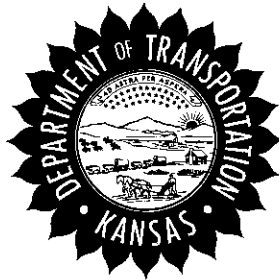


STANDARD SPECIFICATIONS  
FOR  
STATE ROAD AND BRIDGE  
CONSTRUCTION

EDITION 1990



KANSAS DEPARTMENT OF TRANSPORTATION  
TOPEKA, KANSAS

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**DIVISION 100**  
**GENERAL CLAUSES**  
**and**  
**COVENANTS**

## SECTION 101

### DEFINITION AND TERMS

Wherever in these specifications or in other contract documents the following terms are used, the intent and meaning shall be interpreted as follows.

#### 101.01 ABBREVIATIONS.

Wherever the following abbreviations are used in these specifications or in other contract documents, they are intended to represent the following organizations, agencies, and/or their respective publications, standards, etc.:

- A.A.—Aluminum Association.
- A.A.N.—American Association of Nurserymen.
- A.A.R.—Association of American Railroads.
- A.A.S.H.T.O.—American Association of State Highway and Transportation Officials.
- A.C.I.—American Concrete Institute.
- A.C.P.A.—American Concrete Pavement Association.
- A.G.C.—Associated General Contractors of America.
- A.I.A.—American Institute of Architects.
- A.I.S.C.—American Institute of Steel Construction.
- A.I.S.I.—American Iron & Steel Institute.
- A.N.S.I.—American National Standards Institute.
- A.R.A.—American Railway Association.
- A.R.E.A.—American Railway Engineering Association.
- A.R.T.B.A.—American Road and Transportation Builders Association.
- A.S.C.E.—American Society of Civil Engineers.
- A.S.L.A.—American Society of Landscape Architects.
- A.S.T.M.—American Society for Testing and Materials.
- A.W.P.A.—American Wood Preservers' Association.
- A.W.S.—American Welding Society.
- A.W.W.A.—American Water Works Association.
- C.F.R.—Code of Federal Regulations.
- C.R.S.I.—Concrete Reinforcing Steel Institute.
- E.E.O.—Equal Employment Opportunity.
- F.A.R.—Federal Acquisition Regulations.
- F.H.W.A.—Federal Highway Administration-U. S. Department of Transportation.
- F.S.S.—Federal Specifications and Standards, General Services Administration.
- G.S.A.—General Services Administration.

I.T.E.—Institute of Transportation Engineers.  
K.A.R.—Kansas Administrative Regulations.  
K.D.O.T.—Kansas Department of Transportation.  
MIL—Military Specifications.  
M.U.T.C.D.—Manual on Uniform Traffic Control Devices.  
N.B.S.—National Bureau of Standards.  
N.E.C.—National Electrical Code.  
N.E.M.A.—National Electrical Manufacturers Association.  
N.F.P.A.—National Forest Products Association.  
O.S.H.A.—Occupational Safety and Health Administration.  
P.C.A.—Portland Cement Association.  
P.C.I.—Prestressed Concrete Association.  
P.T.I.—Post Tensioning Institute.  
S.A.E.—Society of Automotive Engineers.  
S.S.P.C.—Steel Structures Painting Council.  
T.A.I.—The Asphalt Institute.  
T.A.R.—Transportation Acquisition Regulations.  
U.L.—Underwriter's Laboratory

#### **101.02 ADVERTISEMENT.**

The public announcement inviting bids for work to be performed or materials to be furnished.

#### **101.03 AWARD.**

The acceptance of a bid by the Secretary.

#### **101.04 BIDDER.**

An individual, partnership, firm, corporation, or any acceptable combination thereof, or joint venture, submitting a proposal.

#### **101.05 BID BOND.**

The approved form of security, executed by the bidder and his surety or sureties, guaranteeing the execution of a satisfactory contract and the filing of an acceptable contract bond if the bidder's offer is accepted.

#### **101.06 BID PRICE AND CONTRACT PRICE OR AMOUNT.**

The sum of the products of the quantities of work estimated by the Engineer to be involved in the project as set forth in the proposal and the respective unit prices bid in the proposal.

**101.07 BRIDGE.**

A single or multiple span structure, including supports, erected over a depression or an obstruction, such as water, a highway, or railway, and having a track or passageway for carrying traffic or other moving loads and having an opening measured along the center of the roadway of more than 20 feet between under-copings of abutments or spring lines of arches or extreme ends of openings of multiple boxes. If there are no abutment copings or fillets, the 20 foot measurement shall be between points six inches below the bridge seats or, in the case of frame structures, immediately under the top slab. A bridge may include multiple pipes where the clear distance between openings is less than half of the smaller contiguous opening. All measurements shall include the width of intervening piers or division walls.

**Bridge Length.** The greater dimension of a structure measured along the center of the roadway between backs of abutment backwalls or between ends of the bridge floor.

**Bridge Roadway Width.** The clear width of structure measured at right angles to the center of the roadway between the bottom of curbs or, if curbs are not used, between the inner faces of parapet or railing.

**101.08 CALENDAR DAY.**

Any day shown on the calendar, and the 24-hour period thereof from 12:01 a.m. to midnight.

**101.09 CENTER LINE OF HIGHWAY.**

A line equidistant from the edges of the median separating the main traveled ways on a divided highway, or the center line of the main traveled way on a nondivided highway.

**101.10 CHANGE ORDER.**

A written order issued by the Engineer to the Contractor, and signed by both, which sets forth any necessary or desirable changes in the contract including, but not limited to, extra work, increases or decreases in contract quantities, the basis of payment, contract time adjustments and other additions or alterations to the contract. A change order signed by the Contractor indicates his agreement therewith.

**101.11 CONTRACT.**

The written agreement between the Secretary 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, contract form and contract bond, specifications, special provisions, general and detailed plans, any notice to contractors, the notice to proceed, and any change orders and agreements that are required to complete the construction of the work in an acceptable manner, including authorized extensions thereof, all of which constitute one instrument.

**101.12 CONTRACT BOND.**

The approved form of security, executed by the Contractor and his surety or sureties, guaranteeing complete performance of the contract and all supplemental agreements pertaining thereto and the payment of all legal debts pertaining to the construction of the project.

**101.13 CONTRACT ITEM (PAY ITEM or BID ITEM).**

A specific unit of work for which a price is provided in the contract.

**101.14 CONTRACT PAYMENT BOND.**

The security furnished to the Secretary to guarantee payment of prescribed debts of the Contractor as covered by the bond.

**101.15 CONTRACT PERFORMANCE BOND.**

The security furnished to the Secretary to guarantee completion of the work in accordance with the contract.

**101.16 CONTRACT TIME**

The number of working days or calendar days allowed for completion of the contract, including authorized time extensions. In case a calendar date of completion is shown in the contract, in lieu of a number of working or calendar days, such work contemplated shall be completed on or before that date.

**101.17 CONTRACTOR.**

The individual partnership, firm, corporation, or any acceptable combination thereof, or joint venture, contracting through its agents or employees with the Secretary for performance of prescribed work. (The party of the second part to the contract.)

**101.18 CONTRACTOR'S QUALIFICATION STATEMENT AND EXPERIENCE QUESTIONNAIRE.**

The specified forms on which the Contractor shall furnish required information as to his ability to perform and finance the work.

**101.19 CONTROLLED ACCESS FACILITY.**

A highway, road or street especially designed to expedite and control through and local traffic; and over, from or to which highway, road or street, owners or occupants of abutting property shall have only a controlled right of easement of access, light, air or view.

**101.20 CONTROLLING ITEM(S) OF WORK.**

Those work item(s) that are directly interrelated such that each has a definite influence on progress of the overall work.

**101.21 CULVERT.**

Any structure which provides an opening under the roadway but which does not meet the classification of a bridge as defined in Section 101.07, with a clear opening of 20 feet or less measured along the center of the roadway.

**101.22 DEPARTMENT.**

Kansas Department of Transportation as constituted under the laws of Kansas for administration of the various transportation activities.

**101.23 DETOUR.**

A temporary route for traffic around a closed portion of a road.

**101.24 ENGINEER.**

The State Transportation Engineer acting directly or through his duly authorized representative(s) for engineering supervision of construction.

**101.25 ENGINEER OF TESTS.**

The Engineer of the Materials Test Unit of the Bureau of Materials and Research. The Engineer of Tests is located at the Kansas Department of Transportation, Materials and Research Center, 2300 Van Buren, Topeka, Kansas 66611.

**101.26 EQUIPMENT.**

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

**101.27 EXTRA WORK.**

Work for which no price or compensation is provided for in the contract and for which the Contractor is not deemed liable under any other provision of the contract, but is work found by the Engineer to be necessary or desirable for the satisfactory completion of the contract.

**101.28 FIELD ENGINEER.**

Whenever this term is used it shall be considered to mean Metro Engineer, Field Engineering Administrator, Area Engineer, Construction Engineer, and/or Construction Coordinator.

**101.29 FREEWAY.**

A controlled-access highway.

**101.30 FRONTAGE ROAD.**

A highway, road or street which is auxiliary to and located on the side of another highway, road or street for service to abutting property.

**101.31 GENDER REFERENCES.**

Whenever the words "he," "she," "him," or "her," occur in



these specifications or elsewhere in the contract documents, no particular gender is intended by use of such words.

#### **101.32 HIGHWAY.**

The whole right-of-way which is reserved for and secured by the Secretary for use in constructing the highway or road and its appurtenances thereto for the purpose of vehicular travel. (See Road)

#### **101.33 INSPECTOR.**

The Engineer's authorized representative assigned to make detailed inspections of contract performance.

#### **101.34 INTERSTATE HIGHWAY.**

Any highway officially designated as a part of the national system of interstate and defense highways by the Secretary and approved by the appropriate authority of the Federal government.

#### **101.35 INVITATION FOR BIDS.**

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

#### **101.36 LABORATORY.**

The testing laboratory of the Secretary or any other testing laboratory which may be designated by the Engineer.

#### **101.37 LEGAL HOLIDAYS.**

Legal holidays are defined as Civil Service holidays, including New Year's Day, Martin Luther King Day, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day, Christmas, and any other day proclaimed by the Governor of the State of Kansas.

#### **101.38 MAJOR AND MINOR CONTRACT ITEMS.**

Any item, excluding mobilization, having an original contract value of ten percent or more of the original contract

amount shall be considered a major item unless otherwise designated on the plans. Any other item shall be considered a minor contract item.

#### **101.39 MATERIALS.**

Any substance specified for use in the construction of the project and its appurtenances.

#### **101.40 MEDIAN.**

The portion of a divided highway or street separating the traveled ways for traffic moving in opposite directions.

#### **101.41 MUNICIPALITY.**

A city, township, or county.

#### **101.42 NOTICE TO CONTRACTORS.**

The document contained in the proposal form describing the work to be performed and including information and requirements for the submission of bids.

#### **101.43 NOTICE TO PROCEED.**

Written notice to the Contractor to proceed with the contract work including, when applicable, the date for commencement of the contract time for performance.

#### **101.44 PAVEMENT STRUCTURE.**

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

**Subgrade**—The top surface of a roadbed upon which the pavement structure and shoulders, including curbs, are constructed.

**Subgrade treatment**—Modification of roadbed material by stabilization.

**Subbase**—The layers of specified or selected material of designed thickness placed on a subgrade to support a base course.

**Base course**—The layer or layers of specified material of designed thickness placed on a subbase or a subgrade to support a surface course.

**Surface course**—One or more layers of a pavement structure

designed to accommodate the traffic load, the top layer of which acts as a friction course, resists traffic abrasion and resists the disintegrating effects of climate. The top layer is sometimes called "Wearing Course".

#### **101.45 PLANS.**

The approved plans, profiles, typical cross sections, working drawings and supplemental drawings, or exact reproductions thereof, which show the location, character, dimensions, and details of the work to be performed.

#### **101.46 PROFILE GRADE.**

The trace of a vertical plane intersecting the top surface of the proposed wearing surface, usually along the longitudinal centerline of the roadbed. Profile grade means either elevation or gradient of such trace according to the context.

#### **101.47 PROJECT.**

The specific section of the highway together with all appurtenances and construction to be performed thereon under the contract.

#### **101.48 PROPOSAL.**

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

#### **101.49 PROPOSAL FORM.**

The approved form on which the Secretary requires bids to be prepared and submitted for the work.

#### **101.50 PROPOSAL GUARANTY.**

The security furnished with a bid to guarantee that the bidder will enter into the contract if his bid is accepted. (See Bid Bond)

#### **101.51 REFERENCE.**

This book of Specifications is divided into Divisions 100, 150, 200, 300, 400, 500, 600, 700, 800, 900, and 1000, describing "General Clauses and Covenants," "Equipment," "Earthwork," "Stabilized Base and Surface," "Portland Cement Concrete,"

"Rigid Pavement," "Flexible Pavement," "Structures," "Incidental Construction," "Roadside Improvement" and "Materials" respectively. Each division may be further subdivided.

#### **101.52 RIGHT-OF-WAY.**

A general term denoting land, property, or interest therein acquired for or devoted to transportation purposes.

#### **101.53 ROAD.**

A general term denoting a public way for purposes of vehicular travel, including the entire area within the right-of-way. (See Highway)

#### **101.54 ROADBED.**

The graded portion of a highway within top and sideslopes, prepared as a foundation for the pavement structure and shoulders.

#### **101.55 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.

#### **101.56 ROADSIDE IMPROVEMENT.**

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; such suitable planting and other improvements as may increase the effectiveness and enhance the appearance of the highway.

#### **101.57 ROADWAY.**

The portion of a highway within the limits of construction.

#### **101.58 SECRETARY.**

The Secretary of Transportation, Kansas Department of Transportation.

**101.59 SHOULDER.**

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

**101.60 SIDEWALK.**

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

**101.61 SPECIAL PROVISIONS AND PROJECT SPECIAL PROVISIONS.****(a) Special Provisions.**

Approved supplementary provisions, additions or revisions to the standard specifications.

**(b) Project Special Provisions.**

Approved supplementary provisions, additions or revisions to the standard specifications which may cover conditions peculiar to an individual project.

**101.62 STANDARD SPECIFICATIONS.**

The current edition of the Department's Standard Specifications for State Road and Bridge Construction.

**101.63 SPECIFIED COMPLETION DATE (CALENDAR COMPLETION DATE).**

The date on which the contract work is specified to be completed.

**101.64 STABILIZATION.**

Modification of soils or aggregates by incorporating materials that will increase load bearing capacity, firmness and resistance to weathering or displacement.

**101.65 STATE.**

The State of Kansas acting through its authorized representative, the Secretary of Transportation.

**101.66 STREET.**

A general term denoting a public way for purposes of ve-

hicular travel, including the entire area within the right-of-way.

**101.67 STRUCTURES.**

Bridges, culverts, catch basins, drop inlets, retaining walls, cribbing, manholes, headwalls, buildings, sewers, service pipes, underdrains, foundation drains and other features which may be encountered in the work and not otherwise classified herein.

**101.68 SUBCONTRACTOR.**

An individual, partnership, firm, corporation, or any acceptable combination thereof, or joint venture, to which the Contractor sublets part of the contract.

**101.69 SUBGRADE.**

The top surface of a roadbed upon which the pavement structure and shoulders, including curbs, are constructed.

**101.70 SUBSTRUCTURE.**

All that part of a structure below the bearing of simple and continuous spans, skewbacks of arches and tops of footings of rigid frames, together with the backwalls, wingwalls and wing protection railings.

**101.71 SUPERINTENDENT.**

The Contractor's authorized representative in responsible charge of the work.

**101.72 SUPERSTRUCTURE.**

All that part of a structure above and including the bearing of simple and continuous spans, skewbacks of arches and top of footings of rigid frames, excluding backwalls, wingwalls, and wing protection rails.

**101.73 SURETY.**

The corporation, partnership or individual, other than the Contractor, executing a bond furnished by the Contractor.

**101.74 TITLES (OR HEADINGS).**

The titles or headings of the sections and subsections therein are intended for convenience of reference and shall not be considered as having any bearing on their interpretation.

**101.75 TRAVELED WAY.**

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

**101.76 WORK.**

The furnishing of all labor, materials, equipment, and other incidentals necessary or convenient to the successful completion of the project and the carrying out of all the duties and obligations imposed by the contract.

**101.77 WORKING DAY.**

A working day shall be any day upon which the Contractor can physically and legally prosecute the work and shall be determined and counted as provided in these specifications. (See Section 108.07)

**101.78 WORKING DRAWINGS.**

Stress sheets, shop drawings, erection plans, falsework plans, framework plans, cofferdam plans, bending diagrams for reinforcing steel, or any other supplementary plans or similar data which the Contractor is required to submit to the Engineer for approval.

## SECTION 102

### BIDDING REQUIREMENTS AND CONDITIONS

#### 102.01 NOTICE TO CONTRACTORS (ADVERTISEMENT).

After the date is set for receipt of proposals, the Secretary of Transportation will give notice of such letting to prospective bidders. The notice shall contain a description of the proposed work, together with information to the bidder regarding access to proposal forms, plans and specifications, and the reservation of the right of the Secretary of Transportation to reject any or all bids. This Notice to Contractors shall also be published as an advertisement giving notice of request for bids, as required by state laws. The Notice to Contractors shall become one of the contract documents, if award is made.

#### 102.02 PREQUALIFICATION OF BIDDERS.

##### (a) General.

Before submitting a proposal, prospective bidders shall be qualified for one or more of the following classifications of work for which he intends to submit a bid:

- A. Grading.
- B. All structures.
- C. Reinforced concrete box structures, culverts and other miscellaneous concrete.
- D. Light surfacing including subgrade modification, bituminous sealing, bituminous surface treatments, and aggregate surfaces.
- E. Base courses—pugmill type bases including aggregate base courses and road mix, except plant mix bituminous base courses.
- F. Plant mix bituminous mixtures.
- G. Portland cement concrete pavement.
- H. Seeding and roadside improvement, excluding rest area structures and buildings.
- I. Rest area structures and buildings.
- J. Electric lighting and traffic signals.
- K. All signing and delineation.
- L. Minor signing (post mounted).
- M. Pavement marking.
- N. Guard rail and fencing.
- O. Bridge or structure painting.
- P. Miscellaneous (light construction not otherwise classified).

##### (b) Qualification Statement and Experience Questionnaire.

A prospective bidder shall submit to the Secretary of Transportation a complete statement of his financial condition,



equipment, experience and organization on forms provided for that purpose. The prospective bidder shall indicate the class or classes of work for which he desires qualification, the amount of experience he has in performing such work, and where such experience was gained. The completed statement and questionnaire shall be considered when the qualification of the prospective bidder as a Contractor is determined.

(1) **Initial, Annual, and Supplemental Filing Requirements:** Every prospective bidder must file a completed Qualification Statement and Experience Questionnaire with the Director of Operations of the Kansas Department of Transportation at his office in Topeka, Kansas, at least seven days prior to any letting date for any project which the prospective bidder desires to submit a proposal. Only the proposals submitted by Contractors who have been and continue to be qualified by the Department will be opened and considered for competitive bidding purposes.

In order to remain qualified, the Contractor shall file a Qualification Statement and Experience Questionnaire annually, and at such other times as may be requested by the Prequalification Committee. The Contractor shall update information previously submitted within 30 days following any change in the ownership, directorship, or partnership of his organization.

(2) **Effectiveness of Qualification Period:** Unless otherwise notified, the qualification rating assigned to the Contractor shall remain in force and continue for one year.

**(c) Qualification Rating.**

A Prequalification Committee composed of the Director of Operations, the Bureau Chief of Construction and Maintenance and the Bureau Chief of Fiscal Services will meet and review the information submitted by a prospective bidder. At the conclusion of the Prequalification Committee's review, a qualification rating will be assigned to the Contractor and the Contractor will be so notified in writing. All information of a confidential nature furnished by the prospective bidder shall be kept confidential and any qualification rating assigned by the Department will not be made public.

The criteria for determining the prospective bidder's qualification to bid shall include, but not be necessarily limited to, the following:

(1) **Financial Rating:** A Contractor's financial rating represents one part of the total rating process for prequalification.

Two levels of financial rating are provided. These are termed (1) General Financial Rating, and (2) Limited Financial Rating. The procedure for assigning each of these ratings is listed below:

(1.1) General Financial Rating. A Contractor's financial statement shall show net worth and will be certified by a Certified Public Accountant holding an unrevoked certificate in Kansas or in any state which has a reciprocity agreement with the State of Kansas.

(1.2) Limited Financial Rating. Certification by a Certified Public Accountant is not required. The Prequalification Committee shall recommend a total prequalification amount to a maximum of \$500,000.00.

(2) Equipment: The quality and quantity of equipment required to perform the class or classes of work.

(3) Experience: The completed experience questionnaire submitted by the prospective bidder shall show that the Contractor's organization has sufficient experience and capability to carry on and expeditiously complete the work.

(4) Performance Record: If available, the results of any Departmental review of the Contractor's past performance record shall be considered by the Prequalification Committee. The performance record may evaluate the following areas of the Contractor's performance: quality of work, knowledge of work, prompt completion of work, prompt payment of accounts, cooperation with the public and the Department, and compliance with specifications, including equal employment opportunity requirements.

**(d) Committee's Reconsideration of Qualification Rating; Appeal to the Secretary.**

(1) Any Contractor dissatisfied by the qualification rating assigned by the Prequalification Committee may, within ten days after its receipt, request in writing a reconsideration of the rating. This request shall list reasons for dissatisfaction. If a supplemental qualification statement will more accurately reflect the Contractor's status, a supplemental statement may be filed along with the request for reconsideration.

Upon receipt of the written request or supplemental qualification statement, the Committee shall notify the Contractor of the date, time and place it will reconsider the rating. The Contractor may be represented at the reconsideration hearing, and shall have the opportunity to be heard.

Final action on reconsideration shall be taken within 30 days from the date of receipt of the reconsideration request.

(2) Any Contractor dissatisfied with the final action taken by the Committee may, within ten days after receipt of the notification of final action, appeal to the Secretary, in writing, for a final hearing. Upon receipt of the written request for final hearing, the Secretary shall notify the Contractor of the date, time and place of the hearing.

The Secretary, or the Secretary's designee, shall conduct the hearing. The Contractor may be represented and shall have the opportunity to be heard.

Final action shall be taken by the Secretary or the Secretary's designee within 15 days after the hearing.

**(e) Joint Venture of Qualified Contractors.**

Joint bidding by two or more prequalified Contractors may be allowed provided that a written request by each interested party is received and approved by the Bureau Chief of Construction and Maintenance prior to the issuance of the proposal for which such joint venture is desired. Qualification ratings for joint venture bidding shall be determined by adjusting the combined qualification of the Contractors on their individual experience in the type or class of work being considered. The qualification of the joint venture may not exceed the amount equal to the sum of the individual qualifications.

**102.03 CONTENTS OF PROPOSAL FORMS.**

Upon request, the Secretary shall furnish the prospective bidder with a proposal form. This form shall state the location and description of the contemplated construction and shall show the approximate estimate of the various quantities and kinds of work to be performed or materials to be furnished, and shall have a schedule of items for which unit bid prices are invited. The proposal form shall state the contract time in which the work must be completed, and the date, time and place of the opening of proposals. The form will also include any special provisions or requirements which vary from or are not contained in the standard specifications or supplements thereto. The plans, specifications and other documents designated in the proposal forms shall be considered as part of the proposal whether or not attached to the proposal.

All papers bound with or attached to the proposal form are considered a part of the proposal form and shall be submitted as the bidder's proposal without alteration except as may otherwise be expressly authorized by the Engineer prior to the date set for acceptance of bids. Except, that at the option

of the bidder any project special provision or special provision contained in the proposal form may be removed and the bidder's proposal submitted without them. However, any item or document in the proposal form that requires or permits the signature of the bidder or his surety and the entire schedule of price sheets, and special provision list must be submitted with the bidder's proposal regardless of whether or not it might be considered a project special provision or a special provision. The removal of any project special provision or special provision from a bidder's proposal will in no way effect the full application of any such project special provision or special provision either to the contract subsequent to award and execution or to any matter covered by a removed item prior to award or execution.

#### **102.04 ISSUANCE OF PROPOSAL.**

The Secretary reserves the right to disqualify or refuse to issue a proposal form to any prospective bidder for any of the following reasons:

- (a) Lack of competence or adequate machinery, plant or other equipment, as revealed by the financial statement and experience questionnaires required under Section 102.02.
- (b) Uncompleted work in progress which, in the judgment of the Secretary, may hinder or prevent the prompt completion of additional work if awarded.
- (c) Failure to pay or satisfactorily settle all bills due for labor and material on previous contracts.
- (d) Failure to comply with any qualification regulation of the Secretary.
- (e) Default under previous contracts.
- (f) Unsatisfactory performance of previous work.

#### **102.05 INTERPRETATION OF QUANTITIES IN BID SCHEDULE.**

The quantities appearing in the bid schedule are approximate only and are prepared for the comparison of bids. Payment to the Contractor shall be made only for the actual quantities of work performed and accepted or materials furnished in accordance with the contract. The scheduled quantities of work to be done and materials to be furnished may be increased, decreased, or omitted as herein provided.

**102.06 UNDETERMINED ITEMS.**

When it is impossible or impracticable to determine the amount or type of item(s) that may be encountered or needed to complete the work properly, and when the Engineer has reason to believe these items may be encountered or needed, he may set a price upon said items in the proposal, and the prices so set shall become the unit prices for those items should the contract be awarded.

**102.07 EXAMINATION OF PLANS, SPECIFICATIONS, SPECIAL PROVISIONS, AND SITE OF WORK.**

Except when the contract requires the Contractor to design or to furnish plans or working drawings, the Secretary will prepare full, complete, and accurate plans and specifications giving such directions as will enable any competent mechanic or Contractor to perform the work. The bidder is expected to carefully examine the site of the proposed work, the proposal, plans, specifications, special provisions, and contract forms before submitting a proposal. The submission of a bid shall be considered prima facie evidence that the bidder has made such examination and is satisfied as to the conditions to be encountered in performing the work and as to the requirements of the plans, specifications, special provisions, and other contract documents.

Boring logs and other records of subsurface investigations which have been made are available for inspection by bidders. It is understood that such information was obtained and is intended for State design and estimating purposes only. It is made available to bidders that they may have access to identical subsurface information available to the State, and is not intended as a substitute for personal investigation, interpretation and judgment of the bidders.

**102.08 MATERIAL AND PRODUCT SELECTION.**

The successful bidder for each contract shall inform the Secretary in writing of the material or product that shall be furnished and installed for the designated bid item or items.

The type of material or product designated shall be furnished and installed unless a change in type of material or product is requested by the Contractor and approved by the Engineer as set forth in a change order.

The Department reserves the right to change any of the types of material or product designated by the successful bid-

der to some other permitted material or product on any bid item. The change shall be in accordance with the provisions of section 104.04 "Extra Work".

### **102.09 FAMILIARITY WITH LAWS AND ORDINANCES.**

The bidder, by submitting a proposal, agrees that he has familiarized himself with all requirements of Federal, State, County, and Municipal laws and ordinances applying to the work contemplated before submitting his bid.

### **102.10 PREPARATION OF PROPOSAL.**

Each proposal submitted shall be upon the forms furnished. No other proposal will be considered. The blank spaces after each item must be filled in, with typewriter or ink, correctly and legibly, showing the sum of money for which the Contractor shall supply the materials and perform the work required by the contract.

The bidder shall sign the proposal in ink on the blank space provided for signature. If the proposal is made by a partnership or corporation, the name and address of the partnership or corporation, as well as that of the agent acting therefor, shall be shown.

To correct or revise a proposal, the entry in question shall be deleted by placing a line thereon and the corrected or revised entry shall be placed near the deletion along with the initials of the person making the new entry. All deletions, new entries and initials shall be made with ink prior to the time for the opening of the proposals.

If one or more projects or divisions of the work are bid upon, then combination bids as described below will be accepted, unless specifically prohibited in the proposal. If the bidder desires to make a combination bid, then he shall set forth in a definite statement, in the space provided for this purpose in the proposal, the combination or combinations which he desires.

The term "combined" shall be defined as any stipulation made by the bidder whereby the award of one project is dependent upon the award of another project.

Methods of combined bids are as follows:

(1) Project A and Project B "are tied"—Two-way tie, neither A nor B can be awarded without the other.

(2) Project A "tied with" Project B—Two-way tie, same as (1).

(3) Project A "tied to" Project B—One-way tie. Project B can be awarded without awarding Project A (but Project A cannot be awarded without also awarding Project B).

(4) A stipulation made by a bidder to make a monetary deduction if awarded more than one project.

In case a bidder desires to make a deduction if awarded more than one contract, the deduction shall be shown as a certain deduction of the unit price on one or more of the items of work.

A bidder may specify that if he is the lowest bidder on more than one project, then work not to exceed a certain dollar amount or number of projects will be undertaken. The Secretary reserves the right to award any of the projects so bid upon to the Contractor up to such an amount when such a statement is written in the proposal.

The Secretary will award contracts on the basis of the lowest combination of combined, or separate bids which constitutes the lowest overall cost of the projects involved.

**Acceptable and Unacceptable Combination Bids:**

(1) Projects within a Highway District shall not be combined with projects located in another Highway District except when so combined by the Secretary.

(2) Bids on Federal-Aid funded state projects may be combined.

(3) Bids on Kansas-funded state projects may be combined.

(4) Bids on Federal-Aid funded state projects shall not be combined in any manner with bids on Kansas-funded state projects, county-funded projects or city-funded projects.

(5) Bids on Kansas-funded state projects may be combined to but not with bids on Federal-Aid funded state projects.

(6) Bids on Kansas-funded state projects shall not be combined in any manner with bids on county-funded projects or city-funded projects.

(7) Bids on county-funded projects in the same county may be combined, but shall not be combined in any manner with the bids of county-funded projects in other counties, Federal-Aid funded state projects, Kansas-funded state projects or city-funded projects.

(8) Bids on city-funded projects in the same city may be combined, but shall not be combined in any manner with bids for city-funded projects in other cities, Federal-Aid funded state projects, Kansas-funded state projects or county-funded projects.

A bid shall be declared irregular if a bidder stipulates an unacceptable combination.

Subject to the classifications of work as stated below, bids on one classification of work may be combined with like classifications of work on other projects, but unlike classifications of work may not be combined. Permissible combinations are as follows: Classifications B and C may be combined; Classifications D, E and F may be combined; and Classifications K, L and M may be combined. Remaining classifications of work may not be combined with other classifications.

### 102.11 CLASSIFICATIONS OF WORK.

Like divisions or classifications of work shall be considered in the following categories:

- A. Grading;
- B. All structures;
- C. Reinforced concrete box structures, culverts and other miscellaneous concrete;
- D. Light surfacing including subgrade modification, bituminous sealing, bituminous surface treatment, aggregate surfaces;
- E. Base courses—pugmill type bases including aggregate base courses and road mix; except plant mix bituminous base courses;
- F. Plant mix bituminous mixtures;
- G. Portland cement concrete pavement;
- H. Seeding and Roadside Improvements excluding rest area structures and buildings;
- I. Rest area structures and buildings;
- J. Electric lighting and traffic signals;
- K. Signing and delineation;
- L. Minor signing (post mounted);
- M. Pavement marking;
- N. Guard rail and fencing;
- O. Bridge or structure painting;
- P. Miscellaneous (light construction not otherwise classified).

A certain combination or combinations may be specified or permitted by the Secretary in the proposal to be bid as such; however, other like classifications of work on other projects may also be combined by the bidder provided that all other requirements of this section are met.

### 102.12 PROPOSAL GUARANTY OR BID BOND.

Each proposal shall be accompanied by a bid bond, made payable to the Secretary, in an amount equal to at least five percent of the amount bid and no proposal shall be considered unless such bid bond is enclosed therewith.



Bid bonds must be executed on the Kansas Department of Transportation bid bond form, a copy of which is included in the proposal or a facsimile with the exact verbiage as KDOT Form 283. Bid bonds shall be executed by those authorized to contract as surety in the State of Kansas.

Bid bonds of the two lowest responsible bidders shall remain in full force until such time as the execution of a contract, contract bond and evidence of insurance coverage has been filed in compliance with the requirements of the proposal, the specifications and all supplementary provisions, to the satisfaction of the Secretary. The full amount of the bid bond shall be forfeited to the Secretary in liquidation of damages sustained in the event that the bidder (or bidders) fails to execute and file a satisfactory contract, acceptable contract bond and evidence of insurance coverage that may be required by the proposal, specifications or supplementary provisions thereto within ten business days after notice of award of the contract.

#### **102.13 DELIVERY OF PROPOSAL.**

Each proposal must be submitted in a special envelope furnished by the Secretary. The blank spaces on the envelope must be filled in correctly so as to clearly indicate its contents. When sent by mail, the above mentioned envelope shall be enclosed in another envelope addressed to the Kansas Department of Transportation at the town and in care of the official in whose office the bids are to be received. All proposals shall be filed prior to the time and at the place specified in the Notice to Contractors. Proposals received after the stated time for filing shall be returned to the bidder unopened. A representative of the Secretary cannot act as a representative of the bidder in the submission of a proposal.

#### **102.14 WITHDRAWAL OF PROPOSAL.**

A proposal may be withdrawn after it has been delivered to the Department by oral or written request. Said request shall be submitted in writing or orally in person by the Contractor or his authorized representative, provided the request is in the hands of the authorized representative of the Secretary at the office designated in the proposal for the reception of proposals and before the time for the opening of the proposals.

A withdrawn proposal may be corrected or altered in person

by the bidder or his authorized representative and resubmitted before the stipulated time for the opening of the proposals.

The bidder shall not correct or alter his proposal except in person. A representative of the Secretary may not act as a representative of the bidder in the withdrawal, correction, or alteration of a proposal.

#### **102.15 PUBLIC OPENING OF PROPOSALS.**

Proposals shall be opened and read in public at the time and place indicated in the Notice to Contractors. Bidders, their authorized agents, and other interested parties are invited to be present.

Proposals received from unqualified bidders shall not be opened or read but shall be returned.

#### **102.16 REJECTION OF PROPOSALS.**

**(a) Proposals may be rejected if:**

- (1) They show any alteration of forms;
- (2) They show additions not called for;
- (3) They show conditional or alternate bids;
- (4) They show irregularities of any kind;
- (5) They contain a clause in which the bidder reserves the right to accept or reject a contract awarded to him; or
- (6) They contain prices which are obviously unbalanced.

The Secretary reserves the right to reject bids of Contractors who have submitted proposals on work when the amount of their proposal together with the total unearned amount of their contracts with the Secretary and the unearned amount of all other contracts (whether public or private) in this state or any other state, exceeds the amount of their qualification rating.

The determination of a qualification rating shall in no way be construed as depriving the Secretary of the right to reject any bid prior to the award of the contract when other circumstances and developments have, in the opinion of the Secretary, changed the qualification or responsibility of the bidder.

**(b) Proposals will be rejected for the following reasons:**

- (1) Failure to submit a unit price for each item of work listed in the proposal other than the items with a quantity of one and a unit of each. Items with a quantity of one and a unit of each will be accepted with unit price shown in either the unit price column or amount column or both.

- (2) Proposal not signed by principal.
- (3) Bid bond not executed and signed by principal and surety.
- (4) Failure to submit a completed sworn certification regarding non-collusion and history of disbarment.
- (5) Failure to submit required Disadvantaged Business Enterprise (DBE) information.

#### 102.17 DISQUALIFICATION OF BIDDERS.

Any one or more of the following causes may be considered as sufficient for the disqualification of a bidder and the rejection of his proposal or proposals.

(a) More than one proposal for the same work from an individual, firm, or corporation under the same or different name.

(b) Evidence of collusion among bidders. Participants in such collusion shall receive no recognition as a bidder for any future work of the Secretary until any such participant shall have been reinstated as a prequalified bidder.

(c) Lack of competency, adequate machinery, plant and other equipment, as revealed by the "Contractor's Qualification Statement and Experience Questionnaire" required under section 102.02.

(d) Unsatisfactory performance record as shown by past work for the Department, judged from the standpoint of criteria described in subsection 102.02(c)(4).

(e) Uncompleted work in progress which, in the judgment of the Secretary, might hinder or prevent the prompt completion of additional work if awarded.

(f) Failure to pay, or satisfactorily settle, all bills due for labor and materials on previous contracts.

(g) False, deceptive, or fraudulent statements made in the "Contractor's Qualification Statement and Experience Questionnaire," or in the course of any hearing associated with the application for prequalification.

(h) Participating in any anti-trust violations.

(i) Debarment or suspension from any project in this, or any other, state.

(j) Failure to comply with any qualification regulation of the Secretary.

#### 102.18 REORGANIZATION OF CONTRACTOR'S BUSINESS ORGANIZATION.

- (a) A reorganization of the Contractor's business structure,

such as an individual proprietorship reorganized into a partnership or a corporation, a partnership reorganized by the addition of one or more partners, or the death or withdrawal of a partner or partners, or the sale of the partner's interest in the partnership to one or more of the other partners or to a third party, or the partnership incorporating, or a partnership dissolving and one of the former partners thereby acquiring control of the partnership, or the completion of certain uncompleted contracts with the Secretary, shall not effect the following:

(1) The right of such person, firm, partnership or corporation to complete all uncompleted contracts of the previous organizational structure with the Secretary; or

(2) The eligibility of such person, firm, partnership, or corporation to enter into contracts with the Secretary awarded pursuant to bids submitted by the previous organization, prior to said reorganization, or during the process of the reorganization; or

(3) The eligibility of such person, firm, partner or corporation to bid on projects, based upon the financial statement and other qualifying statements of the previous organization; provided, however, the Secretary may in his discretion require such person, firm, partner, or corporation to file with the Secretary a new "Contractor's Qualification Statement and Experience Questionnaire," and if a partnership, it shall file a statement with the Secretary showing the proper person or persons who are authorized to sign for the partnership; and provided further, that the reorganized business shall file with the Secretary an endorsement to the bond of the original Contractor executed by the surety and said bond, acknowledging that the surety's liability on said bond continues in full force and effect to the same extent under the reorganized business as it was on the bond of the original Contractor; and provided further, that said-reorganization shall not relieve the original or any intervening Contractor, and if a partnership each of said partners, and the surety from liability under said contract and bond.

(b) In the event of the death of any Contractor, which Contractor was operating as a sole proprietorship, his heirs, executor or administrator may, with the approval of the Secretary and the surety on the Contractor's bond, complete any uncompleted contract said Contractor has with the Secretary at the time of death.

**102.19 DEBARMENT AND SUSPENSION—CAUSES AND PROCEDURES:****(a) Debarment—Causes.**

The Secretary may impose debarment upon a Contractor for any of the causes listed in 49 C.F.R. Part 29 as well as the causes listed below:

(1) Conviction, judgment, or admission of:

(1.1) fraud, collusion, or any criminal offense in connection with obtaining, attempting to obtain, or performing a contract let by the Secretary or a subcontract of it;

(1.2) violation of federal or state anti-trust statutes;

(1.3) embezzlement, theft, forgery, bribery, perjury, falsification or destruction of records, making false statements, receiving stolen property and obstruction of justice;

(1.4) violation of any applicable laws governing hours of labor, minimum wage rates, discrimination in wages, or child labor; and

(1.5) violation of any laws indicating the lack of business integrity or business honesty which seriously and directly affect the present responsibility of the Contractor to public contracts or subcontracts of them.

(2) Violation of the terms of a contract let by the Secretary, or a subcontract of a contract let by the Secretary, including but not limited to, the following:

(2.1) Willful failure to perform in accordance with the contract specifications; and

(2.2) A record of failure to perform or of unsatisfactory performance in accordance with the terms of one or more contracts, provided that the failure or unsatisfactory performance has occurred within a reasonable time preceding the determination to debar and was substantially caused by acts within the control of the Contractor.

(3) Any other cause that affects the question of present responsibility as a Contractor or Subcontractor on contracts let by the Secretary, including conduct prescribed in (1) and (2) even if this conduct has not been or may not be prosecuted as violations of the laws or contracts.

**(b) Debarment Procedures.**

Debarment procedures shall be those set forth in the Kansas Administrative Regulations and/or the Code of Federal Regulations. See K.A.R. 36-31-2 and 49 C.F.R. Part 29, and any amendments thereto.

## SECTION 103

### AWARD AND EXECUTION OF CONTRACT

#### 103.01 CONSIDERATION OF PROPOSALS.

After the proposals are opened and read, they shall be compared on the basis of the summation of the products of the approximate quantities shown in the bid schedule by the unit bid prices. The results of such comparisons shall be made available to the public. In the event of a discrepancy between unit bid prices and extensions thereof, the unit bid price shall govern.

Until the final award of the contract, the Secretary reserves the right to reject any and all proposals and to waive any or all technicalities.

#### 103.02 AWARD OF CONTRACT.

The award of contract, if it is to be awarded, shall be made within 45 calendar days after the opening of proposals to the lowest responsible and qualified bidder whose proposal complies with all the requirements prescribed. The successful bidder will be notified by letter mailed to the address shown on his proposal that his bid has been accepted and that he has been awarded the contract.

A contract may be awarded by the Secretary when only one bid is received for a project or projects, provided the bid is deemed reasonable and the Contractor is deemed responsible and qualified by the Secretary.

All corporations not incorporated in Kansas must be registered to do business in the State of Kansas. Proof of such qualifications shall be filed within ten business days after the notice of award of the contract.

Contractors who are nonresidents of Kansas must establish an office in the state and designate an individual or institution residing in this state as their process agent. The process agent shall not be a Kansas State Official or employee.

#### 103.03 CANCELLATION OF AWARD.

The Secretary reserves the right to cancel the award of any contract at any time before the execution of the said contract by all parties without any liability accruing against the Secretary.

**103.04 MATERIAL GUARANTY.**

The successful bidder may be required to furnish a complete statement of the origin, composition, and manufacture of any or all materials to be used in the construction of the work, together with samples which may be subjected to the tests provided for in these specifications to determine their quality and fitness for the work.

**103.05 REQUIREMENTS OF CONTRACT BOND.**

The successful bidder, before entering into a contract and within ten business days after notice of the award of the contract, shall execute a contract bond in the form prescribed by the Secretary and for the amount of the contract, with a surety to be approved by the Secretary. The contract bond shall be conditioned upon the faithful performance of the contract and the payment of all indebtedness incurred for all labor, materials, and supplies furnished therefor. The contract bond must be kept in full force for the period required by law. In the event the surety or bonding company fails or become financially insolvent, then the Contractor shall, within five days of such failure or insolvency, file a new and sufficient bond in the amount designated by the Secretary.

The contract bond will not be accepted unless the insurer or surety is authorized to do business in Kansas by the Kansas Commissioner of Insurance.

**103.06 EXECUTION OF CONTRACT.**

The successful bidder shall furnish a satisfactory bond, certificates of insurance and sign the contract at the Department of Transportation in Topeka, Kansas, within ten business days after notice of the award of the contract. No proposal shall be considered binding upon the Secretary until the execution of the contract by both parties. Any material ordered or delivered, or work started before the execution of the contract by both parties is entirely at the Contractor's risk.

**103.07 FAILURE TO EXECUTE CONTRACT.**

If the successful bidder fails to execute a contract, furnish a contract bond, furnish certificates of insurance, or prove authorization to do business in Kansas (if an out-of-state corporation) within ten business days from the date of the notice of the award, then such failure(s) shall be just cause for the

annulment of the award and for the forfeiture of the proposal guaranty to the Secretary. Such forfeiture is not a penalty, but the liquidation of damages sustained through delay. In such an event, the contract may be re-awarded to the next lowest responsible bidder or proposals may again be received at some later date.



## SECTION 104

### SCOPE OF WORK

#### 104.01 INTENT OF CONTRACT.

The intent of the contract is to provide for the construction and completion in every detail of the work described. The Contractor shall furnish all labor, materials, equipment, tools, transportation and supplies required to complete the work in accordance with the plans, specifications and other terms of the contract.

#### 104.02 SPECIAL WORK.

Special work refers to that part of the work which is not satisfactorily covered by the standard specifications and for which special provisions have been prepared. Such work shall be considered a part of the contract.

#### 104.03 ALTERATION OF PLANS OR CHARACTER OF WORK.

The Engineer reserves the right to make, in writing, at any time during the work, such changes in quantities and such alterations in the work as necessary to satisfactorily complete the project. Such changes in quantities and alterations 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 the alterations or changes in quantities do not significantly change the character of the work to be performed under the Contract, the altered work will be paid for as provided elsewhere in the Contract.

The term "significant change" shall be construed to apply only to the following circumstances:

(A) When the character of the work as altered differs ma-

terially in kind or nature from that involved or included in the original proposed construction, or;

(B) When a major item of work defined elsewhere in the Contract is increased in excess of 125 percent or decreased below 75 percent of the original Contract quantity. Any allowance for an increase in quantity shall apply only to that portion in excess of 125 percent of the original Contract quantity, or in case of a decrease below 75 percent, to the actual amount of work performed.

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 condition 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 determines that the conditions materially differ and cause an increase or decrease in the cost or time required for the performance of any work under the Contract, an adjustment, excluding loss of anticipated profits, will be made and the Contract modified in writing accordingly. The Engineer will notify the Contractor of his 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.

#### **104.04 EXTRA WORK.**

Work made necessary by alteration of plans, or by other reasons, or additional work necessary to complete the proposed improvements, for which work no price or compensation is provided in the contract and for which the Contractor is not deemed liable under the provisions of the contract, shall be deemed extra work. Such work shall be performed by the Contractor under the direction of the Engineer in accordance with the specifications. Extra work shall not be started before a written agreement has been executed between the Contractor and the Secretary stipulating that the work shall be paid for at the stated unit price or lump sum, or failing such

agreement, the Engineer shall give the Contractor a written order stipulating that the work shall be performed on a force account basis. (See also Sections 104.03, 105.16, 105.17, 105.18 and 109.05)

#### **104.05 MAINTENANCE OF DETOURS.**

Unless specifically noted on the plans, the Contractor will not be required to construct and maintain temporary detour roads over or through construction or to build and maintain temporary structures around bridges. The Contractor shall be required to build and maintain suitable temporary structures around or over culverts to accommodate the residents living on or traffic originating on the section of road under contract.

If it is necessary or desirable to carry traffic over the road during construction, then it shall be so noted on the plans, showing the temporary structures necessary for the detours around the bridges and the methods of payment for such structures.

Unless otherwise noted in the contract, all detour routes, except those over or through construction, shall be maintained and marked by the Secretary.

If the detour is marked by the Contractor, the Contractor shall be responsible for maintaining such markings.

#### **104.06 REMOVAL AND DISPOSAL OF STRUCTURES AND OBSTRUCTIONS.**

All buildings, public utilities or any other private or public improvements which are to be removed from the right-of-way and replaced or reconstructed at new locations shall be removed by the Secretary or by their owners under a separate agreement unless otherwise provided in the contract.

The Contractor shall remove any and all materials not suitable for use in the work including, but not limited to, obstructions, obstructing fences, existing culverts, bridges, and all other structures or parts of structures within the highway right-of-way, which are to be replaced or interfere with or are rendered useless by new construction, unless otherwise provided elsewhere in the contract. The Contractor shall remove and dispose of all foundations, debris, trash, and remains left after the previous removal by others of vacated dwellings or other buildings. All of the removal described above shall be performed at the Contractor's own cost and expense and is considered subsidiary work included in other items of work

performed, unless the contract contains a separate bid item for removal of existing structures as provided in Section 206, or unless portions of existing substructure units fall within the limits of excavation for structures.

Where a bridge is replaced by a new structure at the same location, the old structure shall be removed by the bridge Contractor, unless otherwise noted on the plans.

#### **104.07 RIGHTS IN AND USE OF MATERIALS FOUND ON THE WORK.**

The Contractor, with the approval of the Engineer, may use on the project such stone, gravel, sand, or other material determined suitable by the Engineer, as may be found in the excavation and shall 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. No charge for the materials so used shall 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. At his own expense, the Contractor shall replace with acceptable material all of that portion of the excavated material so removed for use in the embankments, backfills, approaches and the like.

Unless otherwise provided, the material from any existing old structure may be used temporarily by the Contractor in the erection of the new structure. If such material is to be salvaged, then it shall not be cut or otherwise damaged without the approval of the Engineer.

#### **104.08 FINAL CLEAN UP.**

Upon the completion of the work, and before final acceptance and final payment will be made, the Contractor, at his own expense, shall clean and clear the highway and adjacent property defaced or occupied by him in connection with the work of all rubbish, weeds, brush, excess materials, false work, temporary structures and equipment. For mowing requirements see Section 832.

All parts of all types of work shall be left in a neat and presentable condition.

## SECTION 105

### CONTROL OF WORK

#### 105.01 AUTHORITY OF THE ENGINEER.

The Engineer will decide all questions which may arise as to the quality and acceptability of materials furnished, the work performed, and the rate of progress of the work, as well as all questions which may arise as to the interpretation of the plans and specifications and the acceptable fulfillment of the contract on the part of the Contractor.

The Engineer shall have the authority to suspend the work, wholly or in part, due to the failure of the Contractor: (1) to correct conditions unsafe for the workers or the general public; (2) to carry out provisions of the contract; and (3) to carry out orders. The Engineer shall also have the authority to suspend the work for such periods as he 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.

In order to provide for the protection of the work, for the protection of the public, for the most advantageous movement of public traffic, or to assure early completion of the work when one or more Contractors are involved, the Engineer shall have the right to require the early completion or the delay of portions of the work and to determine the order in which the work shall be prosecuted. His decision shall be final and he shall have executive authority to enforce and make effective such decisions and orders that the Contractor fails to carry out promptly.

Any written instructions to the Contractor which may be required under these specifications may be given to the Contractor or his representative, either personally or by mailing to the address given in the contract, or by leaving the same at said address.

#### 105.02 PLANS AND WORKING DRAWINGS.

Plans shall show details of all structures, lines, grades, typical cross sections of the roadway, location and design of all structures and a summary of items appearing in the contract. Only general features shall be shown for steel bridges. The Contractor shall keep one set of plans available on the work site at all times.

The plans shall be supplemented by such working drawings as are necessary to adequately control the work. Working drawings for structures shall be furnished by the Contractor and shall consist of such detailed plans as may be required to adequately control the work and are not included in the plans furnished by the Secretary. They shall include stress sheets, shop drawings, erection plans, false work plans, cofferdam plans, bending diagrams for reinforcing steel, computations or any other supplementary plans or similar data required of the Contractor. All working drawings required by the contract must be approved by the Engineer and such approval shall not operate to relieve the Contractor of any of his responsibility under the contract for the successful completion of the work. The Engineer shall be allowed a reasonable time to review any working drawings submitted by the Contractor for approval.

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

#### **105.03 CONFORMITY WITH THE PLANS AND SPECIFICATIONS.**

All work performed and all materials furnished shall be in reasonably close conformity with the lines, grades, cross sections, dimensions, and material requirements, including tolerances, as shown on the plans or indicated elsewhere in the contract. Plan dimensions and contract specification values are to be considered as the goals to be achieved and complied with as the design values from which any deviations are allowed.

In the event the Engineer finds the materials or the finished product in which the materials are used are not within reasonably close conformity with the plans and specifications but that reasonably acceptable work has been produced, he shall then make a determination whether or not the work is to be accepted and remain in place. If the work is determined to be reasonably acceptable, then the Engineer shall prepare a change order which documents the basis of acceptance and provides for an appropriate adjustment in the contract price, unless adjusted payment has been provided for the item in the specifications. (See also Sections 105.13 and 106.04(b))

In the event the Engineer finds the materials or the finished product in which the materials are used or the work performed are not in reasonably close conformity with the plans and

specifications and have resulted in an inferior or unsatisfactory product, the work or materials shall be removed and replaced, or otherwise corrected, by and at the expense of the Contractor.

#### **105.04 COORDINATION OF STANDARD SPECIFICATIONS, PLANS, SPECIAL PROVISIONS AND PROJECT SPECIAL PROVISIONS.**

The standard specifications, plans, special provisions, and all supplemental documents are essential parts of the contract, and a requirement occurring in one is as binding as though occurring in all. They are intended to be complementary and to describe and provide for a complete project. In case of discrepancy, calculated dimensions shall govern over scaled dimensions; plans shall govern over standard specifications; special provisions shall govern over plans, and project special provisions shall govern over special provisions.

The Contractor shall take no advantage of any apparent error or omission in the contract. In the event the Contractor discovers such an error or omission, he shall immediately notify the Engineer. The Engineer shall then make such corrections and interpretations as may be deemed necessary for fulfilling the intent of the contract.

#### **105.05 SILENCE OF CONTRACT.**

The apparent silence of the contract documents as to any detail or the apparent omission from them of a detailed description concerning any point shall be regarded as meaning that only the best general engineering and construction practices are to be used.

#### **105.06 COOPERATION OF CONTRACTOR WITH ENGINEER.**

In order to coordinate the efforts of the Contractor or the several Contractors with those of the Engineer, to facilitate the movement of traffic, and to insure the timely completion of all phases of the work the Contractor shall, prior to beginning work, confer with the Engineer to arrange for a satisfactory schedule of the prosecution of the work. (See Section 108.03, "Progress Schedule")

The Contractor shall have available on the work site at all times one copy of the contract documents, including the plans. He shall give the work the constant attention necessary to facilitate the progress thereof and shall cooperate with the

Engineer, his inspectors, and other Contractors in every way possible. The Contractor shall designate and have on the work site at all times, as his agent, a competent superintendent who is capable of reading and thoroughly understanding the contract documents and who shall receive instructions from the Engineer or his authorized representatives. The superintendent shall have full authority to execute the orders or directions of the Engineer without delay and to promptly supply such materials, tools, equipment, and labor as may be required. Such superintendent shall be furnished regardless of the amount of work sublet.

#### **105.07 COOPERATION WITH UTILITIES.**

The Secretary shall notify all utility companies, all pipeline owners, or other parties affected by the proposed improvement, and endeavor to have all necessary adjustments of the public or private utility fixtures, pipelines, and other appurtenances within or adjacent to the limits of construction, made as soon as practicable.

Water lines, gas lines, wire lines, service connections, water and gas meter boxes, water and gas valve boxes, light standards, cableways, signals, and all other utility appurtenances within the limits of the proposed construction which are to be relocated or adjusted, are to be moved by the utility owners at their expense, unless otherwise provided for in the contract.

It is understood and agreed that the Contractor has considered in his bid all of the permanent and temporary utility appurtenances in their present and/or relocated positions as shown in the contract documents and that no additional compensation will be allowed for any delays, inconvenience, or damage sustained by him due to any interference from the said utility appurtenance or the operation of moving them.

The Contractor shall, if necessary, adjust his schedules and otherwise cooperate with utility companies in the adjustment of their utilities.

#### **105.08 COOPERATION AND CLAIMS BETWEEN CONTRACTORS.**

The Secretary reserves the right at any time to perform or to contract for the performance of other or additional work on or near the work covered by the contract.

When separate contracts are let for work within the limits of any project, each Contractor shall conduct his work so as



not to interfere with or hinder the timely progress or completion of the work being performed by other Contractors. In this regard, Contractors working on the same project shall cooperate with each other to the maximum extent possible in accordance with the spirit of the contract and shall arrange and perform their work in proper sequence, and place or dispose of materials being used in order to avoid delaying each other in the performance of their respective work responsibilities. The Secretary, or his authorized representatives on the project, shall have the right to direct cooperation between the separate Contractors.

The Contractor shall protect and hold harmless the Secretary, and any authorized representatives, agents or employees of the Secretary, from any and all damages, injuries, suits, judgments or claims received from any other Contractor pursuant to the provisions of this Section, of any nature whatsoever arising out of, or in connection with, any inconvenience, delays, loss or legal liability experienced by the Contractor due to the presence of his operations or the operations of any other Contractor working on the same project.

No payment or compensation of any kind shall be made by the Secretary to the Contractor for damages because of hindrance or delay from any cause in the progress of the work, whether such hindrances or delays be avoidable or unavoidable. If the Contractor claims to have been in any way damaged or to have suffered a loss on account of any negligent or wrongful action or non-action of another Contractor working on the same project including, but not restricted to, hindrance or delay of the Contractor's work by such other Contractor, then he shall present such claim to such other Contractor and, if such claim is denied in whole or in part, then he shall pursue any legal remedies deemed necessary against such other Contractor.

The provisions of Section 107.20 shall be deemed not to apply to this Section.

#### **105.09 CONSTRUCTION STAKES, LINES, AND GRADES.**

The Engineer shall, unless otherwise noted in the contract, set construction stakes establishing lines, slopes, continuous profile-grade in road work, and centerline and bench marks for bridge work, culvert work, protective and accessory structures and appurtenances as he may deem necessary and shall furnish the Contractor with all necessary information relating

to lines, slopes and grades. These stakes and marks shall constitute the field control by and in accordance with which the Contractor shall establish other necessary controls to perform the work.

The Contractor shall be held responsible for the preservation of all stakes and marks, and if any of the construction stakes or marks have been carelessly or willfully destroyed or disturbed by the Contractor, then the cost of replacing them shall be charged against him and deducted from the payment for the work.

#### **105.10 AUTHORITY AND DUTIES OF THE FIELD ENGINEER.**

As the representative of the Secretary, the Field Engineer has immediate charge of the engineering details of each construction project. He is responsible for the administration of the contract(s). The Field Engineer shall have the authority to reject defective material and to suspend any work that is being improperly performed.

#### **105.11 DUTIES OF THE INSPECTOR.**

Inspectors employed by the Secretary shall be authorized to inspect all work performed 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 is not authorized to alter or waive the provisions of the contract. The Inspector is not authorized to issue instructions contrary to the contract, or to act as foreman for the Contractor; however, he shall have the authority to reject work or materials until any questions at issue can be referred to and decided by the Engineer.

#### **105.12 INSPECTION OF WORK.**

All materials and details of the work shall be subject to inspection by the Inspector and the Engineer. 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. The information and assistance required of the Contractor includes, but is not limited to, providing reasonable advance notice of work to be performed so as to enable the Engineer to coordinate the activities of Inspectors with the operations of the Contractor.

Whenever work is being done by the Contractor in other

than daylight hours, he shall provide suitable lighting equipment so that the work can be carried on in the same manner as during the daylight hours.

If the Engineer requests it, the Contractor, at any time before acceptance of the work, 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 contract. If the work thus exposed or examined proves to be acceptable, then the uncovering, or removing, and the replacing of the covering or making good of the parts removed shall be paid for as extra work; but if the work so exposed or examined proves to be unacceptable, then the uncovering, or removing, and the replacing of the covering or making good of the parts removed shall be at the Contractor's expense.

Any work performed or materials used without supervision or inspection by an authorized representative of the Secretary may be ordered removed and replaced at the Contractor's expense unless the Secretary's representative failed to inspect after having been given reasonable advance notice that the work was to be performed.

When any unit of government, political subdivision, any railroad corporation or utility company is to pay a portion of the cost of the work covered by the contract, its respective representatives shall have the right to inspect the work. Such inspection shall in no way make any unit of government, political subdivision, any railroad corporation or any utility company a party to the contract.

When the United States government pays all or any portion of the cost of a project, the work shall be subject to the inspection of the appropriate Federal agency. (See also Section 107.05)

### **105.13 REMOVAL OF UNACCEPTABLE AND UNAUTHORIZED WORK.**

All work which does not conform to the requirements of the contract shall be considered unacceptable, unless otherwise determined acceptable in accordance with the provisions of Section 105.03.

Unacceptable work, whether the result of poor workmanship, use of defective materials, damage through carelessness or any other cause, found to exist prior to the partial or final acceptance of the work, shall be removed immediately and replaced in an acceptable manner. This clause shall have full

effect regardless of the fact that the defective work may have been done or the defective materials used with the full knowledge of the Inspector. The fact that the Inspector in charge may have previously overlooked such defective work shall not constitute an acceptance of any part of it.

No work shall be done without lines and grades having been given by the Engineer unless the contract provides otherwise. Work done contrary to the instructions of the Engineer, work done beyond the lines shown on the plans or as given, except as herein specified, or any extra work performed without authority, shall be considered as unauthorized and shall not be paid for under the provisions of the contract. Such work may be ordered removed or replaced at the Contractor's expense.

Upon failure on the part of the Contractor to promptly comply with any order of the Engineer, the Engineer shall have authority to cause unacceptable work to be remedied or removed and replaced and unauthorized work to be removed and to deduct the costs from any monies due or to become due the Contractor.

#### **105.14 LOAD RESTRICTIONS.**

The Contractor shall comply with all legal load restrictions in the hauling of materials on public roads beyond the limits of the project. A special permit will not relieve the Contractor of liability for damage which may result from the moving of equipment.

The Contractor shall be responsible for all damage caused by his hauling within the limits of the project. The Contractor shall comply with all laws in regard to axle and gross weight of all vehicles working on the project when traffic is being carried through construction.

Any type of equipment of such weight or so loaded as to cause damage to drainage structures of any kind, or damage to any other type of construction, either being constructed or previously constructed shall not be permitted to operate in any location where damage would be caused. No loads shall be permitted on a pavement or base before the expiration of the curing period.

#### **105.15 MAINTENANCE DURING CONSTRUCTION.**

The Contractor shall maintain the work during construction and until partial or final acceptance of such work occurs. This maintenance shall be performed with adequate equipment

and forces so that the roadway, or structures, are kept in satisfactory condition at all times.

In the case of a contract for the placing of a course upon a course or subgrade previously constructed, the Contractor shall maintain the previous course or subgrade during all construction operations.

All cost of maintenance work during construction and before acceptance shall be included in the unit prices bid on the various pay items and the Contractor shall not be paid an additional amount for such work, unless otherwise provided in the contract.

#### **105.16 CLAIMS FOR ADJUSTMENT AND DISPUTE; WRITTEN NOTICE OF CLAIMS FOR EXTRA WORK.**

If the Contractor deems that additional compensation is due him for work or material not clearly covered in the contract or not ordered by the Engineer as extra work, as defined herein, then the Contractor shall notify the Engineer in writing of his intention to make claim for such additional compensation before he begins the work on which he bases the claim. Within a 10-day period from the submission of the Notice of Claim, the Contractor shall submit in writing a projection of the Contractor's additional cost resulting from the alleged extra work. Such costs shall include both the present and future cost resulting from the alleged extra work. If such notification is not given, and the Engineer is not afforded proper facilities by the Contractor for keeping strict account of actual cost as required, then the Contractor shall be required to waive any claim for such additional compensation. Such notice by the Contractor, and the fact that the Engineer has kept account of the cost as aforesaid, shall not in any way be construed as proving or substantiating the validity of the claim. If the claim, after consideration by the Engineer, is found to be just, then it shall be paid as extra work. (See also Sections 104.03, 104.04, 105.17, 105.18 and 109.05)

#### **105.17 ACCEPTANCE.**

##### **(a) Partial Acceptance.**

If at any time during the prosecution of the work the Contractor substantially completes a unit or portion of the project, such as a structure, an interchange, or a section of road or pavement, then he may request the Engineer to make final inspection of that unit. If the Engineer finds upon inspection

that the unit has been substantially completed in compliance with the contract, and partial acceptance is in the public interest, then he may accept that unit by notifying the Contractor in writing that the work is acceptable and the Contractor may be relieved of further responsibility for that unit specified by the partial acceptance. Such partial acceptance shall in no way void or alter any of the terms of the contract.

**(b) Final Acceptance.**

Upon due notice from the Contractor of presumptive completion of the entire project, the Engineer shall make an inspection and if all construction provided for and contemplated by the contract is found completed to his satisfaction, that inspection shall constitute the final inspection and the Engineer shall make the final acceptance and notify the Contractor in writing of this acceptance as of the date of the final inspection.

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

Claims for additional compensation or additional contract time shall in no event be submitted later than 30 days after final acceptance.

**105.18 RECOURSE BY CONTRACTOR.**

Should the Contractor have just cause and proof that he or his representative is receiving unfair treatment during the execution of the work that is caused by word or action of an employee of the Secretary, or that any claim previously submitted by the Contractor has been incorrectly decided, then the Contractor shall protest in writing to the Secretary. Such protest shall be registered only when the Contractor has timely submitted claims for additional compensation or additional contract time to the Engineer or his assistants and such claims have been denied in whole or in part. Upon receiving such a written protest, the Secretary, or his appointed representative or representatives, shall resolve the issue by holding a hearing with all the parties who are involved.

**105.19 VALUE ENGINEERING (COST REDUCTION PROPOSAL).****(a) General.**

The Contractor may submit to the Field Engineer for proper distribution, in writing, proposals for modifying the plans, specifications or other contract requirements for the sole purpose of reducing the total cost of construction. (See also subsection 108.05(b)) The proposal shall not impair, in any manner, essential functions or characteristics of the project including, but not limited to, service life, economy of operation, ease of maintenance, desired appearance, or design and safety standards.

Cost reduction proposals shall contain the following information:

- (1) Existing requirements and proposed changes;
- (2) Contract requirements that must be changed if the proposal is adopted;
- (3) A detailed cost estimate of performing work as stipulated and as proposed;
- (4) The time within which the Engineer must make a decision thereon; and
- (5) The contract items of work affected by the proposed changes, including any quantity variation attributable thereto.

Cost reduction proposals which propose change in the basic design of a bridge or a pavement type will not be considered. The Department will not be liable to the Contractor for failure to accept or act upon any cost reduction proposal nor for any delay of the work attributable to any such proposal. If a cost reduction proposal is similar to a change in the plans or specifications under consideration by the Department for the project at the time said proposal is submitted or if such a proposal is based upon or similar to standard specifications, special provisions or standard plans adopted by the Department after the advertisement for the contract, the Engineer will not accept such proposal and reserves the right to make such changes without sharing the savings with the Contractor.

The Contractor shall continue to perform the work in accordance with the requirements of the contract until a change order incorporating the cost reduction proposal has been approved. If a change order has not been approved by the date upon which the Contractor's cost reduction proposal specifies that a decision thereon should be made, or such other date as the Contractor may subsequently have specified in writing, such cost reduction proposal shall be deemed rejected.

The State Transportation Engineer shall be the ultimate judge of the acceptability of a cost reduction proposal and of the estimated net savings in construction costs from the adoption of all or any part of such proposal. In determining the cost estimate net savings, the right is reserved to disregard the contract bid prices if, in the judgment of the Engineer, such prices do not represent a fair measure of the value of work to be performed or to be deleted.

**(b) Basis of Payment.**

All reasonably incurred cost developing the cost reduction proposal and implementing the changes, including any increased cost to the Department resulting from its application, will be deducted from the total estimated decrease in the Contractor's cost of performance to arrive at the net savings. The Department reserves the right to include in the agreement any condition it deems appropriate for consideration, approval, and implementation of the cost reduction proposal. A change order effecting the necessary contract modification shall establish the net savings agreed upon and shall provide adjustment in the contract prices that will divide the net savings equally between the Contractor and the Department. The Contractor's 50 percent share of the net savings shall constitute full compensation to him for effecting all changes pursuant to the agreement.

When a cost reduction proposal involves an adjustment of unit prices, payment to the Contractor will be made on intermediate estimates as the work is completed and accepted. When the cost reduction proposal is a lump sum savings, payment to the Contractor will be at the time 100 percent of the work involved is completed and accepted.

Acceptance of the cost reduction proposal and performance of the work thereunder shall not extend the time of completion of the contract unless specifically provided for in the change order authorizing use of the proposal.

The Secretary expressly reserves the right to adopt a cost reduction proposal for general use on contracts administered by the Department when it determines that said proposal is suitable for application to other contracts. When an accepted proposal is adopted for general use, only the Contractor who first submitted such proposal will be eligible for compensation pursuant to this article, and in that case, only as to those contracts awarded to him prior to submission of the accepted proposal and as to which such proposal is also submitted and accepted. Cost reduction proposals identical or similar to pre-



viously submitted proposals will be eligible for consideration and compensation under provisions of this article if the identical or similar previously submitted proposals were not adopted for general application to other contracts administered by the Department. Subject to the provisions contained herein, the State or any other public agency shall have the right to use any submitted cost reduction proposal without obligation or compensation of any kind due to the Contractor.

**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. In order to expedite the inspection and testing of materials, the Contractor shall notify the Engineer of his proposed sources of materials at least ten days 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 during the progress of the work that sources of supply for previously approved materials do not produce specified products, the Contractor shall furnish materials from other sources.

**106.02 MATERIAL SOURCES.****(a) Contractor Furnished Materials.**

When aggregate deposits, embankment borrow or other material sources are not designated in the contract documents, the Contractor shall provide materials acceptable to the Engineer.

Prior to commencement of the work, the Contractor shall notify the Engineer in writing as to the sources of all aggregates to be used. Such notification shall include the land ties of the sources. Should the Contractor elect to change aggregate sources during the course of the work, the Engineer shall be notified of those changes in writing before delivery from those sources.

**(b) Designated Sources.**

When sources of local materials are designated in the contract documents the quality of material in such deposits shall be acceptable in general, but the Contractor shall determine for himself the amount of equipment and work required to produce a material meeting the requirements of the contract. It shall be understood that it is not feasible to ascertain from the samples the limits for an entire deposit, and that variations shall be considered as usual and are to be expected. The Engineer may order procurement of material from any portion of a deposit and may reject portions of the deposit as unacceptable.

The Secretary may acquire and make available to the Contractor the right to take materials from the sources designated in the contract together with the right to use such property as may be specified for plant site, stockpiles and haul roads.

The Contractor shall not obtain material from sources other than those designated, without written permission from the Engineer. If permission is granted, then the Contractor shall acquire the necessary rights to take material from the deposits and shall pay all costs related thereto. All costs of exploring and developing such deposits shall be borne by the Contractor. The use of such material shall not be permitted until representative samples taken by the Engineer have been tested and found to comply with quality requirements of the specifications. Samples taken by the Engineer will be tested, when deemed necessary by the Secretary, and at no cost to the Contractor.

**(c) Site Selection and Restoration.**

Except by written permission from the Engineer, borrow pits and quarry sites shall be located so that they will not be visible from the highway. Sites from which material has been removed shall, upon completion of the work, be left in a neat and presentable condition. The Contractor shall prepare and submit a copy of reclamation plans for approval by the Engineer prior to the utilization of the site for construction and the Contractor shall reclaim sites after utilization in accordance with the approved reclamation plans.

**106.03 SAMPLING, TESTING, AND CITED SPECIFICATIONS.**

**(a) General.**

All materials shall be subject to inspection, testing and approval by the Engineer before incorporation into the work. All materials being used are subject to inspection, testing or rejection at any time prior to incorporation into the work.

Any materials used that have not been tested and inspected, may be considered unacceptable or unauthorized and may not be paid for. Such materials shall, if directed by the Engineer, be removed at the Contractor's expense.

All samples, except the Contractor's process control samples, shall be taken by an authorized representative of the Secretary and the cost of all materials taken as samples for testing shall be borne by the Contractor. Copies of all test results shall be furnished to the Contractor or his representative upon request.

Unless otherwise designated, when a reference is made in the contract to a specification, standard, or test method adopted by AASHTO, ASTM, GSA, or other recognized national technical association, it shall mean the specification, standard, or test method which is published (including interim or tentative issues) and in effect on the date of advertisement for bids.

Unless otherwise designated, all tests and inspections necessary to determine conformance of work and materials with the contract shall be made by and at the expense of the Secretary. Charges shall be made to the Contractor for tests conducted on materials ordered by the Contractor that are in excess of actual project requirements. The Secretary reserves the right to charge the Contractor for the cost of inspection that is in excess of the normal cost of inspection for the type of material or work involved.

Unless otherwise designated in the contract, where one manufacturer's product is specified or indicated, it shall be understood that this represents the standard required, but that a similar product of another manufacturer may be considered as a satisfactory substitute and may be approved. Should a Contractor desire to use a product which he considers equal or superior to the material specified, he shall submit to the Engineer a complete description of the item, together with seven copies of shop drawings, catalog cuts and other descriptive literature which completely illustrates such items presented for formal approval as a substitute.

The Engineer may waive the testing requirements of small quantities of materials provided that the material is incidental to the main work. Such materials must be of recognized commercial brands or must be obtained from sources which have a history of adequate quality control.

The Contractor shall be responsible for communications necessary to secure test reports or certifications for materials, when such reports are required, and for arranging that they be supplied to the Field Engineer.

**(b) Contractor Process Control.**

The Contractor shall perform or cause to be performed all inspections and tests necessary to provide and maintain an adequate process control system that will provide reasonable assurance that all aggregates or aggregate combinations submitted for acceptance will conform to contract requirements whether manufactured or processed by the Contractor or procured from subcontractors or vendors.

Prior to beginning aggregate production, the Contractor shall submit in writing his proposed Process Control Plan for review by the Engineer. The plan will contain the sampling and testing frequencies, the sampling locations, the sampling and testing methods, and other inspections that the Contractor expects to accomplish to maintain process control. The Department will make available to the Contractor a chart of recommended sampling and testing frequencies for process control. A general guideline for a process control plan is shown below:

### **GUIDELINES FOR CONTRACTOR PROCESS CONTROL PLAN**

#### **A. All Types of Plants**

##### **1. Aggregate Production**

- a. Determine gradation, plasticity index, and deleterious substance content, as necessary, of all aggregates produced.
- b. Inspect stockpiles for separation, contamination, segregation.

##### **2. Cold Feed Bins**

- a. Calibrate the cold feed settings.
- b. Observe operation of cold feed for uniformity.

##### **3. Hot Bins**

- a. Determine gradation of aggregate in each bin.
- b. Calibrate the hot feed settings.
- c. Determine theoretical combined grading.

#### **B. Batch Plants**

Batch weights—Determine percent and/or weight to be pulled from each bin to assure compliance with the Combined Aggregate Specification or Approved Concrete Mix Design, as required.

#### **C. Continuous Flow Plants of all types**

1. Establish gate calibration chart for each bin.
2. Determine gate settings for each bin to assure compliance with the Combined Aggregate Specification or Approved Concrete Mix Design, as required.

These guidelines are considered normal activities necessary to control the production of aggregates or aggregate combinations at an acceptable quality level. It is recognized that, depending on the type of process or materials, some of the activities listed may not be necessary, or other activities may be required. The frequency of these activities are not listed in these guidelines as they will vary with the process and the materials.

The Contractor shall be responsible for the formulation of all design mixes, which shall be submitted to the Department for approval prior to use. The Contractor shall be responsible for the process control of all aggregate and aggregate combinations during production, handling, stockpiling, blending, mixing and placing operations.

**(c) Sampling and Testing.**

It is recommended that sampling and testing methods and procedures used by the Contractor in process control be the same as those used by the Department. The Department will make available to the Contractor the Kansas Test (KT) Methods that are approved for Department use.

**(d) Test Reports.**

The Contractor shall furnish copies of all process control tests to the Engineer.

**(e) Department Inspection.**

The Department will conduct all aggregate acceptance tests at the point of usage unless designated otherwise by the Engineer. Aggregate production will also be inspected to determine if aggregates are being produced from deposits, ledges, and beds which meet the specific quality requirements. Aggregates produced from deposits, ledges, or beds that have not been previously approved for quality will be rejected and immediately removed from the project stockpile area. Any work incorporating aggregates from sources not approved for quality for that work will be removed and replaced or otherwise corrected by and at the expense of the Contractor.

The Department reserves the right to run any test at any time to determine specification compliance. When test results on aggregates or mineral filler supplements indicate non-compliance with specifications the Engineer may cause those materials to be rejected and removed from the worksite at the expense of the Contractor.

**106.04 PLANT INSPECTION.**

(a) When materials are inspected at the point of manufacture, the following conditions shall apply:

(1) The Engineer shall have the cooperation and assistance of the Contractor and the producer with whom he has contracted for materials;

(2) The Engineer shall have full right of entry at all times to such areas of the plant as may concern the manufacture or production of the materials being furnished;

(3) Adequate safety measures are to be provided and maintained; and

(4) The Department reserves the right to retest all materials which have been tested and approved 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 specifications.

(b) The Engineer may approve a material or combination of materials and therefore waive noncomplying test results provided that all of the following conditions are met:

(1) Results of prior and subsequent series of tests of the material or materials from the same source or sources are found satisfactory;

(2) The incidence and degree of nonconformance with the specification requirements are, in the Engineer's judgment, within reasonable and practical limits;

(3) The Contractor has, in the Engineer's judgment, diligently exercised material controls consistent with good practices; and

(4) No adverse effect on the value or serviceability of the completed work could result.

#### **106.05 STORAGE OF MATERIALS.**

Materials shall be so stored as to assure the preservation of their quality and fitness for the work. Stored materials, even though approved before storage, may again be inspected prior to their use in the work. Stored materials shall be located so as to facilitate their prompt inspection. Portions of the right-of-way approved by the Engineer may be used for storage purposes and for the placing of the Contractor's plant and equipment, but any additional space required thereof must be provided by the Contractor at his expense. Private property shall not be used for storage purposes without written permission of the owner or lessee, and if requested by the Engineer, copies of such written permission shall be furnished to him. All storage sites shall be restored to their original condition by the Contractor at his expense. This shall not apply to the stripping and storing of topsoil, or to other materials salvaged from the work.

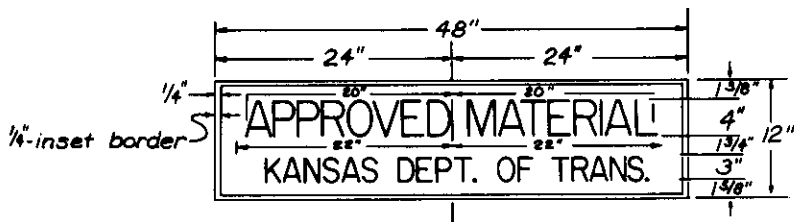
**106.06 APPROVED MATERIAL SIGNS.**

The Contractor shall furnish, install and maintain "Approved Material" signs at each major material stockpile site which contain materials other than Kansas Department of Transportation tested and approved materials. These sites shall include batching areas, plant sites and any major stockpile sites as directed by the Engineer.

The signs shall be constructed and erected in reasonably close conformance with the details and notes and of the material specified on the following sketch. The Contractor shall keep the signs clean and in good repair at all times.

No additional compensation will be allowed for the cost of furnishing, erecting and maintaining the required signs. The cost involved shall be considered as subsidiary to the various items of the contract for which payment is made.

Additional signing for the identification of individual aggregate types and mix (example SSG-1 for BM-2) may be required in locations where other stockpiles similar in nature exist. These signs may be modified in size to match the 2" lettering required and may be attached to the "Approved Material" sign post.

**GENERAL NOTES:****SIGN FACE:**

Top Line 4" Standard Alphabet Series "B" Legend.

Second Line 3" Standard Alphabet Series "B" Legend.

I.D. Signs 2" Standard Alphabet Series "B" Legend.

Plain painted white background with black legend direct applied copy with 1/4" inset border.

**MATERIALS:**

The sign shall be manufactured from backing material composed of either metal (14 gauge steel or 0.100" thick flat sheet aluminum) or 3/4" thick exterior type fir plywood, mounted on a suitable post.

**LOCATION OF SIGNS:**

The signs shall be erected at locations of stockpiles as ap-



proved by the Engineer. Signs shall be erected approximately five feet high measured from the bottom of the sign and shall be easily visible to anyone observing the stockpile from a normal working area.

#### **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 site to the work in tight vehicles so constructed as to prevent loss or segregation of materials after loading and measuring in order that there may be no 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 UNACCEPTABLE MATERIALS.**

All materials not conforming to the requirements of the specifications at the time they are used shall be considered as unacceptable and all such materials shall be rejected and shall be removed from the site of the work unless otherwise instructed by the Engineer. No rejected material, the defects of which have been corrected, shall be used until approval has been given.

#### **106.09 MATERIAL FURNISHED BY THE SECRETARY.**

When materials are to be furnished by the Secretary, they shall be delivered or made available to the Contractor at the points specified in the contract.

The cost of handling and placing all materials after they are delivered to the Contractor shall be considered as included in the contract price for the item in connection with which they are to be used.

The Contractor shall be held responsible for all material delivered to him, and deductions shall be made from any monies due him to make good any shortages and deficiencies, from any cause whatsoever, and for any damage which may occur after such delivery, and for any demurrage charges.

Materials purchased and supplied by the Secretary to the Contractor shall be deemed acceptable and fit for the purpose for which such materials are used. However, the Contractor shall be liable for any injuries and/or damages which are sustained when any defects arise in such material by reason of the Contractor's handling, use, storage or any other act or omission of the Contractor with respect to such material.

## **SECTION 107**

### **LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC**

#### **107.01 LAWS TO BE OBSERVED.**

The Contractor shall keep fully informed of all Federal and State laws, local bylaws, ordinances, and regulations, including any orders and decrees of bodies or tribunals having any jurisdiction or authority which in any manner affect those engaged or employed on the work or which in any way affect the conduct of the work. He shall at all times observe and comply with all such laws, bylaws, ordinances, regulations, orders, or decrees and shall protect and indemnify the Secretary and his representatives against any claim or liability arising from or based on the violation of any such law, bylaw, ordinance, regulation, order, or decree, whether violated by himself, his employees, or his subcontractors.

#### **107.02 PERMITS, LICENSES, AND TAXES.**

The Contractor shall procure all permits and licenses, pay all charges, fees, and taxes, and give all notices necessary and incidental to the due and lawful prosecution of the work except that, in most cases, permits required from Corps of Engineers shall be obtained by the Department's Bureau of Design.

If the Contractor's method of operation requires placing material in a waterway, then it shall be the Contractor's responsibility to obtain any permit required by the U.S. Army Corps of Engineers (Section 404 permit) and the Kansas Department of Health and Environment (Section 401 Certification applicable when water flow exceeds five c.f./sec.), Kansas State Board of Agriculture Division of Water Resources permit (applicable when the drainage channel drains over 160 acres), or any other permit required by law. The Contractor shall obtain such permits in a timely manner so as not to delay the completion of the project. Inquiries should be directed to the KDOT's Bureau of Design, Environmental Services Section.

#### **107.03 PATENTED DEVICES, MATERIALS, AND PROCESSES.**

If the Contractor employs any design, device, material, or process covered by letters of patent or copyright, then he shall provide for such use by suitable legal agreement with the

patentee or owner. The Contractor and the surety shall indemnify and save harmless the Secretary, and any affected third party, or political subdivision 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, and shall indemnify the Secretary for any costs, expenses, and damages which may be paid by reason of any infringement, at any time during the prosecution or after the completion of the work.

#### **107.04 RESTORATION OF WORK AREAS OPENED BY PERMIT.**

Any individual, firm, or corporation wishing to make an opening in the highway or right-of-way shall secure a permit from and deposit a security with the Secretary. The security so deposited shall be in a suitable amount to cover the cost of making the necessary repairs. The Contractor shall not allow any person or persons to make an opening unless a duly authorized permit by the Secretary is presented. All permits, before becoming effective, must receive the approval of the Engineer. Until final acceptance of the work performed under the contract, the Contractor shall make all necessary repairs in an acceptable manner, within the time indicated by the Engineer, at the point or points in the highway or right-of-way where openings have been made by authority of the Secretary. Such repair work shall be paid for as extra work, and said work shall be subject to the same conditions as the original work performed. Should the Contractor refuse or neglect to make said repairs at such point or points within the time specified, then the Engineer shall have the authority to cause such repairs to be made, in which case the Contractor shall not be relieved in any way from his responsibility for the work performed.

#### **107.05 FEDERAL AID PROVISIONS.**

When the United States government pays all or any portion of the cost of a project, the Federal laws, 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 way make the Federal Government a party to this contract and shall in no way interfere with the rights of either party hereunder.

### **107.06 SANITARY PROVISIONS.**

The Contractor shall provide and maintain in a neat, sanitary condition such accommodations for the use of his employees as may be necessary to comply with the requirements of the Federal, State and local health agencies, or of other bodies or tribunals having jurisdiction.

### **107.07 SAFETY AND ACCIDENT PREVENTION REQUIREMENTS.**

In the performance of the contract, the Contractor shall comply with all applicable Federal, State and local laws governing safety and health. The Contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions, on his own responsibility or as the Engineer may determine, which are reasonably necessary to protect the life and health of employees on the job, the safety of the public, and property in connection with the performance of the work covered by the contract.

### **107.08 PUBLIC CONVENIENCE AND SAFETY.**

The Contractor shall at all times conduct his work to insure the least practicable obstruction to traffic. The safety and convenience of the general public and the residents living along the highway as well as the protection of persons and property are of prime importance and shall be provided in an adequate and satisfactory manner by the Contractor. When it is necessary for residents living along the project to use a portion of the road under construction, the Contractor shall maintain, in a suitable condition within the limits of the project, that portion of the road required for normal vehicular travel. The Contractor will be responsible for snow removal on closed projects that are carried through the winter. Temporary surfacing shall be applied and maintained as directed by the Engineer.

When it is indicated on the plans or elsewhere in the contract that traffic shall be carried through construction, the Contractor shall at all times provide and maintain suitable means for the movement of traffic and shall maintain, in a reasonably safe condition, all portions of the work within the limits of the project.

Whenever practical, all construction equipment, including workers vehicles, materials and debris shall be stored no closer than 30 feet from the traveled way. The Contractor shall

provide and maintain, in a safe condition, temporary approaches to and crossings of intersecting highways, railroads, private entrances and approaches to partly constructed work. The Contractor shall place appropriate signs, safety barriers and/or barricades around any hazard created by the Contractor within 30 feet of the traveled way. All traffic control devices needed for this condition shall be considered subsidiary to other items of the contract.

#### **107.09 BARRICADES AND WARNING SIGNS.**

The Contractor shall provide, erect and maintain, at all times during the progress or temporary suspension of the work, suitable barricades, fences, signs, or other adequate protection, and shall provide, keep and maintain such warning lights, signals, and watchpersons as may be necessary or as may be ordered by the Engineer to insure the safety of the public as well as those engaged in the work.

The Contractor shall furnish and erect all traffic control signs that are required by the contract. The Contractor shall furnish all posts, skids, easels, and supports and shall be required to set, clean and maintain, move and remove all signs as directed. The size, shape, color and placement of all traffic control devices shall comply with the latest edition of the M.U.T.C.D. including all subsequent revisions or amendments. The size and layout of the message on the signs shall comply with the latest edition of Standard Highway Signs and Standard Alphabets for Highway Signs as approved by the A.A.S.H.T.O., the U.S. D.O.T. and the F.H.W.A. All signs shall be reflectorized with retroreflectorized sheeting unless shown otherwise on the plans. The message and border shall be opaque color as required for daytime use. All signs, barricades and traffic control devices shall be approved by the Engineer prior to erection and use on the project. No signs are to be furnished or sold to the Contractor by the Secretary.

All barricades placed across a roadway shall be suitably distributed across the roadway and protected at night by approved yellow flashing lights which shall be kept burning from sunset to sunrise. Other barricades and signs shall be protected by approved yellow steady burn or flashing lights in accordance with the details shown on the plans or as directed by the Engineer. In case no details are shown, the M.U.T.C.D. shall govern.

Where it is necessary for residents or business establishments located along the road to use the road which is bar-

ricaded, suitable means shall be provided for their entrance or exit, even though the general traveling public shall be excluded from traveling on the road.

The Contractor's responsibility for the maintenance of barricades and lights on any individual item of work included in the contract shall cease when released in writing by the Engineer.

The Engineer shall use every precaution possible to safeguard the persons and property of the traveling public, and to divert traffic from the road under construction, but the failure of the Engineer to notify the Contractor to maintain barriers, lights, signals, or watchpersons shall not operate to relieve the Contractor from his responsibility to maintain such portion of the highway within the project limits in a reasonably safe condition.

#### **107.10 HANDLING TRAFFIC THROUGH CONSTRUCTION.**

When the contract specifically provides that traffic be carried through construction, no detour shall be provided for traffic and the Contractor shall not route traffic on a detour without the written permission of the Engineer.

The safe and satisfactory movement of traffic through the project is of paramount importance and shall be the responsibility of the Contractor.

To properly protect the traveling public on surfacing projects where the material is to be placed in a windrow on the roadbed, the Contractor shall erect and maintain restricted traffic signs and devices and provide and maintain sufficient lights and warning signs.

When ordered by the Engineer, the Contractor shall also erect and maintain satisfactory and effective warning and regulatory signs that will assist in the proper control of traffic. Speed zones and the corresponding speed limits will be as shown on the plans or be determined by the Engineer. Restricted speed zones, when provided, shall be confined to the immediate vicinity of the work in progress and shall be maintained over the minimum length of the project as is practicable for the proper protection of traffic and the satisfactory prosecution of the work. In order to eliminate unnecessary inconvenience for the traveling public and to increase the effectiveness of the signs, they shall be moved ahead as the work progresses. Signs which are necessary only when work is actually being performed shall be removed from the road or completely covered during periods when no work is in progress.

The signing of the project shall conform to the details included in the contract and/or the traffic control plan. The signing as indicated shall be considered as the minimum and additional signs may be required for special conditions. The Contractor will be permitted to erect additional informative signs if he so desires, provided the signs are not contrary to standard procedure. The legend "Travel at Your Own Risk" on any sign is prohibited.

The Contractor shall furnish, erect, remove, relocate, clean, replace and maintain all traffic control devices in a satisfactory condition, as determined by the Engineer.

Two-way travel of traffic shall be provided whenever practicable and all operations shall be conducted in a sequence that will minimize the necessity for one-way travel of traffic.

When one-way travel of traffic is necessary, the Contractor shall provide courteous, competent flaggers to direct traffic and provide for the satisfactory operation of one-way traffic. Flaggers shall be equipped with hand-held signs mounted on suitable staffs. Flaggers must wear distinctive uniforms while directing or flagging traffic through construction upon the highways. Every flagger, while on duty, shall wear an orange vest and headgear of the same color. For night time conditions, similar outer garments shall be reflectorized. The flagger's hand-held signs shall be as specified in the latest edition of the M.U.T.C.D. A Contractor may use law enforcement officers as flaggers in lieu of the above uniformed flagger. A law enforcement officer, when used as a flagger, shall wear his official uniform with badge. All flaggers shall know and observe all regulations prescribed for flagging. The latest edition of the instructions shall apply and copies may be obtained from the Engineer. The flaggers' uniforms and hand-held signs shall be provided by the Contractor.

When one-way travel of traffic is necessary, the Engineer may permit the use of approved electric signal lights for controlling traffic and its continued use will be based upon the satisfactory performance of the system in the handling of traffic.

When actual work is not in progress, flaggers will not be required if a satisfactory system of lights, warning signs, and barricades, meeting the approval of the Engineer, are provided. The lighting system shall include automatic flashing lights placed in such a position as to adequately warn traffic of the restricted traffic zone ahead.

Unless otherwise approved, all work shall be performed during daylight hours. Whenever practical, all vehicle equip-

ment, tools, and materials, except necessary barricades and lights, shall be parked and/or stored off the right-of-way or far enough from the edge of pavement to provide clearance of at least 30 feet.

During periods of inclement weather or during periods of unusually heavy traffic, the Engineer may require all operations to cease in order to adequately handle the traffic.

The Engineer reserves the right to suspend or delay certain operations, or to expedite other operations to aid the satisfactory movement of traffic.

The Engineer may require additional traffic control devices, flaggers or watchpersons at any time or at any place when, in his opinion, it is necessary for proper protection of the traveling public, but approval by the Engineer of the Contractor's method of operation shall not relieve the Contractor of his responsibility to protect the traveling public.

#### **107.11 USE OF EXPLOSIVES.**

When the use of explosives is necessary for the prosecution of the work, the Contractor shall exercise the utmost care to avoid endangering life or property, including new work. The Contractor shall be responsible for any and 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. Any applicable O.S.H.A. requirements shall be followed. When no local laws or ordinances apply, satisfactory storage shall be provided. Generally, such storage shall not be located within 1,000 feet of the roadway or any building, camping area or other place of human occupancy.

Before performing any blasting work involving the use of blasting caps within 200 feet of any railroad's tracks or structures, the Contractor shall notify the railroad of the location, date, time, and approximate duration of such blasting operations.

Where electric blasting caps are to be used near a public highway, the Contractor shall erect warning signs in accordance with the latest edition of the M.U.T.C.D. The signs shall be furnished and installed by the Contractor at his own expense.

When explosives are to be used near facilities owned by a utility company, the Contractor shall notify each utility owner of his intention to use explosives. Such notice shall be given



sufficiently in advance of performing the work to enable the utility owner to take such steps they may deem necessary.

#### **107.12 PROTECTION AND RESTORATION OF PROPERTY AND LANDSCAPE.**

The Contractor shall be responsible for the preservation of all public and private property and shall carefully protect it from disturbance or damage. Land monuments and property marks shall not be disturbed until the Engineer has witnessed or otherwise referenced their location.

When the Contractor's excavating operations encounter remains of prehistoric dwelling sites or artifacts of historical or archaeological significance, the operations shall be temporarily discontinued. The Engineer will contact the Chief of Environmental Services, Bureau of Design of the KDOT to determine the disposition thereof. When directed by the Engineer, the Contractor shall excavate the site in such a manner as to preserve the artifacts encountered and the archaeologist or his representative shall remove them for delivery to the custody of the proper state authorities. Such excavation will be considered and paid for as extra work.

The Contractor shall be responsible for all damage or injury to property which results from any act, omission, neglect, or misconduct in his manner or method of executing the work, or from defective work or materials, and the Contractor shall not be released from responsibility until the project has been completed and accepted.

The Contractor shall take sufficient precautions to protect streams, lakes and reservoirs from pollution by fuels, oils, bitumens, calcium chloride or other harmful materials. He shall conduct and schedule his operations so as to avoid or minimize siltation of streams, lakes and reservoirs and to avoid interference with movement of migratory fish.

When or where any direct or indirect damage or injury is done to public or private property by or on account of any act, omission, neglect, or misconduct in the execution of the work, or in consequence of the nonexecution thereof by the Contractor, he shall restore, at his own expense, such property to a condition similar or equal to that existing before such damage or injury was done. Such restoration shall be accomplished by repairing, rebuilding, or otherwise correcting such damage or injury in an acceptable manner, as may be directed by the Engineer.

When the Contractor's operations create the need for tem-

porary fence he shall be responsible for furnishing and installing the necessary temporary fence until such time that the permanent fence is in place. The temporary fence will be removed by the Contractor that installed it unless other arrangements are made by the same. Temporary fence will be subsidiary to other bid items in the contract.

#### **107.13 FURNISHING RIGHT-OF-WAY.**

The Secretary shall be responsible for the securing of all necessary rights-of-way in advance of construction, unless otherwise indicated elsewhere in the contract.

#### **107.14 RESPONSIBILITY FOR DAMAGE CLAIMS.**

The Contractor shall indemnify and save the Secretary and any participating municipality harmless from and against all liability for damages, costs and expenses arising out of any claim, suit, action, or otherwise for injuries and/or damages sustained to person or property by reason of the work performed by the Contractor, its subcontractors, agents or employees under this contract.

The Contractor shall carry liability insurance to protect the public from injuries by reason of the carrying on of the contract work and to protect the Secretary from all liability for injuries to work persons, as provided by law, and to protect the Secretary from all liabilities to any person for damages sustained by reason of the carrying on of the work described in the contract.

The Contractor shall file with the Secretary, prior to or at the time of execution of the contract, "Certificates of Insurance" or other evidence to the Secretary to show that he carries "Worker's Compensation and Employer's Liability" insurance as recognized by the Commissioner of Insurance of the State of Kansas, "General Liability" that includes; Comprehensive Form, Premises-Operation, Underground Hazard, Products/Completed Operations Hazard, Contractual Insurance, Broad Form Property Damage, Independent Contractors, and Personal Injury with a minimum combined single limits of \$1,000,000.00 for Bodily Injury and Property Damage and "Automobile Liability" that includes; Comprehensive Form, Owned, Hired and Non-Owned with a minimum combined single limits of \$1,000,000.00 for Bodily Injury and Property Damage. Insurance as herein required shall be maintained in force until the Secretary releases the Contractor from all

obligations under the contract, but said insurance contract shall cover claims for such length of time as said claims are permitted by law.

If any part of the work is sublet, then the Contractor shall provide similar insurance on behalf of the subcontractors to cover their operations. Such insurance shall cover all hired or rented equipment and operators thereof.

"Certificates of Insurance" shall not be accepted unless the insurer is authorized by the Kansas Commissioner of Insurance to do business in Kansas.

For contracts involving work at railroad crossings, or adjacent to railroad right-of-way, the Contractor shall provide and carry additional insurance covering such work as required by the contract.

#### **107.15 OPENING OF SECTIONS TO TRAFFIC.**

Prior to completion of the entire contract, the Engineer may order sections of the work to be opened to traffic, if deemed necessary from a traffic service standpoint, due to conditions inherent in the work, changes in the Contractor's work schedule or when due to unforeseen events. The Engineer's order to open sections of work to traffic shall not be considered as final or partial acceptance of the work or as a waiver of any provision of the contract.

Application of the final pavement markings and signing on a roadway shall not constitute final or partial acceptance of the project or any portion thereof, nor shall it relieve the Contractor from liability for damages claimed on account of the construction or improvement or the negligent prosecution of the work.

The contract documents shall state, insofar as possible, which sections shall be opened prior to the completion of the contract. On any section opened by order of the Engineer, the Contractor shall not be required to assume any expense entailed in maintaining the road traffic. Such expense shall be borne by the Secretary, or compensation paid to the Contractor per Section 109.05. On such portions of the project which are ordered by the Engineer to be opened for traffic due to unforeseen necessity which is not the fault of the Contractor, compensation for additional expense, if any, to the Contractor and allowance of additional time, if any, for completion of any other items of work on the portions ordered to be opened shall be as set forth in a change order mutually agreed upon by the Engineer and the Contractor.

If the Contractor unreasonably delays completion of shoulders, drainage structures, or other features of the work, then the Engineer shall notify him in writing and establish therein a reasonable period of time for the work to be completed. If the Contractor is dilatory, or fails to make a reasonable effort toward completion in this period of time, then the Engineer may order all or a portion of the project open to traffic. On such sections which are so ordered to be opened, the Contractor shall conduct the remainder of his construction operations so as to cause the least obstruction to traffic and shall not receive any additional compensation for the added cost of the work.

On any section opened to traffic under any of the above described conditions, any damage to the highway not attributable to traffic which occurs on such section shall be repaired by the Contractor at his expense.

#### **107.16 CONTRACTOR'S RESPONSIBILITY FOR WORK.**

Until written partial and final acceptance of the project work by the Engineer, the Contractor shall have the charge and care thereof and shall take every precaution against damage or loss to any part of the project work. The Contractor shall assume all risks of loss and damage to any portion of the project work occasioned by any cause which is within the control of the Contractor and of losses and damages resulting from the following occurrences: fire, lightning, windstorm, hail, vandalism, malicious mischief, falling objects, explosion, flood, freezing and thawing and faulty workmanship. The Contractor shall rebuild, repair, restore and make good all damages to any portion of the project work occasioned by the above-described causes and shall bear the expenses thereof except for damages other than as described above which are beyond the control of the Contractor to prevent including, but not restricted to, acts of the public enemy or governmental authorities.

If it should become necessary to stop work for an indefinite period, the Contractor shall store all materials in such a manner that they will not obstruct or impede the traveling public unnecessarily nor become damaged in any way, and he shall take every precaution to prevent damage or deterioration of the work performed, erect temporary structures, signs and other facilities where necessary, and provide suitable drainage of the roadway by opening ditches, shoulder drains, etc. The Contractor shall not suspend work without written authority from the Engineer.

In case of suspension of work from any cause whatever, the Contractor shall continue to assume all risk as described above and be liable for any and all damage occasioned to the project work by any cause so described during the period of suspension. During such period of suspension 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 the contract, and shall take adequate precautions to protect new tree growth and other designated vegetative growth against injury.

#### **107.17 CONTRACTOR'S RESPONSIBILITY FOR UTILITY PROPERTY AND SERVICES.**

At points where the Contractor's operations are crossing or adjacent to properties of railway, telephone, telegraph, power companies, or other public or private utilities, work shall not be commenced until all arrangements have been made to protect these adjacent properties from damage, loss or inconvenience.

The Contractor shall cooperate with the owners of any underground or overhead utility lines in their removal and rearrangement operations in order that these operations may progress in a reasonable manner and that duplication of rearrangement work may be reduced to a minimum, and that services rendered by those parties shall not be unnecessarily interrupted.

In the event utility service is interrupted 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 essential public utility service is interrupted, then the Contractor shall cooperate with the owners of the utilities who perform repair work even if such repair work is 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.

#### **107.18 PERSONAL LIABILITY OF PUBLIC OFFICIALS.**

In carrying out or exercising any power or authority granted to him by this contract, there shall be no liability upon the Engineer or any authorized assistant, either personally or as an official of the Secretary, it being understood that in such

matters he acts as the agent and representative of the Secretary.

**107.19 LIABILITY OF SUBDIVISIONS OF THE STATE OTHER THAN THE DEPARTMENT.**

It is understood and agreed that the Secretary is the principal contracting party only on construction contracts relating to the state highway system as that system is described and defined in 68-406 of the Kansas Statutes Annotated and amendments thereto.

Any contract entered into by the Secretary as an agent on behalf of any counties, cities, political subdivisions or any duly authorized persons, firms or corporations is agreed and understood to be a contract wherein the Secretary enters into the contract acting as an agent for the disclosed principal.

All applicable agency contracts with cities, counties or other parties are hereby made a part of each construction contract by reference, copies of which are available upon request by the Contractor.

**107.20 THIRD PARTY BENEFICIARY.**

It is specifically agreed between the parties executing this contract that it is not intended by any of the provisions of any part of the contract to make the public, or any member thereof, a third party beneficiary hereunder, or to authorize any one not a part of this contract to maintain a suit for personal injuries or property damage pursuant to the terms or provisions of this contract. The duties, obligations and responsibilities of the parties to this contract with respect to third parties shall remain as imposed by law.

**SECTION 108****PROSECUTION AND PROGRESS****108.01 SUBLETTING OF CONTRACT.**

The Contractor shall not sublet, sell, transfer, assign, or otherwise dispose of the contract or contracts or any portion thereof, or of his right, title, or interest therein, without written consent of the Engineer. In case such consent is given, the Contractor shall be permitted to sublet a portion thereof, but shall perform, with his own organization, work amounting to not less than 30 percent of the total contract amount. (Stated projects shall be considered as one contract for determining total contract amount.) No subcontract, or transfer of contract, shall in any case release the Contractor of his liability under the contract and bonds applicable thereto.

**108.02 NOTICE TO PROCEED.**

Unless otherwise noted in the contract, no work shall be performed on the project site until the issuance of the Notice to Proceed to the Contractor from the Engineer. The Notice to Proceed will state the date when work on the project site may proceed and the name and address of the Field Engineer in charge of the work.

The work shall begin on the date stated in the Notice to Proceed and shall be diligently prosecuted at such a rate and in such manner as is necessary for completion within the time set out in the contract.

A Notice to Proceed shall be issued after the contract is released for construction as soon as the Engineer deems it in the best interest of the public. A Notice to Proceed may be issued before completion of other work already underway if, in the opinion of the Engineer, it is necessary to expedite the work or to allow for completion within seasonal limitations.

**108.03 PROGRESS SCHEDULE.**

The Contractor, when required by the Engineer, shall submit a "Progress Schedule" for review. The progress schedule may be used to establish the controlling item(s) of work and to check on the progress of the work. The Contractor shall provide sufficient materials, equipment and labor to guarantee the completion of the project within the contract time and in accordance with the other terms set forth in the contract. If

the Contractor falls significantly behind the submitted schedule, then the Contractor shall submit a revised schedule for completion of the work within the contract time and modify his operations to provide such additional materials, equipment and labor necessary to meet the revised schedule. The Contractor shall fulfill the above-described obligations regardless of the amount of work sublet.

#### **108.04 PROSECUTION AND PROGRESS.**

The contract time shall be divided into four equal periods. The progress of the work shall be such that at the end of the first period at least 12.5 percent of the work shall be completed, at the end of the second period at least 37.5 percent of the work shall be completed, at the end of the third period at least 75 percent of the work shall be completed and at the end of the fourth period all work shall be completed, as computed from the comparison of the pay estimates to the original contract amount.

The Contractor shall at all times conduct the work in such manner and in such sequence as to insure the least practicable interference with traffic and he shall have due regard for convenient detours. He shall not open up work to the prejudice of work already started and the Engineer may require the Contractor to finish a section on which work is in progress before work is started on any additional section.

The Contractor shall so conduct his operations and maintain the work in such condition that adequate drainage shall be in effect at all times.

#### **108.05 CHARACTER OF WORKERS; METHODS, OPERATIONS AND EQUIPMENT.**

The Contractor shall at all times employ sufficient labor and equipment for prosecuting the several classes of work to full completion in the manner and time required by the contract.

##### **(a) Workers.**

All workers shall have sufficient skill and experience to properly perform 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 forthwith 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. If a hearing is desired or requested by the employee, then he shall submit a request in writing to the Engineer prior to final action being taken on the issue. The Engineer will then resolve the issue by holding a hearing with all the parties involved present.

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.

#### **(b) Methods, Operations and Equipment.**

All equipment which is proposed for use 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 he demonstrates to the satisfaction of the Engineer will 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 those specified in the contract, then he may request authorization from the Engineer to do so. The request shall be in writing and shall include a full description of the methods and equipment proposed for use 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, then the Contractor shall discontinue the use of the substitute method or equipment and shall com-

plete 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 increase will be made in payment for the contract item(s) involved or in contract time as a result of authorizing a change in methods, operations or equipment under these provisions. If a change in methods, operations or equipment is authorized and results in a reduction of contract time or contract cost, then the Contractor and the Secretary shall participate and share in the savings realized.

#### **108.06 TEMPORARY SUSPENSION OF WORK.**

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 (not originally anticipated, customary, or inherent to the construction industry) 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 cost and/or time required for the performance of the Contract has increased as a result of such suspension and the suspension was caused by conditions beyond the control of and not the fault of the Contractor, its supplier, or subcontractor at any approved tier, and not caused by weather, the Engineer will make an adjustment (excluding profit) and modify the Contract in writing accordingly. The Engineer will notify the Contractor of his 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 other terms or conditions of the Contract.

**108.07 WORKING DAY DETERMINATION AND EXTENSION OF CONTRACT TIME.**

If the time for completion of the work is based on working days, then it shall be so specified in the contract. The completion of the work within the time specified is an essential part of the contract.

The Engineer shall issue to the Contractor a Notice to Proceed stating the date upon which work may proceed. The Notice to Proceed will stipulate the date on which it is expected that the Contractor will begin work and from which contract time will be charged.

**(a) Assessment of Working Day Charges.**

Assessment of working day charges shall be in accordance with the following provisions:

(1) One whole day shall be assessed for each working day on which the Contractor is not prevented by weather, or other conditions beyond the Contractor's control, from proceeding with normal construction operations in the performance of the current controlling item(s) of work, as determined by the Engineer, for at least 50 percent of the full number of hours in the normal daily schedule.

Delays due to conditions within the Contractor's control shall be considered to include, but not limited to, the following conditions:

(1.1) delays caused by the Contractor's failure to secure test reports or certifications for material as required by the contract;

(1.2) delays caused by plant and equipment failure;

(1.3) delays due to slow delivery of materials from the supplier or fabricator, when the material is delayed for reasons of priority, late ordering, financial considerations or other causes within the power of the supplier, producer or Contractor to normally foresee and prevent; and

(1.4) delays due to the Contractor's failure to coordinate and organize his operations and activities, regardless of the amount of work to be performed under subcontract(s).

(2) Performance of work on Saturdays is optional with the Contractor. If the Contractor elects to work on Saturdays and inspection is required for such work, then a working day will be assessed as per subsection 108.07(a)(1), above. In such case, the Contractor shall provide the Engineer 24-hours advance notice of his intention to work on Saturday.

(3) Work which will require inspection by the Engineer will not be permitted on Sundays, Kansas civil service holidays

and other holidays proclaimed by the Governor of the State of Kansas, or on Saturdays immediately following a Friday holiday or Saturdays immediately preceding a Monday holiday. These restrictions regarding Sunday and holiday work, and days surrounding holidays, may be waived but only with the written approval of the Engineer. In the event the Engineer approves work on holidays or Sundays, working days shall be assessed as per subsection 108.07(a)(1), above.

(4) No working days will be assessed if the Contractor elects to cease operations during the interval between December 23 and January 3. Electing to cease operations during such interval shall neither relieve the Contractor of his responsibility to prevent and protect the project work from damage or loss nor shall it relieve the Contractor from any other responsibility under the contract including, but not limited to, maintenance of traffic control, proper curing of structures and the like.

(5) Days on which a controlling item of work is delayed or suspended due to acts of the Department or the Engineer shall be counted as "State's Delay" and shall not be counted as working days.

(6) Days required to recover from unsuitable weather conditions, such as storm, flood and the like, in order to attain the approximate condition of work before such event, shall not be counted as working days.

(7) On bridge contracts which require the driving of test piles, a reasonable length of time will be allowed between the time the test piles have been driven and the arrival of the permanent piling, provided that the permanent piles are ordered immediately and no progress can be made on a controlling item(s) of work until the arrival of said piling. In such case, working days shall not be charged during the interval of time involved.

**(b) Additional Working Days.**

Additional working days may be granted for additional work created by adding items to the contract or overrunning existing contract items if the additional work is of sufficient magnitude to warrant an extension of the number of working days. (See also Section 104.03)

Before starting the additional work, the Contractor shall, when feasible, make written request to the Field Engineer for an extension in the number of working days. The written request shall state the tentative number of additional working days required and the Contractor shall submit sufficient proof to substantiate the request. The request for additional working

days shall be submitted for approval by change order (KDOT Form 226, "Change in Plans and Construction") and be accompanied by supporting documentation showing the reason for such request.

**(c) Notification of Working Days Charged.**

The Engineer shall send written notice to the Contractor, or his authorized representative, immediately following the end of each week as to the number of working days charged during that week. Upon receipt of the written notice, if the Contractor disagrees with the working days charged by the Engineer, then the Contractor shall give written notice of such protest, and the reasons therefor, to the Engineer within ten days and the differences shall be settled at the earliest possible time.

The Contractor's failure to protest the Engineer's determination of working days charged within the ten-day period as stated above shall operate as a waiver of any such disagreement and shall bar the Contractor from protesting at any subsequent time.

**108.08 FAILURE TO COMPLETE THE WORK ON TIME.**

Should the Contractor fail to complete the work within the contract time, including any authorized extensions thereof, the Engineer shall deduct and withhold from any monies due or coming due to the Contractor, the amount indicated in the Table of Liquidated Damages for each calendar day, exclusive of Sundays and legal holidays, that the work remains uncompleted. This sum shall be considered and treated not as a penalty but as fixed, agreed and liquidated damages due the Secretary from the Contractor by reason of interference with business, inconvenience to the public, added cost of engineering, administration, supervision, inspection, maintenance of detours, and other items which may cause an expenditure of public funds resulting from the failure to complete the work within the time specified in the contract.

The Engineer may discontinue charging calendar days for any period of time after the work on the entire project is in condition for safe and convenient use by the traveling public or, on grading or bridge projects, when the project is available without restriction to the surfacing Contractor. Calendar day charges shall be discontinued only so long as the Contractor makes all possible and reasonable effort to complete the work.

Permitting the Contractor to continue and finish the work or any part of it after the time fixed for its completion, or after

the date for which the time for completion may have been extended, shall in no way operate as a waiver on the part of the Secretary of any of his rights under the contract.

Neither by the act of taking over the work nor by the annulment of the contract nor by requiring the surety to complete the contract shall the Secretary forfeit the right to recover liquidated damages from the Contractor or his surety for failure to complete the contract within the specified time.

When claims for waiver of liquidated damages are submitted, the Secretary, after reviewing reasons from all parties involved, shall have the authority to waive such portions of the liquidated damage as he deems justified and in the best interest of the State and the public.

TABLE OF LIQUIDATED DAMAGES

ORIGINAL CONTRACT AMOUNT (Total amount of the Bid)		Amount of liquidated damages to be deducted for each day of overrun in contract time
From more than	To and including	
\$0.00 .....	\$25,000.00 .....	\$75.00
\$25,000.00 .....	\$50,000.00 .....	\$125.00
\$50,000.00 .....	\$100,000.00 .....	\$200.00
\$100,000.00 .....	\$500,000.00 .....	\$400.00
\$500,000.00 .....	\$1,000,000.00 .....	\$600.00
\$1,000,000.00 .....	\$2,000,000.00 .....	\$925.00
\$2,000,000.00 .....	\$5,000,000.00 .....	\$1,375.00
\$5,000,000.00 .....	\$10,000,000.00 .....	\$2,000.00
over \$10,000,000.00 .....		\$3,000.00

### 108.09 BREACH OF CONTRACT.

If the Contractor:

(a) fails to begin the work under the contract within the time specified;

(b) fails to perform the work with sufficient workmen and equipment or with sufficient materials to assure the prompt completion of said work;

(c) performs the work unsuitably or neglects or refuses to remove materials or to perform anew such work as may be rejected as unacceptable and unsuitable;

(d) discontinues the prosecution of the work;

(e) fails to resume work, which has been discontinued, within a reasonable time after notice to do so;

(f) becomes insolvent or is declared bankrupt, or commits any act of bankruptcy or insolvency;

(g) allows any final judgment of a court of law to stand against him unsatisfied for a period of ten days;

(h) makes an assignment for the benefit of creditors;

(i) persistently fails to comply with contract requirements regarding minimum wage payments or applicable requirements regarding equal employment opportunity; or

(j) for any other cause whatsoever, fails to carry on the work in an acceptable manner; then the Engineer shall give notice in writing to the contractor and his surety of such delay, neglect or default specifying the same. If the Contractor, or surety, within a period of ten days after such notice, does not proceed in accordance therewith, then the Secretary shall, upon written notification from the Engineer of the fact of such delay, neglect or default and the Contractor's failure to comply with such notice, have full power and authority, without violating the contract, to take the prosecution of the work out of the hands of the Contractor. The Secretary may appropriate or use any or all materials and equipment on the ground as may be suitable and acceptable, and may enter into an agreement for the completion of said contract according to the terms and provisions thereof; or use such other methods as, in the opinion of the Secretary, shall be required for the completion of said contract in an acceptable manner.

All costs and charges incurred by the Secretary, together with the costs of completing the work under contract, shall be deducted from any monies otherwise due or which may become due to the Contractor.

In case the expense so incurred by the Secretary shall be less than the sums which would have been payable under the contract if it had been completed by said Contractor, then the Contractor shall be entitled to receive the difference, and in case such expense shall exceed the sum which would have been payable under the contract, then the Contractor and the surety shall be liable and shall pay the Secretary the amount of said excess.

If the Secretary elects to take the prosecution of the work out of the hands of the Contractor, for the reasons and in the manner herein provided, the Secretary may, without violating the contract, instead of completing said contract in the manner herein provided, demand of the Contractor's surety that the surety proceed in place of the Contractor to complete the contract in accordance with the terms and provisions thereof. The Contractor in such case gives his full consent that the completion of the contract shall be undertaken and performed by the surety and the surety shall complete said contract according to the terms and provisions thereof.

A waiver on the part of the Secretary of any breach of any

part of the contract shall not be construed as a waiver of any other or subsequent breach.

#### **108.10 TERMINATION OF CONTRACTOR'S RESPONSIBILITY.**

Whenever the improvements described in the contract are completely performed by the Contractor and all parts of the work have been inspected and acceptance has been made by the Department according to Section 105.17, the Contractor shall be released from further work except as to the requirements and conditions of his bond. (See also Section 105.15, "Maintenance During Construction," Section 107.12, "Protection and Restoration of Property and Landscape," Section 107.16, "Contractor's Responsibility for Work")

The partial or final acceptance of completed work shall release the Contractor of his responsibility to the Secretary for injury or damage to persons or property occurring thereafter on the portion(s) so accepted if the Contractor has complied with all contractual provisions and all requirements imposed by the Secretary, State and Federal agencies with respect to the work performed. (See also Section 107.14, "Responsibility for Damage Claims")

Partial or final acceptance of completed work, however, shall not preclude or estop the Department from correcting any measurement, estimate or certificate made before or after the completion of the work, and such acceptance shall not operate to preclude or estop the Secretary from recovery against the Contractor or his surety for any overpayment received. Partial or final acceptance shall in no way operate as a waiver by the Secretary of any right to recover from the Contractor for injuries or damages sustained due to latent defects, fraud, misrepresentation, or breach of any guaranty or warranty.

#### **108.11 DEFERMENT OR CANCELLATION OF CONTRACT.**

The Secretary may, by written order, defer or cancel the contract or any portion thereof after determining that for reasons beyond the Contractor's control he is prevented from proceeding with or completing the work as originally contracted for, and that deferment or cancellation would therefore be in the public interest. Such reasons for deferment or cancellation 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, restraining orders or injunctions issued by any court of competent jurisdiction, where the issuance of such order or injunction is primarily caused by acts or omissions of persons or agencies other than the Contractor, a determination by the Secretary that changes in the design or location of the project are desirable and in the public interest or that new processes or methods of accomplishing the contract work have become necessary or available and should be utilized in the construction of the project.

**DEFERMENT:** In all cases when construction is deferred, it shall be done by written agreement between the Secretary and Contractor, stating the terms and conditions of such deferment. If the terms and conditions of such deferment cannot be agreed upon, then the original contract is to remain in full force and effect.

**CANCELLATION:** When construction contracts, or any portion thereof, are cancelled, and the Contractor is released before all items of work included in his contract have been completed, payment shall be made for the actual items of work completed at the contract unit prices, or at the agreed prices when no unit prices are included in the contract. No claim for loss of anticipated profits shall be considered. Items which are eliminated in their entirety by such cancellation shall be paid for as provided in Section 109.04.

Materials obtained by the Contractor for the work which have been inspected, tested, and approved by the Secretary, and are not incorporated in the work may, at the option of the Secretary, be purchased from the Contractor at actual cost as shown by receipted bills at such points of delivery as may be designated by the Secretary.

After receipt of notice of cancellation or deferment from the Department, the Contractor shall submit, within 60 days of the effective cancellation date, his claim for additional damages or costs not covered above or elsewhere in these specifications. Such claim may include such cost items as reasonable idle equipment time, mobilization efforts, bidding and project investigative costs, overhead expenses attributable to the cancelled project, legal and accounting charges involved in claim preparation, subcontractor costs not otherwise paid for, actual idle labor cost if work is stopped in advance of cancellation date, guaranteed payments for private land usage as part of original contract, and any other cost or damage item for which the Contractor claims reimbursement should be made. The intent of negotiating this

claim would be that an equitable and reasonable settlement figure be reached with the Contractor. In no event, however, will loss of anticipated profits be considered as part of any settlement.

The Contractor agrees to make his cost records available to the extent necessary to determine the validity and amount of each item claimed.

Cancellation of a contract or portion thereof shall not relieve the Contractor of his contractual responsibilities for the work completed, nor shall it relieve the surety of its obligation for any just claim arising out of the work performed.

## SECTION 109

### MEASUREMENT AND PAYMENT

#### 109.01 MEASUREMENT OF QUANTITIES.

All work completed under the contract shall be measured by the Engineer according to United States standard measure or by the metric system when the contract so provides.

A station when used as a definition of term of measurement shall be 100 linear feet as measured horizontally.

The method of measurement and computation to be used in determination of quantities of material furnished and of work performed under the contract shall be those methods generally recognized as conforming to good engineering practice.

Unless otherwise specified, longitudinal measurements for area computations shall be made horizontally, and no deductions shall be made for individual fixtures having an area of nine square feet or less. Unless otherwise specified, transverse measurements for area computations shall be the neat dimensions shown on the plans or ordered in writing by the Engineer.

Structures shall be measured according to neat lines shown on the plans or as altered to fit field conditions.

All items which are measured by the linear foot, such as pipe culverts, guardrail, underdrains, etc., shall be measured parallel to the base or foundation upon which such structures are placed, unless otherwise shown on the plans.

In computing volumes of excavation, the average end area method or other acceptable methods shall be used. At the option of the Engineer, photogrammetric measurements and computer quantities may be used.

When the term gage refers to the measurement of wire, it shall mean the wire gage or equivalent wire size number specified in AASHTO- M32.

The term ton shall mean the short ton consisting of 2,000 pounds avoirdupois. All materials which are measured or proportioned by weight shall be weighed on accurate and approved scales by competent and qualified personnel at locations designated by the Engineer.

The Contractor shall provide and furnish a scale operator(s) to operate the necessary scales in weighing all materials required to be weighed, complete and sign the required material receipts and perform documentation as required. A Perform-

ance Bond (with surety) in the amount of \$2,000.00 payable to the Secretary of the Department of Transportation shall be executed by the Contractor, as principal, and an Insurance Company, as surety. The Insurance Company shall be authorized by the Commissioner of Insurance of the State of Kansas to do business in Kansas.

Also, a Performance Bond (without surety) in the amount of \$2,000.00 payable to the Secretary of the Department of Transportation shall be executed by the Contractor and employees who are to act as scale operators as principals. The Contractor shall furnish a copy of the above noted bonds to the Engineer prior to beginning work. Performance Bond Forms may be obtained from the Engineer. Bonds so furnished will be effective for the life of the contract. The bonding medium may be released from responsibility upon acceptance of the work by the Department.

Scale operators shall not be changed except in circumstances beyond the Contractor's control or unless otherwise approved by the Engineer. Normally D.O.T. Form No. 251A, provided by the Secretary, will be used. The Contractor, at his option, may provide material scale receipts (including Print-outs) providing the proposed receipts contain the proper information and are approved by the Engineer.

The scale operator shall fill out each scale ticket in quadruplicate, giving the original and first carbon copy to the truck driver, retaining one copy at the plant for the Contractor and leaving the third carbon copy in the book.

The truck driver shall give both copies to the road inspector who shall acknowledge receipt of the material by initialing both copies, keeping the original and returning the copy to the driver.

The scale operator shall obtain tare weights at random intervals. A minimum of 2 tare weights shall be taken each day and recorded in a bound notebook provided by the Engineer. This requirement will not be necessary when an electronic scale system with an automatic printout is used to weigh materials being delivered.

Zero balancing of scales shall be every day before work starts and at random the rest of the day with a minimum of 2 per day and recorded as directed by the Engineer.

Scales shall be checked with a known weight, such as a roller, motorgrader, etc., or by weighing and recording a loaded truck on another scale in the vicinity at least 2 times during the week or as directed by the Engineer.

The Field Engineer will indoctrinate scale operators in proper documentation procedures.

Bonded scale operators shall not be paid for directly but shall be subsidiary to other items of the contract.

When material is shipped by rail or truck, the car or truck weight may be accepted provided that payment shall only be for actual weight of the material. Car weights shall not be acceptable for material to be passed through mixing plants.

Materials to be measured by volume in the hauling vehicle shall be hauled in approved vehicles and measured therein at the point of delivery. Vehicles for this purpose may be of any size or type acceptable to the Engineer, provided that the body is of such shape that the actual contents may be readily and accurately determined. All vehicles shall be loaded to at least their water level capacity and the Engineer may require loads to be leveled when the vehicles arrive at the point of delivery.

When requested by either the Contractor or Engineer, material specified to be measured by the cubic yard may be weighed and such weights shall be converted to cubic yards for payment purposes. Factors for conversion from volume measurement to weight measurement shall be determined by the Engineer and shall be agreed to by the Contractor before such method of measurement of pay quantities is used.

Bituminous materials shall be measured by the ton.

Volumes shall be measured at 60 degrees F. or shall be corrected to the volume at 60 degrees F. using ASTM D 1250 for asphalts; or tables for temperature-volume corrections for emulsified asphalts as published by the Asphalt Institute.

Volumes shall be measured at 60 degrees F. for tars in accordance with ASTM D 633.

Net certified scale weights or weights based on certified volumes in the case of rail or truck shipments shall be used as a basis of measurement, subject to correction when bituminous material has been lost from the car or the distributor, wasted, or otherwise not incorporated in the work.

When bituminous materials are shipped by truck or transport, net certified weights or volumes subject to correction for loss or foaming may be used for computing quantities.

When bituminous materials are transported directly from the refinery to the work, measurement at the refinery may be made with temperature compensating meters in lieu of weighing.

Quantities of bituminous materials used in bituminous mixtures may be computed from the design percentage if the Contractor elects to either divert material from the project or to transfer material from other areas to the project.

Cement shall be measured by the ton.

Timber shall be measured by the thousand feet board measure (M.F.B.M.) actually incorporated in the structure. Measurement shall be based on nominal width and thickness and the extreme length of each piece.

The term "lump sum" when used as an item of payment shall mean complete payment for the work described in the contract.

When a complete structure or structural unit (in effect "lump sum" work) is specified as the unit of measurement, the unit shall be construed to include all necessary fittings and accessories.

When standard manufactured items are specified, such as fence, wire, plates, rolled shapes, pipe conduit, etc., and these items are identified by gage, unit weight, section dimensions, etc., such identification shall be considered to be nominal weights or dimensions. Unless more stringently controlled by tolerances in cited specifications, manufacturing tolerances established by industry standard shall be accepted.

#### **109.02 SCOPE OF PAYMENT.**

The Contractor shall receive and accept compensation provided for in the contract as full payment for furnishing all materials and for performing all work under the contract in a complete and acceptable manner and for all risk, loss, damage, or expense of whatever character arising out of the nature of the work or the prosecution thereof.

If a "Basis of Payment" clause in the contract relating to any unit price in the bid schedule requires that the said unit price cover and be considered compensation for certain work or material essential to the item, then this same work or material shall not also be measured or paid for under any other pay item which may appear elsewhere in the contract.

#### **109.03 COMPENSATION FOR ALTERATION IN WORK OR QUANTITIES.**

Except as may be required by Section 104.03 when the accepted quantities of work vary from the quantities in the bid schedule, for any reason including, but not limited to: overruns, underruns, changes in or alteration of the work, or differing site conditions, the Contractor will be paid, so far as the contract items are concerned, at the original contract unit prices for the accepted quantities of work done. For quantities

paid for at the original contract unit price no allowance will be made for any increased expense, loss of expected reimbursement or loss of anticipated profits suffered or claimed by the Contractor resulting either directly from such alterations or indirectly from unbalanced allocation among the original contract items of overhead expense on the part of the bidder and subsequent loss of expected reimbursement or from any other cause.

If an adjustment in compensation to the Contractor due to alteration of work or quantities as contemplated by Section 104.03 is required the same shall be made by the Engineer after taking into account all the pertinent circumstances. In making a determination as to an adjustment in compensation the Engineer may require the Contractor to submit an itemized breakdown of his estimate of costs used in preparing the original bid for "lump sum" or per "each" unit items in the contract. The itemized breakdown shall be in accordance with the requirement of the Engineer and may include such items as cost of materials, labor, equipment rentals, overhead, profit, etc., to establish the basis of the bid for each item.

#### **109.04 ELIMINATED ITEMS.**

Should any items contained in the contract be found unnecessary for the proper completion of the work, the Engineer may, upon written order to the Contractor, eliminate such items from the contract, and such action shall in no way invalidate the contract. When a Contractor is notified of the elimination of items, he shall be reimbursed for actual work done and all costs accrued directly related to the eliminated item, including materials purchased and delivered. All materials and supplies thus paid for shall become the property of the Department.

#### **109.05 EXTRA AND FORCE ACCOUNT WORK.**

Extra work performed in accordance with the requirements and provisions of Section 104.04 will be paid for at the unit prices or lump sum stipulated in the change order authorizing the work, or the Secretary may require the Contractor to do such work on a force account basis to be compensated in the following manner:

##### **(a) Labor.**

For all laborers and foremen in direct charge of the specific operations, the Contractor shall receive the rate of wage (or

scale) agreed upon in writing before beginning work for each and every hour that said laborers and foremen are actually engaged in such work. The actual hours for labor shall be documented by itemized recordkeeping as set forth below in subsection 109.05(g).

The Contractor shall receive the actual costs paid to, or on 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 or company policy generally applicable to the classes of labor employed on the work.

An additional amount equal to 20 percent of the sum of the above items shall be paid the Contractor for overhead and profit.

**(b) Bond, Insurance, and Tax.**

For increases in bond costs, and premiums for property damage insurance, liability insurance, and worker's compensation insurance, as well as unemployment insurance contributions and social security taxes attributable to the force account work, the Contractor shall receive the rate established by the Secretary to cover these items. The rate shall be adjusted periodically as needed.

**(c) Materials.**

For materials approved by the Engineer and used, the Contractor shall receive the actual cost of such materials delivered, including transportation charges paid by him (exclusive of machinery rentals as hereinafter set forth), to which cost 15 percent shall be added for overhead and profit.

**(d) Equipment.**

For any machinery or special equipment (other than small tools), the use of which has been authorized, the Contractor will be paid the rental rates agreed upon in writing before starting such work. In no event shall rates be higher than those set forth in the Rental Rate Blue Book for Construction Equipment. Payment will be made for the actual number of hours that the equipment is in operation on the work and will include fuel and lubricants.

Transportation charges for each piece of equipment to and from the site of the work will be paid provided: (1) the equipment is obtained from the nearest approved source; (2) the return charges do not exceed the delivery charges; (3) haul



rates do not exceed the established rates of licensed haulers; and (4) such charges are restricted to those units of equipment not already available and on the project.

Whenever equipment is ordered by the Engineer to be held on the job on a standby basis, half-time rates for the equipment will be paid for such standby time during normal working hours.

All equipment used shall be in good operating condition. An amount equal to 15 percent of the total cost of equipment shall be added for overhead and profit.

**(e) Miscellaneous.**

No additional allowance shall be made for general superintendence, the use of small tools, or other costs for which no specific allowance is herein provided.

**(f) Compensation.**

The Contractor's representative and the Engineer shall daily compare and agree upon the records of labor, equipment, and materials used for work done on a force account basis.

**(g) Statements.**

(1) In order to receive payment for work performed on a force account basis, the Contractor shall furnish the Engineer with duplicate itemized statements of the cost of such force account work detailed as follows: (i) name, classification, date, daily hours, total hours, wage rate, and extensions thereof for each laborer and foreman; (ii) designations, dates, daily hours, total hours, rental rates, and extensions thereof for each unit of machinery and equipment; (iii) quantities of materials, prices, and extensions thereof; and (iv) transportation costs of materials.

Statements shall be accompanied and supported by invoices for all materials used, including transportation charges for these materials. 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 material was taken from his stock, that the quantity claimed was actually used, and that the price and transportation cost claimed represent the actual cost to the Contractor.

In the event the itemized statement furnished by the Contractor cannot be verified from the Department's project records, such data shall be subject to complete audit of the Contractor's records by the Department.

(2) When the type of work to be performed on a force account basis is of such a nature that it is normally performed by a subcontractor in the highway industry and the force account work is sublet, itemized statements meeting the requirements of subsection 109.05(g)(1) above shall be furnished to the engineer to which cost an amount equal to five percent of the total cost of the sublet work shall be added for overhead incurred by the Contractor.

(3) When the type of work to be performed on a force account basis is of such a nature that it is not normally performed by a contractor or subcontractor in the highway industry and shall therefore be performed by workers in a specialized trade or business, the Engineer may accept invoices for the cost of labor, equipment, and materials in lieu of itemized statements as listed above, to which cost the following amount shall be added for overhead incurred.

When the dollar amount of work is:	Add-on for Overhead:
\$0 to \$2,000 .....	15%
\$2,001 to \$5,000 .....	\$300 plus 10% over \$2,001
over \$5,000 .....	\$600 plus 5% over \$5,001

## 109.06 PARTIAL PAYMENTS AND RETAINAGE PROVISIONS.

### (a) Partial Payments.

At stated intervals not to exceed one calendar month, the Field Engineer will make an approximate estimate in writing of the amount of work performed during the preceding period and the value thereof at the contract unit prices; provided that no partial payment may be made when the total value of the work done since the last estimate amounts to less than \$500.00.

When requested by the Contractor, estimates may include the amount of each invoice (accompanied by a satisfactory test report or certification) for all approved nonperishable materials delivered to the project, amounts for structural members and other items properly stored in the fabricator's yard or amounts representing an agreed price for nonperishable material produced by the Contractor's own forces and delivered to the project or a location acceptable to the Engineer; provided that the value of the "materials stored and not used" is not less than \$2,500.00 for each individual item of material. (Material of lesser value may be paid for as "materials stored and not used" when approved by the Engineer.)

The Contractor shall be responsible for any loss of the ma-

terial through deterioration, waste, theft or loss of any other nature and such materials shall be replaced at the Contractor's expense.

The estimated value of the material established by the Engineer will in no case exceed the contract price for the item of work for which the material is furnished.

Payment of material incorporated into the work on items where the unit bid price is "set" may be made by the Engineer to the Contractor on intermediate estimates without prior approval of a Change Order.

A satisfactory test report or certification for approved materials and receipted bills for all invoiced material payments allowed on the estimate must be submitted to the Field Engineer within 30 days of the date of the estimate on which material allowance was made, or such material allowance will be deducted from future payments.

**(b) Retainage.**

From the grand total of the work completed, there shall be deducted five percent to be retained by the Department until the provisions of the contract and bond have been fully satisfied.

It is further provided that if the work is progressing satisfactorily and in accordance with Section 108.04, and if all orders of the Engineer have been fulfilled and if the written consent of the surety is obtained, the Secretary of Transportation or his representative may, after 50 percent or more of the contract amount has been earned, adjust the amount of money to be retained from partial payments to a lump sum amount equal to one percent of the contract amount. The lump sum so ascertained shall be the retainage until such time that the Contractor qualifies for further adjustment. When 98 percent or more of the work, including any overruns, has been completed in an acceptable manner, the Contractor may request further downward adjustment of the retainage to a lump sum amount. If the written consent of the surety is obtained, the amount withheld and retained may be adjusted to a lump sum amount that the Department determines to be adequate security for the fulfillment of the balance of the work and other requirements of the contract. Such adjustments will consider probable underruns and liquidated damages.

The payment due the Contractor will be certified to the Secretary of Transportation for payment except that no amount less than \$500.00 will be so certified unless the total amount of the contract remaining unpaid is less than \$500.00.

**109.07 ACCEPTANCE AND FINAL PAYMENT.**

Whenever the improvement provided for in the contract has been completely performed by the Contractor, and the Engineer has made a final inspection of the entire project, the Engineer shall issue a written final acceptance in accordance with subsection 105.17(b).

A final estimate showing the value of the work shall be thereafter prepared by the Engineer as soon as the necessary measurements and computations can be made, all prior estimates upon which partial payments have been made being approximate only and subject to correction. The amount of the final estimate, less any sums deducted or retained under the terms of the contract, will be paid to the Contractor as soon as practicable after final acceptance, provided that the Contractor cooperates and furnishes all the information and documentation necessary to prepare the final estimate and effect final payment.

When the Contractor signs the final estimate and furnishes a sworn statement that all indebtedness has been paid in full as required by the contract bond, and when a release of the final estimate is secured from the surety, then the Engineer shall process the final estimate as approved for final payment.

The acceptance by the Contractor of the final payment shall be conclusive evidence of the release of the Secretary from any and all claims or liabilities arising out of the work performed or materials furnished under the contract.

**109.08 RESPONSIBILITY FOR PAYMENT.**

Payment for the work shall be made by the Secretary with warrants as provided by law.