placed on existing sidings, at any time, to permit the placing of cars for said railroad company’s business.

When any turnouts from the main tracks are approved by the railroad company such turnouts will be furnished, installed and removed by the railroad company at the expense of the Contractor. Any signal work and derailers necessary for sidetrack facilities will be furnished, installed and removed by the railroad company at the Contractor’s expense.

When available from railroad stock, the railroad company will furnish on the request of the Contractor, at its current prices plus its usual overhead for labor and materials, such materials as may be required for the restoring of existing sidings used for sidetrack facilities and for the construction of additional sidetracks.

H. Use of Explosives. Blasting shall be conducted in such a manner as not to endanger the public or obstruct highways or endanger facilities or operation of the railroad. The Contractor shall furnish, while blasting, at its own cost and expense, watch persons and other protection necessary to protect the public and railroad.

The Contractor’s attention is directed to §107-05, Safety and Health Requirements, with regard to blasting.

I. Railroad Use of Completed Work. The Contractor agrees that the railroad company affected may, prior to the completion of the work to be performed under contract and the acceptance thereof, enter upon and use any portion of said work without any compensation whatever to the Contractor for such use, and without any compensation or payment whatever to the Contractor for any delay in the work caused by such use. The taking possession and use shall not be deemed an acceptance of the work so taken and used or any part thereof.

J. Protection of Railroad Service and Facilities. The Contractor shall take special care and vigilance to avoid injury to the trains, tracks or other facilities of the railroad company and shall conduct its work so as not to interfere with the movement of trains or other operations of the railroad company. Whenever work may affect the safety or movement of trains, the method of doing the work shall first be submitted to the Chief Engineer of the railroad company affected for his/her approval, and no work affecting such safety or movement of trains shall be commenced or prosecuted until written approval of the Chief Engineer of the railroad company is received. It is understood that the approval of the Chief Engineer of the railroad will not release the Contractor from any responsibility for any damages to the railroad company caused by the acts of the Contractor or its employees and subcontractors. If, during the carrying out of the contract work, the trains, tracks or other facilities of the railroad company are endangered, the Contractor shall immediately do such work as directed by the Engineer to restore safety and, upon failure of the Contractor to carry out such orders immediately, the railroad company may, with the approval of the Engineer, take whatever steps are necessary to restore safe conditions. The cost and expense to the railroad company of restoring safe conditions or of any damage to the railroad company’s trains, tracks or other facilities caused by the Contractor’s operations shall, when approved by the
Engineer, be considered a charge against the Contractor and shall be paid for by it, or upon its failure or refusal to pay such charge within a reasonable time after the railroad company submits the bill to it, the amount thereof may be deducted from any monies due or that may become due to it under its contract, and any such sum so deducted may be paid to the railroad company after an audit by the State of the items of such cost and expense.

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

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

The work required to protect the railroad track ballast shall be performed by and at the expense of the Contractor and under the supervision of and to the satisfaction of the Chief Engineer of the railroad company or its authorized representative. The railroad company will assume no responsibility for the adequacy of the work.

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

K. Coordination of Work. The Contractor shall be responsible for the coordination of the work of its various subcontractors. The Contractor shall coordinate with the railroad company or railroad companies in carrying out railroad force account work. When the work of the Contractor or subcontractor dovetails with the railroad force account work, the materials shall be delivered and the operations conducted so as to carry on the work continuously in an efficient and skillful order. Delays or oversight on the part of the Contractor or subcontractors in getting any or all of their work done in the proper way, thereby causing cutting, removing and replacing of work already in place shall not be the basis for a claim for extra compensation. Such work shall be done at the cost and expense of the offending Contractor or subcontractor.

L. Railroad Equipment. It is agreed that if the Contractor elects to use work trains or any railroad equipment which operates on the tracks of the railroad company, the operation of such trains and equipment is subject to any requirements determined by the Chief Engineer of the railroad company or companies affected. It is understood that the cost of the services of any railroad employees required by the railroad company to operate such trains or equipment is to be paid by the Contractor. This shall include the cost of necessary flagmen.

M. Operation of Railroad. The Contractor shall make every possible effort to reduce to a minimum the length of time that railroad company will have to operate over any track detour, and to this end it shall continue full operation throughout the winter months, if directed by the D.C.E.S. on any and all works necessary to permit the railroad company to restore its tracks in their permanent location as quickly as possible.

The Contractor shall conduct its work so that schedule speed can be maintained by the railroad at all times.

N. Telephone, Telegraph and Signals. The cost of all changes in telegraph, telephone and signal lines made necessary to clear the site for the structures, shall be charged to the project. The cost of all changes in telegraph, telephone and signal lines made for the convenience of the Contractor shall be paid for by the Contractor as part of its construction costs.
§105-10

105-10 SURVEY AND STAKEOUT. Prior to the start of related construction, all right-of-way and survey markers located in or adjacent to areas which may be disturbed during construction shall be properly tied to fixed points or located from project control by a licensed Land Surveyor. Upon the completion of the work, any right-of-way and survey markers that have been disturbed shall be properly re-set under the direction of a licensed Land Surveyor.

If the contract does not contain a pay item for Survey and Stakeout, the Contractor will be provided horizontal and vertical control throughout the length of the project by properly marked offset or reference stakes placed by the Engineer. The Contractor shall carefully preserve all such stakes and marks. The Contractor shall furnish, free of charge, all labor, stakes, paint, marking devices, other materials and such temporary structures as may be necessary for the Engineer to provide horizontal and vertical control for the work and to make necessary measurements for payment and records. The Contractor shall keep the Engineer informed of its schedule in accordance with §108-01, and shall clear survey lines in advance in order to permit unimpeded survey work. When the work is ready for fine grading, the Engineer will set accurate grade on stakes or pins located in the roadway, furnished and driven by the Contractor. These pins shall be carefully preserved by the Contractor.

If a contract contains a pay item for Survey and Stakeout, the Contractor shall furnish, free of charge, all labor, stakes, paint, marking devices, other materials and such temporary structures as may be necessary for the Engineer to make necessary measurements for payment and records. The Contractor shall keep the Engineer informed of its schedule in accordance with §108-01, and shall clear survey lines in advance in order to permit unimpeded survey work by the Engineer.

105-11 INSPECTION

A. Inspection. Department Inspectors shall be authorized to inspect all work done and materials furnished, including all or any part of the work and the preparation, fabrication or manufacture of the materials to be used. Inspection shall include, but not be limited to the Contractor's compliance with applicable safety requirements set forth in §107-05 and all aspects of Section 619. The Inspector or inspecting agent is not authorized to either alter or waive the provisions of these specifications or the contract, or to issue instructions contrary to the plans and specifications, without written approval of the Engineer, or act as foreman for the Contractor. However, he/she shall have the authority to reject unacceptable work or materials.

The Department inspections and tests are for the sole benefit of the Department and do not (1) relieve the Contractor of the responsibility for providing adequate quality control measures; (2) relieve the Contractor of responsibility for damage to or loss of the material before acceptance; (3) constitute or imply acceptance; or (4) affect the continuing rights of the Department after acceptance of the completed work under Article 9 of the contract.

B. Inspection of Work. All materials and each part or detail of the work shall be subject to inspection by the Inspector and the Engineer. The Engineer and the Inspector shall be allowed full work access and shall be furnished with necessary information and assistance by the Contractor to make a complete and detailed inspection.

C. Removal of Unacceptable and Unauthorized Work. All work which does not conform to the requirements of the contract shall be considered unacceptable unless otherwise determined acceptable under the provisions in §105-04, Conformity with Plans and Specifications.

Whenever the Regional Director shall consider it necessary to remove any portion of the work executed under this contract for inspection or for any other purpose, no payment shall be made for such removal or for replacement of the work to satisfactory condition in case such inspection shows that the work was not constructed in accordance with the terms of the contract; nor shall payment be made for the removal or replacement of any work which may itself be satisfactory, but the removal of which is necessary for the replacement of unsatisfactory work. However, if such
inspection shows that the work was constructed in accordance with the terms of the contract, payment shall be made to the Contractor for such removal and subsequent replacement at a fair and reasonable price, arrived at through an order on contract for the work performed. No payment shall be made in such removal and replacement situations if work was done or materials furnished without inspection by an authorized Department representative.

The above paragraph shall not apply to concrete foundation for pavement or cement concrete pavement rejected as a result of core tests. Work so rejected shall be removed and replaced at the expense of the Contractor.

All work shall be in first-class and satisfactory condition at the time of acceptance of the contract. Any work done or materials used without inspection by an authorized Department representative may be ordered removed and replaced at the Contractor’s expense.

Unacceptable work, whether caused by poor work, defective materials, damage through carelessness or any other cause found to exist prior to the final acceptance of the work, shall be removed immediately and replaced in an acceptable manner irrespective of the presence of, or lack of, a Department Inspector or representative. This clause shall have full effect regardless of the fact that the defective work may have been done or the defective materials used with the full knowledge of the Inspector. The fact that the Inspector or Engineer may have previously overlooked such defective work shall not constitute an acceptance of any part of it.

105-12 CONSTRUCTION EQUIPMENT. It is the intent of these specifications to permit the use of the most efficient equipment that is consistent with conditions at the time of use. It is anticipated that seasonal or weather conditions combined with the nature of the terrain will often require the use of lighter and smaller equipment than might be used under optimum conditions.

Construction equipment or vehicles delivering materials or traveling to a project from outside the contract limits shall have all required permits issued through the established Department vehicle permit system in accordance with Section 385 of the Vehicle and Traffic Law (or Title 23 of the United States Code, Section 127 for Federal Aid Projects on the Interstate System). The permit will indicate the limits within which such equipment with over-legal gross weights or axle loadings may operate, the frequency of such passages and all other limiting factors.

Construction equipment or vehicles operating within the contract limits having gross weights or axle loadings within the legal limits Section 385 of the Vehicle and Traffic Law (or Title 23 of the United States Code, Section 127 for Federal Aid Projects on the Interstate System) may operate without specific approval.

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

Use of over-weight construction equipment or vehicles on portions of the project other than listed above shall be subject to the approval of the Engineer. If it is determined that the use of construction equipment or vehicles is having a detrimental effect or will result in detrimental effects on the finished highway, the Engineer will so notify the Contractor to modify or cease the operations.

105-13 WINTER EARTHWORK OPERATIONS. Earthwork construction operations requiring compaction shall not be performed from November 1 to April 1 except with the written permission of, and under such special conditions and restriction as may be imposed by the Regional Director.