

DIVISION 100. GENERAL REQUIREMENTS AND COVENANTS**SECTION 101. DEFINITION OF TERMS**

Wherever in these Specifications or in other contract documents the following terms or pronouns in place of them are used, the intent and meaning shall be interpreted as follows.

101.01 Abbreviations. Wherever the following abbreviations are used in these Specifications or on the plans, they are to be construed the same as the respective expressions represented.

AAR	Association of American Railroads
AASHTO	American Association of State Highway and Transportation Officials
ADAAG	Americans with Disabilities Act Accessibility Guidelines
AISC	American Institute of Steel Construction
ANLA	American Nursery and Landscape Association
ANSI	American National Standards Institute
ARA	American Railway Association
AREMA	American Railway Engineering and Maintenance of Way Association
ASA	American Standards Association
ASLA	American Society of Landscape Architects
ASTM	ASTM International
AWG	American Wire Gauge
AWPA	American Wood Preservers Association
AWS	American Welding Society
AWWA	American Water Works Association
BWC	Bridge Welding Code
EPA	United States Environmental Protection Agency
FAA	Federal Aviation Administration
FCC	Federal Communications Commission
FHWA	Federal Highway Administration
FSS	Federal Specifications and Standards
GSA	General Services Administration
ICEA	Insulated Cable Engineers Association
IEEE	Institute of Electrical and Electronics Engineers
IEMA	Illinois Emergency Management Agency
IEPA	Illinois Environmental Protection Agency
IMSA	International Municipal Signal Association
ISO	Insurance Services Organization
ITE	Institute of Transportation Engineers
MUTCD	Illinois Manual on Uniform Traffic Control Devices
NEC	National Electrical Code
NEMA	National Electrical Manufacturers Association
NESC	National Electrical Safety Code
NFPA	National Fire Protection Association
NIST	National Institute of Standards and Technology
NRMCA	National Ready-Mix Concrete Association
SAE	Society of Automotive Engineers

SSPC	Society for Protective Coatings
UL	Underwriters Laboratories
USASI	United States of America Standards Institute
USDA	United States Department of Agriculture

101.02 Advertisement. The public announcement, as required by law, inviting bids for work to be performed or materials to be furnished.

101.03 Award. The decision of the Department in the form of a letter of intent to accept the proposal of the lowest responsible bidder for the work, subject to the approval and execution of a satisfactory contract by the Department, receipt of a bond to secure the performance thereof, and compliance with such other conditions as may be specified or otherwise required by law.

101.04 Bidder. Any individual, firm, partnership, or corporation submitting a proposal for the work contemplated, acting directly or through a duly authorized representative.

101.05 Bridge. A structure, including supports, erected over a depression or an obstruction, such as water, highway, or railroad, and having a track or passageway for carrying traffic or other moving loads, and having a length of more than 20 ft (6.1 m).

Length. The length of a bridge structure is the overall length measured along the line of survey stationing back to back of backwalls of abutments, if present, otherwise end to end of the bridge floor; but in no case less than the total clear opening of the structure. The length of multiple box culverts shall be between the extreme ends of the openings.

Roadway width. The clear width measured at right angles to the longitudinal centerline of the bridge between the bottom of curbs or guard timbers, or in the case of multiple heights of curbs, between the bottoms of the lower risers.

101.06 Calendar Day. Every day shown on the calendar.

101.07 Cataclysmic Event. An occurrence, caused exclusively by any of the irresistible forces of nature that is an unexpected, singular event without continued, persistent existence or that is irregularly predictable. The event must occur without the involvement of human causative action, and must not be preventable or capable of substantial limitation in its impact by application of human care, skill, or foresight. Cataclysmic events include earthquakes, floods, flash floods of surface water caused by heavy rains and runoff water, tornadoes, or other cataclysmic phenomena of nature. A flood, defined as water elevation in excess of the channel capacity of a river, stream, or other body of water is not a cataclysmic event, unless the flood water elevation exceeds the 100-year flood elevation as defined in the contract.

101.08 Chief, Bureau of Construction. The Engineer in charge of the Central Bureau of Construction in Springfield.

101.09 Contract. The written Agreement between the Department and the Contractor setting forth the obligations of the parties thereunder, including, but not

limited to, the performance of the work, the furnishing of labor and materials, and the basis of payment.

The contract includes the invitation for bids, proposal, letter of award, contract form and contract bond, Specifications, Supplemental Specifications, Special Provisions, general and detailed plans, and any Agreements required to complete the construction of the work in an acceptable manner, including authorized extensions thereof, all of which constitute one instrument.

101.10 Contract Bond. The approved form of security furnished by the Contractor and his/her surety as a guaranty that the Contractor will execute the work according to the terms of the contract.

101.11 Contract Time. The number of working days, calendar days, or combination allowed for completion of the contract, including authorized time extensions.

When a calendar date of completion is shown in the proposal, the contract shall be completed on or before that date.

101.12 Contractor. The individual, firm, partnership, joint venture, or corporation contracting with the Department for performance of prescribed work.

101.13 Culvert. A drainage structure extending across and beneath a traveled way and having a tubular or box type cross section.

101.14 Department. The Department of Transportation of the State of Illinois with principal offices of business at Springfield, when the State is the awarding authority.

The County Board, when a County is the awarding authority.

The Council, the City Council, or the President and Board of Trustees, when a city, village, or town is the awarding authority.

The County or Municipality and the Illinois Department of Transportation when the Illinois Department of Transportation is the awarding agency and the County or Municipality is supervising construction.

101.15 Reserved.

101.16 Engineer. The Chief Engineer/Director of Highways of the Department of Transportation of the State of Illinois; or authorized representative limited by the particular duties entrusted to that person, when the State is the awarding authority.

The County Superintendent of Highways or the County Engineer, when the county is the awarding authority. The County Superintendent of Highways or the County Engineer, and the Chief Engineer/Director of Highways of the Illinois Department of Transportation when the Illinois Department of Transportation is the awarding authority and the County is supervising construction.

The City Engineer or Engineer employed by the Municipality, when a city, village, or town is the awarding agency. The City Engineer or Engineer employed by the Municipality, and the Chief Engineer/Director of Highways of the Illinois Department of Transportation when the Illinois Department of Transportation is the awarding agency and a city, village, or town is supervising construction.

101.17 Equipment. All machinery and equipment, together with the necessary supplies for upkeep and maintenance, and also tools and apparatus necessary for the proper construction and acceptable completion of the work.

101.18 Extra Work. An item of work not provided for in the contract as awarded but found essential and germane to the satisfactory completion of the contract within its intended scope as determined by the Engineer.

101.19 Inspector. The authorized representative of the Engineer assigned to make detailed inspection of any or all portions of the work or material.

101.20 Invitation for Bids. The advertisement for proposals for all work or materials on which bids are required. Such advertisement will indicate with reasonable accuracy the quantity and location of the work to be done or the character and quantity of the material to be furnished and the time and place of the opening of proposals.

101.21 Laboratory. The testing laboratory of the Department or any other testing laboratory which may be designated by the Engineer.

101.22 Local Traffic. Local traffic is traffic whose immediate destination is within the limits of construction or closure, limited to use by persons for necessary access to real property not otherwise accessible by another public way.

101.23 Materials. Any substances specified for use in the construction of the project and its appurtenances.

101.24 Median. The portion of a divided highway separating the traveled ways for traffic in opposite directions.

101.25 Reserved.

101.26 Pavement Structures. The combination of subbase, base course, and surface course placed on a subgrade to support the traffic load and distribute it to the roadbed.

101.27 Pay Item. A specifically described unit of work for which a price is provided in the contract.

101.28 Plans. The contract drawings, or exact reproductions thereof, that show the location, character, dimensions, and details of the work to be done. Contract drawings include, but are not limited to, the approved plans, profiles, typical cross sections, detail drawings, working drawings, supplemental drawings, and Highway Standards.

101.29 Proposal. The offer of a bidder, on the prescribed form, to perform the work and to furnish the labor and materials at the prices quoted.

101.30 Proposal Guaranty. The security furnished with a bid to guarantee the bidder will enter into the contract if the bid is accepted.

101.31 Railroad. The Railroad or Railway Company whose property is involved in the work.

101.32 Railroad Engineer. The Chief Engineer or Superintendent of the Railroad, or authorized representative limited by the particular duties entrusted to him/her.

101.33 Regional Engineer. The Licensed Professional Engineer in complete charge of the Illinois Department of Transportation's Region in which the work under contract is located.

101.34 Resident Engineer/Resident Technician. The authorized representative of the Engineer in immediate charge of the engineering details of a construction project.

101.35 Right-of-Way. A general term denoting land, property, or interest therein, usually in a strip, acquired for or devoted to transportation purposes.

101.36 Roadbed. The graded portion of a highway within side slopes, prepared as a foundation for the pavement structure and shoulders.

101.37 Roadside. A general term denoting the area adjoining the outer edge of the roadway. Extensive areas between the roadways of a divided highway may also be considered roadside.

101.38 Roadside Development. Those items necessary to the complete highway which provide for the preservation of landscape materials and features; the rehabilitation and protection against erosion of all areas disturbed by construction through seeding, sodding, mulching, and the placing of other ground covers; and such suitable planting and other improvements as may increase the effectiveness and enhance the appearance of the highway.

101.39 Roadway. The portion of the right-of-way within limits of construction.

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

101.41 Sidewalk. That portion of the roadway primarily constructed for the use of pedestrians.

101.42 Special Provisions. Additions and revisions to the Standard and Supplemental Specifications covering conditions peculiar to an individual contract.

101.43 Specifications. The body of directions, provisions, and requirements contained herein, or in any supplement adopted by the Department, together with

written agreements and all documents of any description made or to be made pertaining to the method or manner of performing and paying for the work, the quantities, and the quality of materials to be furnished under the contract.

101.44 State.

- (a) The State of Illinois, when the State is the awarding authority.
- (b) The County, when a County is the awarding authority.
- (c) The Municipality, when a city, village, or town is the awarding authority.

101.45 Structure. Unless otherwise defined in the Specifications, structures shall comprise all objects constructed of materials other than earth, required by the contract to be built or to be removed, but not including surfacings, base courses, subbases, gutters, curbs, sidewalks, and driveway pavement.

101.46 Subcontractor. An individual, firm, partnership, or corporation who, with the written consent of the Engineer, assumes obligation for performing specified work.

101.47 Subgrade. The top surface of a roadbed upon which the pavement structure and shoulders are constructed.

101.48 Substructure. All of that part of the structure below the bearings of simple and continuous spans, skewbacks of arches, and tops of footings of rigid frames, together with the backwalls, wing walls, or wing protection railings.

101.49 Superstructure. The entire structure, except the substructure.

101.50 Supplemental Specifications. Additions and revisions to the Standard Specifications contained herein that are adopted subsequent to issuance of this book.

101.51 Surety. The corporation, partnership, or individual, other than the Contractor, executing the Contract Bond.

101.52 Traffic Control Plan. Those portions of the contract plans, Special Provisions, Specifications, and Supplemental Specifications having to do with temporary traffic control.

101.53 Traveled Way. The portion of the roadway for the movement of vehicles, exclusive of shoulders and auxiliary lanes.

101.54 Utility. The privately, publicly, municipally, or cooperatively owned line, facility, or system for producing, transmitting, or distributing communications, cable television, power, electricity, light, heat, gas, oil, crude products, water, steam, or waste water. The term "utility" shall also mean the utility company, inclusive of any wholly owned or controlled subsidiary.

Utility, as defined here, includes street lighting systems, traffic signal systems, railroad warning device systems, or fire/police pre-emptors, or their collateral cables and conduits.

101.55 Work. Work shall mean the furnishing of all labor, materials, tools, equipment, and other incidentals necessary or convenient to the successful completion of the project and the carrying out of all duties and obligations imposed by the contract. Work may also be used in context to describe, in whole or in part, the completed facilities to be constructed, altered or removed, as detailed in the Contract. The Engineer will have exclusive authority to determine the intent and meaning of the usage of this term wherever it appears in the Contract.

SECTION 102. ADVERTISEMENT, BIDDING, AWARD, AND CONTRACT EXECUTION

102.01 Procedures to be in Accordance with Rules. The procedures for the advertisement, bidding, award, and contract execution shall be in accordance with the rules of the Department published at 44 Illinois Administrative Code 650 and 660. The invitation for bids contains additional requirements published in accordance with the rules. Bidders and the Contractor shall comply with the rules and all procedures published in the invitation for bids.

SECTION 103. RESERVED

SECTION 104. SCOPE OF WORK

104.01 Intent of the Contract. The intent of the contract is to prescribe a complete outline of work which the Contractor undertakes to do in full compliance with the plans and specifications. The Contractor shall perform all earthwork, construct all base and surface courses, structures, and such additional, extra, and incidental construction as may be necessary to complete the work to the finished lines, grades, and cross sections in an acceptable manner. The Contractor shall furnish all required materials, equipment, tools, labor, and incidentals, unless otherwise provided in the contract, and shall include the cost of these items in the unit prices bid for the work. The quantities appearing in the bid schedule of prices are estimates prepared for the establishment of pay item prices and the comparison of bids. Payment to the Contractor will be made for the actual measured quantities performed and accepted or material furnished and accepted according to the contract, and the scheduled quantities may be increased, decreased, or omitted as herein provided.

Under no circumstances shall the Contractor exceed any established pay item quantity without notification to the Engineer and receipt of written authorization as provided herein.

104.02 Alterations, Cancellations, Extensions, Deductions, and Extra Work. The Department reserves the right to make, in writing, at any time during work, changes in quantities, alterations in work, and the performance of extra work to satisfactorily complete the project. Such changes in quantities, alterations, and extra

work shall not invalidate the contract nor release the surety, and the Contractor agrees to perform the work as altered.

If the alterations or changes in quantities significantly change the character of the work under the contract, whether or not changed by any such different quantities or alterations, an adjustment, excluding loss of anticipated profits, will be made to the contract. The basis for the adjustment shall be agreed upon prior to the performance of the work. If a basis cannot be agreed upon, then an adjustment will be made either for or against the Contractor in such amount as the Engineer may determine to be fair and equitable.

If alterations or changes in quantities do not significantly change the character of the work to be performed under contract, the altered work will be paid for as provided elsewhere in the contract.

The term "significant change" shall be construed to apply only when the character of the work as altered differs materially in kind or nature from that involved or included in the original proposed construction or when a major item, defined as an item whose total original contract costs exceeds ten percent of the total original contract amount, is increased in excess of 125 percent or decreased below 75 percent of the original contract quantity.

All alterations, cancellations, extensions, and deductions shall be authorized in writing by the Engineer before work is started. Such authorizations shall set up the items of work involved and the method of payment for each item.

The Contractor shall accept payment for alterations which result in an increase or decrease in the quantities of work to be performed according to the following.

- (a) All increases in work of the type which appear in the contract as pay items accompanied by unit prices will, except as provided under paragraph (d) herein, be paid for at the contract unit prices. Decreases in quantities included in the contract will be deducted from the contract at the unit bid prices. No allowance will be made for delays or anticipated profits.
- (b) Major items of work for which the quantities are increased by not more than 125 percent or reduced to not less than 75 percent of the original contract quantities will be paid for as specified in paragraph (a) above. Any adjustments for increased quantities for major items of work increased more than 125 percent shall only apply to that portion in excess of 125 percent of original contract quantities. Any adjustments made for major items of work which are decreased to less than 75 percent of the original contract quantities shall apply to the actual amount of work performed.
- (c) Extra work which is not included in the contract as pay items at unit prices and is not included in other items of the contract will be paid for according to Article 109.04.
- (d) Extra work for which there is a pay item at unit price in the contract which for any one or more of the following reasons materially increases or decreases the cost of the pay item as bid and which is not included in the prices bid for

other items in the contract will be paid for according to Article 109.04. This includes:

- (1) Work involving a substantial change of location.
 - (2) Work which differs in design.
 - (3) Work requiring a change in the type of construction.
- (e) In cases where the Department cancels or alters any portion of the contract items, items which are partially completed will be paid for as specified in Article 109.06.

Claims for extra work which have not been authorized in writing by the Engineer will be rejected.

104.03 Differing Site Conditions. 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.

Upon written notification, the Engineer will investigate the conditions, and if he/she determines 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.

No contract adjustment which results in a benefit to the Contractor will be allowed unless the Contractor has provided the required written notice. No contract adjustment will be allowed for any effects caused on unchanged work.

Any adjustment in compensation because of a change or changes resulting from one or more of the conditions described in the foregoing paragraph will be made according to the provisions of Article 104.02. Any adjustment in contract time because of such change or changes will be made according to the provisions of Article 108.08.

104.04 Maintenance of Detours. When the road upon which construction is in progress is closed to public use by the Engineer, the Contractor will, unless otherwise specified, be relieved of all responsibility in connection with the maintenance or marking of suitable detours.

104.05 Rights In and Use of Materials Found on the Work. The Contractor, with the approval of the Engineer, may use on the work such stone, gravel, sand, or other material determined suitable by the Engineer as may be found in the excavation, and will be paid both for the excavation of such materials at the corresponding contract unit price and for the pay item for which the excavated

material is used. The Contractor shall replace, at no additional cost to the Department, with other acceptable material, all of that portion of the excavation material so removed and used which was needed for use in the embankments, backfills, approaches, or otherwise. No charge for the materials so used will be made against the Contractor. The Contractor shall not excavate or remove any material from within the highway location which is not within the grading limits, as indicated by the slope and grade lines, without written authorization from the Engineer.

Unless otherwise provided, the material from any existing old structure may be used temporarily by the Contractor in the erection of the new structure. Such material shall not be cut or otherwise damaged, except with the approval of the Engineer.

104.06 Final Clean Up. Before final acceptance, all borrow pits and ground occupied by the Contractor in connection with the work shall be cleaned of all rubbish, excess materials, temporary structures, and equipment, and all parts of the work shall be left in a neat and presentable condition.

The Contractor shall clean off all cement streaks or drippings, paint smears or drippings, rust stains, oil, grease, bituminous materials, dirt, and other foreign materials deposited or accumulated on or in any structure or curb and gutter due to the Contractor's operations.

104.07 Value Engineering Proposals. The Contractor may submit to the Department in writing, proposals for modifying the contract documents to provide innovative, alternative lower cost construction without impairing the essential functions and characteristics of the facility including, but not limited to, service life, reliability, economy of operation, ease of maintenance, necessary standardized features, desired appearance, or design standards.

- (a) Proposal Submittals. Value Engineering Proposals shall be submitted in two phases as follows.
 - (1) Concept Phase. Prior to the submittal of any Value Engineering Proposal, the Contractor shall submit a brief summary outlining the concept of the proposal to the Central Bureau of Construction and the District Office. Within five working days after receipt of the proposal concept, the Department will notify the Contractor as to whether or not the proposal concept qualifies for consideration as Value Engineering. If it appears, based on the concept, the actual proposal will require a review period exceeding the normal review period, as outlined below, the Contractor will be so advised. Approval of the concept does not constitute or imply approval of the subsequent submittal of the complete Value Engineering Proposal.
 - (2) After the concept has been approved, the Contractor, if electing to proceed with submittal of the complete Value Engineering Proposal, shall submit the proposal simultaneously to the District and the Central Bureau of Construction for review. The District will forward their recommendations to the Central Bureau of Construction within ten working days after receipt of the proposal, provided the proposal is complete and contains all the required information for review. The Central Bureau of Construction will notify the Contractor as to the

acceptability of the proposal within five working days of receipt of the District's recommendation, unless additional review time has been established as noted in the concept review process.

- (b) Contents of Proposal. Value Engineering Proposals shall contain the following information.
- (1) A Statement that the proposal is submitted as a Value Engineering Proposal.
 - (2) A complete description detailing the proposed modification to the contract documents.
 - (3) A complete cost analysis detailing the unit costs and quantities to be deleted and/or added by the proposal.
 - (4) A complete analysis of the impact the proposed modification will have on the prosecution and progress of the contract.
- (c) Consideration of Proposal. The following conditions will govern the consideration of Value Engineering Proposals.
- (1) All proposals apply only to the contract under which it is submitted. The Contractor will be guaranteed propriety of authorship as well as ownership of the proposal until such time it is approved by the Department. The Department will have the right to use, duplicate, and disclose, in whole or in part, any data necessary for the utilization of the proposal. The Department retains the right to utilize any accepted proposal or part thereof on any other or subsequent contracts without obligation to the Contractor. This provision is not intended to deny rights provided by law with respect to patented materials or processes.
 - (2) If the Department has under consideration certain revisions or modifications to the contract at the time of execution of the contract, the Contractor will be so notified at the preconstruction conference. Revisions or modifications to the contract generated by the Department shall not be incorporated into any Value Engineering Proposal submitted by the Contractor.
 - (3) The proposal shall not consist of any experimental products or materials to be incorporated. However, proposals containing the use of alternate methods and equipment, as allowed under Article 108.06, may be presented for consideration.
 - (4) The reduction of quantities or deletion of items of work which result from adjustment of the contract to meet field conditions as allowed under Article 104.02 shall not be incorporated into any Value Engineering Proposal. Proposals based solely on the waiving of specifications or contract requirements will not be considered.
 - (5) The proposal must be submitted and approved prior to undertaking any work on the proposed modification.

- (6) The Contractor shall have no claim against the Department for any costs or delays resulting from the review process and/or disapproval of any Value Engineering Proposal, including but not limited to, development costs, anticipated profits, increased material cost, and increased labor costs.
 - (7) The Department will be the sole judge as to the acceptability of a proposal and the estimated net savings resulting from implementation of the proposal. In determining the estimated net savings, the right is reserved to disregard the contract bid prices if, in the judgement of the Engineer, such prices do not represent a fair measure of the value of work to be performed or to be deleted.
 - (8) The Department reserves the right where it deems such action appropriate, to require the Contractor to share in the costs of reviewing and investigating any Value Engineering Proposal. When this requirement is imposed, the Contractor shall indicate his/her acceptance thereof in writing, and such acceptance shall constitute full authority for the Department to deduct amounts payable to the Department from any monies due or that may become due to the Contractor under the contract.
 - (9) The Contractor shall be responsible for any modification of the contract plans required as part of the Value Engineering Proposal. When contract plan modifications are included as part of the proposal, the Contractor shall furnish a copy of the modifications to the Department and shall be solely responsible for any errors or omissions resulting from the modification.
- (d) Acceptance of the Proposal. If the Value Engineering Proposal is accepted, the changes will be incorporated into the contract through changes in the quantities of unit bid items, new agreed price items, or by force account, as appropriate. The cost of the revised work will be paid directly as completed. In addition to such payment, the Department will pay the Contractor a Value Engineering Incentive according to the following criteria.

- A = Adjusted cost
- B = Original cost
- C = Department's cost incurred as a result of investigation and application of the proposal

- (1) For contracts less than \$1,000,000 in awarded value, the Contractor will be paid as follows.
 - a. When the total cumulative value of all Value Engineering Proposals submitted for an individual contract is equal to or less than 1.5 percent of the awarded contract value, payment will be 0.5 (B-A-C).
 - b. When the total cumulative value of all Value Engineering Proposals submitted for an individual contract is greater than 1.5 percent of the awardable contract value, payment will be 0.65 (B-A-C) for that

portion of the cumulative value that exceeds 1.5 percent of the awarded contract value, plus 0.5 (B-A-C) for that portion to and including 1.5 percent.

- (2) For contracts that are at least \$1,000,000 but do not exceed \$5,000,000 in awarded value, the Contractor will be paid as follows.
 - a. When the total cumulative value of all Value Engineering Proposals submitted for an individual contract is equal to or less than 2.0 percent of the awarded contract value, payment will be 0.5 (B-A-C).
 - b. When the total cumulative value of all Value Engineering Proposals submitted for an individual contract is greater than 2.0 percent of the awarded contract value, payment will be 0.65 (B-A-C) for that portion of the cumulative value that exceeds 2.0 percent of the awarded contract value, plus 0.5 (B-A-C) for that portion up to and including 2.0 percent.
- (3) For contracts that exceed \$5,000,000 in awarded value, the Contractor will be paid as follows.
 - a. When the total cumulative value of all Value Engineering Proposals submitted for an individual contract is equal to or less than 1.0 percent of the awarded contract value, payment will be 0.5 (B-A-C).
 - b. When the total cumulative value of all Value Engineering Proposals submitted for an individual contract is greater than 1.0 percent of the awarded contract value, payment will be 0.65 (B-A-C) for that portion of the cumulative value that exceeds 1.0 percent of the awarded contract value, plus 0.5 (B-A-C) for that portion up to and including 1.0 percent.

SECTION 105. CONTROL OF WORK

105.01 Authority of Engineer. All work of the contract shall be completed to the satisfaction of the Engineer. The decision of the Engineer shall be final on all questions which may arise regarding, including but not limited to, the quality and acceptability of materials and work; the manner of performance; acceptable rates of progress on the work; the interpretation of the contract plans and specifications; the fulfillment of the contract; the measurement of quantities and payment under the contract; and the determination of the existence of changed or differing site conditions.

The Engineer will notify the Contractor in writing if the work is to be suspended wholly or in part due to the failure of the Contractor to carry out provisions of the contract or failure to carry out orders of the Engineer. The work may also be suspended at the Contractor's risk for such periods as the Engineer may deem necessary due to unsuitable weather; for conditions considered unsuitable for the prosecution of the work or for any other condition or reason deemed to be in the public interest.

The contract does not require the Engineer to provide the Contractor with direction or advice on how to do the work. If the Engineer approves or recommends any method or manner for doing the work, the approval or recommendation shall not guarantee following the method or manner will result in compliance with the contract, relieve the Contractor of the risks and obligations of the contract, or create liability for the Department.

In case of failure on the part of the Contractor to execute work ordered by the Engineer, the Engineer may, at the expiration of a period of 48 hours after giving notice in writing to the Contractor, proceed to execute such work as may be deemed necessary, and the cost thereof will be deducted from compensation due or which may become due the Contractor under the contract.

105.02 Authority of Railroad Engineer. Whenever the safety of railroad traffic is concerned, the Railroad Engineer will have jurisdiction over safety measures to be taken and his/her decision as to methods, procedures, and measures used shall be final, and any and all Contractors performing work near or about the railroad shall be governed by such decision. Instructions to the Contractor by the Railroad Engineer will be given through the Engineer. Work ordered as specified herein will be classified and paid for according to Article 104.02. Work performed for the Contractor's convenience will not be paid for separately but shall be considered as included in the contract.

105.03 Conformity with Contract. All work performed and all materials furnished shall be in conformity with the contract and the lines, grades, cross sections, dimensions, and material requirements, including tolerances, shown on the plans or indicated in the contract documents. All work or material which does not conform to the requirements of the contract will be considered unacceptable.

Unacceptable work; whether the result of poor workmanship, use of defective materials, damage through carelessness, or other cause; and unacceptable material shall be removed and replaced or otherwise corrected in an acceptable manner at no additional cost to the Department.

The Department reserves the right to accept work produced by the Contractor if the Engineer finds the noncompliant materials, the finished product in which the noncompliant materials are used, or the nonconforming work are in close conformity with the contract. In this event, the Engineer will document the basis of acceptance by contract modification which may provide for an appropriate adjustment in the contract price for such work or materials as the Engineer deems necessary to conform to the determination. The determination of the Department will be based on the best engineering judgement of the Engineer and shall be final and binding.

Work done contrary to instructions given by the Engineer, work done beyond the lines shown on the plans, or as given by the Engineer, or any extra work done without written approval given by the Engineer will be considered as unacceptable and will not be paid for under the contract. Work so done may be ordered removed or replaced at no additional cost to the Department.

For unacceptable work that impacts the environment or public safety, a deduction will be applied to monies due or that might become due the Contractor. These deficiency deductions will be applied as follows.

- (a) Erosion and Sediment Control Deficiency Deduction. When the Engineer is notified or determines an erosion and/or sediment control deficiency(s) exists, he/she will direct the Contractor in writing to correct the deficiency. The Contractor shall then correct the deficiency with 24 hours. The deficiency may be any lack of repair, maintenance, or implementation of erosion and/or sediment control devices included in the contract, or any failure to comply with the conditions of the National Pollutant Discharge Elimination System (NPDES) Storm Water Permit for Construction Site Activities.

If the Contractor fails to correct the deficiency(s) within 24 hours, a daily monetary deduction will be imposed for each calendar day or fraction thereof the deficiency exists. The time period will begin with the initial written notification to the Contractor and end with the Engineer's acceptance of the corrected work. The daily monetary deduction will be either \$1000.00 or 0.05 percent of the awarded contract value, whichever is greater.

- (b) Traffic Control Deficiency Deduction. When the Engineer is notified, or determines a traffic control deficiency exists, he/she will notify and direct the Contractor to correct the deficiency within a specified time. The specified time, which begins upon notification to the Contractor, will be from 1/2 hour to 12 hours based upon the urgency of the situation and the nature of the deficiency. The Engineer shall be the sole judge.

A deficiency may be any lack of repair, maintenance, or non-compliance with the traffic control plan. A deficiency may also be applied to situations where corrective action is not an option such as the use of non-certified flaggers for short term operations; working with lane closures beyond the time allowed in the contract; or failure to perform required contract obligations such as traffic control surveillance.

If the Contractor fails to correct a deficiency within the specified time, a daily monetary deduction will be imposed for each calendar day or fraction thereof the deficiency exists. The calendar day(s) will begin with notification to the Contractor and end with the Engineer's acceptance of the correction. The daily monetary deduction will be either \$1,000 or 0.05 percent of the awarded contract value, whichever is greater. For those deficiencies where corrective action was not an option, this monetary deduction will be immediate.

The statement elsewhere in the contract of remedies for the use of unacceptable materials or for unacceptable work shall not be exclusive of the remedies provided in this Article unless expressly provided therein.

Upon failure of the Contractor to comply with any order of the Engineer made under the provisions of this Article, the Engineer will have authority to cause the unacceptable work, or deficiency(s), to be corrected, removed or replaced, and to deduct the cost from any monies due or to become due the Contractor. This corrective action will in no way relieve the Contractor of their contractual requirements or responsibilities.

105.04 Plans and Working Drawings. Plans showing details as are necessary to give a comprehensive idea of the construction contemplated will be furnished by the Department. The Department reserves the right to further detail and illustrate the work. The Engineer may furnish the Contractor additional plans and explanations consistent with the original plans. The Contractor shall perform the work according to these additional plans and explanations.

The Contractor shall submit to the Engineer for approval such additional shop, working, or layout drawings pertaining to the construction of the work, as may be required, and prior to the approval of such plans or drawings, any work done or materials ordered shall be at the Contractor's risk. The drawings shall be provided sufficiently in advance of actual need in order to allow for review by the Department and other agencies. The Engineer will require up to 30 calendar days for review, after receipt of the submittal, by the Department. The review may involve rejection, revision, or resubmittal when drawings do not meet contract requirements or do not contain sufficient detail, in which case, an additional 30 calendar days will be required for each subsequent review. The written approval of the Engineer is required before proceeding with the work represented by the drawings. Approval by the Engineer shall not confer upon the Department any responsibility for the accuracy of the drawings. The Contractor shall bear all risk and costs for work delay caused by nonapproval of the drawings.

When the contract includes work adjacent to a railroad and falsework, cofferdams, or sheeting is required, the Contractor shall submit to the Engineer for approval and the Railroad Engineer's approval, plans for the falsework, cofferdams, or sheeting. The plans shall be submitted sufficiently in advance of the time the Contractor intends to start work to permit checking. No such work shall be started prior to receipt by the Contractor of approval of the plans for the falsework, cofferdams, or sheeting. The Contractor shall give the Railroad Engineer not less than ten days notice, in writing, prior to beginning of such construction. The cost of furnishing such drawings shall be included in the contract and no additional compensation will be allowed the Contractor for any delays resulting therefrom.

105.05 Coordination of the Contract Documents. The documents included in the contract are intended to be complementary and to describe a complete work. If the Department determines a conflict exists between the contract documents, the following hierarchy will be applied and the Contractor shall then complete the work according to the interpretation made by the Department.

Hierarchy of the Contract Documents		
Special Provisions	Hold over:	Plans, Recurring Special Provisions, Supplemental Specifications, and Standard Specifications
Plans ^{1/, 2/, 3/}	Hold over:	Recurring Special Provisions, Supplemental Specifications, and Standard Specifications
Recurring Special Provisions	Hold over:	Supplemental Specifications, and Standard Specifications
Supplemental Specifications	Hold over:	Standard Specifications

- 1/ Detail plans hold over Highway Standards.
- 2/ Calculated dimensions hold over scaled dimensions.
- 3/ The Highway Standards indicated by the revision number listed in the Index of Highway Standards on the plans shall hold over Highway Standards listed anywhere else.

105.06 Cooperation by Contractor. The Contractor will be supplied with a minimum of two sets of approved plans and contract assemblies including Special Provisions, one set of which the Contractor shall keep available on the work at all times.

The Contractor shall give the work constant attention necessary to facilitate the progress thereof, and shall cooperate with the Engineer, appointed inspectors, and other contractors in every way possible.

The Contractor shall have on the work at all times, as the Contractor's agent, a competent English-speaking superintendent, capable of reading and thoroughly understanding the plans and Specifications and thoroughly experienced in the type of work being performed, who shall receive instructions from the Engineer or authorized representatives. The superintendent shall have full authority to execute orders or directions of the Engineer without delay, and to promptly supply such materials, equipment, tools, labor, and incidentals as may be required. Such superintendent shall be furnished irrespective of the amount of work sublet.

105.07 Cooperation with Utilities. The adjustment of utilities consists of the relocation, removal, replacement, rearrangements, reconstruction, improvement, disconnection, connection, shifting, new installation, or altering of an existing utility facility in any manner.

- (a) **Known Utilities.** All known existing utilities are indicated on the plans. Utilities which are to be adjusted shall be adjusted by the utility owner or the owner's representative or by the Contractor as a contract item. Generally, arrangements for adjusting known utilities will be made by the Department prior to project construction; however, utilities will not necessarily be adjusted in advance of project construction and, in some cases, utilities will not be removed from the proposed construction limits. When utility adjustments must be performed in conjunction with construction, the utility adjustment work will be shown on the plans and/or covered by Special Provisions.

When the Contractor discovers a utility has not been adjusted by the owner or the owner's representative as indicated in the contract documents, or the utility is not shown on the plans or described in the Special Provisions as to be adjusted in conjunction with construction, the Contractor shall not interfere with said utility, and shall take proper precautions to prevent damage or interruption of the utility and shall promptly notify the Engineer of the nature and location of said utility.

- (1) Limits of Proposed Construction for Utilities Paralleling the Roadway. For the purpose of this Article, limits of proposed construction for utilities extending in the same longitudinal direction as the roadway, shall be defined as follows.
 - a. The horizontal limits shall be a vertical plane, outside of, parallel to, and 2 ft (600 mm) distant at right angles from the plan or revised slope limits.

In cases where the limits of excavation for structures are not shown on the plans, the horizontal limits shall be a vertical plane 4 ft (1.2 m) outside the edges of structure footings or the structure where no footings are required.
 - b. The upper vertical limits shall be the regulations governing the roadbed clearance for the specific utility involved.
 - c. The lower vertical limits shall be either the top of the utility at the depth below the proposed grade as prescribed by the governing agency or the limits of excavation, whichever is less.
- (2) Limits of Proposed Construction for Utilities Crossing the Roadway. For the purpose of this Article, limits of proposed construction for utilities crossing the roadway in a generally transverse direction shall be defined as follows.
 - a. Utilities crossing excavations for structures that are normally made by trenching such as sewers, underdrains, etc. and all minor structures such as manholes, inlets, foundations for signs, foundations for traffic signals, etc., the limits shall be the space to be occupied by the proposed permanent construction, unless otherwise required by the regulations governing the specific utility involved.
 - b. For utilities crossing the proposed site of major structures such as bridges, sign trusses, etc., the limits shall be as defined above for utilities extending in the same general direction as the roadway.

The Contractor shall request all utility owners to field locate their facilities according to Article 107.31. The Engineer may make the request for location from the utility after receipt of notice from the Contractor. On request, the Engineer will make an inspection to verify that the utility company has field located its facilities, but will not assume responsibility for the accuracy of such work. The Contractor shall be responsible for maintaining the excavations or markers provided by the utility owners. This field location procedure may be waived if the utility owner has stated in writing to the Department it is satisfied the construction plans are sufficiently accurate. If the utility owner does not submit such statement to the Department, and they do not field locate their facilities in both horizontal and vertical alignment, the Engineer will authorize the Contractor in writing to proceed to locate the facilities in the most economical and reasonable

manner, subject to the approval of the Engineer, and be paid according to Article 109.04.

The Contractor shall coordinate with any planned utility adjustment or new installation and the Contractor shall take all precautions to prevent disturbance or damage to utility facilities. Any failure on the part of the utility owner, or their representative, to proceed with any planned utility adjustment or new installation shall be reported promptly by the Contractor to the Engineer orally and in writing.

The Contractor shall take all necessary precautions for the protection of the utility facilities. The Contractor shall be responsible for any damage or destruction of utility facilities resulting from neglect, misconduct, or omission in the Contractor's manner or method of execution or nonexecution of the work, or caused by defective work or the use of unsatisfactory materials. Whenever any damage or destruction of a utility facility occurs as a result of work performed by the Contractor, the utility company will be immediately notified. The utility company will make arrangements to restore such facility to a condition equal to that existing before any such damage or destruction was done.

The Contractor may make arrangements for adjustment of utilities outside of the limits of proposed construction provided the Contractor furnishes the Department with a signed agreement with the utility owner covering the adjustments to be made. The cost of any adjustments made outside the limits of proposed construction shall be the responsibility of the Contractor, unless otherwise provided.

It is understood and agreed that the Contractor has considered in the bid all of the permanent and temporary known utilities in their present and/or adjusted positions.

No additional compensation will be allowed for any delays, inconveniences, or damages sustained by the Contractor due to the presence of or any claimed interference from the said known utility facilities or any adjustment of them.

- (b) Unknown Utilities. Except as provided hereinafter, the discovery of an unknown utility will be evaluated according to Article 104.03.
- (1) Definition. An unknown utility is defined as an active or inactive underground utility, which is neither (a) shown in any way in any location on the contract documents; nor (b) identified in writing by the Department to the Contractor prior to the letting. Service connections shall not be considered to be unknown utilities.
 - (2) Compensation. Compensation will not be allowed for delays, inconveniences, or damages sustained by the Contractor from unknown utilities not meeting the above definition or if the discovery of an unknown utility does not cause a shutdown of the work applicable to the utility but only a change in the rate of progress. The provisions of Article 104.03 notwithstanding, compensation for unknown utility delays

determined to be a changed condition will be paid according to the provisions of this Article governing minor and major delays.

- (3) Minor and Major Delays. Minor and Major Delays are defined as follows.
- a. Minor Delay. When the Contractor's operation is stopped by the unknown utility for more than two hours, but not to exceed three weeks.
 - b. Major Delay. When the Contractor's operation is stopped by the unknown utility for more than three weeks.
- (4) Payment. Payment for Minor and Major Delays will be made as follows.
- a. Minor Delay. Labor idled which cannot be used on other work will be paid for according to Article 109.04(b)(1) and (2) for the time between start of the delay and the minimum remaining hours in the work shift required by the prevailing practice in the area.

Equipment idled which cannot be used on other work will be paid for according to Article 109.04(b)(4). The length of time paid for will be the time between start of delay and eight hours working time from start of shift being worked.

For delays exceeding the initial shift, excluding Saturdays, Sundays, and Holidays, Contractor-owned equipment idled by the delay which cannot be used on other work and remaining at the work site, will be paid at one-half the rate permitted in Article 109.04(b)(4) using a maximum eight hours per day for computation purposes. Equipment rented from an independent source will be paid at rates being paid by the Contractor plus move-in move-out costs, but the total amount paid will not exceed three weeks rental.

Additional traffic control required as a result of the operation(s) delayed will be paid for according to Article 109.04.

- b. Major Delay. Labor will be the same as for a Minor Delay.

Equipment will be the same as for a Minor Delay, except Contractor-owned equipment will be limited to three weeks plus the cost of move-out to either the Contractor's yard or another job, whichever is less. Rental equipment may be paid for longer than three weeks provided the Contractor presents adequate support to the Department (including lease agreement) to show retaining equipment on the job is the most economical course to follow and in the public interest.

Additional traffic control required as a result of the operation(s) delayed will be paid for according to Article 109.04 for the total length of the delay.

If the delay is clearly shown to have caused work, which would have otherwise been completed, to be done after material or labor costs have increased, such increases may be paid. Payment for materials will be limited to increased cost substantiated by documentation furnished by the Contractor. Payment for increased labor rates will include those items in Article 109.04(b)(1) and (2), except the 35 percent and ten percent additives will not be permitted. A delay occurring between November 30 and May 1, when work has not started, will not be considered as eligible for payment of measured labor and material costs.

Project overhead (not including interest) will be allowed when all progress on the contract has been delayed, and will be calculated as 15 percent of the delay claim.

- (5) Other Obligations of Contractor. Upon payment of a claim under this provision, the Contractor shall assign subrogation rights to the Department for the Department's efforts of recovery from any other party for monies paid by the Department as a result of any claim under this Provision. The Contractor shall fully cooperate with the Department in its efforts to recover from another party any money paid to the Contractor for delay damages under this Provision.

105.08 Cooperation Between Contractors. The Department reserves the right at any time to contract for and perform other or additional work on or near the work covered by the contract. Each Contractor shall conduct his/her work so as not to interfere with or hinder the progress or completion of the work being performed by other Contractors. In case of dispute, the Engineer shall be the referee and the Engineer's decision shall be final and binding on all.

Each Contractor involved shall assume all liability, financial or otherwise, in connection with his/her 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 by the Contractor because of the presence and operation of other Contractors working within the limits of the same improvement. Each Contractor shall assume all responsibility for all work not completed or accepted because of the presence and operations of the other Contractors.

The Contractor shall arrange the work and shall place and dispose of the materials being used so as not to interfere with the operations of the other Contractors within the limits of the same project. The Contractor shall join his/her work with that of the others in an acceptable manner and shall perform it in proper sequence to that of the others.

105.09 Survey Control Points. Survey control points will be set by the Engineer, unless specified otherwise in the contract, to establish the horizontal and vertical control required for construction of the various contract items of work. The Department will be responsible for the accuracy of the control points and other lines and elevations set by the Engineer. The Contractor shall assume full responsibility for all dimensions and measurements taken or derived by the Contractor from control points set by the Engineer.

The Contractor shall preserve and protect all control points set by the Engineer. If the Contractor removes, disturbs, or otherwise displaces any control point, without the prior approval of the Engineer, the Engineer may deduct the direct engineering cost incurred by the Department in re-establishing the control point from compensation due the Contractor.

The Contractor shall furnish, as directed by the Engineer, the type, size, quality, and quantity of material required to establish control points for the work. The cost incurred by the Contractor in complying with this requirement shall be considered as included in the contract unit prices bid for the various items of work involved and no additional compensation will be allowed.

105.10 Authority and Duties of Resident Engineer. The Resident Engineer is responsible for the administration and satisfactory completion of an assigned construction project. The Resident Engineer has the authority to reject defective work or material and to suspend any work being improperly performed.

105.11 Duties of the Inspector. Inspectors employed by the Department will be authorized to inspect all work done and materials furnished. Such inspection may extend to all or any part of the work and to the preparation, fabrication, or manufacture of the materials to be used. The inspector will not be authorized to alter or waive the provisions of the contract. The inspector will not be authorized to issue instructions contrary to the plans and Specifications, or to act as foreman for the Contractor.

105.12 Inspection of Work. All materials and each part or detail of the work shall be subject at all times to inspection by the Engineer. Such inspection may include mill, plant, or shop inspection, and any material furnished under the Specifications 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 is required to make a complete and detailed inspection.

If the Engineer requests, the Contractor shall remove or uncover such portions of the finished work as may be directed. After examination, the Contractor shall restore said portions of the work to the standard required by the Specifications. Should the work thus exposed or examined prove acceptable, the uncovering or removing, and the replacing of the covering or making good of the parts removed will be paid for as extra work; but should the work so exposed or examined prove unacceptable, the uncovering or removing, and the replacing of the covering or making good of the parts removed, will be at no additional cost to the Department.

When the contract includes railroad grade separation or grade crossing work, all materials for and each part or detail of the work shall be subject at all times to the inspection of the representatives of the Railroad insofar as Railroad interests are concerned, but such inspection shall in no sense make the Railroad a party to the contract.

Additional requirements for inspection of electrical work shall be according to Articles 801.09 and 801.10.

105.13 Final Inspection. Upon due notice from the Contractor of completion of the entire project, the Engineer will make an inspection. If all construction provided for and contemplated by the contract is found satisfactorily completed according to all of the requirements of the contract, the inspection shall constitute the final inspection and the Engineer will notify the Contractor in writing of the date of final inspection.

If the inspection discloses any work, in whole or in part as being unsatisfactory, the Engineer will give the Contractor the necessary instructions for correction of same, and the Contractor shall immediately comply with such instructions. Upon correction of the work, another inspection will be made which shall constitute the final inspection provided the work has been satisfactorily completed. In such event, the Engineer will notify the Contractor in writing of the date of final inspection.

Additional requirements for final inspection of electrical work shall be according to Articles 801.13 through 801.16.

SECTION 106. CONTROL OF MATERIALS

106.01 Source of Supply and Quality Requirements. The materials used on the work shall meet all quality requirements of the contract. The Contractor shall notify the Engineer of the proposed sources of materials prior to delivery. At the option of the Engineer, materials may be approved at the source of supply before delivery is started. If it is found after trial that sources of supply for previously approved materials do not produce uniform and satisfactory products, or if the product from any source proves unacceptable at any time, the Contractor shall furnish acceptable materials from other sources.

All materials to be permanently incorporated in the work shall be new unless otherwise specifically prescribed in the contract documents.

All iron and steel products, which are to be incorporated into the work shall be domestically manufactured or produced and fabricated. The Contractor shall obtain from the iron or steel producer and/or fabricator, in addition to the mill analysis, a certification that all iron or steel materials meet these domestic source requirements.

The application of all coatings, epoxy, galvanizing, painting, etc., to metal products shall be domestically applied.

Metal materials other than iron and steel, which are not domestically produced, may be accepted provided:

- (a) The Contractor notifies the Department in advance of his/her intention to use other than domestically manufactured or produced material.
- (b) Written evidence is provided in English of compliance with all requirements of the Specifications.
- (c) Physical tests conducted by the Department verify the acceptability of the material.

The Contractor is responsible for complying with these conditions so the material can be sampled and tested prior to the time it is required, and no material shall be incorporated in the work until approval is obtained from the Engineer.

106.02 Unacceptable Materials. All materials not conforming to the requirements of the contract at the time they are used will be considered unacceptable and all such materials will be rejected and shall be removed immediately from the site of the work unless otherwise instructed by the Engineer. If in place, they shall be removed and replaced with acceptable materials at no additional cost to the Department. No rejected material, the defects of which have been corrected, shall be used until approval has been given. Upon failure of the Contractor to comply forthwith with any order of the Engineer pursuant to the provisions of this Article, the Engineer shall have authority to remove and replace defective materials and to deduct the cost of removal and replacement from any monies due or to become due the Contractor.

106.03 Samples, Tests, and Cited Specifications. All materials shall be inspected, tested, and approved by the Engineer before incorporation in the work. The Contractor shall give sufficient advance notice of placing orders to permit tests to be completed before the materials are incorporated in the work, and the Contractor shall afford such facilities as the Engineer may require for collecting and forwarding samples and making inspections. All samples shall be furnished without charge to the Department.

Any work in which untested and unaccepted materials are used without approval or written permission of the Engineer shall be performed at the Contractor's risk and may be considered as unacceptable or unauthorized and will not be paid for. Unless otherwise designated, tests will be made by and at the expense of the Department. Samples will be taken by a qualified representative of the Department. All materials being used are subject to inspection, test or rejection at any time. When requested by the Department, the Contractor shall furnish a complete written statement of the origin, composition, and manufacture of any or all materials (manufactured, produced, or grown) to be used in the work.

Wherever in the contract an abbreviated citation, from those listed in Article 101.01, is used followed by an appropriate serial designation, it shall be construed to mean the latest test or specification as the case may be, either as standards, tentative standards, interims, revisions, or amendments, in effect on the date of invitation for bids.

106.04 Plant Inspection. The Engineer may undertake the inspection of materials at the source. In the event plant inspection is undertaken, the Engineer shall have the cooperation and assistance of the Contractor and the source with whom the Contractor has contracted for materials, and shall have full entry at all times to such parts of the plant as may concern the manufacture or production of the materials being furnished.

If required by the Engineer, the source of supply shall furnish an approved building for the use of the inspector. Such building shall be located conveniently near the plant independent of any building used by the source, and equipped essentially to the requirements of Article 670.04.

It is understood that the Department reserves the right to retest all materials which have been tested and accepted at the source of supply after the same have been delivered, and to reject all materials which, when retested, do not meet the requirements of the contract.

When required by the Engineer, the following shall be provided by the Contractor, or source of supply.

- (a) All necessary testing equipment and labor to test samples.
- (b) An approved sampling location and the necessary personnel to assist the Department representative in obtaining samples.
- (c) Adequate safety measures provided and maintained.

106.05 Source of Materials. The source of supply, of each material used, shall be approved by the Engineer before delivery is started. If sources previously approved are found to be unacceptable at any time and fail to produce materials satisfactory to the Department, the Contractor shall furnish materials from other approved sources.

If the Contractor decides to investigate new sources of supply, the Contractor shall furnish without charge such preliminary samples as the Department may require. Tests will be made on these preliminary samples and reports rendered, but it is understood that such tests are for informational purposes only and tests shall not be construed as a guarantee of acceptance of any material which may be delivered later for incorporation in the work. Only materials actually delivered for use will be considered, and their acceptance will be based solely upon the results of the tests made on these materials.

If the Contractor installs equipment or apparatus to produce materials from new sources of supply, the Contractor does so at his/her own risk, and the Contractor shall assume full responsibility for the production of uniform and satisfactory materials. In case of failure of a source of supply to produce materials satisfactory to the Department, the Contractor shall indemnify and save harmless the Department from any and all claims for loss or damage of whatever nature which the Contractor may have suffered by reason of the installation of equipment and the operation of such sources of supply.

When materials are furnished to the Contractor by the Department for inclusion in the work, the Contractor's responsibility for all such materials shall be the same as for materials furnished by the Contractor.

106.06 Stored Materials. If it is necessary to store materials, they shall be protected in such a manner as to ensure the preservation of their quality and fitness for the work. All stored materials will be inspected at the time of use in the work, even though they may have been inspected and approved before being placed in storage. The Contractor may use the right-of-way for storage of materials, but the stockpiles shall be confined to such cleared areas as approved by the Engineer. If stockpiling is done outside of the right-of-way, the additional space required shall be provided by the Contractor at no additional cost to the Department.

106.07 Handling Materials. All materials shall be handled in such manner as to preserve their quality and fitness for the work. Aggregates shall be transported from the storage sites to the work in tight vehicles so constructed as to prevent loss or segregation of materials after loading and measuring in order to prevent inconsistencies in the quantities of materials intended for incorporation in the work as loaded, and the quantities as actually received at the place of operations.

106.08 Certification of Structural Steel Fabricator. All structural steel fabricators performing work on the main load carrying components of steel structures shall be certified under the appropriate category of the AISC Quality Certification Program as follows.

- (a) Fabricators of welded plate girders, box girders, trusses, and arches shall be certified under Category MBr (Major Steel Bridges).
- (b) Fabricators of rolled beam structures, either simple span or continuous, and overhead sign structures shall be certified under Category SBr (Simple Steel Bridges).

106.09 Electrical Work. Additional material requirements for electrical work shall be according to Articles 801.01 through 801.08.

SECTION 107. LEGAL REGULATIONS AND RESPONSIBILITY TO PUBLIC

107.01 Laws to be Observed. The Contractor shall at all times observe and comply with all Federal and State laws, local laws, ordinances, and regulations which in any manner affect the conduct of the work, and all such orders or enactments as exist at the present and which may be enacted later, of legislative bodies or tribunals having legal jurisdiction or which may have affect over the work, and no plea of misunderstanding or ignorance thereof will be considered. The Contractor shall indemnify and save harmless the State and all of its officers, agents, employees, and servants against any claim or liability arising from or based on the violation of such law, ordinance, regulation, order, or enactment, whether by the Contractor or anyone subject to the control of the Contractor.

107.02 Worker's Compensation Insurance. Prior to the approval of his/her contract by the Department, the Contractor shall furnish to the Department certificates of insurance covering Worker's Compensation, or satisfactory evidence that this liability is otherwise taken care of according to Section 4(a) of the "Worker's Compensation Act of the State of Illinois" as amended.

Such insurance, or other means of protection as herein provided, shall be kept in force until all work to be performed under the terms of the contract has been completed and accepted according to the Specifications, and it is hereby understood and agreed the maintenance of such insurance or other protection, until acceptance of the work by the Department, is a part of the contract. Failure to maintain such insurance, cancellation by the Industrial Commission of its approval of such other means of protection as might have been elected, or any other act which results in lack of protection under the said "Worker's Compensation Act" may be considered as a breach of the contract.

107.03 Employment Preference. The Contractor shall comply with the "Veterans Preference Act" as amended. The foregoing requirements shall not be applied to discriminate or give preference to veterans of a district over veterans of any political jurisdiction, state, possession, or territory of the United States on Federal-Aid projects.

107.04 Permits and Licenses. The Contractor shall procure all permits and licenses, pay all charges and fees, and give all notices necessary and incident to the due and lawful prosecution of the work.

The Contractor before entering upon the right-of-way of a railroad for the performance of any construction work, or work preparatory thereto, shall secure permission from the Railroad Engineer for the occupancy and use of the railroad's right-of-way outside the limits of the railroad grade separation structure or grade crossing; and, in addition, the Contractor shall confer with the Railroad Engineer relative to railroad requirements for clearances, operation, and general safety regulation.

107.05 Patented Devices, Material, and Processes. If any design, device, material, or process covered by letters, patent, or copyright is used by the Contractor, whether required or not, the Contractor shall provide for such use by suitable legal agreement with the patentee or owner, guaranteeing the Department indemnity from and against all claims for infringement, and shall include the cost of such agreement in the price bid for the work. It shall be the duty of the Contractor, if so demanded by the Department, to furnish said Department with a copy of the legal agreement with the patentee or owner, and if such copy is not furnished when demanded, then the Department may, if it so elects, withhold any and all payments to said Contractor until said legal agreement is furnished. If a suitable legal agreement with the patentee or owner is not made as required herein, the Contractor and surety shall indemnify and save harmless the Department from any and all claims for infringement by reason of the use of any such patented design, device, material, or process, or any trademark or copyright in connection with the work agreed to be performed under the contract, and shall indemnify the Department for any cost, expense, and damages which it may be obliged to pay by reason of any such infringement at any time during the prosecution or after the completion of the work.

107.06 Restoration of Surfaces Opened by Permit. Any individual, firm, partnership or corporation wishing to make an opening in the surface must secure a permit from the Department, and the Contractor shall not allow any person to make an opening unless a duly authorized permit from the Department is presented. Upon the presentation of a duly authorized permit, the Contractor shall allow parties bearing such permits to make openings in the surface. The Contractor shall, if ordered by the Engineer in writing, make, in a manner approved by the Engineer, all necessary repairs to such openings, and such necessary work ordered by the Engineer will be paid for as extra work as provided in Article 109.04.

107.07 Federal Aid Provision. When the United States Government pays all or any portion of the cost of a project, the Federal laws and the rules and regulations made pursuant to such laws must be observed by the Contractor, and the work shall be subject to the inspection of the appropriate Federal agency.

Such inspection shall in no sense make the Federal Government a party to this contract and will in no way interfere with the rights of either party hereunder.

107.08 Sanitary Provisions. The Contractor shall provide and maintain in a neat, sanitary condition such accommodations for the use of the Contractor's employees and Department representatives as may be necessary to comply with the requirements of the State and Local Boards of Health, or of other authorities having jurisdiction.

107.09 Public Convenience and Safety. The Contractor shall notify the Engineer at least three days in advance of the starting of any construction work which might in any way inconvenience or endanger traffic, so arrangements may be made, if necessary, for closing the road and providing suitable detours. The Contractor shall at all times conduct the work in such a manner as to ensure the least obstruction to vehicular and pedestrian traffic. The convenience of the general public and residents along the highway shall be provided for in an adequate and satisfactory manner. When directed by the Engineer, the Contractor shall provide and maintain an acceptable surface aggregate for temporary roads and approaches for access to driveways, houses, buildings, or other property abutting the highway or street being improved. The cost incurred by the Contractor for providing temporary roads will be paid for as extra work as provided in Article 104.02.

The Engineer may require the Contractor to finish a section on which work is in progress before work is started on any additional sections if the opening of such section is essential to public convenience.

No broken pavement, open holes, trenches, barricades, cones, or drums will remain on or adjacent to the traveled way and all lanes shall be opened to traffic during any legal holiday period, except where major bridge construction and/or other roadway reconstruction (excluding patching and resurfacing) requiring overnight lane closures would make it impractical. The legal holidays will include:

- | | |
|------------------|------------------|
| New Year's Day | Labor Day |
| Easter | Thanksgiving Day |
| Memorial Day | Christmas Day |
| Independence Day | |

The length of the holiday period shall vary as follows, depending on the day of the week the legal holiday falls on or is observed.

Day of Holiday	Length of Holiday Period
Sunday	3 p.m. Friday - 12 midnight Sunday
Monday	3 p.m. Friday - 12 midnight Monday
Tuesday	3 p.m. Friday - 12 midnight Tuesday
Wednesday	3 p.m. Tuesday - 12 midnight Wednesday
Thursday	3 p.m. Wednesday - 12 midnight Sunday
Friday	3 p.m. Thursday - 12 midnight Sunday
Saturday	3 p.m. Friday - 12 midnight Sunday

When any construction work is performed on structures over pavements which are open to traffic, the Contractor shall protect the traffic from falling objects and/or

materials. The Contractor's method of protection shall be subject to the approval of the Engineer and the cost thereof shall be included in the work involved.

The following vertical and horizontal restrictions shall pertain to roads as defined in the Illinois Highway Code, Article 2, Division 1, Section 2-101 when construction is being performed with the road open to traffic.

In the event that any construction work will create a horizontal or vertical clearance restriction or will cause a reduction in the existing vertical or horizontal clearance on the highway under construction, the Contractor shall notify the Engineer (in writing) one week in advance of performing the work involved.

Notification of horizontal clearance changes shall include those in which the existing lane width is reduced. Notification of vertical clearance changes shall include all vertical changes regardless of the height involved. Notifications shall include both permanent and temporary changes.

In the event that the vertical clearance to any road surface will become less than 14.5 ft (4.4 m), the Contractor (in addition to the aforementioned notifications) shall furnish and install "LOW CLEARANCE" signs and any required advance warning signs according to the current edition of the State of Illinois Manual on Uniform Traffic Control Devices for Streets and Highways, said signs to be placed at locations designated by the Engineer. The designated signs shall be required for permanent clearance changes and for temporary features such as safety nets and false work when the road is open to traffic. When temporary features are to be removed or revised, the Contractor shall again notify the Engineer as provided herein and shall revise the signs to indicate the revised clearance condition.

Except for the cost of providing temporary roads and approaches, all labor, materials, and equipment required to satisfy the conditions stated herein shall be considered as included in the contract bid prices and no extra compensation will be allowed. These requirements shall not reduce the obligations of the Contractor concerning traffic control and responsibility to the public as provided for in the plans and elsewhere in the Specifications or Special Provisions.

107.10 Temporary Railroad Grade Crossing. The Contractor shall make arrangements with the Railroad for the construction, protection, maintenance, and later removal of any temporary grade crossings, across the tracks of the Railroad necessary for the use of the Contractor during the construction of the improvement. The Contractor shall not at any time cross the Railroad's right-of-way or tracks with vehicles or equipment of any type or character, except at such temporary grade crossing as may be constructed according to a separate private crossing agreement, for which the Railroad shall be reimbursed in the full amount of all costs incurred, and as specified herein, or at an existing open public grade crossing. The Contractor shall reimburse the Railroad promptly for the cost of such work, including travel and other expenses involved in furnishing personnel, based on bills rendered monthly or less frequently. The cost of such temporary grade crossing construction, protection, maintenance, and later removal shall be considered as included in the contract unit prices bid for the various items of work involved, and no additional compensation will be allowed.

107.11 Insurance Requirements for Railroad-Highway Crossings. For all railroad-highway grade separation work and selected at-grade crossings as indicated in the contract proposal, the Contractor shall obtain Railroad's Protective Liability and Property Damage Liability Insurance according to the requirements specified hereinafter.

Upon receipt of Certificates of Insurance from the Contractor evidencing the required insurance coverages, the Department will request approval of the insurance and permission to enter upon the Railroad's right-of-way from the Railroad and will advise the Contractor of the approvals. No work shall be performed on the Railroad's right-of-way until the Contractor has received written notice from the Department that the policy has been approved. Failure on the part of the Contractor to secure approval of the insurance shall be just cause for the cancellation of the award and forfeiture of the proposal guaranty to the State, not as a penalty but in payment of liquidated damages sustained as a result of such failure.

The Contractor, with respect to the operations he/she or any subcontractors perform, will be required to carry in the name of and on behalf of each Railroad involved, Railroad Protective Public Liability and Property Damage Liability Insurance (ISO Form) in limits not less than \$2,000,000 combined single limit per occurrence for bodily injury liability and property damage liability with an aggregate limit of \$6,000,000 over the life of the policy. This insurance shall be according to the form as provided for and to be furnished by the Department. Copies of this form will be furnished on request and no substitutes will be accepted. The Contractor shall furnish the Department the original and one certified copy of the policy.

107.12 Protection of Railroad Traffic and Property. All work to be done by the Contractor on the Railroad's right-of-way shall be performed in a manner satisfactory to the Railroad Engineer. The work shall be performed at such times and in such a manner as not to unnecessarily interfere with the movements of trains or traffic upon the tracks of the Railroad. The Contractor shall use all reasonable care and precaution in order to avoid accidents, damage, delay, or interference with the Railroad's trains or other facilities.

The Contractor shall make provisions satisfactory to the Railroad Engineer against disturbing, in any manner, the Railroad embankment, structures, and tracks during construction. If the work to be performed by the Contractor shall, as determined by the Railroad Engineer, weaken or undermine the Railroad embankment, structures, or tracks, then the said work shall be stopped, upon notice so to do, and the forces of the Railroad will proceed with the performance of the work of strengthening the Railroad embankment, structures, or tracks, and the actual cost thereof shall be borne by the Contractor. Should any damage occur to Railroad property as a result of the Contractor's unauthorized or negligent operations, the Railroad may repair such damages and/or perform any work for protection of its property it may deem necessary and the actual cost thereof shall be borne by the Contractor.

The services of Railroad flaggers will be required when the Contractor's operations will encroach on or over the Railroad's right-of-way: (a) during the excavation, placing, and removal of cofferdams or sheeting, driving of foundation piling and placing of concrete footings for piers adjacent to the track; (b) driving of pile bents adjacent to the track; (c) construction of the permanent structure including

erection and removal of falsework, bracing, or forms over or adjacent to the track; (d) transporting material or equipment across the track; (e) any operations involving direct interference with and/or coming in the close vicinity of power lines or Railroad signal and communication lines, underground cables, fuel oil facilities, or pipe lines which might result in fire or damage to such facilities to endanger Railroad operations, or to endanger the public in the transacting of business on Railroad right-of-way; (f) fouling of operating clearances or reasonable probability of accidental hazard to Railroad traffic; (g) during removal of portions of existing structures immediately over or adjacent to a track; and (h) at all other times when the Railroad Engineer has determined conditions require such protection and the Engineer has determined conditions warrant such protection and has approved the request.

As soon as possible, the Contractor shall furnish the Railroad with the approximate dates flagging services are needed. The approximate date of initiation of flagging services shall be at least 30 calendar days after notification. The Contractor shall also notify the Railroad at least 48 hours in advance of the actual initiation and termination of flagging services.

The Contractor shall pay the costs of Railroad flaggers required for transporting material or equipment across the track. These costs shall be considered as included in the contract unit prices bid for the various items of work involved. All other Railroad flagger costs will be incurred by the Department.

When the contract includes Railroad grade separation work, the Contractor shall conduct work so as to cause no temporary or permanent reduction of the existing vertical clearance over the top of high rail or temporary or permanent obstruction in an area affording a minimum horizontal clearance of 8.5 ft (2.60 m) on each side of the centerline of any track, measured at right angles thereto. No materials, supplies, or equipment shall be stored within 15 ft (4.5 m) of the centerline of any track, measured at right angles thereto. If lesser clearances than the above are required for any part of the work, the Contractor shall secure written authorization from the Railroad Engineer for such lesser clearances not less than five days in advance of the start of that part of the work, provided permission has been obtained from the Illinois Commerce Commission. The cost of conforming to these requirements shall be considered as included in the contract unit prices bid for the various items of work involved, and no additional compensation will be allowed.

107.13 Bridges Over Navigable Waters. All work on navigable waters shall be so conducted that free navigation of the waterways will not be interfered with and that the existing navigable depths will not be impaired, except as allowed by permit issued by the authority having jurisdiction over the navigable waters.

107.14 Maintenance of Traffic. When work zone traffic control is required along the route under construction, or when any section of road is closed for construction operations of any type, or when any section of the road is opened to traffic prior to completion of all work, the Contractor shall protect the workers and provide for safe and convenient public travel by providing adequate traffic control. The traffic control shall conform to the Traffic Control Plan, included in the contract, and to the requirements of Section 701.

107.15 Dirt on Pavement or Structures. Where the Contractor's equipment is operated on any portion of the pavement or structures used by traffic on or adjacent

to the section under construction, the Contractor shall clean the pavement of all dirt and debris at the end of each day's operations, and at other times as directed by the Engineer.

The Contractor shall furnish, erect and maintain "SLIPPERY WHEN WET" signs at such locations, when required during wet weather.

The cost of this work shall be included in the unit prices bid and no additional compensation will be allowed.

107.16 Equipment on Pavement and Structures. The pavement and structures on or adjacent to the work shall be protected, in a manner satisfactory to the Engineer, from damage by lugs or cleats on treads or wheels of equipment. All equipment used in the prosecution of the work shall comply with the legal loading limits established by the statutes of the State of Illinois when moved over or operated on any pavement or structure unless permission in writing has been issued by the Engineer. Before using any equipment which may exceed the legal loading, the Contractor shall secure a permit, allowing ample time for making an analysis of stresses to determine whether or not the proposed loading would be within safe limits. The Department will not be responsible for any delay in construction operations or for any costs incurred by the Contractor as a result of compliance with the above requirements.

107.17 Use of Explosives. When the use of explosives is necessary for the prosecution of the work, the Contractor shall exercise the utmost care not to endanger life or property, including new work. The Contractor shall be responsible for all damage resulting from the use of explosives.

All explosives shall be stored in a secure manner in compliance with all laws and ordinances, and all such storage places shall be clearly marked. Where no local laws or ordinances apply, storage shall be provided satisfactory to the Engineer and, in general, not closer than 1000 ft (300 m) from the road or from any building or camping area or place of human occupancy.

The Contractor shall notify each public utility company having structures in proximity to the site of work of the intention to use explosives. Such notice shall be given sufficiently in advance to enable the companies to take such steps as they deem necessary to protect their property from injury.

107.18 Use of Fire Hydrants. If the Contractor desires to use water from hydrants, the Contractor shall make application to the proper authorities, and shall conform to the municipal ordinances, rules, or regulations concerning their use.

Fire hydrants shall be accessible at all times to the Fire Department. No material or other obstructions shall be placed closer to a fire hydrant than permitted by municipal ordinances, rules, or regulations, or within 5 ft (1.5 m) of a fire hydrant, in the absence of such ordinances, rules, or regulations.

107.19 Unexpected Regulated Substances. If the Contractor encounters or exposes during construction any abnormal condition which may indicate the presence of a regulated substance, work in this area shall be immediately discontinued and the Engineer shall be notified. A regulated substance is a hazardous substance, special

waste or petroleum or any fraction thereof, as those terms are defined in the Illinois Compiled Statutes.

Abnormal conditions include, but will not be limited to, the following: presence of underground storage tanks or barrels; discolored earth, metal, wood, etc.; visible fumes; obnoxious or unusual odors; excessively hot earth; smoke; or any other condition which appears abnormal and could be a possible indicator of regulated substances. The conditions shall be treated with extraordinary caution. Appropriate action shall be taken to ensure public and employee safety.

The Contractor's operation shall not resume until directed by the Engineer. The Department may contact the IEMA and/or the IEPA. Removal and disposal operations shall be coordinated with the removal and disposal operations of contaminated soil, groundwater and/or an UST shall be according to Section 669.

Should the disposition of waste material require special procedures by certified personnel, the Department will make arrangements with qualified persons to dispose of the material. If the Department provides for removal and disposal operations by forces other than the Contractor's and arranges for the Contractor to pay all costs in connection therewith, the Contractor will be reimbursed according to Article 109.05.

Disposition of the regulated substances shall be made according to the requirements and regulations of the IEPA. Any waste generated as a special waste or hazardous waste shall be manifested off-site using the Department's county generator number. An authorized representative of the Department will sign all manifests for the disposal of the contaminated material and confirm the Contractor's transported volume. Any waste generated as a non-special waste may be disposed of off-site at a facility permitted by the IEPA without a manifest, a special waste transporter, and a generator number.

The Contractor shall abide with the Response Action Contractor Indemnification Act of the Illinois Compiled Statutes.

When the Contractor encounters unexpected regulated substances due to the presence of unknown utilities, Article 105.07(b) shall apply; otherwise, if the Engineer does not direct a resumption of operations, the provisions of Article 108.07 shall apply. When the Contractor performs necessary work required to dispose of these materials, payment will be made at the contract unit price for items applicable to such work, or payment will be made according to Article 104.02.

107.20 Protection and Restoration of Property. If corporate or private property interferes with the work, the Contractor shall notify, in writing, the owners of such property, advising them of the nature of the interference and shall arrange to cooperate with them for the protection or disposition of such property. The Contractor shall furnish the Engineer with copies of such notifications and with copies of any agreements between the Contractor and the property owners concerning such protection or disposition.

The Contractor shall take all necessary precautions for the protection of corporate or private property, such as walls and foundations of buildings, vaults, underground structures of public utilities, underground drainage facilities, overhead structures of public utilities, trees, shrubbery, crops, and fences contiguous to the

work, for which the contract does not provide for removal or specify precautions. The Contractor shall protect and carefully preserve all official survey monuments, property marks, section markers, and Geological Survey Monuments, or other similar monuments, until the owner, or an authorized surveyor or agent has witnessed or otherwise referenced their location or relocation. The Contractor shall notify the Engineer of the presence of any such survey or property monuments as soon as they are discovered.

The Contractor shall be responsible for the damage or destruction of property of any character resulting from neglect, misconduct, or omission in his/her manner or method of execution or nonexecution of the work, or caused by defective work or the use of unsatisfactory materials, and such responsibility shall not be released until the work shall have been completed and accepted and the requirements of the Specifications complied with.

Whenever public or private property is so damaged or destroyed, the Contractor shall, at no additional cost to the Department, restore such property to a condition equal to that existing before such damage or injury was done by repairing, rebuilding, or replacing it as may be directed, or the Contractor shall otherwise make good such damage or destruction in an acceptable manner. If the Contractor fails to do so, the Engineer may, after the expiration of a period of 48 hours after giving the Contractor notice in writing, proceed to repair, rebuild, or otherwise restore such property as may be deemed necessary, and the cost thereof will be deducted from any compensation due, or which may become due, the Contractor under this or any other contract between the Department and the Contractor.

The Contractor shall remove all mailboxes within the limits of construction which interfere with construction operations and shall erect them at temporary locations.

As soon as construction operations permit, the Contractor shall set the mailboxes at their permanent locations. This work shall be performed as directed by the Engineer. The Contractor shall replace, at no additional cost to the Department, any mailbox or post which has been damaged by the Contractor's operations.

The cost of all materials required and all labor necessary to comply with the above Provisions will not be paid for separately, but shall be considered as included in the unit bid prices of the contract, and no additional compensation will be allowed.

107.21 Protection and Preservation of Aboriginal Records and Antiquities. The Contractor shall take reasonable precautions to avoid disturbing aboriginal records and antiquities of archaeological, paleontological, or historical significance. No objects of this nature shall be disturbed without written permission of the Engineer. When such objects are uncovered unexpectedly, the Contractor shall notify the Engineer of their presence and shall not disturb them until written permission to do so is granted.

If it is determined by the Engineer, in consultation with the Illinois Historic Preservation Agency, that exploration or excavation of aboriginal records or antiquities on land owned or leased by the State is necessary to avoid loss, the Contractor shall cooperate in the salvage work attendant to preservation. If the Engineer determines the salvage work will delay the Contractor's work, an appropriate extension of contract time will be granted.

107.22 Approval of Proposed Borrow Areas, Use Areas, and/or Waste Areas. All proposed borrow areas, including commercial borrow areas; use areas, including, but not limited to temporary access roads, detours, runarounds, plant sites, and staging and storage areas; and/or waste areas are to be designated by the Contractor to the Engineer and approved prior to their use. A location map delineating the proposed borrow area, use area, and/or waste area shall be submitted to the Engineer for approval along with an agreement from the property owner granting the Department permission to enter the property and conduct cultural and biological resource reconnaissance surveys of the site for archaeological resources, threatened or endangered species or their designated essential habitat, wetlands, prairies, and savannahs. Submittals shall include the intended use of the site and provide sufficient detail for the Engineer to determine the extent of impacts to the site. The Engineer will initiate cultural and biological resource reconnaissance surveys of the site, as necessary, at no cost to the Contractor. The Engineer will advise the Contractor of the expected time required to complete all surveys. If the proposed area is within 150 ft (45 m) of the highway right-of-way, a topographic map of the proposed site will be required as specified in Article 204.02.

- (a) Archaeological Resources. If potentially significant archaeological resources are identified, the Contractor shall have the option of choosing another site or paying for additional archaeological testing. If the Contractor chooses the option of additional testing, the Engineer will obtain a time and cost proposal for the Contractor's approval prior to the testing work being done. The archaeological testing may result in two possible conclusions:
- (1) Results of the tests show that no further archaeological work is warranted and the site is approved, or
 - (2) Results of the test indicate that data recovery is warranted and the Contractor shall have the option of selecting another location or paying for the salvage operations.

If the area is approved as a borrow area, use area, and/or waste area, the Contractor shall obtain as part of the agreement with the property owner, the release of ownership of any artifacts found on the site. The agreement shall also provide that such artifacts will become the property of the State of Illinois.

The Contractor shall furnish copies of the proposed and final agreement to the Engineer for approval.

In the event hydraulic fill or commercial material from rock quarries, waste material, etc., is to be used, a reconnaissance survey for archaeological resources will be conducted only if disturbance of previously undisturbed areas is required to provide such material.

- (b) Wetlands. If the results of the biological resource reconnaissance survey indicate wetlands may be adversely affected by the proposed borrow area, use area, and/or waste area, the Engineer will not approve the area for use unless the Contractor provides documentation of concurrence from the Illinois Department of Natural Resources in the following:

- (1) There is no feasible alternative to the proposed action which adversely affects wetlands, and
- (2) The proposal for use of the area includes all practicable measures to minimize adverse impacts to the wetland and to provide appropriate compensation for any unavoidable adverse impacts.

In addition, when a proposed borrow area, use area and/or waste area may involve the discharge of material into wetlands, the Engineer will not approve the area for use unless the Contractor provides evidence of necessary permit approval from the U. S. Army Corps of Engineers.

- (c) **Threatened and Endangered Species.** If the results of the biological resource reconnaissance survey indicate threatened or endangered species or their designated essential habitat may be affected by the proposed borrow area, use area, and/or waste area, the Engineer will not approve the area for use unless the Contractor provides evidence of compliance with the consultation requirements of the Illinois Endangered Species Protection Act and has received from the Illinois Department of Natural Resources one of the following findings.

- (1) The action may promote the conservation of a listed species or its essential habitat, or
- (2) The action is not likely to jeopardize a listed species or its essential habitat.

If the Department of Natural Resources advises the proposed action may be likely to jeopardize a listed species or its essential habitat, the Engineer will not approve the site.

- (d) **Forested Areas, Prairies, and Savannahs.** If the results of the biological resource reconnaissance survey indicate that forested areas, prairies, or savannahs may be adversely affected by the proposed borrow area, use area, and/or waste area, the Engineer will recommend the Contractor minimize harm to such areas by selecting alternative sites, where practical, and by providing replacement plantings of trees or prairie vegetation, as appropriate. Such plantings may be recommended for the borrow area, use area, and/or waste area, subject to the approval of the property owner, or on highway right-of-way.

107.23 Protection of Streams, Lakes, Reservoirs, Natural Areas, Wetlands, Prairie Areas, Savannahs, and Endangered and Threatened Species. The Contractor shall take sufficient precautions to prevent pollution of streams, lakes, reservoirs, and wetlands with fuels, oils, bitumens, calcium chloride, or other harmful materials. The Contractor shall conduct and schedule operations so as to avoid or minimize siltation of streams, lakes, reservoirs, and wetlands.

The Contractor shall not disturb designated natural areas, wetlands, identified locations where State or Federal-listed endangered or threatened species are known to occur, or areas that have been designated as essential habitat for such species, or

prairie or Savannah areas where the Department has made commitments for protection of these locations/areas. Also, if previously unidentified natural areas, wetlands, prairies, savannahs, or areas or locations suspected of containing protected species are identified during construction, the Contractor shall not disturb them unless written permission to do so is granted by the Engineer.

If the Engineer determines measures are necessary to mitigate project effects on natural areas, wetlands, prairies, savannahs, protected species, or essential habitat located on land owned or leased by the State, the Contractor shall cooperate in accomplishing these measures.

107.24 Forest Protection. In carrying out work within or adjacent to State or National Forests, the Contractor shall comply with all regulations of the State Fire Marshall, Conservation Commission, Forestry Department, or other authority having jurisdiction governing the protection of forests and the carrying out of work within forests, and shall observe all sanitary laws and regulations with respect to the performance of work in the forest areas. The Contractor shall keep the areas in an orderly condition; dispose of all refuse; and obtain permits for the construction and maintenance of all construction camps, stores, warehouses, residences, latrines, cesspools, septic tanks, and other structures according to the requirements of the Forest Supervisor.

The Contractor shall take all reasonable precaution to prevent and suppress forest fires and shall require employees and subcontractors, both independently and at the request of Forest officials, to do all within their power to prevent and suppress and to assist in preventing and suppressing forest fires and to make every possible effort to notify a Forest official at the earliest possible moment of the location and extent of any fire seen by them.

107.25 Protection and Restoration of Traffic Signs. All traffic signs within the limits of construction which interfere with construction operations or which are obscured by or otherwise interfered with by the construction operations to the extent that they no longer have the desired effect on traffic, shall be removed by the Contractor when directed by the Engineer. Any such signs the Engineer determines are essential to the safe and orderly flow of traffic shall be re-erected immediately by the Contractor at temporary locations in a manner approved by the Engineer.

The Contractor shall maintain the signs in a straight and neat condition for the duration of the temporary mounting. Signs which are not to be re-erected immediately shall be stored off the ground in a covered area. As soon as construction operations permit, the signs shall be replaced at their permanent locations to the satisfaction of the Engineer.

Any sign or post which the Engineer determines has been damaged due to the construction operation or while in storage shall be replaced by the Contractor.

The costs of all materials required and all labor necessary to comply with this Provision will be considered as included in the unit bid prices of the contract and no additional compensation will be allowed.

107.26 Indemnification. To the fullest extent permitted by law, the Contractor shall be responsible for any and all injuries to persons or damages to property due to

the activities of the Contractor, subcontractors, suppliers, agents, or employees arising out of or resulting from performance of the contract, or any activity in connection therewith. The Contractor shall indemnify and hold harmless the Department, its officers, employees, and agents from any and all claims, lawsuits, actions, costs, and fees (including reasonable attorney fees and expenses) of every nature or description, arising from, growing out of, or connected with the work, or on account of or in consequence of any neglect in safeguarding the work or on account of or in consequence of using unacceptable materials in constructing the work or because of any act or omission, neglect, or misconduct of the Contractor, its officers, employees, agents, its subcontractor, or subcontractors, anyone directly or indirectly employed by them, and/or anyone for whose acts they may be liable or because of any claims or amount recovered by reason of any infringement of any patent, trademark, or copyright or by reason of the violation of any law, ordinance, order or decree. This obligation is binding on the Contractor without regard to whether or not such claim, damage, loss, or expense is caused in part by the act, omission, or negligence of the Department or its officers, employees, or agents.

In claims against the Department or any individual indemnified under this Article by an employee of the Contractor, a subcontractor, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable, the indemnification herein shall not be limited by a limitation on amount or type of damages payable by or for the Contractor or subcontractor under any employee benefits act including but not limited to the Worker's Compensation Act.

In the event any such claim, lawsuit, or action is asserted, any such money due the Contractor under and by virtue of the contract as shall be deemed necessary by the Department for the payment thereof, may be retained by the Department for said purpose, or in case no money or insufficient money is due to satisfy such claim, lawsuit, or action, the Contractor's Surety shall remain liable for any payment therefore until any such lawsuit, action, or claim has been settled or has been fully judicially determined and satisfied.

No inspection by the Department, its employees or agents shall be deemed a waiver by the Department of full compliance with the requirements of the contract. This indemnification shall not be limited by the required minimum insurance coverages provided in the contract.

107.27 Insurance. The Contractor shall obtain and thereafter keep in force the following insurance coverages provided by insurance companies acceptable to the Department and authorized to transact business under the laws of the State of Illinois. The insurance companies providing coverage shall be rated in the Best's Key Rating Guide. The Department will accept companies with a rating not lower than B+ provided the financial size category is VII or larger. Companies rated A- or better shall have a financial size category of not less than VI. Coverage limits shall be written at not less than the minimum specified in this Article. Higher minimum limits and additional coverage may be specified by a special provision elsewhere in the contract. Whether stated in this Article or elsewhere, the Department does not warrant the adequacy of the types of insurance coverage or the limits of liability specified.

- (a) Workers Compensation and Employers Liability.

(1) Workers compensation shall be provided according to the provisions of the Illinois Worker's Compensation Act, as amended. Notwithstanding the rating and financial size categories stated in this Article, coverage may be provided by a group self-insurer authorized in Section 4(a) of the Act and approved pursuant to the rules of the Illinois Department of Insurance.

(2) Employers Liability.

- a. Each Accident \$500,000
- b. Disease-policy limit \$500,000
- c. Disease-each employee \$500,000

(b) Commercial General Liability. Required liability insurance coverage shall be written in the occurrence form and shall provide coverage for operations of the Contractor; operations of subcontractors (contingent or protective liability); completed operations; broad form property damage and hazards of explosion, collapse and underground; and contractual liability. The general aggregate limit shall be endorsed on a per project basis.

(1) General Aggregate Limit \$2,000,000

(2) Products-Completed Operations

Aggregate Limit \$2,000,000

(3) Each Occurrence Limit \$1,000,000

The coverage shall provide by an endorsement in the appropriate manner and form, the Department, its officers, and employees shall be named as additional insureds with respect to the policies and any umbrella excess liability coverage for occurrences arising in whole or in part out of the work and operations performed. The Department may accept a separate owner's protective liability policy in lieu of the Department, it's officers, and employees being insureds on the Contractor's policies.

(c) Commercial Automobile Liability. The policy shall cover owned, non-owned, and hired vehicles.

Bodily Injury & Property Damage
Liability Limit Each Occurrence \$1,000,000

(d) Umbrella Liability. Any policy shall provide excess limits over and above the other insurance limits stated in this Article. The Contractor may purchase insurance for the full limits required or by a combination of primary policies for lesser limits and remaining limits provided by the umbrella policy.

All insurance shall remain in force during the period covering occurrences happening on or after the effective date and remain in effect during performance of the work and at all times thereafter when the Contractor may be correcting, removing, or replacing defective work until notification of the date of final inspection. Termination or refusal to renew shall not be made without 30 days prior written notice

to the Department by the insurer and the policies shall be endorsed so as to remove any language restricting or limiting liability concerning this obligation.

Certified copies of the original policies or certificate(s) of insurance by the insurer(s) issuing the policies and endorsements setting forth the coverage, limits, and endorsements shall be filed with the Department before the Department will execute the contract. A certificate of insurance shall include a statement "the coverage and limits conform to the minimums required by Article 107.27 of the Standard Specifications for Road and Bridge Construction". Any exception or deviation shall be brought to the attention of the Department for a ruling of acceptability. In no event shall any failure of the Department to receive policies or certificates or to demand receipt be construed as a waiver of the Contractor's obligation to obtain and keep in force the required insurance.

All costs for insurance as specified herein will be considered as included in the cost of the contract. The Contractor shall, at his/her expense and risk of delay, cease operations if the insurance required is terminated or reduced below the required amounts of coverage. Coverage in the minimum amounts set forth herein shall not be construed to relieve the Contractor from his/her obligation to indemnify in excess of the coverage according to the contract.

107.28 Contractor Safety Responsibility. Nothing in this contract or the contracts between the Department and any construction engineering consultant(s) is intended or shall be construed, unless otherwise expressly stated, to reduce the responsibility of the Contractor, a subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, from full and complete supervision and achievement of work place safety. Any inspection of the work conducted by the Department, the construction engineering consultant(s), and the officers and employees of any of them, whether notice of the results thereof is provided to anyone or not provided to anyone, shall neither establish any duty on their parts nor create any expectation of a duty to anyone, including but not limited to third parties, regarding work place safety.

In order to insure this and other duties of the Contractor certain indemnification and insurance is required by the contract. Additionally, the Contractor guarantees to the Department a safe work place shall be provided for all employees of the Contractor and each of its subcontractors. There shall be no violation by the Contractor, a subcontractor, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable of the applicable standards of the Occupational Safety and Health Act, any other work place safety act of this State, or other work place safety requirement of the Federal Highway Administration if the contract is funded in part with federal funds. The Contractor agrees to require this work place safety guarantee of all subcontractors according to Article 108.01, and expressly to require the Department to be a third party beneficiary of each guarantee.

107.29 Opening of Section of Highway to Traffic. The work under construction shall not be opened to traffic until authorized by the Engineer in writing. The Department reserves the right to use and to open to traffic any portion of the work before completion of the entire work when the Engineer determines that an early opening is in the interest of the public or when the Contractor has failed to prosecute the work continuously and efficiently. Such opening shall not be construed as an acceptance of the work, or any part of it, or cause for the Department to incur any

liability to the Contractor for any additional costs, except as provided in Article 107.30 or otherwise expressly provided in the contract.

Whenever the Contractor is required to open to traffic all of the work or any portion thereof according to the authorization of the Engineer given herein, the Contractor shall conduct the remainder of the construction operations so as to cause the least obstruction to traffic and according to the traffic control plan established in the contract or by the Engineer.

107.30 Contractor's Responsibility for Work. Except as otherwise provided in this Article, all work of the contract, including work added to the contract, shall be under the charge and care of the Contractor. The Contractor shall protect and maintain the work until the date of final inspection is provided in writing to the Contractor, by the Department according to Article 105.13. The Contractor shall assume the sole responsibility for risk of loss to the work from or by any cause whatsoever, without regard to its state of completion. The Contractor shall rebuild, repair, restore, replace, and make good all lost, destroyed, or damaged work to the condition required by the contract and shall bear all the expense and costs to do so, except when the Engineer determines the loss, destruction or damage to the work to be caused by a cataclysmic event, an act of the public enemy, or an act of a governmental authority. This exception shall not apply should the Engineer determine that the loss, destruction, or damage resulted from the Contractor's failure to take reasonable precautions or to exercise sound engineering and construction practices while conducting the work. The Contractor and Department understand and agree that the definition of what constitutes a cataclysmic event cannot be written with precision, and that application of this exception can be the subject of dispute. Therefore, the Contractor and Department agree that the Engineer will determine the occurrence of a cataclysmic event, the eligibility for reimbursement, and the expenses and costs to be reimbursed in accordance with this exception to the Contractor's responsibility for the work. All determinations of the Engineer shall be final. The Contractor shall have no entitlement to reimbursement, under this or any other article or provision of the contract, for any or all expenses or costs in the absence of the affirmative determination by the Engineer as to coverage by this exception and the amounts eligible for reimbursement, and the Contractor agrees that the application or denial of the application of this exception shall not be cause for action in the Illinois Court of Claims and hereby waives the same.

The provisions of this Article shall not apply to damage caused by traffic on sections not constructed under traffic but, opened to traffic by written order of the Engineer according to Article 107.29 to serve the public interest unless the damage was caused in whole or in part by the Contractor's operations or negligence. If the Contractor has failed to prosecute the work continuously and efficiently or, if the Contractor has failed to prosecute work appurtenant to the roadway such as shoulders, drainage structures, or other features of the work not directly related to safe flow of traffic, and the Engineer orders the work opened to traffic, the Contractor shall not be relieved of responsibility for the work pursuant to this Article. On sections constructed under traffic, the provisions of this Article shall not apply to damage caused by traffic to facilities existing in the roadway prior to the execution of the contract, to damage caused by traffic to existing highway facilities that are not subject to the work of the contract, or to damage to portions of the work that have been approved by the Engineer according to this Article, unless the damage was caused in whole or in part by the Contractor's operations or negligence or the contract special

provisions require the Contractor to protect and maintain existing facilities. For purposes of this Article, sections constructed under traffic shall mean construction or reconstruction on existing roadways and structures where traffic is maintained in whole or in part through and/or within the contract limits by staged construction, lane closures, or other traffic control.

The Contractor may request in writing that the Department assume responsibility to protect and maintain any portion of the work that has been completed in all respects with the requirements of the contract subject to the approval of the Engineer. Portions of work that the Contractor may request the Engineer to approve under this article for relief from maintenance and protection are limited to the following.

- (a) Not less than a one-quarter mile continuous length of roadway including shoulders, drainage control facilities, planned roadway protection work, lighting and any required traffic control and access facilities.
- (b) A bridge, a box culvert, or a retaining-wall that is not part of a one-quarter mile of continuous roadway.
- (c) A full intersection or interchange including all shoulders, drainage control facilities, planned roadway protection work, lighting and any required traffic control, and access facilities.
- (d) A full intersection traffic control light system or a one-quarter mile length highway lighting system not eligible as part of a one-quarter mile continuous roadway or full intersection or interchange.

When the road is open to traffic, this request may include, subject to the approval of the Engineer, safety-related hardware items such as impact attenuators, signs, markers, and light standards having traversable, frangible, or breakaway bases; guardrail and terminal sections; and bridge railing at each separate location. Any approval granted may alter or limit the part of the work subject to the approval. After the date of written approval, the Contractor shall be relieved of the responsibility to protect and maintain the work subject to the approval and shall not be responsible for the correction of any damage or the performance of any maintenance work in the areas subject to the approval, except that caused in whole or in part by Contractor operations within the limits of the project or negligence. When damage to the work subject to the approval occurs and it is determined the Contractor is not responsible, the Engineer may order repairs to the work by the Contractor and payment will be made according to Article 109.04. Any approval granted under this Article shall neither constitute final acceptance of any of the work nor be construed to be substantial completion thereof, and the work covered by any approval shall continue to be subject to final inspection and acceptance in accordance with the terms of the contract. Repairs to work subject to the approval required due to defective materials or workmanship or caused in whole or in part by Contractor operations or negligence, shall be performed at no additional cost to the Department.

During periods of suspension in accordance with Article 108.07 or other discontinuance of work from any cause whatever, the Contractor shall continue to be responsible for the work as provided in this Article and shall take such precautions as may be necessary to prevent damage to the work, provide for normal drainage and shall erect any necessary temporary structures, signs, or other facilities at his/her

expense, except as otherwise provided in Article 108.07. During such period of suspension or discontinuance of work, the Contractor shall properly and continuously maintain, in an acceptable growing condition, all living material in newly established plantings, seedings, and soddings furnished under his/her contract, and shall take adequate precautions to protect new tree growth and other important vegetative growth against injury.

Additional responsibilities and maintenance for electrical work shall be according to Articles 801.11 and 801.12.

107.31 Contractor's Responsibility for Utility Property and Services. At points where the Contractor's operations are adjacent to properties or facilities of the Railroad or utility companies, or are adjacent to other property, damage to which might result in considerable expense, loss, or inconvenience, work shall not be commenced until all arrangements necessary for the protection thereof have been made.

The Contractor shall cooperate with the owners of any utilities in their removal and rearrangement operations so work may progress in a reasonable manner, duplication of rearrangement work may be reduced to a minimum, and services rendered by those parties will not be unnecessarily interrupted. In the event of interruption of utility services as a result of accidental breakage or as a result of being exposed or unsupported, the Contractor shall promptly notify the proper authority and shall cooperate with the said authority in the restoration of service. If water service is interrupted, repair work shall be continuous until the service is restored. No work shall be undertaken around fire hydrants until provisions for continued service have been approved by the local fire authority.

Within the State of Illinois, a State-Wide One Call Notice System has been established for notifying utilities. Outside the city limits of the City of Chicago, the system is known as the Joint Utility Locating Information for Excavators (JULIE) System. Within the city limits of the City of Chicago the system is known as DIGGER. All utility companies and municipalities which have buried utility facilities in the State of Illinois are a part of this system.

The Contractor shall call JULIE (800-892-0123) or DIGGER (312-744-7000), a minimum of 48 hours in advance of work being done in the area, and they will notify all member utility companies involved their respective utility should be located. The political name of the township where the work is located, as shown on the location map, along with other location information such as land section and quarter section shall be given.

For utilities which are not members of JULIE or DIGGER, the Contractor shall contact the owners directly. The plan general notes will indicate which utilities are not members of JULIE or DIGGER.

The type of utility and color used for marking are shown in the following table.

<u>Utility Service</u>	<u>Color</u>
Electric Power, Distribution and Transmission	Safety Red
Municipal Electric Systems	Safety Red
Gas Distribution and Transmission	High Visibility Safety Yellow
Oil Distribution and Transmission	High Visibility Safety Yellow
Telephone and Telegraph System	Safety Alert Orange
Community Antenna Television Systems	Safety Alert Orange
Water Systems	Safety Precaution Blue
Sewer Systems	Safety Green
Non-Potable Water and Slurry Lines	Safety Purple
Temporary Survey	Safety Pink
Proposed Excavation	Safety White (Black when snow is on the ground)

107.32 Furnishing Right-of-Way. The Department will make available all necessary rights-of-way in advance of construction. Any exceptions will be indicated in the contract.

Any temporary easement area shall be used only for the purpose of highway construction for which it was obtained. If the Contractor wishes to use a temporary easement area for such things as equipment and material storage, he/she shall obtain written approval from the property owner involved and present the written approval to the Engineer before using.

107.33 Personal Liability of Public Officials. In carrying out any of the Provisions of this contract or in exercising any power or authority granted to the Engineer thereby, there shall be no personal liability upon the Engineer or authorized representative, it being understood in such matters they act as agents and representatives of the State. By entering into this contract with the Department, the Contractor covenants and agrees it shall neither commence nor prosecute any action or suit whatsoever against the officers or employees of the Department for any action or omission done or not done in the course of their administration of this contract. The Contractor agrees to pay all attorney fees and all costs incurred by the Department, its officers, and employees on account of action or suit in violation of this Article.

107.34 No Waiver of Legal Rights. The Department shall not be precluded or estopped by final acceptance or final payment, or any measurement, estimate, or certificate made either before or after the completion and acceptance of the work and payment therefore, from showing the true amount and character of the work performed and materials furnished by the Contractor, nor from showing any such measurement, estimate, or certificate is untrue or is incorrectly made; nor the work or materials do not in fact conform to the contract. The Department shall not be precluded or estopped, by final acceptance, final payment, or any measurement,

estimate, or certificate and payment in accordance therewith, from recovering from the Contractor or its sureties, or both, such overpayment and damage as it may sustain by reason of the Contractor's failure to comply with the terms of the contract.

A waiver on the part of the Department of any right under the contract or of a breach of any part of the contract shall not be held to be a waiver of any other or subsequent breach or right to enforce any provision of the contract.

107.35 Construction Noise Restrictions. All engines and engine driven equipment used for hauling or construction shall be equipped with an adequate muffler in constant operation and properly maintained to prevent excessive or unusual noise.

Construction within 1000 ft (300 m) of an occupied residence, motel, hospital, or similar receptor shall be confined to the period beginning at 7 A.M. and ending at 10:00 P.M. This time regulation shall not apply to sawing contraction joints, as required in Article 420.05, maintenance or operation of safety and traffic control devices such as barricades, signs, and lighting, or to construction of an emergency nature.

Any machine or device or part thereof which is regulated by or becomes regulated by Federal or State of Illinois noise standards shall conform to those standards. Such equipment shall be operated as designated above.

Requests to modify or deviate from these requirements shall be submitted in writing by the Contractor and must be approved in writing by the Engineer.

107.36 Dust Control. The Contractor shall be responsible for controlling the dust and air-borne dirt generated by his/her construction activities.

The Engineer may require the implementation of dust control procedures if wind and dry soil conditions reduce visibility on adjacent roads and property. Concerns for health and safety to the public using adjacent facilities will be grounds for the Engineer to request implementation of a dust control plan.

When circumstances warrant, and in the non-attainment areas and "Maintenance" areas, a specific dust control plan shall be developed. Non-attainment and "Maintenance" areas will be published as a special notice in the Service Bulletin. The Contractor and the Department shall meet to review the nature and extent of dust generating activities and cooperatively develop specific types of control techniques appropriate to that specific situation. Sample techniques that may warrant consideration include the following measures.

- (a) Minimize track out of soil onto nearby publicly traveled roads.
- (b) Reduce vehicle speed on unpaved surfaces.
- (c) Cover haul vehicles.
- (d) Apply chemical dust suppressants or water to exposed surfaces, particularly to surfaces on which construction vehicles travel.

Dust control measures as indicated in the Dust Control Plan, or as directed by the Engineer, shall be readily available for use on the project site.

The cost of this work shall be included in the unit prices bid and no additional compensation will be allowed.

SECTION 108. PROSECUTION AND PROGRESS

108.01 Subcontracting. The Contractor shall not subcontract, sell, transfer, assign, or otherwise dispose of the contract or any portion thereof, or of his/her right, title, or interest therein, without written consent of the Engineer. Notwithstanding consent to subcontract approved by the Engineer, the Contractor shall perform with the Contractor's own organization, work amounting to not less than 50 percent of the total contract cost, and with materials purchased or produced by the Contractor. Items designated in the contract as "specialty items" may be performed by subcontract and the cost of any such specialty items so performed by subcontract may be deducted from the total cost before computing the amount of work required to be performed by the Contractor with his/her own organization. "Specialty items" will be those items so designated on the Summary of Quantities included in the plans. The Engineer may request the Contractor provide proof that any proposed subcontractor has the experience, ability, and equipment the work requires.

No subcontracts, or assignments of payments due or to become due, shall in any case release the Contractor or surety of liability under the contract and bonds. All transactions of the Engineer shall be with the Contractor. The Contractor shall have a representative on the job at all times when either contract or subcontract work is being performed.

All requests to subcontract shall contain a certification that the subcontract agreement exists in writing, that the subcontract incorporates by reference the terms and conditions of the contract, and that the subcontract incorporates fully therein the required Federal and State Equal Employment Opportunity provisions and labor Compliance provisions, including the contract wage requirements. The Contractor shall permit Department or Federal representatives to examine the subcontract agreements upon notice.

The Engineer may order the Contractor to remove a subcontractor who does not perform satisfactory work or does not possess the integrity, experience, ability, and equipment the work requires in accordance with the terms and conditions of this contract. The Contractor shall comply at once and shall not employ the subcontractor for any further work under this contract.

All subcontractors shall be registered with the Department as a condition for approval to perform work on the contract.

108.02 Progress Schedule. After the award of the contract and prior to starting work, the Contractor shall submit to the Engineer a satisfactory progress schedule or critical path schedule which shall show the proposed sequence of work, and how the Contractor proposes to complete the various items of work within the number of working days set up in the contract or on or before the completion date specified in the contract.

This schedule shall be used as a basis for establishing the controlling item of construction operations and for checking the progress of the work. The controlling item shall be defined as the item which must be completed either partially or completely to permit continuation of progress. It shall be the responsibility of the Contractor to show the intended rate of production for each controlling item listed on the schedule during the period such item is controlling.

The Contractor shall confer with the Engineer at regular intervals in regard to the prosecution of the work according to the progress schedule or critical path schedule.

When the contract provides a specified number of working days and at any time the number of working days charged exceeds the proposed working days shown on the approved schedule by ten working days, the Engineer will select the controlling item of work for the purpose of charging working days. When the contract specifies a completion date and at any time the actual progress is 14 calendar days behind the proposed progress shown on the approved schedule, the Engineer will select the controlling item of work for the purpose of checking the progress of the work. The Engineer will continue to determine the controlling item until the Contractor has submitted a satisfactory revised progress schedule or critical path schedule.

No payment under this contract will be made until a progress schedule has been submitted for approval. Payment may be withheld until a satisfactory schedule has been submitted and approved.

108.03 Prosecution of the Work. The Contractor shall begin the work to be performed under the contract not later than ten days after the execution of the contract by the Department, unless otherwise provided in the contract. The work shall be prosecuted in such a manner and with such a supply of materials, equipment and labor as is considered necessary to ensure its completion according to the time specified in the contract.

The Contractor shall notify the Engineer at least 24 hours in advance of either discontinuing or resuming operations.

108.04 Working Days. When the contract provides a specified number of working days, the charging of working days will start when the Contractor begins actual construction work, and in no case later than ten days after the execution and approval of the contract, unless otherwise provided in the contract or directed by the Engineer.

A working day shall be defined as any calendar day between May 1 and November 30 inclusive, except Saturdays, Sundays, or legal holidays observed by the Contractor's entire work force in Illinois. The length of a working day will be determined by the Engineer from the number of working hours established by actual job practice by the Contractor for the current controlling item, except not less than eight hours will be considered in the determination.

A full working day will be charged for any day described in the foregoing on which conditions are such that the Contractor could be expected to do a full day's work on the controlling item. A full working day will be charged on days when the

Contractor could be working on a controlling item, but elects not to work, or elects to work elsewhere.

No allowance will be made for delay or suspension of the work due to the fault of the Contractor.

The Engineer will determine which days are workable. One copy of the "Weekly Report of the Resident Engineer" will be mailed to the Contractor's office weekly. Any disagreement with the working day charges shown must be filed in writing with the Engineer within seven calendar days of receipt of the Report giving detailed reasons for the disagreement. The receipt shall be for purposes of the contract, deemed to occur three calendar days after the day of the mailing indicated on the report. The final resolution of such disagreement will be made by the Engineer. By not filing a detailed disagreement within the seven day period, the Contractor will be deemed to have accepted the report as correct and no further challenge will be allowed.

The basis for charging working days shall be as follows.

(a) A partial working day of one-quarter, one-half, or three-quarters will be charged under the following conditions.

- (1) When weather conditions do not permit the completion of a full day's work on the controlling item.
- (2) When job conditions due to recent weather do not permit full efficiency of the men or equipment which are working on the controlling item.
- (3) A shortage of help which is beyond the Contractor's control prevents reasonable progress on a controlling item.
- (4) When any condition over which the Contractor has no control prevents completing a full day's production on the controlling item.

(b) No working day will be charged under the following conditions.

- (1) When adverse weather prevents work on the controlling item.
- (2) When job conditions due to recent weather prevent work on the controlling item.
- (3) When work has been suspended by an act or an omission of the Department or Engineer.
- (4) When strikes, lock-outs, extraordinary delays caused by utility and Railroad work, extraordinary delays in transportation, or inability to procure critical materials suspend work on the controlling item, as long as these delays are not due to any fault of the Contractor.
- (5) When any condition over which the Contractor has no control causes suspension of work on the controlling item.

108.05 Completion Date and Completion Date Plus Working Days.

- (a) Completion Date. When a completion date is specified, the Contractor shall complete all work subject to the date on or before the specified date.
- (b) Completion Date Plus Working Days. When a completion date plus working days is specified, the Contractor shall complete the major items of work as specified in the contract, on or before the completion date. The Contractor shall complete the off-the-road or miscellaneous items of work within the specified number of working days after the completion date.

108.06 Labor, Methods, and Equipment. The Contractor shall, at all times, employ and provide sufficient labor, tools, equipment, and other incidental items for prosecuting the work to full completion in the manner and time required by the contract.

All workers shall have sufficient skills and experience to perform properly the work assigned to them. Workers engaged in special work or skilled work shall have sufficient experience in such work and in the operation of the equipment required to perform all work properly and satisfactorily.

Any person employed by the Contractor or by any subcontractor who, in the opinion of the Engineer, does not perform work in a proper and skillful manner or is intemperate or disorderly shall, at the written request of the Engineer, be removed at once by the Contractor or subcontractor employing such person, and shall not be employed again in any portion of the work without the approval of the Engineer.

Should the Contractor fail to remove such person or persons as required above, or fail to furnish suitable and sufficient personnel for the proper prosecution of the work, the Engineer may suspend the work by written notice until such orders are complied with.

All equipment which is proposed to be used on the work shall be of sufficient size and in such mechanical condition as to meet requirements of the work and to produce a satisfactory quality of work. Equipment used on any portion of the project shall be such that no injury to the roadway, adjacent property, or other highways will result from its use.

When the methods and equipment to be used by the Contractor in accomplishing the construction are not prescribed in the contract, the Contractor is free to use any methods or equipment that can be demonstrated to the Engineer as satisfactory to accomplish the contract work in conformity with the requirements of the contract.

When the contract specifies that the construction be performed by the use of certain methods and equipment, such methods and equipment shall be used unless others are authorized by the Engineer. If the Contractor desires to use a method or type of equipment other than specified in the contract, he/she may request authority from the Engineer to do so. The request shall be in writing and shall include a full description of the methods and equipment proposed to be used and an explanation of the reasons for desiring to make the change. If approval is given, it will be on the condition that the Contractor will be fully responsible for producing construction work in conformity with contract requirements. If, after trial use of the substituted methods

or equipment, the Engineer determines that the work produced does not meet contract requirements, the Contractor shall discontinue the use of the substitute method or equipment and shall complete the remaining construction with the specified methods and equipment. The Contractor shall remove the deficient work and replace it with work of specified quality, or take such other corrective action as the Engineer may direct. No change will be made in basis of payment for the construction items involved nor in contract time as a result of authorizing a change in methods or equipment under these Provisions.

108.07 Suspension of Work. The Engineer shall have authority to suspend the work whole or in part, when unsuitable severe weather conditions or other conditions at the site of the work make for circumstances beyond the Contractor's control, which are unfavorable for the satisfactory performance of the work, and when the Contractor does not comply with the contract or orders of the Engineer. Orders to suspend or resume work shall be complied with immediately. If it becomes necessary to stop work for an indefinite period of time, the Contractor shall store all materials in such manner that they will not obstruct or impede the traveling public unnecessarily or become damaged in any way, take every precaution to prevent damage or deterioration of the work performed, provide suitable drainage of the roadway, and erect temporary structures where necessary. The Contractor shall not suspend work without written authority from the Engineer.

The period of suspension shall not count against the time of performance established in the contract unless the suspension is ordered due to the acts or omissions of the Contractor. Extensions of time will be evaluated according to Article 108.08. Except as provided herein below for suspension of an unreasonable duration, the Contractor shall not be paid additional compensation on account of any suspension ordered pursuant to this Article.

If the performance of all or any portion of the work is suspended or delayed by the Engineer in writing for an unreasonable period of time and the Contractor believes that additional compensation and/or contract time is due as a result of such suspension or delay, the Contractor shall submit to the Engineer in writing a request for adjustment within seven calendar days of receipt of the notice to resume work. The request shall set forth the reasons and support for such adjustment.

Upon receipt, the Engineer will evaluate the Contractor's request. If the Engineer agrees that the period of suspension was unreasonable and that the cost and/or time required for the performance of the contract has increased as a result of such suspension, the Engineer will make an adjustment (excluding profit) and modify the contract in writing accordingly. In no case shall a suspension of less than seven calendar days be considered unreasonable. No adjustment will be made for a suspension of any duration, if the suspension was caused by the acts or omissions of the Contractor, subcontractor, suppliers, or the weather. The Engineer will notify the Contractor of his/her determination whether or not an adjustment of the contract is warranted.

No contract adjustment will be allowed unless the Contractor has submitted the request for adjustment within the time prescribed. No contract adjustment will be allowed under this clause to the extent that performance would have been suspended or delayed by any other cause, or for which an adjustment is provided for or excluded under any other term or condition of this contract.

108.08 Determination and Extension of Contract Time. Determination and extension of contract time shall be as follows.

- (a) **Working Days.** When the contract provides a specified number of working days, it is understood that completion of the work within the specified number of working days is an essential part of the contract. The Contractor's plea that insufficient time was specified is not a valid reason for extension of time.

A request for an extension of time may be initiated by either the Engineer or the Contractor. If the Department finds that the quantities of work done, or to be done, are in excess of the estimated quantities by an amount sufficient to warrant additional time, it may grant an extension of time for completion which appears reasonable and proper. The extended number of working days for completion shall then be considered as in effect the same as if it were the original time for completion.

- (b) **Completion Date.** When a completion date is specified, it is understood that time is of the essence and that completion of the work by that date is an essential part of the contract. The Contractor's plea that insufficient time was specified is not a valid reason for extension of time.

In the event of delay in the work beyond the reasonable control of the Contractor resulting from:

- (1) Conduct or lack of conduct by the Department or its consultants, representatives, officers, agents, or employees; or delay by the Department in making the site available; or in furnishing any items required to be furnished to the Contractor by the Department;
- (2) Extraordinary conditions of weather for the area and time of year with the understanding that the completion time contemplated by this contract anticipates a certain number of lost days due to normal weather conditions, therefore only unusual or extreme weather conditions for the time of year will be considered as justification for a delay in completion of the work;
- (3) War, national conflicts, terrorist acts, or priorities arising therefrom, including restrictions of the ability to procure critical materials;
- (4) Fires;
- (5) Epidemics;
- (6) Strikes or other labor disruptions extending in duration more than five calendar days;
- (7) Utility or railroad adjustments;
- (8) Material delivery delay caused by strikes, lockouts, wrecks, or freight embargoes;

(9) Subject to compliance with the requirements of Article 105.08, the operations of other contractors working within the limits of the contract or coordinated contracts; or

(10) Cataclysmic events.

And for no other cause or causes, the Contractor shall be entitled to a reasonable extension of time only by the amount of time the Contractor is actually delayed thereby in the performance of the work, provided notice requesting an adjustment to the completion date is given as herein provided. Contractor shall not be entitled to any extension of time unless the Contractor notifies the Department in writing within 21 calendar days of the commencement of each such delay; requests an adjustment within 21 calendar days of the conclusion of such delay; and failure of the Contractor to request an adjustment in conformity with this Article shall be deemed a waiver of the same. Interim completion dates incorporated into a contract subject to a final completion date, and completion date plus working days contracts shall be governed by these provisions.

The Contractor recognizes it is imperative that the work proceed uninterrupted and shall endeavor to prevent and shall promptly cure any work stoppage caused by any labor or jurisdictional disputes arising out of the assignment of work to be performed by the Contractor or its subcontractors or subcontractors of any tier.

After the Contractor has filed a request for an extension of time, the Department will notify the Contractor, in writing, whether or not such extension will be approved. The Engineer will consider how timely the Contractor prosecuted the work up to the point of the delay according to the progress schedule approved according to Article 108.02 when considering the request. No extension of time will be granted unless the delay in completion of the work was caused specifically by a delay in a portion of the work that was on the critical path of the progress schedule, and that was otherwise on schedule. If approved, the extended date for completion shall then be considered as in effect the same as if it were the original date for completion.

(c) Regardless of whether the contract is governed by (a) or (b) of this Article, extensions of time granted for reasons or events beyond the reasonable control of the Department shall be the exclusive relief provided, and no additional compensation or claim for damages will be paid or awarded under this or any other provision of the Contract unless the allowance of additional compensation or relief from damages is expressly allowed by a provision of the contract.

108.09 Failure to Complete the Work on Time. Time is of the essence to the contract. Should the Contractor fail to complete the work within the working days stipulated in the contract or on or before the completion date stipulated in the contract or within such extended time as may have been allowed, the Contractor shall be liable and shall pay to the Department the amount shown in the following schedule of deductions, not as a penalty but as liquidated damages, for each day of overrun in the

contract time or such extended time as may have been allowed. The liquidated damages for failure to complete the contract on time are approximate, due to the impracticality of calculating and proving actual delay costs. This schedule of deductions establishes the cost of delay to account for administration, engineering, inspection, and supervision during periods of extended and delayed performance. The costs of delay represented by this schedule are understood to be a fair and reasonable estimate of the costs that will be borne by the Department during extended and delayed performance by the Contractor of the work, remaining incidental work, correction of work improperly completed, or repair of work damaged as a result of the Contractor. The liquidated damage amount specified will accrue and be assessed until final completion of the total physical work of the contract even though the work may be substantially complete. The Department will deduct these liquidated damages from any monies due or to become due to the Contractor from the Department.

Schedule of Deductions for Each Day of Overrun in Contract Time			
Original Contract Amount		Daily Charges	
From More Than	To and Including	Calendar Day	Work Day
\$ 0	\$ 100,000	\$ 375	\$ 500
100,000	500,000	550	750
500,000	1,000,000	800	1,100
1,000,000	3,000,000	1,130	1,550
3,000,000	5,000,000	1,420	1,950
5,000,000	10,000,000	1,710	2,350
10,000,000	And over	2,550	3,520

When a completion date is specified, the daily charge will be made for every day shown on the calendar beyond the specified completion date. When the time limit is specified as working days, the daily charge will be made for each additional working day, computed as specified in Article 108.04.

If contracts are awarded on the basis of a multiple bid, the contract amounts of the individual contracts comprising the multiple bid will be totaled and the daily charge shall be that required for such total amount.

108.10 Default on Contract. If the Contractor fails to begin the work under contract within the time specified, or fails to perform the work with sufficient workers and equipment or with sufficient materials to ensure the completion of said work within the specified time, or shall perform the work unsuitably, as determined by the Engineer, or shall neglect or refuse to remove materials or perform anew such work as shall be rejected as defective and unsuitable, or shall discontinue the prosecution of the work, or if the Contractor shall become insolvent or be declared bankrupt, or shall commit any act of bankruptcy, or insolvency, or shall make an assignment for the benefit of creditors, or from any other cause whatsoever shall not carry on the work in a manner approved by the Engineer or otherwise fails to conform to the terms of the contract, the Engineer will give notice in writing to the Contractor and the Contractor's surety of such delinquency, said notice to specify the corrective

measures required. If the Contractor, within a period of ten days after said notice, shall not proceed according to, the Department shall, upon written certificate from the Engineer of the fact of such delinquency and the Contractor's failure to comply with said notice, have full power and authority to forfeit the rights of the Contractor and at its option to call upon the surety to complete the work according to the terms of the contract, or it may take over the work, including any or all materials and equipment on the ground as may be suitable and acceptable, and may complete the work with its own forces, or use such other methods as, in its opinion, shall be required for the completion of said contract in an acceptable manner.

When the Department calls upon the Surety to complete, the Surety shall enter upon the premises and take possession of all materials, tools, and appliances for the purpose of completing the work under the contract and employ by contract or otherwise any person or persons satisfactory to the Department to finish the work without termination of the contract. Such employment shall not relieve the Surety of its obligations under the contract and the bond. Payments on estimates covering work subsequent to the transfer shall be made to the extent permitted under law to the Surety or its agent without any right of the Contractor to make any claim.

The Contractor shall bear any extra expenses incurred by the State in completing the work, including all increased cost for completing the work, and all damages sustained, or which may be sustained, by the State by reason of such breach refusal, neglect, failure, or discontinuance of work by the Contractor. After all the work contemplated by the contract has been completed, the Engineer will calculate the total expenses and damages for the completed work. If the total expenses and damages are less than any unpaid balance due the Contractor, the excess will be paid by the Department to the Surety or the Contractor. If the total expenses and damages exceed the unpaid balance, the Contractor and the Surety shall be jointly and severally liable to the Department and shall pay the difference to the Department on demand.

If a notice of termination for default has been issued and it is later determined for any reason that the Contractor was not in default, the rights and obligations of the parties shall be the same as if the notice of termination had been issued pursuant to Termination for Public Convenience in Article 108.12.

108.11 Termination of the Contractor's Responsibility. Whenever the improvements called for by the contract has been completely performed on the part of the Contractor and all parts of the work have been approved by the Engineer and accepted by the Department according to the contract, and the final estimate paid, the Contractor's obligations shall then be considered fulfilled, except those obligations which by their nature extend beyond the completion of work including but not limited to Articles 107.26, 107.27, 107.33, and 107.34.

108.12 Termination for Public Convenience. The Department may, by written order, terminate the contract or any portion thereof after determining that for reasons beyond either Department or Contractor control, the Contractor is prevented from proceeding with or completing the work as 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 to 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 environmental protection laws or where the issuance of such order or injunction is primarily caused by acts or omissions of persons or agencies other than the Contractor.

When contracts, or any portion thereof, are definitely terminated or cancelled, and the Contractor released before all items of work included in his/her contract have been completed, payment will be made for the actual number of units of items of work completed at contract unit prices, or as specified in Article 109.06 for partially completed items, and no claims for loss of anticipated profits will be considered. Reimbursement for organization of the work and moving equipment to and from the job will be considered where the volume of the 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 may, at the option of the Engineer, be purchased from the Contractor at actual costs as shown by receipted bills and actual cost records at such points of delivery as may be designated by the Engineer.

Termination of a contract, as stated above, will not relieve the Contractor or his/her surety of the responsibility of replacing defective work as required by the contract.

SECTION 109. MEASUREMENT AND PAYMENT

109.01 Measurement of Quantities. Completed work, which is to be measured for payment, will be measured by the Engineer according to the United States standard measures. The units of measure shall be English (metric) and shall correspond to the units in the contract. Metric units are generally "hard" converted and Appendix B of this book lists conversion factors for the exact English equivalents.

All measurements for length will be made linearly unless otherwise specified. Longitudinal measurements for areas of base courses, surface courses, pavement, and shoulders will be made along the actual surface of the roadway. For transverse measurements for areas of base courses, surface courses, pavements, and shoulders, the dimensions used in calculating the pay areas shall be the exact horizontal dimensions shown on the plans or the dimensions ordered in writing by the Engineer. No deduction will be made for fixtures in the roadway having an area of 9 sq ft (0.84 sq m) or less.

All measurements for weight shall be from scales meeting the requirements of The Weights and Measures Act of the State of Illinois. The Contractor shall provide accurate weights of materials delivered to the contract for incorporation into the work, whether temporary or permanent, for which the basis of payment is by weight. These weights shall be documented on delivery tickets which shall identify the source of the material, type of material, the date and time the material was loaded, the contract number, the net weight, the tare weight when applicable, and the identification of the transporting vehicle.

The Department will conduct random, independent vehicle weight checks for material sources.

Should the vehicle weight check for a source result in the net weight of material on the vehicle exceeding the net weight of material shown on the delivery ticket by 0.50 percent (0.70 percent for aggregates) or more, the Engineer will document the independent vehicle weight check and immediately furnish a copy of the results to the Contractor. No adjustment in pay quantity will be made.

Should the vehicle weight check for a source result in the net weight of material shown on the delivery ticket exceeding the net weight of material on the vehicle by 0.50 percent (0.70 percent for aggregates) or more, the Engineer will document the independent vehicle weight check and immediately furnish a copy of the results to the Contractor. The Engineer will adjust the net weight shown on the delivery ticket to the checked delivered net weight as determined by the independent vehicle weight check.

The Engineer will also adjust the method of measurement for subsequent deliveries from the source based on the independent weight check. The net weight of all materials delivered to all contracts from this source, for which the basis of payment is by weight, will be adjusted by applying a correction factor "A" as determined by the following formula:

$$A = 1.0 - \left(\frac{B - C}{B} \right); \text{ Where } A \leq 1.0 \text{ and } \left(\frac{B - C}{C} \right) > 0.50\% \text{ (0.70\% for aggregates)}$$

Where A = Adjustment factor
 B = Net weight shown on delivery ticket
 C = Net weight determined from independent weight check

The adjustment factor will be applied as follows:

Adjusted Net Weight = A x Delivery Ticket Net Weight

The adjustment factor will be imposed until the cause of the deficient weight is identified and corrected by the Contractor to the satisfaction of the Engineer. If the cause of the deficient weight is not identified and corrected within seven calendar days, the source shall cease delivery of all materials for which the basis of payment is by weight.

Should the Contractor elect to challenge the results of the independent weight check, the Engineer will continue to document the weight of material for which the adjustment factor would be applied. However, provided the Contractor furnishes the Engineer with written documentation that the source scale has been calibrated within seven calendar days after the date of the independent weight check, adjustments in the weight of material paid for will not be applied unless the scale calibration demonstrates that the source scale was not within the specified Department of Agriculture tolerance.

At the Contractor's option, the vehicle may be weighed on a second independent Department of Agriculture certified scale to verify the accuracy of the scale used for the independent weight check.

109.02 Scope of Payment. The Contractor shall receive and accept the compensation as herein provided, in full payment for furnishing all materials, labor, tools, and equipment; for performing all work contemplated and embraced under the contract; for all loss or damage arising out of the nature of the work and from the action of the elements; for any unforeseen difficulties or obstructions which may arise or be encountered during the prosecution of the work until its final acceptance by the Department; for all risks of every description connected with the prosecution of the work; for all expenses incurred by or in consequence of suspension or discontinuance of such prosecution of the work as herein specified; for any infringement of patents, trademarks or copyrights; and for completing the work in an acceptable manner according to the plans and Specifications.

The payment of any current estimate prior to final acceptance of the work by the Department shall in no way constitute an acknowledgement of the acceptance of the work, nor in any way prejudice or affect the obligation of the Contractor, at his/her own expense, to repair, correct, renew, or replace any defects or imperfections in the construction or in the strength or quality of the materials used in or about the construction of the work under contract and its appurtenances, nor any damage due or attributable to such defects, which defects, imperfections or damage shall have been discovered on or before the final inspection and acceptance of the work. The Engineer shall be the sole judge of such defects, imperfections or damage, and the Contractor shall be liable to the Department for failure to correct the same as provided herein.

109.03 Increased or Decreased Quantities. Whenever the quantity of any pay item as given in the proposal shall be increased or decreased, payment shall be made on the basis of the actual quantity completed at the unit price for such pay item named in the proposal, except as otherwise provided in Article 104.02, or in the detailed Specifications for each class of work. Should any pay items contained in the proposal be found unnecessary for the proper completion of the work, the Engineer may, upon written order to the Contractor, eliminate such pay items from the contract, and such action shall in no way invalidate the contract. When a Contractor is notified of the elimination of pay items, the Contractor will be reimbursed for actual work done and all costs incurred, including mobilization of materials prior to said notification.

109.04 Payment for Extra Work. Extra work which results from any of the changes as specified in Article 104.02 shall not be started until authorization from the Engineer is received, which authorization shall state the items of work to be performed and the method of payment for each item. Work performed without such order will not be paid for.

Extra work will be paid for at either the contract price, a lump sum price or agreed unit prices, or on a force account basis.

- (a) Lump Sum Price or Agreed Unit Prices. When extra work is to be paid for at either a lump sum price or agreed unit prices, the lump sum or unit prices shall be agreed upon by the Contractor and the Engineer.

(b) Force Account Basis. When extra work is to be paid for by force account, the basis for the force account shall be as follows.

- (1) Labor. For all labor and foremen in direct charge of the specific operations, the Contractor shall receive the actual normal rate of wage paid for each and every hour that said labor and foremen are actually engaged in such work.

The Contractor shall receive the actual costs paid to, or in behalf of, workers by reason of subsistence and travel allowances, health and welfare benefits, pension fund benefits or other benefits, when such amounts are required by collective bargaining agreement or other employment contract generally applicable to the classes of labor employed on the work.

An amount equal to 35 percent of the sum of the above items will also be paid the Contractor.

- (2) Bond, Insurance, and Tax. For property damage, liability, and workmen's compensation insurance premiums, unemployment insurance contributions, and social security taxes on the force account work, the Contractor shall receive the actual cost, to which ten percent will be added. The Contractor shall furnish satisfactory evidence of the rate or rates paid for such bond, insurance, and tax.
- (3) Materials. For materials accepted by the Engineer and used, the Contractor shall receive the actual cost of such materials delivered on the work, including transportation charges paid by the Contractor (exclusive of machinery rentals as hereinafter set forth), to which cost 15 percent will be added.
- (4) Equipment. For any machinery or special equipment (other than small tools) the use of which has been authorized by the Engineer, the Contractor will be paid according to the latest revision of "SCHEDULE OF AVERAGE ANNUAL EQUIPMENT OWNERSHIP EXPENSE" as issued by the Department. The equipment should be of a type and size reasonably required to complete the extra work.
- (5) Miscellaneous. No additional allowance will be made for general superintendence, the use of small tools, or other costs for which no specific allowance is herein provided.
- (6) Statements. No payment will be made for work performed on a force account basis until the Contractor has furnished the Engineer with itemized statements of the cost of such force account work. Statements shall be accompanied and supported by invoices for all materials used and transportation charges. However, if materials used on the force account work are not specifically purchased for such work but are taken from the Contractor's stock, then in lieu of the invoices, the Contractor shall furnish an affidavit certifying that such materials were taken from his/her stock, that the quantity claimed was actually used, and that the

price and transportation claimed represent the actual cost to the Contractor.

Itemized statements at the cost of force account work shall be detailed as follows.

- a. Name, classification, date, daily hours, total hours, rate, and extension for each laborer and foreman. Payrolls shall be submitted to substantiate actual wages paid if so requested by the Engineer.
 - b. Designation, dates, daily hours, total hours, rental rate, and extension for each unit of machinery and equipment.
 - c. Quantities of materials, prices and extensions.
 - d. Transportation of materials.
 - e. Cost of property damage, liability and workmen's compensation insurance premiums, unemployment insurance contributions, and social security tax.
- (7) Work Performed by an Approved Subcontractor. When extra work is performed by an approved subcontractor, the Contractor shall receive, as administrative costs, an amount equal to five percent of the total approved costs of such work with the minimum payment being \$100.
- (8) All statements of the cost of force account work shall be furnished to the Engineer not later than 60 days after receipt of the Central Bureau of Construction form "Extra Work Daily Report". If the statement is not received within the specified time frame, all demands for payment for the extra work are waived and the Department is released from any and all such demands. It is the responsibility of the Contractor to ensure that all statements are received within the specified time regardless of the manner or method of delivery.

109.05 Expenses Incurred by the Department. Upon written request of the Engineer, the Contractor shall pay the bills which are the responsibility of the Department. The Contractor shall receive as administrative costs an amount equal to five percent of the first \$10,000 and one percent of any amount over \$10,000 of the total actual amount paid per bill with the minimum payment being \$100.

109.06 Payment for Items Omitted When Partially Completed. Should the Department cancel or alter any portion of the contract which results in the elimination or noncompletion of any portions of the work partially completed, the Contractor will be allowed a fair and equitable amount covering all items of work incurred prior to the date of cancellation, alteration, or suspension of such work.

The Contractor shall be allowed a profit percentage on the materials used and the construction work actually performed at the rate specified in Article 109.04, but no allowance will be made for any change in anticipated profits. Acceptable materials ordered by the Contractor or delivered on the work prior to the date of its cancellation,

alteration or suspension by the Engineer will be purchased from the Contractor by the Department at actual cost and shall thereupon become the property of the Department; or at the option of the Engineer, the unused acceptable material shall remain the property of the Contractor, and the Contractor will be paid the actual cost including freight, unloading, and hauling costs less the actual salvage value.

109.07 Partial Payments. Partial payments will be made as follows.

- (a) **Progress Payments.** At least once each month, the Engineer will make a written estimate of the amount of work performed in accordance with the contract, and the value thereof at the contract unit prices. The amount of the estimate approved as due for payment will be vouchered by the Department and presented to the State Comptroller for payment. No amount less than \$1000.00 will be approved for payment other than the final payment.

The failure to perform any requirement, obligation, or term of the contract by the Contractor shall be reason for withholding any progress payments until the Department determines that compliance has been achieved. Furthermore, progress payments may be reduced by liens filed pursuant to Section 23(c) of the Mechanics Lien Act, 770 ILCS 60/23(c).

- (b) **Material Allowances.** At the discretion of the Department, payment may be made for materials, prior to their use in the work, when satisfactory evidence is presented by the Contractor. Satisfactory evidence includes justification for the allowance (to expedite the work, meet project schedules, regional or national material shortages, etc.), documentation of material and transportation costs, and evidence that such material is properly stored on the project or at a secure location acceptable and accessible to the Department.

Material allowances will be considered only for nonperishable materials when the cost, including transportation, exceeds \$10,000 and such materials are not expected to be utilized within 60 days of the request for the allowance. For contracts valued under \$500,000, the minimum \$10,000 requirement may be met by combining the principal (material) product of no more than two contract items. An exception to this two item limitation may be considered for any contract regardless of value for items in which material (products) are similar, except for type and/or size.

Material allowances shall not exceed the value of the contract items in which used and shall not include the cost of installation or related markups. Amounts paid by the Department for material allowances will be deducted from estimates due the Contractor as the material is used. Proof of payment for materials and transportation shall be furnished to the Department within 60 days of payment of the allowances or the amounts will be reclaimed by the Department.

109.08 Acceptance and Final Payment. Whenever the improvement provided for by the contract has been completely performed on the part of the Contractor, and all parts of the work have been approved by the Engineer, a final estimate showing the value of the work will be prepared by the Engineer as soon as the necessary measurements and computations can be made, all prior estimates

upon which payments have been made being approximate only and subject to correction in the final payment.

Final acceptance occurs by signature on the final estimate and the date of this signature constitutes the acceptance date. Final acceptance shall not constitute acceptance of any unauthorized or defective work or material. The Department shall not be barred from requiring the removal, replacement, repair, or disposal of any unauthorized or defective work or material or from recovering damages from any such work or material.

As soon as possible after final inspection, the final quantities will be sent to the Contractor by certified mail. The Contractor shall respond within 21 days of receipt by either signing and thus accepting the final quantities or by disagreeing in writing, citing the pay items involved with documentation and justification of such disagreement. Failure to respond within the 21 days will be considered as acceptance of final quantities and the Department will proceed with final payment.

The amount of this estimate, less any sums that have been deducted or retained under the Provisions of the contract, will be paid to the Contractor as soon as practicable after the final approval of the work, provided there exists no liens filed against the public funds according to the law.

When the State of Illinois is the awarding authority, unless the Contractor files a claim for adjudication by the Court of Claims according to Article 109.09, the final payment shall constitute a release and waiver of any and all rights and privileges under the terms of the contract, and shall relieve the Department from any and all claims or liabilities for anything done or furnished relative to the work or for any act or neglect on the part of the Department relating to or connected with the contract.

When the county or municipality is the awarding authority, the final payment shall constitute a release and waiver of any and all rights and privileges under the terms of the contract, and shall relieve the Department from any and all claims or liabilities for anything done or furnished relative to the work or for any act or neglect on the part of the Department relating to or connected with the contract.

109.09 Contract Claims. If the Contractor claims that additional payment is due under the terms of the contract or for any other reason arising out of the performance of the contract and the Department has not agreed, during the ordinary course of contract administration, that payment is due, the Contractor desiring to pursue additional compensation shall file a claim according to the requirements and procedures specified herein. If written notifications are not given, or if the Department is not afforded reasonable access by the Contractor to complete records of actual costs or additional time, or if a claim is not filed according to the procedures and within the time specified herein, then the claim is waived and the Department is released from any and all demands and claims. The fact that the Contractor has provided a proper notification, provided a properly filed claim, or provided the Department access to records of actual cost, shall not in any way be construed as proving or substantiating the validity of the claim. If the claim, after consideration by the Department, is found to have merit, the Department will make an equitable adjustment either in the amount of costs to be paid according to the Basis of Payment specified herein or in the time required for the work or both. If the Department finds the claim to be without merit, no adjustment will be made.

The Contractor may present a claim made by a subcontractor founded upon the terms of the contract or the actions and orders of the Engineer without being first required to make payment to the subcontractor provided: the Contractor makes written certification that the subcontractor is entitled to additional compensation; that the subcontractor will be paid in the event of a favorable resolution of the claim; and that the subcontract, releases, and waivers executed by the subcontractor do not bar payment to the subcontractor. The written certification may authorize the subcontractor to present the subcontractor claim directly to the Department. If such authorization is given, the Contractor need not participate in the verbal presentation of the claim. In any event, the submission shall include a copy of the subcontract, and any releases or waivers signed by the subcontractor in favor of the Contractor. The Contractor's interest in the subcontractor's claim shall not be assigned or otherwise disposed of, except as specified in Article 108.01.

- (a) Submission of Claim. All claims filed by the Contractor shall be in writing and in sufficient detail to enable the Department to ascertain the basis and amount of the claim. All claims shall be submitted to the Regional Engineer. As a minimum, the following information must accompany each claim submitted.
- (1) A detailed factual statement of the claim for additional compensation and time, if any, providing all necessary dates, locations, and items of work affected by the claim.
 - (2) The name of any State official or employee involved in or knowledgeable about the claim.
 - (3) The specific provisions of the contract which support the claim and a statement of the reasons why such provisions support the claim.
 - (4) If the claim relates to a decision of the Engineer which the contract leaves to the Engineer's discretion or as to which the contract provides that the Engineer's decision is final, the Contractor shall set out in detail all facts supporting his/her position relating to the decision of the Engineer.
 - (5) The identification of any documents and the substance of any oral communications that support the claim.
 - (6) Copies of any identified documents, other than State documents and documents previously furnished to the State by the Contractor, that support the claim (manuals which are standard to the industry, used by the Contractor, may be included by reference).
 - (7) If an extension of time is sought, the specific days and dates for which it is sought, the specific reasons the Contractor believes a time extension should be granted, and the specific provisions of Section 108 under which it is sought.

- (8) If additional compensation is sought, the exact amount sought and a breakdown of that amount into direct labor, direct materials, direct equipment, direct jobsite overhead, and direct offsite overhead.
- (9) A statement containing the following language:

Under penalty of law for perjury or falsification, the undersigned,

_____, _____, of _____,
(name) (title) (company)

hereby certifies that the claim for compensation and time, if any, made herein for work on this contract is a true statement, fully documented and supported under the contract between the parties.

Dated _____/S/_____

Subscribed and sworn before me this _____ day of _____

Notary Public

My Commission Expires _____

- (b) Record Retention. It is the responsibility of the Contractor to keep full and complete records of the costs and additional time incurred for any claim. The Contractor shall permit the Department to have access to those records and any other records as may be required by the Department to determine the facts or contentions involved in the claim. The Contractor shall retain those records according to Article 109.10.
- (c) Audit. All claims filed against the State shall be subject to audit at any time following the filing of the claim. The audit may be performed by employees of the State or by an auditor under contract with the State. The audit may begin at any time during the life of the contract, or on 20 calendar days notice to the Contractor or its agents if an audit is to be commenced more than 60 calendar days after the final payment date of the contract. The Contractor, subcontractors, or agents shall provide adequate facilities acceptable to the Department, for the audit during normal business hours. Failure of the Contractor or its agents to maintain and retain sufficient records to allow the auditors to verify all or any portion of the claim or to permit the auditor access to the books and records of the Contractor, subcontractors, or agents shall constitute a waiver of the claim and may bar any recovery of all or any portion thereunder.

The records subject to retention and audit are all books and records including but not limited to the following documents.

- (1) Daily time sheets and supervisor's daily reports.
 - (2) Union agreements.
 - (3) Payroll records including tax, insurance, welfare, and benefits records.
 - (4) Material invoices and requisitions.
 - (5) Material cost distribution worksheet.
 - (6) Equipment records (list of company equipment, rates, etc.).
 - (7) Vendor's, rental agencies subcontractor's, and agent's invoices.
 - (8) Subcontractor's and agent's payment certificates.
 - (9) Cancelled checks (payroll and vendors).
 - (10) Job cost report.
 - (11) Job payroll ledger.
 - (12) General ledger.
 - (13) Cash disbursements journal.
 - (14) Financial statements for all years reflecting the operations on the contract involved.
 - (15) Depreciation records on all company equipment.
 - (16) If a source other than depreciation records is used to develop costs for the Contractor's internal purposes in establishing the actual costs of owning and operating equipment, all such other source documents.
 - (17) All documents including pricing books and bid documents which relate to each and every claim together with all documents which support the amount of damages as to each claim.
 - (18) Worksheets used to prepare the claim establishing the cost components for items of the claim including but not limited to labor, benefits and insurance, materials equipment, subcontractors all documents which establish the time periods individuals involved, the hours for the individuals and the rates of the individuals.
- (d) Time of Submission. Notice of the intent to file a claim shall be given to the Department within 21 days of receipt of the final quantities. All claims submitted according to this Article shall be filed not later than six months after the Department provides final quantities to the Contractor according to Article 109.08. The six months shall run from the date indicated on the final quantities transmittal. The requirement of a general administrative claims cutoff time provided herein shall not constitute a waiver of any notification

time requirements stated elsewhere in these specifications or the special provisions.

- (e) Procedure. The Department provides three administrative levels for claims review.

Level I	Regional Engineer
Level II	Central Bureau of Construction
Level III	Chief Engineer/Director of Highways or Assistant Chief Engineer/Deputy Director of Highways

All claims shall first be submitted at Level I. This Regional Engineer will consider all information submitted with the claim and render a decision on the claim within 90 days after receipt. Claims not conforming to this Article will be returned without consideration. The Regional Engineer may schedule a claim presentation meeting if in the Regional Engineer's judgment such a meeting would aid in resolution of the claim, otherwise a decision will be made based on the claim documentation submitted. If a decision is not rendered within 90 days, or if the Contractor disputes the decision, an appeal to Level II shall be made by the Contractor. An appeal to Level II shall be made in writing to the Regional Engineer within 45 days after the date of the Level I decision, and shall include two additional copies of the claim and supporting documentation. Review of the claim at Level II shall be conducted as a full evaluation of the claim. A claim presentation meeting may be scheduled if the Bureau Chief of Construction determines that such a meeting would aid in resolution of the claim, otherwise a decision will be made based on the claim documentation submitted. If a Level II decision is not rendered within 90 days after receipt of the written appeal, or if the Contractor disputes the decision, an appeal at Level III shall be made in writing to the Central Bureau of Construction within 45 days of the date of the Level II decision. Review of the claim at Level III shall be conducted as a full evaluation of the claim. A claim presentation meeting may be scheduled if the Chief Engineer/Director of Highways determines that such a meeting would aid in resolution of the claim, otherwise a decision will be made based on the claim documentation submitted. A Level III final decision will be rendered within 90 days of the receipt of the written request for appeal.

Full compliance by the Contractor with the provisions specified in this Article is a contractual condition precedent to the Contractor's right to seek relief in the Court of Claims. The Director's written decision shall be the final administrative action of the Department. Unless the Contractor files a claim for adjudication by the Court of Claims within 60 days after the date of the written decision, the failure to file shall constitute a release and waiver of the claim.

- (f) Basis of Payment. After resolution of a claim in favor of the Contractor, any adjustment in time required for the work will be made according to Section 108. Any adjustment in the costs to be paid will be made for direct labor, direct materials direct equipment, direct jobsite overhead, direct offsite overhead, and other direct costs allowed by the resolution. Adjustments in costs will not be made for interest charges, loss of anticipated profit,

undocumented loss of efficiency, prorata home office overhead, unabsorbed overhead and lost opportunity, preparation of claim expenses and other consequential indirect costs regardless of method of calculation.

The above Basis of Payment is an essential element of the contract and the claim cost recovery of the Contractor shall be so limited.

109.10 Contractor Record Retention. The Contractor and all subcontractors shall maintain books and records relating to the performance of the contract or subcontract and necessary to support amounts charged to the State under the contract and subcontract. The books and records shall be maintained by the Contractor for a minimum of three years from the later of the date of final payment under the contract or the completion of the contract. The books and records shall be maintained by the subcontractor for a minimum of three years from the later of the date of final payment under the subcontract or the completion of the subcontract. However, the three year period shall be extended for the duration of any audit in progress at the time of that period's expiration.

All books and records required to be maintained by the Contractor and subcontractor shall be available for review and audit by the Auditor General, the Department and any participating Federal agency; and the Contractor and subcontractor shall cooperate fully with any audit and provide full access to all relevant materials. Failure by the Contractor or subcontractor to maintain the books, records and supporting documents required by this Article shall establish a presumption in favor of the State for the recovery of any funds paid by the State under the contract for which adequate books and records are not available. The Contractor and subcontractor shall include the requirements of this Article in all subcontracts.