

SECTION 105 -- CONTROL OF WORK

105.01 -- Authority of Engineer

1. The Engineer will decide all questions regarding:
 - a. The quality and acceptability of materials furnished.
 - b. The work performed.
 - c. The manner of performance and progress of the work.
 - d. Interpretation of the plans and *Specifications*.
 - e. Fulfillment of the contract by the Contractor.
 - f. Compensation.
 - g. Disputes pertaining to mutual rights between Contractors.
 - h. Determination of the existence of differing site conditions.
 - i. Determination of working days or calendar days.
 - j. Working drawing details.
2. The Engineer's decisions shall be final, and he/she shall have authority to enforce those decisions and orders which the Contractor fails to carry out promptly.
3. a. The Engineer will have the authority to suspend the work either wholly or partially if the Contractor fails to:
 - (1) Correct conditions unsafe to project personnel or the public.
 - (2) Carry out provisions of the contract.
 - (3) Carry out orders of the Engineer.
 - (4) Follow the plans and specifications.
- b. Work may also be suspended by the Engineer for:
 - (1) Conditions considered unsuitable for prosecution of the work.
 - (2) Any other reason deemed in the public interest.
- c. The Engineer shall notify the Contractor in writing of all suspensions.

105.02 -- Plans and Working Drawings

1. The plans will be supplemented by such Contractor provided working drawings as are necessary to adequately control the work. It is mutually agreed that all authorized alterations affecting the requirements and information given in the plans shall be in writing and reviewed by the Engineer.
2. Contractor provided working drawings for any structure shall consist of such detailed plans as may be required of the Contractor for the prosecution of the work. They shall include but are not necessarily limited to shop details. The Contractor shall not perform any fabrication work until the shop details have been reviewed by the Engineer. Erection plans, masonry

layout diagrams, and plans for cribs, cofferdams, falsework, and form work, as well as any other working drawings not previously mentioned, may be required of the Contractor and shall be subject to the Engineer's review.

3. No changes shall be made in any plan or drawing after it has been reviewed except by a written acknowledgement from the Engineer. It is expressly understood that the Engineer's review of the Contractor's working drawings will not relieve the Contractor of any responsibility.

4. The contract prices include the cost of furnishing all working drawings.

5. The Contractor shall furnish shop plans on 22 x 36 inch sheets with 1/2 inch margins on all sides except the left side, which shall be 2 inches. The margin lines shall measure 21 x 33 1/2 inches. The marking shall be in accordance with the special plans or as may be required by the Engineer. All prints which are furnished to the Engineer shall be clear, distinct, neatly trimmed, and acceptable to the Engineer. **The Contractor shall furnish the Engineer as many copies of working drawings as are required in each Division specifying submission of working drawing, or seven copies (8 copies if the submission is a precast structure or element), if the quantity is not specified.**

6. a. The Engineer may require reproducible prints of all shop plans, which shall be furnished by the Contractor at no additional cost to the Department. The prints shall not be folded, but shall be mailed in tubes sized to accommodate the plans. No working drawings will be submitted to the Engineer unless they have been carefully checked by the Contractor. As evidence of this check, all sheets of one set and the first sheet of all remaining sets of shop drawings shall bear the Contractor's stamp of approval. Drawings showing gross errors will be returned for correction before review by the Engineer. The name of the shop or company furnishing the drawings shall be on the tracing.

b. Alternatively, the Contractor may authorize the company furnishing the shop plans or working drawings to send them directly to the Construction Division in Lincoln. The Contractor's authorization letter, which must accompany each plan submittal, shall clearly indicate that the Contractor is responsible for any errors on the shop plans. Shop drawings submitted under this procedure will be returned to the sender after being reviewed.

c. **The project number, structure number, control number, and project location as it appears on the plans, shall be shown on each sheet of all shop drawings.**

7. The address for submitting shop plans and working drawings is:

Nebraska Department of Roads
1500 Highway 2
P.O. Box 94759
Lincoln, NE 68509-4759
Attn: Construction Division

105.03 -- Conformity with Plans and Allowable Deviations

1. All work performed and all materials furnished shall be in reasonably close conformity with the lines, grades, typical sections, dimensions, material requirements, and tolerances shown in the plans or indicated in the specifications.

2. a. The Engineer has the authority to totally reject nonconforming materials or work or to accept them at a reduced cost.

b. If the nonconforming materials or work are allowed to remain in place at a reduced cost, the Engineer will provide written notice to the Contractor of the monetary deduction that will be imposed.

c. If the nonconforming materials and/or work are rejected, the Contractor shall remove and replace or otherwise correct the work and materials at no additional cost to the Department.

105.04 -- Coordination of Plans, Specifications, Special Provisions, and Supplemental Specifications

1. a. These *Specifications*, the supplemental specifications, the plans, special provisions, and all supplementary documents are essential parts of the contract. A requirement occurring in one is as binding as though occurring in all. They are intended to be complementary and to describe and provide for a complete project.

b. In case of a discrepancy:

(1) Supplemental specifications shall govern over the *Standard Specifications*.

(2) Special provisions shall govern over *Standard Specifications*, supplemental specifications, and the plans.

(3) Plans shall govern over *Specifications*.

(4) Special plans shall govern over standard plans.

(5) Computed dimensions shall govern over scaled dimensions.

c. When cross-references are made between Divisions in the *Standard Specifications*, the Contractor shall be responsible for determining whether the referenced Divisions have been subsequently voided, superseded, or amended by the supplemental specifications or special provisions.

2. The Contractor shall not take advantage of any apparent error or omission in the plans or specifications. Upon discovery of such an error or omission, the Contractor shall notify the Engineer immediately. The Engineer will then make such corrections or interpretations as necessary to fulfill the intent of the plans and specifications.

105.05 -- Cooperation of Contractor

1. The Contractor will be supplied with the number of approved plans and contract assemblies, including special provisions as prescribed in Section 111. One set shall be kept available on the worksite at all times.

2. The Contractor shall cooperate with the Engineer, Department inspectors, and other Contractors in every way possible.

3. a. The Contractor shall designate a superintendent who will be on the worksite at all times when work is being performed. The designated superintendent may be an employee of an approved Subcontractor.

b. The designated superintendent shall be:

(1) Capable of reading and thoroughly understanding the plans and specifications.

(2) Experienced in the type of work being performed.

(3) Authorized to act as the Contractor's agent.

(4) Authorized to receive instructions from the Engineer or an authorized representative.

(5) Authorized to execute the orders or directions of the Engineer without delay and to promptly supply such materials, equipment, tools, labor, and incidentals as may be required.

105.06 -- Cooperation with Utilities

1. The Department will notify all utility companies, pipeline owners, railroads, or other parties affected by the work and endeavor to have all necessary adjustments of the public or private utility fixtures, pipelines, and other facilities within or adjacent to the limits of construction made as soon as practicable.

2. Water lines, gas lines, wire lines, service connections, water and gas valve boxes, light standards, cableways, signals, and all other utility facilities within the limits of the proposed construction are to be moved by the owners at no expense to the Contractor, except as otherwise provided for in the special provisions or as noted in the plans.

3. It is understood and agreed that the Contractor has considered in the bid all of the permanent and temporary utility facilities in their present or relocated positions as shown in the plans and that no additional compensation will be allowed for any delays, inconvenience, or damages sustained due to any interference from the said utility facilities or the operation of moving them.

105.07 -- Cooperation Between Contractors

1. The Department reserves the right at any time to contract for and perform other additional work on or near the work covered by the contract.

2. a. When separate contracts are let within the limits of any one project, Contractors shall conduct their work so as not to interfere with or hinder the progress or completion of the work being performed by other Contractors.

b. Contractors working on the same project shall cooperate with each other. In case of a dispute, the Engineer shall intervene; and his/her decision shall be final and binding on all parties.

3. Each Contractor involved shall assume all liability, financial or otherwise, in connection with the contract and shall protect and save harmless

the Department from any and all damages or claims that may arise because of inconvenience, delay, or loss experienced because of the presence and operations of other Contractors working within the limits of the same project. The Contractor shall assume all responsibility for work not completed or accepted because of the presence and operations of the other Contractors.

4. The Contractor shall, as far as possible, arrange the work and place or dispose of the materials being used so as not to interfere with the operations of other Contractors within the limits of the same project.

5. The Contractor shall coordinate the work with the other Contractors.

105.08 -- Authority and Duty of the Inspector

Department inspectors are authorized to inspect all work performed and all materials furnished. Inspectors are included in the NDR definition of the term "Engineer" as used in these *Specifications*. Such inspection may extend to the preparation, fabrication, or manufacture of the materials. The inspector has the authority to reject work or materials until any issues can be decided, including the right to suspend work. The inspector is not authorized to alter or waive the provisions of the contract, issue instructions contrary to the contract, or act as a supervisor for the Contractor.

105.09 -- Inspection

1. All materials and each part or detail of the work shall be subject to inspection by the Engineer. The Contractor or fabricator shall allow and provide safe, free, and immediate access to all parts of the work and furnish whatever assistance and information required to make a complete and detailed inspection.

2. a. At any time prior to acceptance of the work, the Contractor shall remove or uncover for examination portions of the finished work if directed to do so. After the examination, the Contractor shall restore the work to the standard required by the contract.

b. Should the work prove acceptable, the work of uncovering and covering, removing and replacing, or making good the parts removed shall be paid for as "extra work". Should the work prove unacceptable, those same items of work shall be done at no additional cost to the Department.

3. The Department may elect to reduce or eliminate inspection on some phases of the work. However, work done or materials used without supervision or inspection by the Department may be ordered removed and replaced without compensation if the work does not meet contract standards.

105.10 -- Removal of Unacceptable and Unauthorized Work

1. Work which does not conform to the contract requirements will be considered unacceptable unless accepted under the provisions of Subsection 105.03.

2. Unacceptable work found to exist before the final acceptance of the work shall be removed immediately and replaced at no additional cost to the Department.

3. No work shall be done without lines and grades given or approved by the Engineer. Work done contrary to the instructions of the Engineer, work done beyond the lines or limits shown in the plans or those established by the Engineer's construction stakes, or any "extra work" done without proper authority will be considered unauthorized and no payment is authorized for this work. The Engineer may require unauthorized work to be removed or replaced at no additional cost to the Department.

4. If the Contractor fails to comply with directions given by the Engineer, as provided in Paragraphs 2. and 3. of this Subsection, the Engineer shall engage another party or use other appropriate means to remedy, remove, and/or replace unacceptable and unauthorized work and deduct the costs from the monies due the Contractor.

105.11 -- Restriction on Moving and Use of Heavy Equipment

1. The movement of heavy equipment to and from the work and over the pavement structure and structures which are a part of the work shall be done in compliance with the laws governing the operation of vehicles on the highways of the State. A special permit will not relieve the Contractor of liability for damage which may result from the moving of equipment.

2. In the case of earthwork and shouldering to be done in connection with pavement widening and resurfacing, no tractor-drawn earth moving equipment shall be operated or driven on or across the pavement except as authorized by the Engineer.

3. In the performance of grading and finishing operations, earth moving equipment equipped with flotation or pneumatic tires may be operated over concrete pavement, concrete base courses, and bituminous or asphaltic concrete surfaces which are a part of the project, provided the load on any single axle does not exceed 34,000 pounds.

4. Trucks shall comply with all Federal, State, and local laws governing vehicular operation.

5. No dragline, power shovel, or crane shall be operated with any part of the machine resting directly upon a pavement, bituminous or asphaltic concrete surface, base course, or structure.

6. Under no conditions, shall machines equipped with metal lugs or similar projections on the treads be operated on the surface of a pavement, bituminous or asphaltic concrete surface, or base course.

7. Crawler type equipment shall be operated in a manner that will avoid damage to paved and base course surfacing and shall not move on or off a pavement, bituminous or asphaltic concrete surface, or base course except at places where the compacted earth adjacent to the slab is at least 2 inches higher than the surface of the pavement or base course or where a substantial timber approach has been built at the edge of the slab to prevent damaging the edge of the slab or surface course.

8. Equipment mounted on either crawler tracks or pneumatic tires shall cross bridges at such speed and at such a location with reference to the centerline of the bridge as the Engineer directs.

9. Construction equipment mounted on crawler tracks with a gross weight of more than 23 tons will not be allowed to cross any bridge without specific permission from the Engineer.

10. Construction equipment mounted on crawler tracks with a gross weight of more than 15 tons will not be allowed to cross any bridge having timber stringers or a timber floor without specific permission from the Engineer granted for that particular bridge.

11. Unless otherwise approved, construction equipment mounted on pneumatic tires and whose axle loading and spacing do not conform to the statutory limitations or posted capacity of the bridges will be allowed to cross bridges only if the relationship between the gross weight on any single axle and the axle spacing conforms to the regulations promulgated by the Department.

12. Hauling vehicles will be allowed to move on new concrete pavement or concrete base courses under the following provisions:

a. The concrete shall have reached its design strength.

b. When moving equipment on or across concrete or asphalt pavement, the contractor shall provide at least a 12-inch (300 mm) thick ramp of compacted earth or other suitable material which will support the vehicle and prevent damage to the pavement.

c. The distance from the edge of the pavement to the edge of any wheel of the vehicle shall be not less than 2 feet except as the vehicle enters or exits the new pavement.

13. The Contractor shall be responsible for all damages done by the equipment.

105.12 -- Use of Land

When using land outside of the highway right-of-way for any purpose, the Contractor must have consent and shall leave such lands or other sites used in a neat and presentable condition.

105.13 -- Tentative Acceptance of Portions of the Project

1. At the option of the Engineer, areas (e.g., sections or phases of work as small as a single embankment or a graded slope on the project) may be tentatively accepted in writing. In such cases, the sections will be inspected, completed work tentatively accepted, and turned over to the Department for maintenance. Such action shall not in any way be construed as final acceptance of the project.

2. Maintenance of lighting systems, trees, plants and shrubs, and erosion control measures like silt fence and bale checks that are located in tentatively accepted areas shall continue to be the Contractor's responsibility until the project is finally accepted. If the Contractor fails to perform maintenance in a tentatively accepted area, then upon written notification by the Engineer, the tentative acceptance shall be revoked.

3. a. The Contractor will not be held responsible for damages to portions of the project which have been tentatively accepted in writing by the Engineer prior to final approval and acceptance of the project, provided such damages are due to the actions of the elements or to the normal action of traffic.

b. The Contractor shall be responsible for any damages which may have resulted from defective work or because of noncompliance with the plans, specifications, or any other contract requirements.

c. The Contractor is also responsible for any damage that results during the performance of required maintenance or other operations when the Contractor fails to use common sense and standard maintenance practices (e.g., if a Contractor drives across a wet field to maintain a silt fence, then the Contractor shall correct the damaged finish grades and reseed the damaged area at no additional cost to the Department).

105.14 -- Final Inspection

Upon notification by the Contractor that the work has been completed, the Engineer shall make a prompt final inspection. If any part of the work has not been completed in accordance with the requirements of the contract, the Contractor shall be advised as to the particular defects to be remedied.