

### South Dakota Department of Transportation

#### **Division of Operations**

700 E Broadway Avenue Pierre, South Dakota 57501-2586

August 15, 2025

Mr. Craig Smith
Director of Operations
South Dakota Department of Transportation
Pierre, SD 57501

Subject: Division I revisions for the new October 1, 2025 Electronic Standard Specifications for

Roads and Bridges

#### Dear Mr. Smith:

Division I of the South Dakota Standard Specifications for Roads and Bridges, dated October 1, 2025, is submitted for approval at the Transportation Commission Meeting scheduled for August 28, 2025. The proposed specifications have undergone significant modifications. A summary of the major changes is provided below:

General	The sections were revised to include active voice style and imperative mood,
	added links to various sections throughout the book, and incorporated existing
	supplemental specifications.

Section 1 New abbreviations and definitions were added due to new requirements throughout Division I.

Section 2 Various language improvements were made.

Section 3 Language was added to address the transfer of the contract.

Section 4 Added a contract changes section and updated Section 9 with the new process. Notification requirements for contract changes were included, and the price schedule for miscellaneous items was moved to the spec book with minimal revisions.

- Section 5 Cooperation by contractor was moved from special provision to the spec book.

  Utility language was modified to address delays caused by utilities. Requirements for maintenance of the project were clarified, as well as those for maintenance and protection of traffic, contractor's responsibility for the work, project acceptance, claim submittals, and subcontractor claims.
- Section 6 Relocated the Buy America requirements from the special provision to the spec book.
- Section 7 Clarified language pertaining to dust control for public convenience and safety, transferred language for damage claims and liability insurance from the special provision to the spec book, added a requirement for contractor's use of public lands, and moved language restricting boycotts of Israel from the special provision to the specification book.
- Section 8 Introduced requirements for contract transfer, relocated the requirements for contractor-led preconstruction meetings from the special provision to the spec book, revised and moved the construction schedule requirements from the special provision to the spec book, updated the contract time requirements to align with current practices, revised the extension of contract time language to correlate with contract changes and construction schedules, updated the liquidated damages schedule, and included language for contract termination for convenience.
- Section 9 Revised the language for extra haul payment, incorporated language for payment of contract changes, added language for delay costs and non-allowable charges, and updated the language for final payment.

Contact me with any questions or for further information.

Sincerely,

Ryan K. Johnson Senior Specifications Engineer

# STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES



Version:

10-1-2025

## SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION

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#### 1 - 9 DIVISION I - GENERAL PROVISIONS

#### 1 DEFINITION AND TERMS

1.1 WORDING OF THE SPECIFICATIONS - When the contract provides that work will be "contemplated, required, determined, directed, specified, authorized, ordered, given, designated, indicated, considered necessary, deemed necessary, permitted, reserved, suspended, established, approval, approved, disapproved, acceptable, unacceptable, suitable, accepted, satisfactory, unsatisfactory, sufficient, insufficient, rejected, or condemned," these expressions will be construed to be followed by the words "by the Engineer" or "to the Engineer" unless the contents of the specification clearly indicates otherwise. Whenever the term "provide" is used in these specifications to describe a Contractor's obligation to provide a material, "provide" requires the Contractor to both furnish and install the material.

Sentences written in the imperative mood are instructions to the Contractor. For example, an imperative mood sentence such as, "Place the concrete," is a direction to the Contractor to place the concrete. Before the Department awards the contract, sentences written in the imperative mood are instructions to bidders or prospective bidders.

The words "shall", "will" and "must" identify mandatory obligations of the parties to the Agreement. These words are used interchangeably in the contract documents and are not meant to convey different meanings.

- **1.2 TITLES (OR HEADINGS)** The titles or headings of sections and subsections in the specifications are for the convenience of referencing and have no bearing on the meaning or interpretation of the specifications that follow.
- 1.3 REFERENCES The specifications rely on many cross references, including internal sources in the specifications, external sources in other contract documents, Department manuals, and other industry resources. Unless the contract specifies otherwise, all external references refer to the most recent issue of the referenced document, including interim publications, at the time of the contract letting.

Each contract item listed in the contract references a section number from the specifications. All provisions of the referenced section are relevant to the proper completion of the contract item and are binding upon the Contractor, including the requirements found in the "General" subsections and those specific requirements listed thereafter.

Within the specifications, references to other sections and subsections of the specifications apply the same as if they were a part of the specification section or subsection from which they were referenced. A cross-reference to a specific subsection of these specifications includes all general requirements of the section of which the subsection is a part.

**1.4 ABBREVIATIONS** - The following abbreviations used in these specifications or other contract documents:

AADT Annual Average Daily Traffic

AAR Association of American Railroads

AASHTO American Association of State Highway and Transportation Officials

AC Asphalt Cement

ACI American Concrete Institute

ADA Americans with Disabilities Act

ADT Average Daily Traffic

AGC Associated General Contractors of America

AIA American Institute of Architects

AISC American Institute of Steel Construction

AISI American Iron and Steel Institute

ANLA American Nursery and Landscape Association

ANSI American National Standards Institute

ARA American Railway Association

AREA American Railway Engineering Association

ASCE American Society of Civil Engineers

ASLA American Society of Landscape Architects
ASTM American Society for Testing and Materials
ATSSA American Traffic Safety Services Association

AWPA American Wood Protection Association
AWWA American Water Works Association

AWS American Welding Society
BIA Bureau of Indian Affairs
BMP Best Management Practices
CCO Construction Change Order

CM&P SD DOT Construction Measurement and Payment System

CFR Code of Federal Regulations

DBE Disadvantaged Business Enterprise
EEO Equal Employment Opportunity
ESAL Equivalent Single Axle Load
EPA Environmental Protection Agency
FAA Federal Aviation Administration
FHWA Federal Highway Administration
GSA General Services Administration

HDPE High Density Polyethylene IA Independent Assurance

ICC Interstate Commerce Commission
ICEA Insulated Cable Engineers Association
ITE Institute on Transportation Engineers

JMF Job Mix Formula LED Light Emitting Diodes

MS&T SD DOT Materials Sampling & Testing System

MASH Manual for Assessing Safety Hardware MUTCD Manual on Uniform Traffic Control Devices

NCHRP National Cooperative Highway Research Program

NEC National Electrical Code

NEMA National Electrical Manufacturers Association

NEPA National Environmental Policy Act

NHTSA National Highway Traffic Safety Administration

NTPEP National Transportation Product Evaluation Program

NOI Notice of Intent

NOT Notice of Termination

OSHA Occupational Safety Health Administration

PCC Portland Cement Concrete
PCN Project Control Number

PSI Pounds per Square Inch
PVC Polyvinylchloride - PVC Pipe

QA Quality Assurance QC Quality Control

RAP Reclaimed Asphalt Pavement

RCA Recycled Concrete Pavement/Aggregate

RETMA Radio Electronic Television Manufacturers Association

ROW Right-Of-Way

SAE Society of Automotive Engineers International

SDDANR South Dakota Department of Agriculture & Natural Resources

SDEBS South Dakota Department of Transportation Electronic Bidding System

SHPO State Historic Preservation Office
SSPC The Society of Protective Coatings

SWPPP Storm Water Pollution and Prevention Plan

THPO Tribal Historic Preservation Office

UL Underwriters Laboratory

USACE United States Army Corps of Engineers

USC United States Code

USFS United States Forest Service

USFWS United States Fish and Wildlife Service

#### 1.5 DEFINITIONS

**ACT OF GOD** - An unforeseeable act, event, or happening resulting from natural causes including, but not limited to, earthquake, tornado, or other cataclysmic phenomena.

**ACTIVITY -** A discrete, identifiable task or event that takes time, has a definable start and finish date, furthers the work progress, and is used to plan, schedule, and monitor the project.

**ACTIVITY ID** - A unique, alphanumeric, identification code assigned to an activity in a schedule.

**ADDENDUM** - Changes to the bidding package issued by the contracting agency prior to the time of opening of bid proposals.

**ADVERTISEMENT** - A public announcement inviting bid proposals for work to be performed or materials to be furnished.

**AREA ENGINEER** - See Engineer.

**AWARD** - The Department's acceptance of a bid proposal.

**BASE COURSE** - The layer or layers of specified select material placed on a subbase or a subgrade to support a surface course.

**BIDDER** - An individual, partnership, firm, corporation, or an acceptable combination thereof, such as a joint venture, submitting a bid proposal for performance of prescribed work.

**BID PROPOSAL** - The bidder's offer, on the prescribed form, to furnish materials or to perform the work at the prices quoted.

**BID PROPOSAL GUARANTY** - The security furnished with a bid proposal to guarantee the bidder will enter into the contract if the bid proposal is accepted.

**BID SCHEDULE** - The list of bid items, together with estimated quantities, appearing in the bidding package.

**BRIDGE** - A structure, including supports, erected over a depression or an obstruction, such as water, highway, or railway, said structure having a length measured along the center of roadway of more than 20 feet between undercopings of abutments or extreme ends of openings for multiple boxes and pipes where the clear distance between openings is less than half of the smaller contiguous opening.

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

**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.

**BUSINESS DAY** - See day.

**CALENDAR DAY** - See day.

**CHANGE ORDER** - An order issued by the Engineer to the Contractor, covering changes in the plans, specifications, or quantities and establishing the basis of payment and time adjustments for the work affected by the changes. All change orders must be issued in writing.

**COMMERCIAL SOURCE** - An established, lawful business operating in continual use at the time of bid opening as a source to the general public of materials or products relevant to the project.

**COMMISSION** - The Transportation Commission as constituted under the laws of South Dakota.

**CONSTRAINT** - A restriction imposed on the start or finish date of an activity.

**CONTRACT** - The written agreement between the Department and the Contractor setting forth the obligations of the parties for the performance of the prescribed work.

The contract includes the following:

addenda, bidding package, bid proposal, bid proposal guaranty, bid schedule, contract form, change orders, contract items (pay items), contract performance bond, contract time, contract unit prices, notice to contractors, notice to proceed, plans (general and detailed), final project question and answer (Q&A) forum, proposal forms, standard specifications, supplemental specifications, special provisions, Department's Materials Manual, working drawings, written orders, extra work authorizations, and agreements required to complete construction of the work, including authorized extensions of time, all of which constitute one instrument.

**CONTRACT ITEM (Pay Item)** - A specific unit of work for which a price is provided in the contract.

**Major Item of Work** - A contract item having a contract value greater than 5.0% of the original contract amount.

**Minor Item of Work** - A contract item that is not a major contract item. A minor contract item becomes a major contract item when the total value of the contract item increases to more than 5.0% of the original contract amount.

**Specialty Item** - A designated contract item that requires specialized knowledge, ability, or equipment not ordinarily required with the major type of work specified in the contract.

**CONTRACT PERFORMANCE BOND** - The security executed by the Contractor and furnished to the Department to guarantee performance of the work in accordance with the contract.

**CONTRACT TIME** - The working day count, calendar day count, fixed calendar date, or a combination of day count and fixed calendar date allowed for completion of the work included in the contract.

**CONTRACT UNIT PRICE** - The price bid per unit specified for a contract item, as included in the contract.

**CONTRACTOR** - The individual, partnership, firm, corporation, or joint venture contracting with the Department for performance of prescribed work.

**Employee** - A person working on the project covered by the contract that is under the direction of, control of, or receives compensation from the Contractor or a subcontractor.

**Subcontractor** - An individual, partnership, firm, corporation, or joint venture to which the Contractor subcontracts part of the contract in accordance with Section 8.1.

**Project Manager** - A Contractor employee that is the designated decision-making authority for the Contractor and subcontractors in accordance with <u>Section 5.5</u> B.1.

**Project Superintendent** - The Contractor's authorized representative in responsible charge of the contract work in accordance with Section 5.5 B.1.

**Crew Foreman** - See working superintendent/foreman.

**Working Superintendent/Foreman** - An employee of the Contractor or subcontractor that directs a group of employees working for the Contractor or subcontractor to complete a specific type of work the Contractor or subcontractor has contracted to complete in accordance with <u>Section 5.5</u> B.1.

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

**CONTROLLING ITEM** - The initial activity on the critical path that would control the completion of the project during the schedule's current update period.

**COUNTY** - A subdivision of the state used to designate or identify the location of the project.

**CREW FOREMAN - See Contractor.** 

**CRITICAL ACTIVITY** - An activity on the project's critical path.

**CRITICAL PATH** - The longest work path that forecasts the project's substantial completion date or field work completion date, whichever is later. Milestones also have critical paths defined as the longest work path that forecasts the completion of the milestone.

**CRUSHED MATERIAL** - Granular material with one or more crushed faces on at least 30% of the particles retained on the #4 sieve, unless more stringent requirements are specified in the contract.

**CULVERT** - A structure not classified as a bridge which provides an opening under the roadway.

**DATA DATE** - The date from which a schedule is calculated.

**DAY** - The contract will specify the type of day pertinent to the specification. If no type is specified, a calendar day will be used.

**Business Day** - All calendar days except Saturdays, holidays, and days designated by the Governor of this State as an administrative leave day for state employees.

**Calendar Day -** Every day shown on the calendar. A calendar day begins and ends at midnight.

Working Day - See Section 8.7 A.

**DEPARTMENT** - The South Dakota Department of Transportation as constituted under the laws of South Dakota.

**DURATION, ORIGINAL** - The estimated time, expressed in workdays, needed to perform an activity.

**DURATION, REMAINING** - The estimated time, expressed in workdays, needed to complete an activity after an activity has started.

**EMPLOYEE** - See Contractor.

**ENGINEER** - The Director of Operations of the Department acting directly or through an authorized representative responsible for engineering supervision of the contract work.

**Region Engineer** - A representative of the Director of Operations acting under the supervision of the Director of Operations and in charge of assigned operations within a designated Region.

**Area Engineer** - A representative of the Director of Operations acting under the supervision of the Region Engineer and in charge of assigned operations within a designated Area.

**Engineering Supervisor** - A representative of the Director of Operations acting under the supervision of the Area Engineer and in charge of assigned operations within a designated Area.

**Project Engineer** - A representative of the Director of Operations acting under the supervision of the Engineering Supervisor and responsible for engineering supervision of the contract work.

#### **ENGINEERING SUPERVISOR** - See Engineer.

**EQUIPMENT** - Machinery, tools, implements, or apparatus, together with supplies for maintenance and upkeep, necessary for the construction and completion of the project.

**EROSION CONTROL** - Those items necessary to the completed highway, which provide for the preservation of landscape materials and features. The rehabilitation and protection against erosion of 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 and adherence to water quality regulations.

**ESTIMATE OF QUANTITIES** - Plan shown summary of the estimated quantities of work necessary to complete the project.

**EXTRA WORK** - An item or items of work not provided for in the contract as awarded but found by the Engineer to be essential to the satisfactory completion of the contract.

**EXTRA WORK AUTHORIZATION** - An agreement between the Department and the Contractor to perform extra work at an agreed price or on a force account basis that will be included on a change order.

**FLOAT** - The amount of time an activity or work path can be delayed and not delay the substantial completion date or the field work completion date, whichever is later. After the Contractor achieves substantial completion or fieldwork completion, whichever is later, float is the amount of time an activity or work path can be delayed and not delay the project acceptance.

**FLOAT, SEQUESTERED** - Float hidden in activity durations or consumed by unnecessary or overly restrictive logic.

**FLOAT, TOTAL** - The difference calculated in working days between an activity's early and late dates.

**HIGHWAY** - A general term denoting a public way for purposes of vehicular travel, including the entire area within the right-of-way.

**HOLIDAY** - In the State of South Dakota the first day of every week, known as Sunday; the first day of January, commonly known as New Year's Day; the third Monday in January, commonly known as Martin Luther King Jr. Day; the third Monday in February, commonly known as Presidents Day; the last Monday of May, commonly known as Memorial Day; the nineteenth day of June, commonly known as Juneteenth; the fourth day of July, commonly known as

Independence Day; the first Monday in September, commonly known as Labor Day; the second Monday in October, commonly known as Native American Day; the eleventh day of November, commonly known as Veterans' Day; the fourth Thursday in November, commonly known as Thanksgiving Day; and the twenty-fifth day of December, commonly known as Christmas Day; and every day designated by the President of the United States, or by the Governor of this State for a public fast, thanksgiving, or holiday will be observed as a legal holiday.

If the first day of January, the nineteenth day of June, the fourth day of July, the eleventh day of November, or the twenty-fifth day of December falls upon a Sunday, the Monday following is a legal holiday and will be so observed. If a holiday falls upon a Saturday, the preceding Friday is also a legal holiday, and both Friday and Saturday will be so observed.

**INSPECTION** - The Department's act of examining the work.

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

**LABORATORY** - The Department's testing laboratory or other testing laboratory designated by the Engineer.

**LAG** - An amount of time, measured in working days, between the date when an activity starts or finishes and the date when its successor activity can start or finish.

**LEDGE ROCK** - A solid, continuous, homogenous rock mass found in its original state; distinguished from boulders or rocks that have been transported from their deposited or formed location.

**LETTING** - A public announcement inviting bid proposals.

**Letting Date** - The time and date specified for the opening of a bid proposal by the Notice to Contractors in the bidding package.

Regional Letting - Department managed lettings conducted without the use of the SDEBS.

**SDEBS Letting** - Department managed lettings conducted with the use of the SDEBS.

**MAJOR ITEM OF WORK -** See Contract Item.

**MAJOR WORK ACTIVITY -** An activity including a major item of work.

MATERIALLY UNBALANCED BID - See unbalanced bid.

**MATERIALS** - Substances specified for use in the construction of the project.

MATHEMATICALLY UNBALANCED BID - See unbalanced bid.

**MILESTONE** - An activity with no duration that is typically used to represent the beginning or end of the project or its interim stages.

MINOR ITEM OF WORK - See Contract Item.

**NEAR-CRITICAL ACTIVITY** - An activity with a total float value within 30 working days of the float of the critical path.

**NOTICE OF AWARD** - Written notice to the Contractor stating the Department's acceptance of the bid proposal and the Department's award of the contract.

**NOTICE TO CONTRACTORS** - The advertisement for bid proposals for work or materials. The advertisement will indicate with reasonable accuracy the quantity and location of the work to be done or the character and estimated quantity of the material to be furnished and the time and place of the opening of bid proposals.

**NOTICE TO PROCEED** - Written notice to the Contractor to begin the contract work.

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

**PLAN QUANTITY** - The quantity of a contract item shown on the bid item file and the plans.

**PLANS** - The contract drawings showing the location, character, and dimensions of the prescribed work, including plan notes, layouts, profiles, cross sections, and other details.

**PREDECESSOR** - An activity that is defined by schedule logic to precede another activity. A predecessor may control the start or finish date of its successor.

**PREQUALIFICATION STATEMENT** - The forms on which the Contractor will furnish required information as to the Contractor's ability to perform and finance work.

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

**PROJECT** - The physical location of the work and the work required by the contract. The Department categorizes projects as follows:

**Category I Projects** - Represents the lowest level of the project ranking system with simple, low risk, short duration projects having minimal impacts on traffic. Category I projects typically include, but are not limited to, asphalt surface treatments, crack seals, rumble strip installation, bridge deck overlays, pavement marking, signing, and other minor repair projects.

**Category II Projects** - Represents the medium level of the project ranking system with slightly complex projects that typically involve a limited number of linear, repetitive operations with typical project constraints and some traffic impacts. Category II projects typically include, but are not limited to, resurfacing, grading, shoulder widening, bridge replacement, concrete pavement repair, major bridge repair projects, and interstate resurfacing.

**Category III Projects** - Represents the highest level of the project ranking system with complex, high-risk projects having major impacts on traffic and adjacent businesses. These projects may last for more than one construction season. Category III projects typically

include, but are not limited to, urban reconstruction, interstate reconstruction, interstate interchanges, and projects with multiple Category II types of work.

**PROJECT CONTROL NUMBER (PCN)** - A number generated by the Department for project tracking. Found on the cover sheet of the plans.

**PROJECT MANAGER - See Contractor.** 

**PROJECT SUPERINTENDENT - See Contractor.** 

**PROJECT NUMBER** - A number generated by the Department containing coded project data. Found on the cover sheet of the plans.

**PROJECT QUESTION AND ANSWER (Q&A) FORUM** - An online medium for project specific questions and answers between prospective bidders and the Department.

**PROPOSAL FORM** - The prescribed form on which the bidder's offer is submitted.

**REGION ENGINEER** - See Engineer.

**REGIONAL LETTING - See letting.** 

**RELATIONSHIP** - The interdependence among activities in a schedule. A relationship links an activity logically to its predecessors and successors.

**RESPONSIVE BID PROPOSAL** - A bid proposal that meets all requirements of the proposal package.

**RESPONSIBLE BIDDER** - A bidder whose bid proposal meets all of the Department's bidding requirements.

**RIGHT-OF-WAY** - A general term denoting the property interest acquired for or devoted to a highway use.

**ROAD** - A general term denoting a public way for purposes of vehicular travel, including the entire area within the right-of-way.

**ROADBED** - The graded portion of a road within top and side slopes, prepared as a foundation for the pavement structure and shoulders.

**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.

**ROADWAY** - The portion of the road for the movement of vehicles, exclusive of shoulders.

**SCHEDULE, BASELINE** - The approved schedule showing the original plan to complete the entire project.

**SCHEDULE, MONTHLY UPDATE** - A schedule produced by incorporating the project's actual progress, on a monthly basis, into the baseline schedule, the previous monthly update schedule, or a revised schedule.

**SCHEDULE**, **REVISED** - A schedule prepared and submitted by the Contractor that includes a significant modification to the schedule's logic or durations.

**SCHEDULE, FINAL** - The last schedule update containing actual start and finish dates for all activities.

SDEBS LETTING - See letting.

**SHOULDER** - The portion of the road contiguous with the roadway for accommodation of stopped vehicles, emergency use, and lateral support of base and surface courses.

**SIDEWALK** - That portion of the roadway primarily constructed for use by pedestrians.

**SPECIAL PROVISIONS** - See specifications.

**SPECIFICATIONS** - A general term applied to all written directions, provisions, and requirements pertaining to performance of the work. Specifications include:

**Special Provisions** - Additions and revisions to the standard specifications and supplemental specifications applicable to an individual project.

**Standard Specifications** - A book of specifications approved for general applications and repetitive use.

**Supplemental Specifications** - Approved additions and revisions to the standard specifications.

**STANDARD SPECIFICATIONS - See specifications.** 

**STANDARD PLATES (Standard Drawings)** - A set of drawings approved for general applications and repetitive use showing standard details of construction and materials for the work on a project.

**STATE** - The State of South Dakota acting through its authorized representative.

**STREET** - A general term denoting a public way for purposes of vehicular travel, including the entire area within the right-of-way.

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

**SUBBASE** - The layer or layers of specified or selected material of designated thickness placed on a subgrade to support a base course or a surface course.

**SUBCONTRACTOR** - See Contractor.

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

**SUBSTRUCTURE** - That part of a structure below the bearings of simple and continuous spans, skewback of arches, and top of the footings of rigid frames; including backwalls, wingwalls, and wing protection railings. For reinforced concrete slab bridges, that portion below the deck slab.

**SUCCESSOR** - An activity that is defined by schedule logic to succeed another activity.

**SUPERINTENDENT** - See Contractor.

**SUPERSTRUCTURE** - The entire structure except the substructure.

**SUPPLEMENTAL SPECIFICATIONS** - See specifications.

**SURETY** - See Contractor.

**SURFACE COURSE** - One or more layers of a pavement structure designed to accommodate the traffic load, the top layer of which resists skidding, traffic abrasion, and the disintegrating effects of climate. The top layer is sometimes called "Wearing Course".

**TESTING** - A form of inspection based upon criteria and procedure.

**TOWNSHIP, CITY, TOWN, OR DISTRICT -** A subdivision of a county used to designate or identify the location of the project.

**TRAFFIC** - Vehicles, pedestrians, and other modes of transportation.

TRAVELED WAY - See roadway.

**UNBALANCED BID** - A bid proposal that does not reflect the true cost of providing the material, equipment, and labor required to complete each contract item. The following are types of unbalanced bids:

**Materially Unbalanced Bid** - A bid proposal which generates a reasonable doubt that award to the bidder submitting the mathematically unbalanced bid will result in the lowest ultimate cost to the Department.

**Mathematically Unbalanced Bid** - A bid proposal containing contract unit prices which do not reflect reasonable actual costs plus a reasonable, proportionate share of the bidder's anticipated profit, overhead costs, and other indirect costs that the bidder anticipates for the performance of the contract items in question.

**WORK** - The providing of all labor, materials, equipment, and incidentals necessary to the successful completion of the project in a workmanlike manner and in accordance with the contract.

**WORKING DRAWINGS** - Shop drawings, shop plans, erection plans, falsework plans, framework plans, bending diagrams for reinforcing steel, demolition plans, or supplementary plans or similar data which the Contractor is required to submit to the Engineer for review.

**WORKING SUPERINTENDENT/FOREMAN - See Contractor.** 

**WRITTEN NARRATIVE** - A descriptive report submitted with each schedule or schedule update submission.

**WRITTEN ORDER** - A unilateral order, issued in writing by the Engineer, of a contractual status requiring performance by the Contractor.

#### 2 BIDDING REQUIREMENTS AND CONDITIONS

**2.1 PREQUALIFICATION OF BIDDERS** - Bidders must be prequalified to bid on state highway construction contracts unless the amount being bid is less than \$250,000.

A prospective bidder must be prequalified prior to the time and date specified for bid opening. A prospective bidder may apply for prequalification by completing and executing a Contractor's prequalification statement on a form approved by the Department. This application must be received by the Department's classification and rating committee at least 14 calendar days before the opening of the prospective bidder's bid, unless a shorter time frame is approved by the committee.

Once prequalified, the Department will issue a notice to the prospective bidder stating the prospective bidder's approved work classification or work classifications, the prospective bidder's overall bidding capacity, the prospective bidder's per contract bidding capacity, and the prospective bidder's expiration date for prequalification status.

The complete prequalification requirements are contained in South Dakota Administrative Rule Chapter 70:07:02.

2.2 ELECTRONIC IDENTIFICATION - For contracts let using the South Dakota Electronic Bidding System (SDEBS), obtain a company identification and password from the Department's website. Each company will receive one company identification and password. Use the company identification and password to access electronic files and the plan holders list.

In addition to a company identification and password, obtain a bidder identification and password for each individual authorized to prepare and submit a bid proposal on behalf of the company. To obtain a bidder identification and password, complete a bidding administrator authorization form (available on the Department's website), furnishing all required information and all appropriate signatures, and submit the form to the Department allowing 2 business days for the Department to set-up bidding administrator(s) and issue bidder identification(s) and password(s).

A bidding administrator will have privileges in the SDEBS to prepare bids, submit bids, and authorize additional company employees to prepare and submit bids. Additionally, a bidding administrator will be responsible for maintaining the list of authorized bidders for the company and will have the ability to add employees, remove employees, and set-up bidder identifications and passwords within the SDEBS. Bidding Administrator authorization will remain in full force and effect until written notice of termination of this authorization is sent by an Officer of the company and received by the Department.

A bidder identification and password, coupled with a company identification previously assigned by the Department, will serve as authentication that an individual is a valid bidder for the company.

**2.3 ISSUANCE OF BIDDING PACKAGE** - The Department will issue bidding packages for projects let using the Regional Letting process or the SDEBS Letting process.

For contracts let using the SDEBS letting process, the Department will not place restrictions on who may download the bidding package, except the ability to prepare and submit a bid proposal will require a bidder identification and password as described in <u>Section 2.2</u>. The bidder must

verify the bidder's prequalification status prior to bidding. The Department will verify bidder status in accordance with <u>Section 3.1</u> prior to opening bids.

- 2.4 CONTENTS OF BIDDING PACKAGE The bidding package consists of the proposal booklet, plans, electronic design files, specifications, special provisions, supplemental specifications, addenda, project question and answer (Q&A) forum, and electronic bid files. The bidding package will state the location and description of the contemplated construction, show the estimate of the various quantities and type of work to be performed or materials to be furnished, and will have a schedule of items for which unit bid prices are invited. The bidding package will state the time in which the contract work must be completed, the time and date deadline for submitting the required bid proposals, and prequalification requirements.
  - A. Regional Lettings Pages bound or attached to the bidding package by the Department are considered a part of the bidding package and must not be detached or altered when the bid proposal is submitted, except the bidder may attach a substitute bid schedule as provided in <u>Section 2.7</u>. Plans, specifications, and other documents included by reference in the bidding package will be considered a part of the bidding package whether attached or not.
  - **B. SDEBS Lettings** Refer to the SDDOT website to acquire the bidding package.

The Department will open the project Q&A forum when it advertises the project for letting. Prospective bidders are responsible for periodically checking the project Q&A forum for new questions and answers. The Department will post questions and answers but will provide no additional notification of the posting of questions and answers. Prospective bidders may post new questions to the project Q&A forum until 10:00 AM CT on the third business day prior to the letting, at which time prospective bidders will be locked from further posting. The Department may post new questions and answers to the project Q&A forum up until 10:00 AM CT on the business day prior to the letting, at which time the project Q&A forum will be final and locked from all editing. In submitting a complete and final bid, a prospective bidder will be deemed to have accounted for any and all information posted to the final project Q&A forum regardless of when the prospective bidder submits a bid proposal.

- 2.5 INTERPRETATION OF QUANTITIES IN BIDDING PACKAGE The quantities appearing in the bidding package are estimates and are prepared for the comparison of bids. The Engineer will make payment to the Contractor for the actual quantities of work performed or materials furnished in accordance with the contract. The estimated quantities of work to be done and materials to be furnished may each be increased, decreased, or deleted in accordance with these specifications.
- **2.6 EXAMINATION OF PLANS, SPECIFICATIONS, AND SITE OF WORK -** Examine the project site and the entire bidding package for the work contemplated. The bidder's submission of a bid proposal will be considered conclusive evidence the bidder has investigated and is satisfied as to the conditions to be encountered at the project site; the character, quality, and quantities of work to be performed; and materials to be furnished.

Boring logs and other records of subsurface investigations are available for inspection by prospective bidders upon request. This information was obtained and is intended for Department design and estimating purposes only. The Department cannot guarantee the accuracy of this information. This information is made available, so all prospective bidders have access to the

same subsurface information available to the Department. The furnishing of this information is not intended as a substitute for the prospective bidder's personal investigation, interpretation, and judgment.

The Department will not be bound by statements or representations made by a Department employee or agent prior to the execution of the contract, unless included in writing in the bidding package.

If a prospective bidder requires an explanation regarding the meaning or interpretation of the bidding package, request the explanation by submitting a question to the project Q&A forum in adequate time to allow a Department reply to reach all prospective bidders before submission of final bid proposals. If the deadline for submitting questions to the project Q&A forum has passed, notify the Department Bid Letting Office.

A. Regional Lettings - For contracts let using the Regional Letting process, contact the office responsible for the letting. The Department may answer the request for explanation by issuing an addendum to all prospective bidders, as deemed appropriate by the Department in its discretion. The Department will make all addenda available to all prospective bidders before the time specified for opening of bid proposals.

Do not take advantage of an apparent error, omission, or ambiguity in the bidding package. If the bidder discovers an error, omission, or ambiguity, immediately notify the Department of the apparent error, omission, or ambiguity and its perceived consequences. Notify the Department by contacting the region office responsible for the letting. The Department may certify the error, omission, or ambiguity and may issue an addendum to all prospective bidders, as deemed appropriate by the Department in its discretion. The Department will make all addendum available to all prospective bidders before the time specified for opening of bid proposals.

**B. SDEBS Lettings** - For contracts let using the SDEBS, contact the Department by submitting a request for explanation to the project Q&A forum. If the deadline for submitting questions to the project Q&A forum has passed, submit the request for explanation to the Department Bid Letting Office. The Department may answer the request for explanation on the project Q&A forum or issue an addendum to all prospective bidders, as deemed appropriate by the Department in its discretion. The Department will furnish all addendum to all prospective bidders by electronic addendum before the time specified for opening of bid proposals.

Do not take advantage of an apparent error, omission, or ambiguity in the bidding package. If the bidder discovers an error, omission, or ambiguity, the immediately notify the Department of the apparent error, omission, or ambiguity and its perceived consequences. Notify the Department by submitting a question to the project Q&A forum. If the deadline for submitting questions to the project Q&A forum has passed, notify the Department Bid Letting Office. The Department may certify the error, omission, or ambiguity and may answer the question on the project Q&A forum or issue an addendum to all prospective bidders, as deemed appropriate by the Department in its discretion. The Department will furnish all addendum to all prospective bidders by electronic addendum before the time specified for opening of bid proposals.

- **2.7 PREPARATION OF BID PROPOSAL** Prepare the bid proposal in accordance with the following:
  - A. Regional Lettings Prepare the bid proposal on the forms furnished by the Department. Specify a unit price in numerals for each pay item for which a quantity is given, show the products of the respective unit prices and quantities written in numerals in the column provided for that purpose, and show the total amount of the bid proposal obtained by adding the amounts of all products. Numerals will be in ink or typed. The Department will refer to Section 3.2 in case of a discrepancy between the unit prices written in numerals for a pay item, the resultant product, and the total amount of the bid proposal.

Specify a unit price, in numerals, for each bid item for which a quantity is given. A unit price cannot be "\$0.00."

In case of a discrepancy between the line number, bid item description, or quantity shown in the bid proposal, and the corresponding item shown in the plans, the bid item description and the quantity shown in the bid proposal will govern.

When the bidding package contains an alternate bid item or group(s) of alternate bid items, indicate a choice for each available item or group in accordance with the proposal for the particular item or group.

The bidder's bid proposal must be signed by the individual, by one or more members of the partnership, by one or more members or officers of each firm representing a joint venture, by one or more officers of a corporation, or by an agent of the Contractor legally having a power of attorney. If signing pursuant to a power of attorney, the agent must be qualified and acceptable to the Department and a copy of the power of attorney must be attached to the bid proposal or previously filed with the Department. If the bid proposal is made by an individual, the individual's name and post office address must be shown; if by a partnership, the name and post office address of each partnership member must be shown; if by a joint venture, the name and post office address of each member or officer of the firms represented by the joint venture must be shown; if by a corporation, the name and business address of the corporation must be shown.

The bidder may attach a substitute bid schedule in lieu of completing the original bid schedule, provided the substitute bid schedule complies with all provisions of this section. If the bidder uses a substitute bid schedule, attach the substitute bid schedule to the original bid schedule. Include the following at the top of each page of the substitute bid schedule:

Letting Date Project Number PCN County Type of Work Bidder's Name and Address

The substitute bid schedule will have the following column headings: line number, item description, estimated quantity, unit designation, unit bid price, and amount bid for each item. The substitute bid schedule will include total or gross sum bid below the last bid item. The substitute bid schedule will be in the legal name of the bidder and include the signature and title of an authorized representative, as required by this section. The original bid schedule does not need to be signed when using a substitute bid schedule unless the original bid

schedule is used to authorize additional signatures. Include the total or gross sum bid on the original bid schedule. In case of a discrepancy between the line number, bid item description, or quantity shown in the original bid schedule and that shown for these entries on the substitute bid schedule, the line number, bid item description, and the quantity shown in the original bid schedule will govern. The unit bid price shown for each line number on the substitute bid schedule will govern whether or not the product shown is correct. The substitute bid schedule page size and size of printed characters will be approximately the same as the original bid schedule. Solid lines for separating columns and line numbers need not be printed. At least one blank line or space will separate each line number. Columns may be arranged either vertically or horizontally on the substitute bid schedule. Arrange and number pages sequentially.

B. SDEBS Lettings - Prepare and submit a bid proposal using the SDEBS.

Specify a unit price, in numerals, for each bid item for which a quantity is given. A unit price cannot be "\$0.00."

When the bidding package contains an alternate bid item or group(s) of alternate bid items, indicate a choice for each available group by entering unit prices for all bid items within the alternate chosen.

Complete all required fields in the SDEBS. If the bidder does not completely fill out all required fields, the Department may consider the bid irregular and reject the bid proposal in accordance with Section 3.2.

For bidding purposes, in case of a discrepancy between the bid item description or quantity shown in the SDEBS and the corresponding item shown in the plans, the bid item description and the quantity shown in the SDEBS will govern.

- **2.8 BID PROPOSAL GUARANTY (BID BOND)** Secure a bid proposal guaranty in accordance with the following:
  - **A. Regional Lettings** The Department will not consider a bid proposal unless accompanied by a guaranty of the character and the amount indicated in the bidding package, if required.
  - **B. SDEBS Lettings** The Department will not consider a bid proposal unless the bidder has furnished the Department a guaranty in the amount of 5% of the total amount of the bid prior to opening of the bids. Satisfactory forms of proposal guaranties are certified checks, cashier's checks, bank drafts issued upon a national or state bank, and bid bonds issued in accordance with South Dakota law. If the bidder uses an electronic bid bond, submit the bid bond identification number with the bid proposal. Unless otherwise specified in the bidding package, make the proposal guaranty payable at sight to the "South Dakota Department of Transportation."
- **2.9 BIDDER SUBMITTED BID PROPOSAL LIMITATIONS** A bidder may submit a written statement providing limitation of work for a single bid letting date. Submit the written bid proposal limitation statement to the Department before the time and date set for opening the bid proposals.

A bidder may submit a written statement providing limitation of work for bid proposals submitted in subsequent bid proposal openings provided the Department has not awarded contracts from an earlier bid letting date by the time of the latter bid letting date; and, the bidder submits the written bid proposal limitation statement to the Department prior to the time and date set for opening bid proposals of the latter bid letting date.

A written bid proposal limitation statement must include the following information:

- **A.** Identification of the bidder's company name and name and title of the employee submitting the bid proposal limitation statement;
- **B.** Identification of the bid proposal opening date or dates and the contracts for which the limitations apply; and,
- **C.** A statement of the total dollar volume of work or number of contracts acceptable to the bidder.

If a bidder submits a bid proposal limitation statement and becomes the apparent low bidder on multiple contracts exceeding the limitations the bidder has set forth, the Department will determine, in its discretion, which contract or contracts will be awarded to the bidder within the limitations set by the bidder.

- 2.10 SUBMISSION OF BID PROPOSAL Submit the bid proposal as described in the following:
  - A. Regional Lettings Place the bid proposal in a sealed envelope plainly marked to indicate its contents. When sent by mail, address the sealed proposal to the Department in care of the official responsible for the letting. File the bid proposal prior to the time and date and at the place specified by the Notice to Contractors. The Department will not accept a bid proposal received after the time and date specified for opening of bid proposals and will return a late bid proposal to the bidder unopened.
  - **B. SDEBS Lettings** Submit a bid proposal electronically using the SDEBS to the Department's secure bid submission site prior to the time and date specified by the Notice to Contractors in the bidding package. The Department will not accept a bid proposal received after the time specified for opening of bid proposals.
- **2.11 WITHDRAWAL OR REVISION OF BID PROPOSAL PRIOR TO LETTING** A bidder may withdraw or revise a bid proposal after it has been submitted, if the bidder withdrawal is made before the time set for opening bid proposals and according to the following:
  - **A.** Regional Lettings A bidder may withdraw or revise a bid proposal after it has been deposited with the Department, if the request for withdrawal or revision is received by the Department in writing before the time set for opening bid proposals.
  - **B. SDEBS Lettings** A bidder may withdraw or revise and resubmit a bid proposal any time prior to the time and date set for opening the proposals. The Department will consider only the last bid proposal submitted as a valid bid proposal for the letting item. A bidder may withdraw or revise and resubmit a bid proposal only through the Department's secure bid proposal submission site.

- 2.12 COMBINATION BIDDING PACKAGES When required in the bidding package, the Department will require a bidder to submit a bid proposal for multiple bidding packages in combination. The Department will consider award of the contracts based on the total of the combination of the bid proposals. The Department will not consider a combination bid proposal, other than as specified. The Department will write a separate contract for each project included in the combination.
- **2.13 PUBLIC OPENING OF BID PROPOSALS** The Department will open and read bid proposals according to the following:
  - A Regional Lettings The Department will open and read bid proposals publicly at the time, date, and place indicated by the Notice to Contractors.
  - **B SDEBS Lettings** The Department will open and read bid proposals at the time and date set for opening the bid proposals. The Department will check all bid proposals for qualifications and will post the results on the Department's website.

#### 3 AWARD AND EXECUTION OF CONTRACT

- 3.1 CONSIDERATION OF BID PROPOSALS At the time of opening bid proposals, the Department will verify the bidder is prequalified for the specified work type and the bidder's bidding capacity at that time is sufficient to handle the work for which the bidder submitted a bid proposal. The Department reserves the right to refuse to accept a bid proposal for one or more of the following reasons:
  - **A.** Lack of competency or adequate machinery, plant, or other equipment, as shown by the Contractor's Prequalification Statement;
  - **B.** Uncompleted work which the Department determines, in its discretion, may hinder or prevent the prompt completion of additional work;
  - **C.** Failure to pay or satisfactorily settle a legal obligation due for labor or material on a contract at the time of issuance of proposals;
  - **D.** Failure to comply with the Department's prequalification regulations;
  - **E.** Default under a previous contract or contracts;
  - **F.** Debarment by the Department or the federal government;
  - **G.** Disqualification by the Department. The following reasons will be considered sufficient for disqualifying a bidder and rejecting the bid proposal or bid proposals:
    - **1.** Submittal of more than one bid proposal for the same contract from an individual, firm, or corporation under the same or different name; or,
    - **2.** Evidence of collusion among bidders. A participant in collusion will not receive recognition as a bidder for future work with the Department until reinstated as a qualified bidder;
  - **H.** Lack of overall bidding capacity as established by the Contractor's prequalification statement, considering the uncompleted work currently under contract;
  - **I.** Lack of per contract bidding capacity as established by the Contractor's prequalification statement; or,
  - **J.** Unsatisfactory performance on previous work or a current contract or contracts consisting of, but not limited to:
    - **1.** Noncompliance with contract specifications, contract requirements, or Engineer's directives;
    - 2. Failure to complete work on time;
    - **3.** Instances of substantial corrective work prior to acceptance;
    - 4. Instances of completed work that requires acceptance at reduced pay;

- **5.** Production of work or materials not meeting required specifications, and when applicable, requiring price reductions or corrective work;
- **6.** Failure to provide adequate safety measures or appropriate traffic control that endangers the safety of the work force or public;
- **7.** Questionable moral integrity as determined by the Attorney General of the State, or the Department; or,
- **8.** Failure to reimburse the State for monies owed on a previously awarded contract including all contracts where the prospective bidder is a party to a joint venture and the joint venture has failed to reimburse the State for monies owed.

After opening, the Department will compare the bid proposals on the basis of the summation of the products of the quantities shown in the bid proposal by the unit bid prices. The Department will make results of such comparisons available to the public. In the event of a discrepancy between unit bid prices and extensions, the unit bid price will govern.

The Department reserves the right to reject any bid proposal, the right to waive technicalities, and the right to reject all bid proposals and advertise for new bid proposals, if in the judgment of the Department the rejection or waiver will promote the best interest of the Department.

- **3.2 IRREGULAR BID PROPOSALS** The Department will consider a bid proposal irregular and may reject the bid proposal for one or more of the following reasons:
  - **A.** The bid proposal is incomplete, or is not submitted through the Department's SDEBS or the form furnished by the Department, the form is altered, or part thereof is detached or incomplete;
  - **B.** The bid proposal contains unauthorized additions, conditional or alternate bids, or other irregularities, which may tend to make the bid proposal incomplete, indefinite, or ambiguous as to its meaning;
  - **C.** The bid proposal contains provisions reserving the right to accept or reject an award or to enter into a contract pursuant to an award. (This is not intended to exclude a bid proposal limiting the maximum gross amount of awards acceptable to a bidder at one bid letting. The Department will select awards in its discretion.);
  - **D.** The bid proposal does not contain a unit price in numerals for each pay item listed, except in the case of authorized alternate pay items or groups;
  - **E.** The Department determines, in its discretion, that any of the unit bid prices are significantly unbalanced to the potential detriment of the Department;
  - **F.** For Regional lettings, in the case of a discrepancy between the unit bid price and the price extension, the unit bid price will govern. If the intended unit bid price cannot be determined, the bid proposal will be voided as per Section 3.2 B;
  - **G.** For SDEBS lettings, the bid proposal is signed with an invalid bidder identification; or,

- **H.** For SDEBS lettings, confirmation of receipt and incorporation of all addenda is not included in the bid proposal.
- of a contract, a bidder may submit a written request to have the bidder's bid proposal dismissed if an error was made in the preparation of the bid proposal. Include supporting documentation justifying the request. The request must include a notarized affidavit or declaration signed under penalty of perjury which clearly sets forth the specific error or errors and certifies the bid documentation submitted is the only information used in the preparation of the bid proposal. The Department will review the request prior to making a determination of the request. If the Department determines, in its discretion, to grant the request to dismiss the bid proposal, the Department will retain the bidder's bid proposal guaranty unless the bidder satisfies all of the following conditions:
  - **A.** The bidder immediately notifies the Department as soon as the error is observed and no later than 2 business days after the bid letting date;
  - **B.** The error is of a mechanical, clerical, or mathematical nature and not one of bad judgment, careless inspection of the work site, or in reading the plans and specifications. The bidder must be able to produce bid preparation documentation clearly setting forth how the clerical error occurred;
  - **C.** The bidder submits the formal request and required documentation within 1 business day of notifying the Department of the error; and,
  - **D.** The scope of the mistake is significant in nature as determined by the Department, in its discretion.

The Department will notify the bidder of the decision to either grant the request for dismissal of the bid proposal without forfeiture of the bid proposal guaranty to the Department, or to allow dismissal of the bid proposal with forfeiture of the bid proposal guaranty to the Department. The bidder will then have 1 business day to respond in writing to either confirm acceptance of the Department's decision which will result in an irregular bid proposal or withdraw their request to dismiss their bid proposal which will result in a responsive bid proposal for award of contract consideration. If the bidder does not respond within 1 business day the Department's decision will stand.

**3.4 AWARD OF CONTRACT** - The Department will award a contract to the lowest competent and responsible bidder whose bid proposal complies with the requirements prescribed, within 30 calendar days after the opening of bid proposals. The Department will notify the successful bidder that the bid has been accepted, and the contract awarded.

The Department and the successful bidder may extend the contract award date by mutual agreement.

- **3.5 CANCELLATION OF AWARD** The Department reserves the right to cancel the award of a contract before the execution of said contract without liability against the Department.
- **3.6 BID PROPOSAL GUARANTY** The Department will retain the bid proposal guaranties of the two lowest responsible and competent bidders. The Department will release the remaining bid

proposal guaranties following opening and checking of bid proposals. The Department will release the bid proposal guaranties of the two low bidders when the contract has been executed.

3.7 REQUIREMENT OF CONTRACT PERFORMANCE BOND - At the time of the execution of the contract, furnish a contract performance bond or bonds in a sum equal to the amount of the contract, in a form acceptable to the Department. The contract performance bond will remain in effect for not less than one year after the date of Final Acceptance.

If the Contractor's bonding company becomes insolvent or is declared bankrupt, the Department will require the Contractor to furnish a new contract performance bond.

If the Contractor transfers the contract to another Contractor, the Department will require acknowledgement of the existing performance bond to cover the transfer of Contractors, or the new Contractor must obtain their own performance bond meeting the above requirements.

- 3.8 **EXECUTION AND APPROVAL OF CONTRACT** Sign and return the contract, together with the contract performance bond, within 20 calendar days after the date of the Notice of Award. The Department and the successful bidder may extend the contract return by mutual agreement. If the Department does not execute the contract within 15 calendar days following the receipt of the signed contract and related documents from the bidder, the bidder may withdraw the bid without penalty. A contract will not be considered in effect until it has been executed by all parties to the contract.
- **3.9 FAILURE TO EXECUTE CONTRACT** If the successful bidder does not execute and return the contract and file acceptable bond within 20 calendar days after bidder's receipt of the Notice of Award, the Department may cancel the award and the bid proposal guaranty will be forfeited and become the property of the Department, as liquidated damages. The Department may then award a contract to the next lowest responsible bidder or re- advertise the work.
- **3.10 MATERIAL GUARANTY** Furnish a complete statement of the origin, composition, and manufacture of materials to be used in the construction of the work, together with samples. Samples will be tested and inspected for conformance with the contract provisions.

#### 4 SCOPE OF WORK

**4.1 INTENT OF CONTRACT** - The intent of the contract is to provide for the construction and completion of the work described. Furnish labor, materials, equipment, tools, transportation, and supplies required to complete the work in accordance with the plans, specifications, and terms of the contract.

#### 4.2 CONTRACT CHANGES

A. General - The Engineer reserves the right to change the contract, in writing, to satisfactorily complete the project at any time between the date of the contract execution and the date the Department issues the final payment to the Contractor. The contract cannot be modified, altered, or otherwise changed by an oral promise, statement, or representation made either by the Engineer or the Contractor. Changes to the contract do not invalidate the contract or release the surety from its obligations. The Contractor agrees to perform the work as changed. Proceed with the revised work only when directed by the Engineer. Continue to perform all work unaffected by the revision.

If the Contractor believes it has encountered a change in accordance with <u>Section 4.2 B</u>, <u>Section 4.2 C</u>, <u>Section 4.2 D</u>, <u>Section 4.2 E</u>, or <u>Section 4.2 F</u>, immediately provide notice in accordance with those clauses and in accordance with <u>Section 4.3</u>. If the Engineer determines that a change has occurred, the Department will compensate the Contractor for the change in accordance with <u>Section 9.4</u> and will provide a time extension in accordance with <u>Section 8.8</u>.

<u>Section 4.2 B</u>, <u>Section 4.2 C</u>, and <u>Section 4.2 D</u> contain wording mandated by the FHWA. The term "adjustment" used in these sections means monetary compensation in accordance with <u>Section 9.4</u> and the granting of a time extension in accordance with <u>Section 8.8</u>.

**B.** Differing Site Conditions - During the progress of the work, if subsurface or latent physical conditions are encountered at the site differing materially from those indicated in the contract (Type 1 Differing Site Condition) 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 (Type 2 Differing Site Condition) are encountered at the site, the party discovering such conditions must promptly provide written notification to the other party of the specific differing conditions before the site is disturbed and before the affected work is performed.

Upon written notification, the Engineer will investigate the conditions, and if the Engineer determines that a Type 1 Differing Site Condition, a Type 2 Differing Site Condition, or both are present, and that the Differing Site Conditions will cause an increase or decrease in the cost or time required for the performance of work under the contract, an adjustment, excluding anticipated profits, will be made in accordance with <a href="Section 9.4">Section 9.4</a> and <a href="Section 8.8">Section 8.8</a>, and the contract modified in writing accordingly. The Engineer will notify the Contractor of the determination whether an adjustment of the contract is warranted.

No contract adjustment that results in a benefit to the Contractor will be allowed unless the Contractor has provided the required written notice in accordance with Section 4.3.

No contract adjustment will be allowed on work not affected by the changed conditions.

**C.** Significant Changes in the Character of the 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 are necessary to satisfactorily complete the project. Such changes in quantities and alterations will not invalidate the contract or release the contract performance bond, and the Contractor agrees to perform the work as altered in accordance with the contract.

If the alterations or changes in quantities significantly change the character of the work under the contract, whether such alterations or changes are in themselves significant changes to the character of the work or whether such alterations or changes cause a significant change by causing other work to become significantly different in character, an adjustment, excluding anticipated profit, will be made to the contract in accordance with <a href="Section 9.4">Section 9.4</a> and <a href="Section 9.4">Section 9.4</a> and <a href="Section 9.4">Section 9.8</a>.8.

If the alterations or changes in quantities do not significantly change the character of the work to be performed under the contract, the Contractor will accept payment at the original contract unit prices for the accepted quantities of work as payment in full. The Engineer will not compensate the Contractor for increased expenses and the Engineer will not compensate the Contractor for loss of expected reimbursements or loss of anticipated profits.

The term "significant change" applies only to the following circumstances:

- **1.** When the character of the work as altered differs materially in kind or nature from that involved or included in the original proposed construction;
- 2. When a major item of work, as defined in <u>Section 1.5</u>, is increased in excess of 125% or decreased below 75% of the original contract quantity. An allowance for an increase in quantity only applies to that portion in excess of 125% of the original contract item quantity, or in case of a decrease below 75%, to the actual amount of work performed; or,
- **3.** When a minor item of work, as defined in <u>Section 1.5</u>, is increased in excess of 150% or decreased below 50% of the original contract quantity. An allowance for an increase in quantity only applies to that portion in excess of 150% of the original contract item quantity, or in case of a decrease below 50%, to the actual amount of work performed.

When an adjustment to the unit price of a major item of work is made due to a decrease in the contract quantity to below 75% of the original contract quantity, the total payment made by the Department to the Contractor will not exceed the amount that would have been paid to the Contractor for 75% of the original contract quantity. When an adjustment to the unit price of a minor item of work is made due to a decrease in the contract quantity to below 50% of the original contract quantity, the total payment made by the Department to the Contractor will not exceed the amount that would have been paid to the Contractor for 50% of the original contract quantity.

If the Contractor believes an alteration in the work is a significant change that necessitates a contract revision, notify the Engineer in accordance with Section 4.3.

The Department will pay the Contractor for items and prices set forth in <u>Section 4.4</u> Price Schedule for Miscellaneous Items and the bidding package.

D. Suspension of Work Ordered by the Engineer - If the performance of all or a 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 or contract time or both is due as a result of such suspension or delay, submit a request for adjustment in accordance with Section 9.4 and Section 8.8 within 7 calendar days of receipt of the notice to resume work. Provide reasons and support for the adjustment.

Upon receipt, the Engineer will evaluate the Contractor's request. If the Engineer agrees that the suspension was caused by conditions beyond the control of, and not the fault of, the Contractor, its suppliers, subcontractors, or lower tier subcontractors, and not caused by weather, the Engineer will make an adjustment in accordance with <u>Section 8.8</u> and <u>Section 9.4</u>, excluding profit.

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 to the extent that performance would have been suspended or delayed by another cause, or for which an adjustment is provided or excluded under other terms or conditions of this contract.

- **E. Extra Work** The Engineer may direct the Contractor to perform extra work. Extra work is work added to the contract for which there is no pay item. The Department will pay for extra work in accordance with <u>Section 9.4</u> and will adjust contract time in accordance with <u>Section 8.8</u>.
- **F. Eliminated Items -** The Engineer may eliminate items from the contract. The elimination of contract items will not invalidate the contract and will not be cause for an action against the Department. If the Contractor completed a portion of the work associated with an eliminated item before the Engineer eliminated the item, the Engineer will reimburse the Contractor for the completed work as follows:
  - **1.** For completed quantities of work, the Engineer will pay the Contractor for each unit of completed work at the contract unit price.
  - 2. For partially completed work, the Department will reimburse the Contractor for the partially completed work in accordance with <u>Section 9.4</u>.

The Department will reimburse the Contractor in accordance with <u>Section 9.4</u> for the cost of transportation of eliminated materials that the Contractor transported before the Department's notification of the elimination of those materials. The Department will reimburse the Contractor in accordance with <u>Section 9.4</u> for the costs of returning unused materials to the supplier. In lieu of reimbursement for the return of eliminated material, the Department may elect to purchase the eliminated material at the Contractor's actual cost.

The Department will not make payment for eliminated pile shoes regardless of work performed or materials purchased by the Contractor.

**4.3 NOTIFICATION OF CONTRACT CHANGES** - Immediately notify the Engineer of the need for a contract change. Provide the notification in either written or oral form. If the Contractor provides

oral notice, submit written notice within 7 days of the oral notice. Perform work associated with a change only after receiving written direction from the Engineer. If work related to the alleged change has begun and it is not feasible for the Contractor to stop the work, immediately provide notification to the Engineer that the work is continuing. Failure to provide the Engineer with access to the work or failure to provide assistance in record keeping constitutes a waiver of a claim for compensation or a time extension. Such failure also releases the Department from responsibility for providing compensation or a time extension for related claims filed under Section 5.17.

- **A. Contractor Notice** Within 7 calendar days of the initial notification described above, provide the following information in writing to the Engineer:
  - **1.** The date, nature, and circumstances of the occurrence that constitutes the alleged change.
  - 2. The name and title of each Department representative aware of the alleged change.
  - **3.** A clear explanation for the position that the work associated with the alleged change is not already included in the contract.
  - **4.** The elements for which the Contractor is seeking compensation, including:
    - a. Additional labor, materials, and equipment
    - **b.** Idle equipment and labor
    - **c.** Delays or accelerated performance
  - **5.** Estimated increases or decreases to the contract price or contract time.
  - **6.** Estimated time within which the Department must respond to prevent delays or minimize Contractor costs.
- **B. Department Response** The Department will consider the Contractor's failure to provide timely initial notice and timely written information in accordance with this section as a waiver of the Contractor's entitlement to an increase in the contract price or time due to the alleged change. The Department may, at its discretion, waive any of the notice and written information requirements under this section upon the submission of a written request by the Contractor.

Within 7 days of the receipt of notice, the Engineer will respond in writing to the Contractor by:

- **1.** Confirming that a change has occurred and providing direction to the Contractor for the performance of the changed work;
- **2.** Denying that a change has occurred;
- **3.** Advising the Contractor that the Engineer will need more time to evaluate the alleged change;

- 4. Advising the Contractor that it did not submit enough information for the Engineer to determine if a change exists. The Engineer will describe the information needed and identify the date by which the additional information is needed to determine whether a change occurred. The Contractor is not entitled to an increase in the contract price or time for costs or delays resulting from the time the Contractor spends providing the additional required information after the identified date as provided by the Engineer; or
- 5. Advising the Contractor that the Department agrees that a change occurred, but that more information is required from the Contractor to determine the appropriate increase or decrease in the contract price or time. The Engineer will describe the information needed to make its determination and will identify the date by which the Contractor needs to provide the additional information. If the Engineer does not specify a time for submitting the additional information, submit the information within 30 calendar days of the date the Engineer informed the Contractor that additional information was required.

If the Contractor disagrees with the Engineer's written response or the Engineer's response is untimely, the Contractor may pursue a claim in accordance with <u>Section 5.17</u>. The Contractor's failure to comply with the notice requirements of <u>Section 4.3</u> is a waiver of the Contractor's right to file a claim.

4.4 PRICE SCHEDULE FOR MISCELLANEOUS ITEMS - The South Dakota Transportation Commission has established unit prices for the work items listed in Table 4.4. The Department will pre-enter these unit prices into the bidding package, as applicable, for original contract work described by these items. All work performed by the Contractor described by these items, whether original contract work, additional work not covered under existing contract items, or extra work, will be paid using the unit prices set forth in Table 4.4. Each unit price listed in Table 4.4 fully compensates the Contractor for the labor, material, and equipment to provide the work performed under the respective item including (but not limited to) royalty, waste of unsuitable materials, equipment rental, overhead, profit, and incidentals. Extra work performed by a subcontractor is eligible for prime Contractor administrative allowance in accordance with Section 9.4 D.8.

Table 4.4 – Price Schedule for Miscellaneous Items

Section Number	Specification Section Name	Item Name	Price per Item
5.8	Construction Stakes, Lines, and Grades	Engineer Directed Surveying/Staking	\$175.00/Hour
	Public Convenience and Safety	Water for Dust Control	\$35.00/MGal
7.7		Dust Control Chlorides (Short Term Application)	\$0.70/Lb
		Dust Control Chlorides (Long Term Application)	\$0.95/Lb
9.3	Payment for Extra Haul of Materials	Extra Haul (Scraper)	\$0.10/CY station

9.3	Payment for Extra Haul of Materials	Extra Haul (Truck)		
		Up to First 5.0 Miles		\$0.60/CY mile
		Length of Haul	Each Additional Mile	\$0.50/CY mile
			Up to First 5.0 Miles	\$0.30/Ton mile
			Each Additional Mile	\$0.25/Ton mile
120.5 A.5.	Roadway and Drainage Exc. & Emb.	Unclassif Digouts	ied Excavation,	\$15.00/CuYd
120.5 I.	Roadway and Drainage Exc. & Emb.	Water for Embankment		\$35.00/MGal
421.5	Undercutting Pipe & Plate Pipe	Undercutting Culverts		\$20.00/CuYd.
510.5 D.	Timber, Prestressed, and Steel Piles	Timber Pile Splice		\$850.00/Each
		Steel Pile Splices (*All Weights)		Splice made before either of the pieces has been driven.
		8 HP*		\$200.00/Each
		10 HP*		\$250.00/Each
		12 HP*		\$275.00/Each
		14 HP*		\$300.00/Each
		Steel Pile Splices (*All Weights)		Splice made after one of the pieces has been driven.
		8 HP*		\$400.00/Each
		10 HP*		\$525.00/Each
		12 HP*		\$650.00/Each
		14 HP*		\$750.00/Each
510.5 E.	Timber, Prestressed, and Steel Piles	Pile Shoes (Timber Pile)		\$190.00/Each
510.5 H.	Timber, Prestressed, and Steel Piles	Pile Tip Reinforcement (Steel Pile)		
		10" HP Tip Reinforced		\$200.00/Each
		12" HP Tip Reinforced		\$225.00/Each
		14" HP Tip Reinforced		\$275.00/Each
601.5	Haul Roads	Granular	Material	\$28.00/Ton
601.5	Haul Roads	Asphalt (asphalt)	Concrete (including	\$160.00/Ton
601.5	Haul Roads	Cover Ag	gregate	\$55.00/Ton
601.5	Haul Roads	Asphalt for		\$1200.00/Ton
601.5	Haul Roads		Tack, Flush & Freatment)	\$800.00/Ton
601.5	Haul Roads	Water		\$35.00/MGal
601.5	Haul Roads	Dust Cor	trol Chlorides	\$0.70/Lb
602.5	Detour Routes	Granular		\$28.00/Ton
602.5	Detours Routes	Asphalt Concrete (including asphalt) \$160.00		\$160.00/Ton
602.5	Detour Routes	Cover Aggregate		\$55.00/Ton
602.5	Detour Routes	Asphalt for Prime \$1200.00/Ton		
602.5	Detour Routes	Asphalt (Tack, Flush & \$800.00/Ton		

601.5	Detour Routes	Water	\$35.00/MGal
602.5	Detour Routes	Dust Control Chlorides	\$0.70/Lb
634.5	Temporary Traffic Control	Flagging	\$36.03/Hour
634.5	Temporary Traffic Control	Pilot Car	\$52.75/Hour

4.5 RIGHTS IN AND USE OF MATERIALS FOUND ON THE WORK - The Engineer may authorize the Contractor's use of materials found in the excavation that are suitable for completing bid items other than excavation. The Department will pay the Contractor for the excavation of such materials at the corresponding contract unit price and for the pay item for which the excavated material is used. Replace all excavation material removed with acceptable material, at the Contractor's expense. Charge for the materials so used will not be made against the Contractor. Do not excavate or remove material from within the highway right-of-way that is not within the grading limits, without the Engineer's written authorization.

Unless otherwise provided, the Contractor may temporarily use material from an existing structure in the erection of the new structure.

**4.6 FINAL CLEANING UP -** Before the Area Office makes Acceptance of Field Work, and unless otherwise approved by the Engineer, clear the highway and areas occupied by the Contractor in connection with the work of rubbish, excess materials, temporary structures, and equipment; and leave the work in an acceptable condition. Additionally, restore the project in accordance with environmental documents, permits, environmental commitments, and the contract.

## 4.7 VALUE ENGINEERING INCENTIVE

A. General - Value engineering incentive applies to those cost reduction proposals initiated and developed by the Contractor for changing the drawings, designs, specifications, or other requirements of the contract. The value engineering incentive does not apply to a cost reduction proposal unless the Contractor identifies the value engineering incentive at the time of submission to the Department.

The cost reduction proposals contemplated are those that:

- **1.** Would require a change order to this contract.
- 2. Would result in savings to the Department by providing less costly items or methods than those specified in the contract without impairing essential functions and characteristics such as service life, reliability, economy of operation, ease of maintenance, and necessary standardized features.
- **B.** The Department will process cost reduction proposals in the same manner as prescribed for a proposal which would require a change order. At a minimum submit the following information with each proposal:
  - **1.** A statement that the cost reduction proposal is submitted for consideration as a value engineering incentive.
  - 2. A description of the cost reduction proposal.

- **3.** An itemization of the requirements of the contract which would require a change and a recommendation of how to make each change.
- **4.** An estimate of the reduction in performance costs that will result from adoption of the cost reduction proposal.
- **5.** A prediction of effects the proposed change would have on other costs to the Department.
- **6.** A time schedule, or date, within which the change order must be issued to obtain the maximum cost reduction during the remainder of the contract and the reason for this time schedule.
- **7.** The dates of all previous submissions of the cost reduction proposals, including contract numbers and the actions of the Department.
- **8.** A statement as to the effect the cost reduction proposal would have on the time for completion of the project.
- C. The Department will not be liable for delay in acting upon a cost reduction proposal submitted. The Engineer's decision as to the acceptance of a cost reduction proposal will be final and will not be subject to <a href="Section 5.17">Section 5.17</a>. The Engineer may accept, in whole or in part, cost reduction proposals submitted by issuing a change order that incorporates the accepted elements of the proposal into the contract by changes to quantities of existing contract items, addition of new contract items at agreed upon unit prices or lump sums, changes to contract plans and specifications, or any combination as appropriate.

If the Engineer accepts a cost reduction proposal, the Engineer will make an equitable adjustment in the contract price and change other affected provisions of this contract in accordance with this specification and other applicable provisions in this contract. The Engineer will establish the equitable adjustment based on the Engineer's determination of the effect of the Contractor's cost reduction proposal. When the cost of performance is decreased as the result of the change, the Engineer will reduce the contract price by the following amount: 50% of the difference between the total estimated decreases in the cost of performance and the total estimated increases in the cost of performance reasonably anticipated as a result of application of the cost reduction proposal. If the contract changes associated with the value engineering proposal results in an increase in the cost of performance, this specification will not apply, and the increase will be determined in accordance with Section 9.4.

- **D.** The Engineer will not consider substitution of one bid item for another bid item resulting in a decrease in the contract amount as a saving under value engineering incentive. When the change involves the increase of one bid item and the decrease of another bid item, the change order will be made in accordance with <a href="Section 4.2">Section 4.2</a>.
- **E.** The Contractor may restrict the Department's right to use or disclose the information submitted with a cost reduction proposal for other purposes. Such restrictions must be in writing and be submitted with the cost reduction proposal.

**F.** If the Engineer accepts the cost reduction proposal, the Contractor's restriction will be void and the Department may use, duplicate, or disclose in whole or in part data necessary to utilize the cost reduction proposal.

5.1 AUTHORITY OF THE ENGINEER - Perform all work in conformance with the contract requirements to the Engineer's satisfaction. The Contractor will maintain complete responsibility for the work. The Engineer is the contract administrator and not a supervisor of the work. The Engineer will decide questions which may arise, including but not limited to the following: the quality and acceptability of materials furnished, work performed, and rate of progress of the work; all questions which may arise as to the interpretation of the plans and specifications; all questions as to the Contractor's acceptable fulfillment of the contract; and disputes between Contractors where it affects the progress of the work. The Engineer's decision is final.

The Engineer will have the authority to suspend the work wholly or in part, by written suspension order for the following reasons:

- **A.** The Contractor does not carry out contract requirements;
- **B.** The Contractor does not carry out orders from the Engineer;
- **C.** Periods of unsuitable weather:
- **D.** Conditions considered unsuitable for the prosecution of the work;
- **E.** Other condition or reason determined by the Department to be in the public interest; or,
- **F.** Other reasons mutually agreed on by the Engineer and the Contractor.
- **5.2 PLANS AND WORKING DRAWINGS** Plans will show details of structures, lines, grades, typical cross sections of the roadway, location, and design of structures and a summary of items appearing on the proposal.

Ensure that copies of the plans, specifications, and all other pertinent contract documents are available at the work site at all times

Supplement plans with working drawings, consisting of detailed plans, as required in the plans or specifications to control the work. These working drawings will include shop plans, erection plans, falsework plans, erosion control plans, or other supplementary plans or data. Working drawings must be reviewed by the Engineer. The Engineer's review will not relieve the Contractor of responsibility under the contract for completion of the work.

**5.3 CONFORMITY WITH PLANS AND SPECIFICATIONS; REMOVAL OF UNACCEPTABLE AND UNAUTHORIZED WORK** - Perform work and furnish materials in accordance with the lines, grades, cross sections, dimensions, and material requirements, including tolerances, shown on the plans, specifications, and other contract documents.

If the Engineer determines the materials furnished, work performed, or the finished product do not meet the contract requirements, immediately remove and replace or correct the work or materials at the Contractor's expense.

If the Engineer determines the materials furnished, work performed, or the finished product do not meet the requirements of the contract, but are adequate to serve their design purpose, the

Engineer may, but is not obligated to, accept the materials furnished and work performed and allow the finished product to remain in place. If the Engineer allows non-conforming work to remain in place, the Engineer will document the basis of acceptance through contract modification. This contract modification will provide for an adjustment in the contract price, to account for the reduced quality and service life of the Contractor's work.

The Department will not pay for work performed contrary to the Engineer's instructions, work performed without authorization of the Engineer beyond the lines shown on the plans, or extra work performed without authorization of the Engineer. The Engineer may order the Contractor to remove or replace, at the Contractor's expense, work performed contrary to the Engineer's instructions, work performed without authorization beyond the lines shown on the plans, or extra work performed without authorization.

If the Contractor does not comply with the Engineer's orders to remove or correct unacceptable or unauthorized work, the Engineer may deduct the cost of correcting unauthorized or unacceptable work from any monies due or to become due the Contractor.

**COORDINATION OF CONTRACT DOCUMENTS** - The contents of the bidding package are essential parts of the contract. A requirement occurring in one is as binding as though occurring in all. The contents of the bidding package are intended to be complementary and to describe and provide for a complete work.

In case of a discrepancy between the contract documents, use the following order of precedence to resolve the discrepancy. Each contract document is in descending order of precedence. Contract documents listed higher on the chart take precedence over contract documents listed lower on the chart. For example, addenda take precedence over all the other contract documents.

- 1. Addenda
- 2. Project Q&A forum
- **3.** Special provisions (for the purpose of this list, all other provisions in the contract that are not part of the other contract documents in this list are considered special provisions)
- **4.** Plans, including the standard plates
- 5. Standard specifications
- 6. Electronic design files

Addenda will govern over the project Q&A forum unless a Department response in the project Q&A forum specifically addresses an addendum issued by the Department.

In case of a discrepancy between questions on the project Q&A forum regarding the same topic, the most recent question and answer will govern over previous questions and answers. Questions will be numbered on the project Q&A forum in order of date and time posted.

In addition, dimensions shown on the plans govern over scaled dimensions.

Do not take advantage of an apparent error, omission, or ambiguity in the contract. If the Contractor discovers an error, omission, or ambiguity, immediately notify the Engineer of the apparent error, omission, or ambiguity and its perceived consequences. The Engineer will make corrections and interpretations as necessary to fulfill the intent of the contract.

#### 5.5 COOPERATION BY CONTRACTOR

**A. General -** Give the work the constant attention necessary to facilitate progress. Supervise and direct all work and all subcontractors to perform the work completely and efficiently in accordance with the contract documents.

Subcontractors will communicate all questions concerning the project to the Contractor. The Contractor and all subcontractors will cooperate with the Engineer, inspectors, and other contractors.

**B. Management and Supervision -** Provide the management and supervision required by this specification, and in accordance with this specification, regardless of the amount of work subcontracted.

Before the preconstruction meeting, provide the Engineer written designation of the Project Manager and the Project Superintendent. If the Contractor desires to make changes in designated individuals for Project Manager or Project Superintendent following the preconstruction meeting, submit in writing the change to the Engineer in advance of the change. For each crew (Contractor and subcontractor) working on the project, the crew must include a crew working superintendent/foreman.

The Department will specify the project category in the Notice to Contractors.

The Department will use the following titles, definitions, and responsibilities for Contractor and subcontractor management and supervision.

### 1. Titles and Definitions

- a. Project Manager A Project Manager is a Contractor employee that is the designated decision making authority for the Contractor and all subcontractors. For Category I and II projects, the Project Manager and the Project Superintendent may be the same individual.
- b. Project Superintendent A Project Superintendent is a Contractor employee that is in responsible charge of the contract work and directs the daily project operations. For Category I and II projects, the Contractor may designate a willing and capable subcontractor employee as the Project Superintendent. Assignment of Project Superintendent duties to a subcontractor does not relieve the Contractor of the overall management responsibilities on the project.
- **c.** Contractor or Subcontractor Working Superintendent/Foreman A working superintendent/foreman is an employee of the Contractor or subcontractor who directs a crew of employees working for the Contractor or subcontractor.

## 2. Responsibilities

- a. Project Manager The Project Manager will:
  - 1) Be accessible to the Engineer as required in Section 5.5 C.

- 2) Be capable of reading and understanding the plans and specifications.
- 3) Be experienced in and capable of accomplishing the type of work being performed.
- **4)** Schedule and lead the preconstruction meeting in accordance with <u>Section 8.3</u>.
- 5) Proactively manage the submittal and approval process.
- 6) Manage the project scheduling and schedule updating process including leading the schedule update meetings. The schedule update meetings may be led in person or remotely and will include, but not are not limited to, discussion and identification of critical work items. This responsibility may be assigned to a willing and capable subcontractor employee for Category I and II projects. Assignment of the duties to a subcontractor does not relieve the Contractor of the overall management responsibilities on the project.
- 7) Coordinate and manage all subcontractors including, but not limited to, subcontractor approval, general performance, schedule integration, and site accessibility. Contractors and subcontractors must be on site and completing work according to the project schedule throughout the life of the project such that the Contractor keeps periods of inactivity to a minimum.
- 8) Be the designated person with final decision-making authority for the Contractor and subcontractors.
- **9)** Be the designated Contractor employee to negotiate contract changes with the Engineer including, but not limited to, change orders, time extensions, and price adjustments. Do not designate this duty to a subcontractor or other entity.

If, in the Engineer's discretion, the Project Manager is not fulfilling the assigned role for one or more of the responsibilities listed above, the Engineer will provide written notice to the Contractor and require the Contractor to immediately reassign those duties to a designated, willing, and capable individual, as needed, to perform the identified duties. Promptly provide written notification to the Engineer of the identity of the person replacing the Project Manager.

### **b. Project Superintendent -** The Project Superintendent will:

- 1) Be accessible to the Project Engineer as required in Section 5.5 C.
- 2) Be capable of reading and understanding the plans and specifications and be experienced in and capable of accomplishing the type of work being performed.
- 3) Direct the daily project operations in accordance with the construction schedule.
- **4)** Lead construction progress meetings including look-ahead scheduling and planned activities of subcontractors.
- **5)** For Category III projects, prepare construction progress meeting agendas and designate a Contractor or subcontractor employee to take general notes of the

meeting including, but not limited to, future action items, the party responsible for future actions items, and a condensed summary of the major issues discussed. The designated individual will distribute the notes to all key project personnel, including the Department and affected utilities, within a reasonable timeframe mutually agreed upon by the Project Superintendent and the Engineer. If no timeframe is agreed upon, the Project Superintendent will distribute the notes no later than the end of the next business day. This practice is also required when construction progress meetings are held for Category I & II projects.

- **6)** When regularly scheduled construction progress meetings are not held, update the Engineer on changes to subcontractor activities.
- 7) Oversee and direct the daily work activities of all subcontractors on the project. Contractors and subcontractors are expected to be on site and completing work according to the project schedule throughout the life of the project such that periods of inactivity are kept to a minimum.
- 8) Be the designated representative for the Contractor and subcontractors with decision making authority for the Contractor and subcontractors to seek clarification and interpretation of contract document requirements from the Engineer.
- 9) Work through the Project Manager to negotiate project changes with the Engineer involving monetary or contract time implications including, but not limited to, change orders, time extensions, and price adjustments.

If, in the Engineer's discretion, the designee is not fulfilling the assigned role for one or more of the responsibilities listed above, the Engineer will provide written notice to the Contractor and require the Contractor to immediately reassign those duties to a designated, willing, and capable individual, as needed, to perform the identified duties. Promptly provide written notification to the Engineer of the identity of the person replacing the Project Superintendent.

- c. Contractor or Subcontractor Working Superintendent/Foreman A working superintendent/foreman is a designated employee of the Contractor or subcontractor who will:
  - 1) Direct a crew of employees working for their respective company.
  - **2)** Be onsite to supervise his or her assigned crew.
  - 3) Be capable of reading and understanding the plans and specifications and is experienced in and capable of accomplishing the type of work being performed.
  - **4)** Work with the Project Manager or the Project Superintendent or both to update the progress schedule for assigned work.
  - **5)** As appropriate for the project category type, participate in portions of construction progress meetings involving their respective company's specific work being performed.

- **6)** Update the Project Superintendent on changes to activities when progress meetings are not held as planned.
- 7) Be the designated representative for the assigned construction staff to seek clarification and interpretation of contract document requirements from the Engineer.
- 8) Work through the Project Manager to negotiate project changes with the Engineer involving monetary or contract time implications including, but not limited to, change orders, time extensions, and price adjustments.
- C. Contractor Accessibility Requirements by Project Category The Contractor and the Engineer will agree upon the specific Contractor accessibility requirements to be used for the project during the preconstruction meeting. If the Contractor and the Engineer do not agree, the Contractor will follow the requirements set forth in this section. During construction of the project, the Contractor and Project Engineer may mutually agree to revise the agreement in writing for specific needs during the project.

# 1. Category I and II

- a. **Project Manager** For Category I and II projects, the project manager will be available by phone or other mutually available technology with a response time within 2 business days.
- **b. Project Superintendent** For Category I and II projects, the project superintendent may be off site with prior notice to the Engineer. When off site, the Project Superintendent will be available by phone with a response time within 1 business day.

# 2. Category III

- **a. Project Manager -** For Category III projects, the project manager will be available by phone or other mutually available technology with a response time within 1 business day.
- **b. Project Superintendent** For Category III projects, the project superintendent may be off site with prior notice to the Project Engineer. When off site, the Project Superintendent will be available by phone with a response time of the same business day.
- 5.6 COOPERATION WITH UTILITIES The utility locations shown in the plans are approximate. Do not interpret plan locations of utility facilities as exact locations for bidding or construction purposes. The Department will notify utility companies, pipeline owners, and other parties affected by the proposed project and have 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.

Utility appurtenances within the limits of the proposed construction that are to be relocated or adjusted are to be moved by the appurtenances' owner at the owner's expense unless otherwise provided in the contract.

Notify all utility owners of the anticipated project schedule within two weeks of receiving notice to proceed. Coordinate adjustments and relocations with affected utility owners.

The Contractor will be deemed to have considered in the Contractor's bid the permanent and temporary utility appurtenances in their present or relocated positions as specified in the contract. The Department will bear costs associated with revisions to the work as specified in Section 4.2 only if the Engineer determines that both (1) the utility is in a location that affects the prosecution of the work to construct the project as designed, and (2) the utility's impact on the work was not identified in the contract. Otherwise, the Department will not allow the Contractor additional monetary compensation for delay, inconvenience, or damage sustained due to the interference from utility appurtenances or their relocation. Adjustments to contract time caused by differing site conditions or utility non-performance will be addressed in accordance with Section 8.8.

Where it is reasonably foreseeable the Contractor's operations will result in considerable damage, expense, loss, or inconvenience to adjacent property, including, but not limited to railway, telecommunications, electric, water, sewer, petroleum products, and private property, do not commence operations until the Contractor has made the arrangements necessary to protect these other interests.

Cooperate with utility owners in removing and rearranging underground or overhead utility lines or facilities to minimize interruption of service and duplication of work by utility owners.

If utility coordination is required due to actions performed by the Contractor for the Contractor's convenience, account for and protect the affected facilities. Before performing these actions, coordinate with the utility owner and provide the Engineer documentation of any agreement made. The Department will not make additional payments or provide additional time to the Contractor or the utility owner for utility relocation work created for the convenience of the Contractor. If utility companies incur costs for work performed for the Contractor's convenience, the Department will not participate in those costs and will not make payment for those costs.

If utility service is interrupted, work continuously to restore the service. Do not commence work around a fire hydrant until provisions for continued service have been approved by the local fire authority.

Utility facilities shown on the plans, if any, are for reference purposes only and may not constitute an exhaustive representation of all utility facilities within the project. Comply with South Dakota Codified Law (SDCL) 49-7A and Administrative Rule Article 20:25 addressing South Dakota One-Call notification before excavation activities.

If an underground utility is damaged, dislocated, or disturbed, notify the owner of the utility, or if unknown, the South Dakota One-Call notification center. Do not conceal, attempt to conceal, or make repairs to the utility unless authorized by the utility owner.

If the Contractor is unable to locate the underground utility or discovers that the owner has incorrectly located the facility, promptly notify the owner or the South Dakota One-Call notification center.

**5.7 COOPERATION BETWEEN CONTRACTORS** - The Department reserves the right to contract and perform additional work within the limits of or adjacent to the work covered by the contract.

When separate contracts are let within the limits of or adjacent to the project, conduct work without interfering or hindering the progress or completion of the work by other contractors. Contractors working within the limits or adjacent to the project will cooperate with each other as directed. Arrange work and place and dispose of the materials without interfering with the operations of the other contractors within the limits of or adjacent to the project. Coordinate work with the work and sequence of other contractors.

Each Contractor involved will accept all liability, financial or otherwise, in connection with the contract and will protect and hold the Department harmless from damages or claims that may arise because of inconvenience, delay, or loss experienced because of the presence and operations of other Contractors working within the limits of or adjacent to the project.

**CONSTRUCTION STAKES, LINES, AND GRADES** - The Engineer will set the necessary centerline, slope, and grade stakes unless otherwise stipulated for in the contract. The Department will not be responsible for delays in setting stakes unless the Contractor gives the Engineer 14 calendar days' notice prior to beginning work on the project and thereafter, unless the Contractor gives the Engineer 2 business days' notice, that stakes are needed.

The Department will be responsible for the accuracy of stakes set and lines established by the Engineer.

Determine the meaning of all stakes, measurements, and marks before beginning work.

Preserve stakes and marks. If the Contractor destroys or disturbs construction stakes or marks, the Department will charge the cost of replacing these stakes and marks to the Contractor.

## **Structure Staking**

- **A. Bridges -** For bridges, the Department will provide stakes to establish elevation, location, and alignment for each abutment. The Engineer will stake and reference the centerline of each abutment in the longitudinal direction and in each direction transversely.
- **B. Box Culverts -** For box culverts, the Department will provide stakes to establish elevation, location, and alignment of both ends of the box culvert. The Engineer will stake and reference the centerline of each box culvert in the longitudinal direction and in each direction transversely.

Provide all other stakes required to successfully complete construction of the structure, unless additional staking due to difficult site conditions is requested by the Contractor and agreed to by the Engineer. Verify the accuracy of all stakes.

**AUTHORITY AND DUTIES OF AREA ENGINEER** - As the representative of the Director of Operations, the Area Engineer has immediate and responsible charge of engineering details and administration of the construction project. The Area Engineer has the authority to reject defective work, and to suspend work being improperly performed.

- 5.10 DUTIES OF THE INSPECTOR Department inspectors will inspect all work done and materials furnished. This inspection may extend to any part of the work, preparation, fabrication, or manufacture of the materials to be used. The inspector will not alter or waive the provisions of the contract. The inspector will not issue instructions contrary to the contract, or act as a foreman for the Contractor. The inspector may reject work or materials until the issues can be referred to and decided by the Engineer. Neither the Department's authority to inspect all work nor actual inspections performed by the Department during construction will constitute an acceptance of work performed or operate to relieve the Contractor of the Contractor's obligation to construct the project in compliance with the plans and specifications.
- **5.11 INSPECTION OF WORK** Materials and details of the work will be subject to inspection by the Department. Allow the Engineer access to the work and furnish the Engineer with information and assistance necessary to make a complete and detailed inspection.

Notify the Engineer 24 hours in advance of a change in construction activity requiring inspection staff changes. If notification is not given, the Department may order work done or materials used without inspection by the Engineer to be removed and replaced at the Contractor's expense.

Before final acceptance of the work, remove or uncover portions of the finished work as directed by the Engineer. After examination, restore the work to the standard required by the contract. If the Engineer determines the work is acceptable, the Department will pay the Contractor for uncovering, removing, and replacing of the work removed as extra work. If the Engineer determines the work is unacceptable, the uncovering, removing, and the replacing of the work removed, will be at the Contractor's expense.

When a unit of government, political subdivision, utility, or railroad corporation is to accept or pay a portion of the cost of the work covered by the contract, a representative of the respective unit of government, political subdivision, utility, or railroad corporation will have the right to inspect the work. This inspection will not make the unit of government, political subdivision, utility, or railroad corporation a party to the contract and will not interfere with the rights of either party under the contract.

5.12 WEIGHT LIMITATIONS - Comply with weight limitations established by South Dakota Codified Laws 32-22-16 and 32-22-21 on roads and highways outside the limits of the project. Within the project limits, comply with the above referenced weight limitations and with special weight limitations imposed by the contract for the hauling of material and the movement of equipment over bridges and box culverts and the courses making up the pavement structure. When hauling materials or moving equipment on gravel cushion, the Contractor will be allowed the above referenced weight limitations plus an additional 10% of the above referenced weight limitations. Weight restrictions will not be imposed for the hauling of materials or movement of equipment on an earth subgrade, select subgrade topping, select granular backfill, or temporary granular material that will be removed and will not make up a portion of the final pavement structure.

The Contractor may submit a written request to the Engineer to cross bridges, box culverts or the courses making up the pavement structure with equipment or loads that exceed the weight limitations. This written request will include the following information: the loaded vehicle weight, empty vehicle weight, equipment make and model, tire size, axle spacing, and axle loading of the equipment proposed for use. The Engineer and the Office of Bridge Design will review this information and determine whether to grant approval.

Nothing set forth in the foregoing will relieve the Contractor of liability for damage resulting from the operation and movement of construction equipment.

**5.13 MAINTENANCE OF PROJECT** - Maintain the project during construction and until the Engineer issues the Acceptance of Field Work. The Contractor's obligation to maintain the project will consist of continuous and effective work, prosecuted daily with adequate equipment and forces, to keep the roadway and structures in satisfactory condition.

Rebuild, repair, restore, and replace all work that is injured or damaged prior to the Acceptance of Field Work. Repair damage to the project caused by factors within the Contractor's control at the Contractor's expense. Damage to work due to unforeseeable causes beyond the control of and without the fault or negligence of the Contractor, including but not limited to, acts of God, acts of the public enemy, earthquakes, tornadoes, hurricanes, catastrophic conditions such as hazardous waste materials spills or explosions, or acts of governmental authorities will be restored by the Contractor at the Department's expense in accordance with Section 4.2.

Unless otherwise specified in the Contract, maintain the project as follows:

A. Maintenance of Project During Construction: When the work begins on the roadbed or pavement structure, maintain the entire project including, but not limited to, all surface maintenance, drainage, weed control, and temporary traffic control. This responsibility will continue until the Engineer issues the Acceptance of Field Work, except for those periods when the project is suspended. Maintenance during periods of project suspension will be in accordance with Section 5.13 B.

When work begins and is limited to construction of a box culvert or structure, including berm construction, as part of a larger project, only maintain the portion of the project disturbed by the box culvert or structure work including portions of the project used for temporary traffic control.

Mobilization of equipment, material stockpiling, clearing, topsoil stockpiling, and fencing will not constitute work on the roadbed or pavement structure.

In the case of a contract involving the placement of material on, or the utilization of a previously constructed subgrade, base course, pavement, or structure, maintain the previously constructed work during construction operations.

Cost of maintenance work during construction and before the Engineer issues the Acceptance of Field Work will be incidental to the contract unit prices for the various pay items and the Contractor will not be paid an additional amount for such work.

Maintain, replace, or repair all work or material lost or damaged, without cost to the Department, during periods not covered by a written suspension order and when the work is suspended for the Contractor's failure to comply with the provisions of the contract.

B. Maintenance of Project During Suspension of Work: Prior to written suspension, prepare the project as directed by the Engineer. When the order for the resumption of work is issued, the Contractor is responsible for the maintenance of the project and will replace or repair work or materials lost or damaged during the period of suspension, remove all work or materials for maintenance, and complete the project in every respect as though the project's

prosecution had been continuous and without interference. The Department will pay for additional work made necessary by such suspensions, for reasons beyond the control of the Contractor, at contract prices or by extra work.

During all periods that work is suspended, regardless of cause, the Contractor will be responsible for the work and will take precautions as necessary to prevent damage to the work, will provide for drainage, and will erect necessary temporary structures, signs, and other facilities required to maintain the project

- C. Failure to Maintain Project: If the Contractor does not comply with the provisions of <u>Section 5.13</u>, the Engineer will notify the Contractor of such noncompliance. If the Contractor fails to remedy unsatisfactory maintenance within 24 hours after receipt of notice, the Engineer will proceed to maintain the project and will deduct the entire cost of this maintenance from monies due or to become due the Contractor.
- 5.14 MAINTENANCE AND PROTECTION OF TRAFFIC Unless otherwise provided, keep the road open to traffic in accordance with the traffic control plans. Keep the portion of the project used by public traffic in a condition that will adequately and safely accommodate traffic. Accommodation of traffic will include, but will not be limited to, providing a safely passable condition, providing flaggers in areas where the operation of construction equipment interferes with the movement of traffic, sweeping, and providing and maintaining in a safe condition pedestrian routes, temporary approaches or crossings, and intersections with trails, roads, streets, businesses, parking lots, residences, garages, and farms.

While sweeping in curb and gutter sections or in rural sections where a finished and maintained lawn extends to the edge of the shoulder, use a pickup broom having an integral self-contained storage. The pickup broom must be a minimum of 6 feet wide. While sweeping in curb and gutter sections, the sweeping operation must remove all loose material, including loose material from the gutter. The Contractor will not be required to provide snow removal.

Bear the expense of maintaining traffic over the project undergoing improvement and constructing and maintaining approaches, crossings, intersections, and other features as may be necessary, without direct compensation, except as provided below:

- A. Traffic Detour Routes See Section 602.
- **B. Traffic Diversions** Traffic diversions will be designated in the contract. Right-of-way for traffic diversions will be furnished by the Department.

Construction and removal of traffic diversions will be as directed by the Engineer.

Materials, other than temporary drainage structures, required to construct and maintain traffic diversions will be paid at their respective contract unit prices.

The cost of labor, equipment, and incidentals required to satisfactorily maintain traffic diversions and provide temporary drainage structures will be incidental to the contract lump sum price for maintenance of traffic diversion(s).

The cost of labor, equipment, and incidentals necessary to satisfactorily remove traffic diversions and dispose of materials will be incidental to the contract lump sum price for remove traffic diversion(s).

- C. Maintenance of Traffic During Suspension of Work To adequately accommodate traffic, provide surfacing materials to dimensions meeting the design standards of the roadway section for the anticipated type and volume of traffic during the period of suspension. The Department will provide the surfacing type and dimension requirements upon request. The surfacing must provide an acceptable grade elevation and provide proper drainage throughout the project leaving no bumps, dips, or vertical drop offs. During the suspension and until an order for resumption of construction operations is issued, the maintenance of the project for traffic, to the extent specified in writing by the Engineer, will be by and at the expense of the Department. When the order for the resumption of work is issued, the Contractor is responsible for the maintenance of traffic
- **D. Barricades and Warning Signs -** Provide, erect, and maintain necessary barricades, suitable and sufficient lights, signs, and traffic control devices and take all necessary precautions to protect the work and safety of the public. Provide barricades on highways closed to traffic, illuminate obstructions during hours of darkness, and provide warning signs to control and direct traffic.

Erect warning signs at locations where operations may interfere with the use of the road by traffic, and at intermediate points where the new work crosses or coincides with an existing road.

Barricades, warning signs, lights, temporary signals, and other protective devices must conform to the current edition of the MUTCD at the time of letting, and the details shown in the plans.

**E. Opening Sections of Project to Traffic** - The Department may open certain sections of the work to traffic prior to completion or acceptance of the work. Such opening will not constitute acceptance of the field work or a waiver of provisions of the contract. Repair damage to the roadway caused by traffic due to factors within the Contractor's control at the Contractor's expense. Repair damage to the roadway caused by traffic due to unforeseeable causes beyond the control of and without the fault or negligence on the Contractor as directed by the Engineer and the Department will make payment as provided in <u>Section 4.2</u>.

If the Contractor is dilatory in completing shoulders, drainage structures, or other features of the work, the Engineer may order all or a portion of the project open to traffic. In such an event, the Contractor will not be relieved of liability or responsibility during the period the work is so opened and prior to Acceptance of Field Work. Conduct the remainder of construction operations with a minimum obstruction to traffic.

5.15 CONTRACTOR'S RESPONSIBILITY FOR THE WORK - The Contractor is responsible for the work until the Acceptance of Field Work is made by the Engineer. Following the Acceptance of Field Work, but before Final Acceptance, the Contractor will be responsible for injury or damage to work resulting from acts, omissions, neglect, or misconduct in the Contractor's manner or method of executing the work.

During all periods that work is suspended, regardless of cause, the Contractor will be responsible for the work and will take precautions as necessary to prevent damage to the work, will provide for drainage, and will erect necessary temporary structures, signs, and other facilities required to maintain the project. Properly and continuously maintain in an acceptable growing condition all newly established plants, seedbeds, and sod furnished under the contract. Protect new tree growth and other important vegetative growth against injury.

Bear all costs for work performed during periods of work suspension not covered by a written suspension order, or when the work is suspended for the Contractor's failure to comply with the provisions of the contract, or when work is suspended by option of the Contractor.

### **5.16 PROJECT ACCEPTANCE**

- A. Partial Acceptance of Work Upon the Contractor's written request, the Engineer may partially accept completed portions of the work. The Department will not consider partial acceptance as constituting acceptance of the field work, or a waiver of contract provisions. The decision to partially accept a portion of the project is at the discretion of the Engineer. The Department will maintain the partially accepted portion of the project, including repairing damage caused by the public.
- B. Field Work Inspection Upon completion of field work, including authorized modifications and final cleanup, submit a written request to the Engineer for a field work inspection. The Engineer will respond to the Contractor's request within 5 business days to coordinate the inspection. Following the inspection, the Engineer will provide the Contractor a list of any remaining items of work to be completed and features to be corrected by the Contractor prior to Acceptance of Field Work. Complete and correct the work at no additional cost to the Department.
- C. Acceptance of Field Work If, after the field work inspection, the Engineer determines the work conforms to the requirements of the contract, the Engineer will issue the Acceptance of Field Work. Such notice is not to be construed as an acceptance by the Engineer of defective or unauthorized work subsequently identified prior to Final Acceptance.
- **D. Final Project Review:** Upon Acceptance of Field Work, the Department will begin a process to reconcile the project records and quantities.
- **E. Final Acceptance** Final Acceptance will not be made until the Contractor has completed all corrective work and the Engineer determines all contract requirements have been met. Final Acceptance does not void or alter contract terms. Issuance of Final Acceptance constitutes the Engineer's satisfaction with the physical construction work and all documentation associated with the contract.
- 5.17 CLAIMS FOR ADJUSTMENT AND DISPUTES A claim is a written demand by the Contractor seeking the payment of money, the extension of contract time, or the granting of other relief, including the modification of contract terms. All disputes arising under or related to the contract that are not resolved using the process set forth in <a href="Section 4.3">Section 4.3</a> will be resolved using the process set forth in this section.
  - **A. Claim Submittals** Notify the Engineer in writing of the intent to file a claim within 10 days from the Engineer's final response in accordance with <u>Section 4.3</u>. The Contractor's failure

to give the required notification or to provide the Engineer proper facilities and assistance in keeping strict account of actual costs will constitute a waiver of the claim for additional compensation in connection with the work already performed before the notice date. If the Engineer has kept account of the costs involved, the act of keeping account will not be construed as proving or substantiating the validity of the claim.

Continue the work, including the work associated with the claim, while the parties complete the procedures established in this section. After completion of the work on which the claim is based, complete and submit to the Area Engineer a Contract Claim Form (DOT-248), furnished by the Department. Complete and submit this Contract Claim Form within 90 calendar days after the Acceptance of Field Work. The Engineer may grant a written extension to this 90-calendar day period if circumstances warrant. Interest due to the Contractor in accordance with <a href="Section 9.7">Section 9.7</a> will not apply to the extended 90 calendar day period if the 90-calendar day period is extended beyond 120 calendar days after the date of the Engineer's Letter of Final Acceptance.

Describe in detail in the Contract Claim Form all claim items being submitted for review. The Contract Claim Form must contain adequate information for the Engineer to determine the validity of the claim. The Contractor's entitlement to money compensation is limited to the compensation allowed by <u>Section 9.4</u> and the Contractor's entitlement to an extension of time is limited to the amount allowed by <u>Section 8.8</u>. The Contractor has the burden of proof to establish entitlement, causation, and damages. At a minimum, submit the following information in order and properly labeled:

- **1.** A fully completed, signed, and notarized Contract Claim Form. The written justification citing the basis for the claim will clearly reference relative sections of the plans, specifications, and other contract documents supporting the claim (label Page 1.1 through Page 1.X).
- 2. An itemized list of the amount of extra compensation, time, or both providing all necessary dates, locations, and items of work claimed including, but not limited to, an itemized breakdown of actual costs for materials and supplies, labor, equipment, delays, overhead, and profit. Allowable costs submitted for each of the individual claim items will be verified using generally accepted contract cost principles and procedures (label Page 2.1 through Page 2.X).
- Records such as startup schedules, construction schedule updates, daily superintendent reports, diaries, photographs, and other documents supporting the claim (label Page 3.1 through Page 3.X).

By submission of the claim form, the Contractor agrees to allow the Department to examine and copy the Contractor's records to verify the claim. Upon written notice by the Engineer, allow the Department to examine the Contractor's books, records, documents, accounting procedures, and accounting practices. The Contractor waives entitlement to compensation, an extension of time, or other relief for itself and its subcontractors, vendors, and suppliers if the records identified by the Department are not made available to the Department for examination and audit. The Department's decision to conduct a review of these documents does not reduce the documentation requirements of a written claim.

Nothing in this section establishes the Contractor's entitlement to compensation or a contract time extension contrary to the terms of <u>Section 4.2</u>, <u>Section 4.3</u>, <u>Section 8.8</u>, <u>Section 9.4</u>, or other contract provisions.

- **B. Subcontractor Claims** No subcontractor may maintain a claim action against the Department for payment relating to the work without presenting the claim to the Contractor and obtaining the Contractor's written certification of the following:
  - **1.** The Contractor has reviewed the subcontractor's claim and has determined it is fully documented and supported in accordance with the contract;
  - 2. The Contractor will pay the subcontractor the full amount in the event of a favorable resolution of the subcontractor's claim; and
  - **3.** The subcontract and all releases or waivers executed by the subcontractor do not bar payment to the subcontractor.

In addition to the claim submittal requirements in <u>Section 4.3</u> and this section, the subcontractor's claim submission must include a copy of the subcontract and all releases or waivers signed by the subcontractor in favor of the Contractor. Do not assign or otherwise dispose of the Contractor's interest in the subcontractor's claim without prior written consent of the Engineer. If the Contractor refuses to certify a claim submitted by a subcontractor, then the Contractor waives entitlement to compensation, and extension of contract time, and other relief from the Department for the subcontractor's claim. The Department will not review and will reject claims pursued by subcontractors or suppliers directly with the Department that the Contractor refuses to certify. The Contractor must be an active participant in the subcontractor's claim process.

Subcontractor claims do not alter the relationship between the Department, the subcontractor, and the Contractor. All communication between the subcontractor and the Department must pass through the Contractor and the Contractor must be present at all negotiations and meetings involving the Subcontractor and the Department.

C. Claim Review Process - Once the Area Engineer has received a properly submitted claim form, do not submit additional justification, either written or verbal, throughout the remainder of the Department claim review process unless the Contractor can establish the additional offered information would not have been available to a reasonably prudent Contractor at the time of the initial submission or unless the inclusion of additional information is agreed to by the Department. If the Department allows the Contractor to submit additional information, submit the information on a Contract Claim Form and certify that the additional information is true and accurate.

Claims for additional compensation, extensions of contract time, or other relief may not be added to the original claim form packet after the original claim form has been submitted to the Area Engineer. Additional claims must be submitted separately in accordance with these specifications.

Within 30 calendar days following receipt of a properly submitted claim, the Area Engineer will furnish written notification to the Contractor indicating approval, partial approval, or disapproval of the claim. If the Area Engineer denies the claim, in whole or in part, the Area

Engineer will submit all documentation justifying the denial of the claim to the Region Engineer and the Contractor.

If the Area Engineer does not approve the claim in full, the Contractor may elect to have the claim reviewed by the Region Engineer by notifying the Region Engineer, in writing, within 14 calendar days of receiving notice of the Area Engineer's action on the claim.

The Region Engineer will have 30 calendar days following the written notification from the Contractor to review and respond to the submitted claim materials. The Region Engineer will furnish written notification to the Contractor indicating approval, partial approval, or disapproval of the claim.

If the Region Engineer does not approve the claim in full, the Contractor may elect to have the claim reviewed by the Department. Notify the Region Engineer within 14 calendar days of receipt of the Region Engineer's notification. The Region Engineer will submit the Contract Claim Form and all supporting information for approval or denial of the claim to the Claim Review Panel Secretary. The Department Secretary may issue a written decision on the claim within 30 calendar days or schedule the claim to be reviewed before the Claim Review Panel as described below.

The Claim Review Panel Secretary will establish a suitable date for the Claim Review Panel to review the claim. The Claim Review Panel will consist of the following: Department Secretary, Director of Planning and Engineering, State Construction & Maintenance Engineer, and the remaining Region Engineers who are not responsible for the project for which the claim was submitted, or a panel member's designee. The Department Secretary will serve as Chairperson of the Claim Review Panel. A Claim Review Panel Member may choose to be excused from a review if the Claim Review Panel member feels there may be a conflict of interest, either real or perceived. The Chairperson of the Claim Review Panel may choose to designate a replacement panel member if a panel member is excused. The Chairperson of the Claim Review Panel may also ask additional Department staff members to provide additional input to the Claim Review Panel.

The Contractor, Region Engineer, Area Engineer, and appropriate project and central office staff or their designees may be present at the claim review meeting to discuss and respond to questions the Claim Review Panel might have regarding the claim. Notify the Department at least 14 calendar days before the meeting date if the Contractor intends to bring legal counsel to the Claim Review Panel meeting.

The Department Secretary will issue a written decision on the claim within 30 calendar days of the Claim Review Panel meeting.

Upon mutual consent of the Contractor and the Department Secretary, nonbinding mediation proceedings may commence once the Department has made final determination following the Department Secretary's final review.

If the claim is determined valid, in whole or in part, the Department will pay that part of the claim determined valid.

- 6.1 SOURCE OF SUPPLY AND QUALITY REQUIREMENTS Use materials that conform to the contract requirements. To expedite the inspection and testing of materials, notify the Engineer of the proposed sources of materials prior to delivery. The Engineer may conditionally approve materials at the source of supply before the Contractor begins delivery. If the Engineer determines a conditionally approved source does not produce specified materials, furnish materials from another source.
- 6.2 LOCAL MATERIAL SOURCES AND SITES The contract may designate sources of local materials and sites. Determine the amount of equipment and work required to produce material conforming to contract requirements. For designated option material sources, it may not be feasible to ascertain the limits and quality of an entire source from samples. Variations will be considered as usual and are to be expected. The Engineer may require the Contractor to procure material from any portion of a source, including below water, and may reject portions of the source as unacceptable.

The Department may secure an easement to haul materials across private property and include the terms of the easement in the contract. The Department will assign the easement to the Contractor and require the Contractor to perform the Department's obligations under the terms of the easement. The Department will make all payments due the landowner under the terms of this easement.

## A. Department Designated Sources and Sites and Designated Option Sources and Sites:

If applicable, designated option sources and sites will be included in the contract. An option secured by the Department will be transferred and assigned to the Contractor. Perform all Department obligations under such option agreement. The Department will make all payments due the landowner under the terms of this option. The Department will deduct royalty from monies due the Contractor. The Contractor will be responsible for costs connected with the removal of materials from such sources and sites, except as otherwise provided in the contract and the following:

- **1.** When material is removed under the terms of a Department secured option, the Department will bear the royalty cost of reject material left at the pit site.
- 2. The Department will make payment for excavation and furnishing material from a designated source as borrow unclassified excavation in accordance with <u>Section 120.5</u> <u>G</u>. The Department will make payment for excavation and furnishing material from a designated option source for borrow as option borrow excavation in accordance with <u>Section 120.5 E</u>.
- **3.** The Department will pay the Contractor for topsoil replaced on designated sources as provided in <u>Section 120.5 G</u>. The Department will pay the Contractor for topsoil replaced on designated option borrow sources as provided in <u>Section 120.5 E</u>.
- **4.** The Department will not accept the project or release the Contractor until written releases have been secured from property owners of designated sources and haul routes across private property used by the Contractor, or in lieu thereof, a written statement from the Engineer exempting this requirement.

- 5. If the Department designated source does not provide materials meeting specifications in the quantities shown on the plans or as ordered by the Engineer, furnish satisfactory materials from other sources. The Department will consider the substitute source as a substituted Contractor furnished source and the requirements of <a href="Section 6.2 B.2">Section 6.2 B.2</a> will apply. The Department will make payment for excavation and furnishing material from the source, including extra haul, at the price agreed upon by the Department.
- **6.** The Department will bear the cost of crop damage, loss of use, seeding, fertilizing, mulching, and fencing under the terms of the Department secured option.
- 7. When the Contractor uses a designated option source, comply with the restoration provision set forth in the option, mining license regulations, and paragraphs a through g below, to the satisfaction of the Engineer.
  - **a.** Reclaim and shape surface mined areas to control erosion, eliminate hazards to domestic animals and wildlife, protect public health and safety, protect the environment, and provide for future beneficial land use.
  - **b.** Dispose of refuse, equipment, and materials from the pit operation in a manner to create the least amount of unsightliness and unproductive areas and not pollute surface or groundwater.
  - c. Revegetate land as agreed upon by the Department, the local conservation district, and the landowner which establishes a diverse, effective, and long-lasting vegetative cover. For future land use other than crop land, provide revegetation that is capable of self-regeneration and is equal in extent of cover to the natural vegetation of the surrounding area.
  - **d.** When it is necessary to remove overburden to remove construction aggregates, remove topsoil from the affected land and segregate from other spoil. Protect the topsoil from wind and water erosion and from contamination by acid or toxic material.
  - e. Minimize disturbance to the prevailing hydrologic balance of the affected land and surrounding area and to the quality and quantity of water in surface and groundwater systems both during and after the pit operation and during reclamation. Conduct operations to protect waters from pollution by siltation, waste, debris, and toxic fluids or materials.
  - **f.** Stabilize and protect surface areas of the affected land, including spoil piles, to control erosion and associated air and water pollution. Control noxious weed infestations during phases of the pit operation and reclamation.
  - g. Protect areas outside of the affected land from slides, subsidence, and damage occurring during the mining operation and reclamation. Reduce high walls to a slope not greater than the angle of repose upon abandonment of the mining operation, unless such a reduction would create conditions more detrimental than preservation of the high wall. Prior to slope reduction, limit access to, and warn the public of the high wall area. Precautions will include fencing and posting of warning signs. If the

Board of Minerals and Environment deems high wall reduction impossible, impractical, or aesthetically undesirable, the board will prescribe adequate fencing.

**B. Contractor Furnished Sources and Sites -** For Contractor furnished sources that will impact an environmental resource including, but not limited to, wetlands, cultural resources, threatened and endangered species, critical habitat, and bodies of water, develop an appropriate mitigation plan.

When the Contractor provides sources of material, the Department will process necessary samples to determine the suitability of the material.

Materials obtained from established commercial sources under the jurisdiction of the South Dakota Department of Agriculture and Natural Resources Minerals and Mining Program are not subject to the provisions of this specification for pit restoration.

When the Contractor uses a Contractor furnished source, comply with the restoration provision set forth in all agreements between the Contractor and the affected landowner, or the mining license regulations.

1. Specified Contractor Furnished Sources and Sites - When material deposits or waste sites are not designated in the plans, furnish sources acceptable to the Engineer.

When material is removed under terms of a Contractor furnished source, bear all cost of reject material left at the pit site.

If the Contractor furnishes material under the contract item of Contractor furnished borrow, the Department will make payment for excavation and furnishing material from the source as Contractor furnished borrow excavation and make payment for topsoil, seeding, fertilizing, and mulching in accordance with <u>Section 120.5 F</u>.

2. Substituted Contractor Furnished Sources and Sites - Bear all costs of exploring and developing other sources. Prior to substituting a Contractor furnished source for a designated option source, submit a pit change request to the Engineer for approval. The Contractor is responsible for acquiring the necessary environmental clearances associated with the Contractor furnished source.

If the Contractor elects to use material from a source other than that designated, acquire the necessary rights to take or deposit materials from the source and pay all costs related thereto, including extra haul.

If the Contractor elects to substitute a Contractor furnished borrow source for a designated option borrow source, the Department will make payment for excavation and furnishing material from the source as option borrow excavation and make payment for topsoil, seeding, fertilizing, and mulching in accordance with <a href="Section 120.5">Section 120.5</a> E.

**SAMPLES, TESTS, CITED SPECIFICATIONS** - The Engineer will inspect, test, and approve materials for use in accordance with relevant contract requirements. For QC/QA asphalt concrete, the Contractor and the Engineer will perform inspection, sampling, and testing in accordance with the relevant contract requirements. Furnish certifications for all materials designated in the contract or the Department's Materials Manual to be accepted by certification.

The Department's Materials Manual assigns tiers based on how critical the materials are to the project.

The Department reserves the right to inspect, test, reject, and require replacement of materials that do not meet the requirements of the contract at no additional cost to the Department. The Engineer will furnish copies of tests to the Contractor or the Contractor's representative, when requested. If the contract requires the Contractor to perform inspection, sampling, or testing, provide the Engineer with copies of all inspection, sampling, and testing results.

The Engineer will sample and test in accordance with the most recent, at the time of the letting, standard or approved interim standard methods of the Department's Materials Manual, AASHTO, or ASTM. The Department specifies procedures by the naming convention of the applicable document. The Department's Materials Manual notes procedures by "SD" followed by the appropriate procedure number. A representative of the Department will take samples and perform tests at the expense of the Department except as otherwise stipulated.

If a discrepancy exists, the order of precedence is as follows:

- (1) Department's Materials Manual
- (2) AASHTO
- (**3**) ASTM

A representative from the Area office must witness the sampling performed by the Contractor of materials for acceptance testing. The Area office representative will take possession of the samples. The Department may allow the Contractor to transport and deliver the samples only when the Area office representative has sealed the samples with a tamper evident tag with proper documentation attached.

All individuals providing acceptance testing and independent assurance testing of materials or acceptance inspection will meet the requirements of the SDDOT Materials Testing and Inspection Certification Program Manual.

Testing equipment identified in the SDDOT Materials Testing and Inspection Certification Program Manual will be calibrated at the designated frequencies, procedures, and documented according to the manual.

The Department's Central Materials Laboratory will meet the requirements of the SDDOT Central Materials Laboratory Quality System Manual.

- **6.4 PLANT INSPECTION -** The Engineer may inspect materials at the source. If the Engineer inspects materials at the plant, meet the following conditions:
  - **A.** The Engineer will have the Contractor's and producer's cooperation and assistance.
  - **B.** The Engineer will have full access to all material manufacture and production areas of the plant.
  - **C.** The Contractor will provide and maintain adequate safety measures.

The Department reserves the right to retest and reject materials previously tested and conditionally accepted at the source of supply if the material delivered to the work does not meet the requirements of the contract.

6.5 STORAGE OF MATERIALS - Store materials to ensure the preservation of quality and fitness for the work. Store materials to facilitate prompt inspection. The Contractor may use approved portions of the right-of-way for the storage of materials and for the Contractor's plant and equipment. Provide additional required space at the Contractor's expense. Do not use private property without written permission of the owner or lessee. Furnish copies of such written permission to the Engineer. Restore storage sites to their original condition, or a condition agreed to by the landowner, at the Contractor's expense.

Do not store or stockpile materials on bridges or box culverts without the Department's Bridge Construction Engineer's written permission. Submit details of proposed material storage to the Engineer a minimum of 14 calendar days prior to beginning storage, including, but not limited to, material type, weight, duration of storage, and location on the structure. The Engineer will forward this information to the Bridge Construction Engineer. The Engineer and the Bridge Construction Engineer will review this information and determine whether to grant approval.

- **6.6 HANDLING MATERIALS** Handle materials to preserve material quality and fitness for the work. Transport aggregates from the storage site to the work in vehicles constructed to prevent loss or segregation of materials after loading and measuring.
- **6.7 UNACCEPTABLE MATERIAL** The Engineer may reject material not conforming to the contract requirements. Immediately remove rejected material from the work. Do not use rejected material until the defects have been corrected and the material approved by the Department.
- **6.8 DEPARTMENT FURNISHED MATERIAL** Material designated to be furnished by the Department will be delivered or made available to the Contractor at points specified in the Contract.

The Contractor will be responsible for material delivered. The Engineer will deduct from monies due for all shortages, deficiencies, and damage occurring to the material after delivery. The Engineer will deduct demurrage charges, resulting from the Contractor's failure to accept the material at the designated time and point of delivery, from monies due. The Department will consider the cost of handling and placing materials after delivery and excise tax due to the South Dakota Department of Revenue for the value of the Department furnished material, noted in the plans, as included in the contract price for the item in which the material is used.

6.9 BUY AMERICA - Iron & steel, manufactured (composite) products, and construction materials must be produced in the United States in accordance with these Buy America requirements. Buy America preference applies to articles, materials, and supplies required to be consumed in, permanently incorporated into, or affixed to the completed project. Buy America preference does not apply to tools, equipment, and supplies such as temporary works and other temporary items brought to the project and removed at or before the final completion of the project. Temporary items are items that are not part of contract specifications, items that are not required in the design or final working drawings, and items that are removed or could be removed but allowed to remain in place if requested by the Contractor and approved by the Engineer.

- A. Determination of Material Category: The Department, in the Department's discretion, will classify an article, material, or supply into one of the following categories, (1) Iron & Steel, (2) Manufactured (Composite) Product, (3) Construction Material, or (4) Excluded Material. Articles, materials, and supplies will be considered to fall into only one single category of Buy America requirements. Some contract items are composed of multiple components that may fall into different categories. Individual components and composite items will be classified based on their nature when they arrive on the work site.
  - 1. Iron & Steel: The Department will classify items wholly or predominantly composed of iron or steel or a combination of both as iron & steel.

Predominantly of iron or steel or a combination of both means that the cost of the iron and steel content exceeds 50% of the total cost of all its components. The cost of iron and steel is the cost of the iron or steel mill products (such as bar, billet, slab, wire, plate, or sheet), castings, or forgings utilized in the manufacture of the product and a good faith estimate of the cost of iron or steel components.

- 2. Manufactured (Composite) Products: The Department will classify items not specifically classified as iron & steel, construction materials, or excluded materials which are fabricated, combined, or manufactured through a manufacturing process into a commercially available composite item as manufactured (composite) products. The Department will classify items consisting of 2 or more of the listed construction materials combined through a manufacturing process as a manufactured (composite) product. The Department will classify items consisting of 1 of the listed construction materials combined with a material not listed through a manufacturing process as a manufactured (composite) product.
- **3. Construction Materials**: The Department will classify only the materials specifically listed as construction materials as construction materials.

Minor additions of articles, materials, supplies, or binding agents to a construction material will not change the categorization of the construction material.

- 4. Excluded Materials: The Department will classify cement and cementitious materials; aggregates such as stone, sand, or gravel; and aggregate binding agents or additives as excluded materials.
- **B. Iron & Steel:** Structural steel and other iron and steel products will be produced in the United States. To be considered produced in the United States, all manufacturing processes, from the initial melting stage through the application of coatings, must occur in the United States. The application of a coating is interpreted to mean all processes that protect or enhance the value of material or product to which it is applied; examples are epoxy coatings, galvanizing, and painting.

Buy America does not apply to iron ore, scrap, pig iron, and processed, pelletized, and reduced iron ore.

If iron ingots or steel billets produced in the United States are sent out of the country for a subsequent manufacturing process and then are brought back into the United States, the full

value of the iron or steel as it reenters the country (including the original billet cost and any coatings) will be considered foreign.

If foreign iron or steel components are combined with other components into a fabricated or assembled manufactured (composite) product, the foreign iron or steel content of the manufactured (composite) product is not only the value of the foreign iron or steel components, but also the pro-rata value of the fabrication and assembly labor and overhead used in the combining the foreign iron or steel and other components into the finished manufactured (composite) product, including coatings.

- **C. Manufactured (Composite) Products:** Iron and Steel components of manufactured (composite) products will comply with the Buy America requirements for iron & steel. Final assembly of all manufactured (composite) products must occur in the United States.
- **D. Construction Materials:** Construction materials will be produced in the United States. Each construction material is followed by a standard for the material to be considered produced in the United States.

A construction material is an article, material, or supply that is one of the following:

- **1.** Non-ferrous metals. All manufacturing processes, from initial smelting or melting through final shaping, coating, and assembly, occurred in the United States.
- 2. Plastic and polymer-based products including polyvinylchloride, composite building materials, and polymers used in fiber optic cables. All manufacturing processes, from initial combination of constituent plastic or polymer-based inputs, or, where applicable, constituent composite materials, until the item is in its final form, occurred in the United States.
- **3.** Glass including optic glass. All manufacturing processes, from initial batching and melting of raw materials through annealing, cooling, and cutting, occurred in the United States.
- 4. Fiber optic cable including drop cable. All manufacturing processes, from the initial ribboning (if applicable), through buffering, fiber stranding and jacketing, occurred in the United States. All manufacturing processes also include the standards for glass and optical fiber, but not for non-ferrous metals, plastic and polymer-based products, or any others.
- **5.** Optical fiber. All manufacturing processes, from the initial preform fabrication stage through the completion of the draw, occurred in the United States.
- **6.** Lumber. All manufacturing processes, from initial debarking through treatment and planing, occurred in the United States.
- **7.** Engineered wood. All manufacturing processes from the initial combination of constituent materials until the wood product is in its final form, occurred in the United States.
- **8.** Drywall. All manufacturing processes, from initial blending of mined or synthetic gypsum plaster and additives through cutting and drying of sandwiched panels, occurred in the United States.

- E. Unavailability of Compliant Items: If the Contractor discovers a Buy America compliant item or items does not exist or an item becomes unavailable, the Contractor will immediately notify the Department. The Contractor will furnish written documentation of the Contractor's complete efforts to obtain a compliant item. This documentation will include a complete contact log with dates and times of the Contractor's efforts to obtain a compliant item, the responses received, and any correspondence between the Contractor and potential suppliers of the item which demonstrate efforts to obtain a compliant item. If, based on review of the documentation provided, the Department determines all potential options to obtain a compliant item have been exhausted; the Department will determine the appropriate course of action.
- **F. Non-Compliant Items:** If the Engineer, in the Engineer's discretion, determines an article, material, or supply provided to the project does not comply with these Buy America requirements but is available; the following will apply:
  - 1. If the non-compliant item is not permanently incorporated into the completed work, the Contractor will not permanently incorporate the item and will replace the non-compliant item with an item that complies with the Buy America requirements specified herein at the Contractor's expense.
  - 2. If the non-compliant item has been permanently incorporated into the completed project; the Engineer, in the Engineer's discretion, will determine if the non-compliant item must be removed and replaced including any completed work at the Contractor's expense or if the non-compliant item may remain in place in accordance with both of the following requirements:
    - a. Minor quantities of non-compliant iron & steel may be incorporated in the Department's discretion based on the Department's review of the Contractor's documented invoiced material costs, provided the invoiced material costs of all noncompliant iron & steel do not exceed 0.1% of the total contract amount or \$2,500, whichever is greater.
    - **b.** Minor quantities of non-compliant iron & steel, manufactured (composite) products, and construction materials may be incorporated in the Department's discretion based on the Department's review of the Contractor's documented invoiced material costs, provided the total value of the non-compliant items does not exceed 5.0% of the total applicable costs for the project or \$1,000,000, whichever is less.

The total value of the non-compliant items will include non-compliant iron & steel, non-compliant manufactured (composite) products, and non-compliant construction materials. The total value of the non-compliant items will not include excluded materials or other items within the scope of an existing Buy America waiver.

The total value of an item includes the cost of the material plus the cost of transportation to the project site, as evidenced by delivery receipt, but does not include the labor costs to assemble and install at the project site.

The total applicable project costs will be defined as the total value of materials used in the project that are subject to a domestic preference requirement, including the total

value of any iron & steel, construction materials, manufactured (composite) products, and other items within the scope of an existing Buy America waiver. The total applicable project costs will not include excluded materials.

### 7 LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC

- 7.1 LAWS TO BE OBSERVED Keep fully informed of and comply with all federal, state, and local laws, ordinances, and regulations, and all orders and decrees of bodies or tribunals having jurisdiction or authority that may affect those engaged or employed on the work, or that may affect the conduct of the work. Protect and indemnify the Department and the Department's representatives against all claims or liability arising from or based on the violation of laws, ordinances, regulations, orders, or decrees, whether by the Contractor, Subcontractors, Suppliers of materials or services, or their employees.
- 7.2 PERMITS, LICENSES, AND TAXES Procure required 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. Include all charges, fees, and taxes in the contract unit price for each contract item. For extra work performed at agreed upon prices, include excise tax due to the South Dakota Department of Revenue in the proposed unit or lump sum price. For extra work performed on a force account basis, the Department will compensate the Contractor for excise tax due to the South Dakota Department of Revenue in accordance with <a href="Section 9.4 D.10">Section 9.4 D.10</a>.
- 7.3 PATENTED DEVICES, MATERIALS, AND PROCESSES If the Contractor employs a design, device, material, or process covered by letters of patent or copyright, provide for their use by legal agreement with the patentee or owner. The Contractor and the surety will indemnify and save harmless the Department, affected third party, and political subdivision from any and all claims for infringement resulting from the use of such patented design, device, material or process, trademark, or copyright and indemnify the Department for costs, expenses, and damages caused by reason of an infringement during the prosecution or after the completion of the contract.
- **7.4 RESTORATION OF SURFACES OPENED BY PERMIT** The right to approve a permit to construct or reconstruct utility service in the highway or street is reserved by the Department for the authorities of the municipality in which the work is done. The Contractor is not entitled to consideration for damages for delays resulting from work performed under a permit.
  - When an individual, firm, or corporation is authorized through a duly executed permit from the Department, allow parties bearing such permit to make openings in the highway. When ordered by the Engineer, make the necessary repairs resulting from this work. This work will be paid for as extra work or as provided in the contract and will be subject to the same requirements as the work performed under the contract.
- 7.5 FEDERAL AID PARTICIPATION When the United States Government participates in the cost of the work covered by the contract, the work will be under the supervision of the Department but subject to the inspection and approval of United States Government officials in accordance with the applicable federal statutes and rules and regulations. Such inspection will not make the United States Government a party to this contract and will not interfere with the rights of the parties to the contract.
- **7.6 SANITARY HEALTH AND SAFETY PROVISIONS** Provide and maintain in a neat, sanitary condition accommodations for the use of employees as necessary to comply with the requirements of the State and local Boards of Health, or of other bodies or tribunals having jurisdiction. Attention is directed to Federal, State, and local laws, rules, and regulations concerning construction safety and health standards.

All workers within the right-of-way who are exposed either to traffic or to construction equipment within the work area will wear high-visibility safety apparel intended to provide conspicuity during both daytime and nighttime usage and meeting the Performance Class 2 or 3 requirements of the ANSI/ISEA 107 publication entitled "American National Standard for High-Visibility Safety Apparel and Headwear" or equivalent revisions.

**7.7 PUBLIC CONVENIENCE AND SAFETY** - Conduct the work to minimize obstruction to traffic. Provide for the safety and convenience of the general public and the residents along the highway and the protection of persons and property in accordance with <u>Section 5.14</u>.

Eliminate dust in compliance with local ordinances and eliminate dust which causes a hazard or nuisance by the application of water or other acceptable dust control measure in the amounts and at a frequency directed by the Engineer. Apply dust control in accordance with Section 205. The Department will make payment for water for dust control and dust control chlorides necessary for the convenience and safety of the public in accordance with Section 4.4.

- 7.8 RAILWAY-HIGHWAY PROVISIONS When the Contractor is required to or elects to haul materials across the tracks of a railway, make arrangements with the railway company for new private crossings required or for the use of existing private crossings. If the Railway Company requires it, pay all costs for Railroad Protective Insurance unless a bid item for Railroad Protective Insurance is included in the contract.
- 7.9 CONSTRUCTION OVER OR ADJACENT TO NAVIGABLE WATERS Perform all work over, on, or adjacent to navigable waters without interfering with the navigation of the waterways and in a manner that no existing navigable depths will be impaired, except as allowed by permit issued by the U.S. Coast Guard or the U.S. Army Corps of Engineers.
- **7.10 USE OF EXPLOSIVES** When the use of explosives is necessary for the prosecution of the work, do not endanger life, property, or the new work. Assume responsibility for all damage resulting from the use of explosives.

Comply with all laws and ordinances as well as 23 CFR 635.108, 29 CFR 1910, 29 CFR 1926, and FHWA Form 1273 Part VII, whichever is the most restrictive in the use, handling, loading, transportation, and storage of explosives and blasting agents.

Notify property owners and public utility companies having structures or facilities in proximity to the site of the work of the intention to use explosives. Such notice will be given sufficiently in advance to enable these potentially affected parties to protect their property from injury.

**7.11 PROTECTION AND RESTORATION OF PROPERTY AND LANDSCAPE** -Preserve all public and private property and do not disturb, damage, or move land monuments and property marks until the Engineer has witnessed or referenced the location of the affected property.

Assume responsibility for all damage or injury to property, resulting from an act, omission, neglect, or misconduct in the manner or method of executing the work, or due to defective work or materials. The Contractor's responsibility will not be released until completion of the project and Final Acceptance is made, as noted by the date shown on the Region Engineer's Letter of Final Acceptance.

Assume responsibility for all direct or indirect damage or injury to public or private property resulting from or on account of all acts, omissions, neglect, or misconduct in the execution of the work, or in consequence of the non-execution of the work. Do not indiscriminately drive or park vehicles within the right-of-way. Restore the property to a condition similar or equal to that existing before such damage or injury occurred by repairing, rebuilding, or restoring and making good such damage or injury as directed by the Engineer and at the Contractor's expense.

Take all necessary precautions to prevent fires during construction. Obtain all necessary permits and provide adequate fire protection while performing burning, blasting, welding, and cutting.

7.12 FOREST PROTECTION - In carrying out work within or adjacent to State or National Forests, comply with regulations of the South Dakota State Fire Marshall, United States Forest Service, South Dakota Department of Agriculture and Natural Resources, and other authorities having jurisdiction, governing the protection of forests. Comply with sanitary laws and regulations in the performance of work within or adjacent to forest areas. Keep the areas in an orderly condition, dispose of refuse, and obtain permits for the construction and maintenance of construction camps, stores, warehouses, residences, latrines, cesspools, septic tanks, and other structures in accordance with the requirements and instructions issued by the Forest Supervisor.

Prevent and suppress forest fires and require employees and subcontractors, both independently and at the request of forest or fire officials, to prevent, suppress, and to assist in preventing and suppressing forest fires and to immediately notify a forest official of the location and extent of all observed fires.

7.13 RESPONSIBILITY FOR DAMAGE CLAIMS - Indemnify the State of South Dakota, the Department, and the State's officers and employees, from all suits, actions, or claims of any character, including suits in which the State, Department, or the State's officers and employees are sued, brought because of any injuries or damages received or sustained by any person, persons, or property arising or allegedly arising at least in part from the Contractor's operations; or on account of or in consequence of any neglect in safeguarding the work; or through use of unacceptable materials in constructing the work; or because of any act or omission, neglect, or misconduct of said Contractor; or because of any claims or amounts recovered from any infringements of patent, trademark, or copyright; or from any claims or amounts arising or recovered under the "Workers' Compensation Act", or any other law, ordinance, order, or decree.

The obligations of the Contractor will not extend to the liability of the architect or Engineer, their agents or employees arising out of:

- (1) The preparation or approval of maps, drawings, opinions, reports, surveys, change orders, designs, or specifications, or,
- (2) The giving of or the failure to give directions or instructions by the architect, or Engineer, their agents or employees provided such giving or failure to give is the primary cause of the injury or damage.

The Contractor's obligation to indemnify will include the payment of reasonable attorney fees and other costs of defense. So much of the money due the Contractor under and by virtue of the contract as may be considered necessary by the Department for such purpose may be retained for the use of the State; or in case no money is due, the Contractor's surety may be held until such suit or suits, action or actions, claim or claims for injuries or damages as aforesaid will have been settled and suitable evidence to that effect furnished to the Department. Money due the

Contractor will not be withheld when the Contractor produces satisfactory written confirmation from the Contractor's insurer that adequate public liability insurance and property damage insurance providing coverage for such particular claims as may be made is in force, that the Contractor's insurer has accepted liability for any such suits, actions, or claims against the state of South Dakota, the Department, and the Department's officers and employees, and the Contractor provides evidence the claim has been submitted to the Contractor's insurer. A copy of a certificate of insurance, without further confirmation of coverage for the particular claim being made, will not be sufficient to satisfy the requirement of written confirmation.

7.14 LIABILITY INSURANCE - Provide occurrence-based, per project aggregate liability insurance policies executed by a corporation qualified and authorized to write the policies in the State of South Dakota. The insurance will cover all ongoing and completed operations under the contract, whether performed by the Contractor or by subcontractors. The insurance will provide an additional insured endorsement in favor of the State of South Dakota, the Department, and the Department's officers and employees on a primary and non-contributory basis. Liability coverage must be limited to claims not barred by sovereign immunity. All policies of insurance must include a waiver subrogation against the State of South Dakota, the Department, and the Department's officers and employees by endorsement or otherwise. The State of South Dakota, the Department, and the Department's officers and employees do not hereby waive sovereign immunity for discretionary conduct as provided by law. However, the policy of insurance must provide that the insurance carrier will not deny coverage or deny any of the rights and benefits accruing to the State of South Dakota, the Department, and the Department's officers and employees as additional insureds under the policy for reasons of sovereign immunity unless and until a court of competent jurisdiction has ruled in favor of the defense(s) of sovereign immunity asserted.

Secure and maintain insurance in full force and effect before starting the work and until completion of all work required and accepted by the Department. Before starting the work, furnish certificates of insurance certifying that the policies will not be changed or cancelled until 30 calendar days' written notice has been given to the Department. The certificates of insurance will provide evidence that the Contractor carries sufficient liability insurance to protect the public from injuries sustained by reason of pursuing the work, and that Workers' Compensation Insurance meets the requirements of the South Dakota Workers' Compensation Law. The State reserves the right to obtain complete, certified copies of all required insurance documents, policies, or endorsements at any time.

Failure to maintain the insurance as required constitutes a material breach of contract. The Department may, after giving 5 business days' notice to the Contractor to correct the breach, immediately terminate the contract in accordance with <u>Section 8.10</u> or may procure or renew such insurance and pay all premiums. The Department may demand repayment of premium costs by the Contractor or may offset the premium costs against funds due the Contractor from the Department.

The General Liability and Automobile policies must provide an additional insured endorsement in favor of the State of South Dakota and must contain a "Waiver of Subrogation" to waive any right of recovery that the Insurance company may have against the State. The coverage required under this agreement must be primary for the State and must not be affected by any other insurance or coverage obtained by the State on their own behalf.

Any right of the State to receive indemnification and insurance will not give rise to a duty on the part of the State to exercise its rights or status for the benefit of the State, or any other person or entity.

- **7.15 FURNISHING RIGHT-OF-WAY** The Department will secure necessary rights-of-way in advance of construction. The Department will identify exceptions in the contract.
- **7.16 PERSONAL LIABILITY OF DEPARTMENT'S AUTHORIZED REPRESENTATIVES** The Department's authorized representatives acting as agents and representatives of the Department will not be liable either personally or as employees of the Department when carrying out and exercising the power or authority granted under the contract.
- 7.17 NO WAIVER OF LEGAL RIGHTS The Department will not be precluded or estopped by a measurement, estimate, or certificate made either before or after the completion and acceptance of the work and payment therefor, from showing the true amount and character of the work performed and materials furnished by the Contractor, nor from showing that such measurement, estimate or certificate is untrue or is incorrectly made, nor that the work or materials do not in fact conform to the contract. The Department will not be precluded or estopped, notwithstanding such measurements, estimates, or certificates and payments in accordance therewith, from recovering from the Contractor or sureties, or both, such damages as the Department may sustain by reason of the Contractor's failure to comply with the terms of the contract. Neither the acceptance of the Department, or a representative of the Department, nor a payment for or acceptance of the whole or any part of the work, nor an extension of time, nor possession taken by the Department, will operate as a waiver of any portion the contract or powers herein reserved, or of a right to damages. A waiver of a breach of the contract will not be held to be a waiver of other or subsequent breaches.
- 7.18 ENVIRONMENTAL CONSIDERATIONS AND COOPERATION WITH ENVIRONMENTAL REGULATORY AGENCIES Comply with all federal, state, and local laws and regulations controlling environmental protection. Project specific requirements may be found in the plans and specifications.

The responsibility for obtaining all necessary environmental requirements and permits will fall under the responsibility of the Department or the Contractor according to the party responsible for securing the source, area, or site of material or construction activity, as described below.

A. Project Construction and Department Directed Work Activities outside Plan Work Limits: For project construction work specifically addressed in the plans and Department directed work activities that disturb soil and are not specifically addressed in the plans, the Department will obtain all required environmental clearances.

If the Contractor discovers, finds, locates, or becomes aware of a cultural or historical site or other unanticipated environmental effect, immediately suspend operations at the site or sites and immediately notify the Engineer. The Engineer will contact the Department's Environmental Engineer to determine an appropriate course of action.

Aid and assist in all salvage or preservation programs as directed within the plan work limits. Additional work and expenses caused by compliance with requests for assistance will be considered as extra work in accordance with provisions of <a href="Section 4.2 E">Section 4.2 E</a>. Aid and assist in all salvage or preservation program as directed within the project limits. Additional work and

expenses caused by compliance with requests for assistance will be considered as extra work in accordance with provisions of Section 4.2 E.

Install erosion and sediment control measures to prevent or reduce the discharge of pollutants resulting from construction activities.

Do not cross streams, rivers, or other waterways with construction equipment except at temporary stream crossing structures approved by the Engineer.

Construction activities within wetland areas are prohibited except for those designated within the construction limits and specifically addressed in the plans and the US Army Corps of Engineers 404 permit.

Properly handle, store, and dispose of litter, construction debris, construction chemicals, and concrete washout to minimize pollutants entering storm water discharges.

Maintain a 50-foot minimum buffer zone of undisturbed soil ground- cover vegetation around streams and wetlands, material sources, stockpile sites, storage areas, and waste areas. If project circumstances prevent the Contractor from maintaining the minimum 50-foot buffer zone, provide additional erosion and sediment controls as noted in the SWPPP.

- B. Material Sources, Stockpile Sites, Storage Areas, and Waste Sites and Contractor Work Sites Outside of Plan Work Limits: Do not use material sources, stockpile sites, storage areas, and waste sites for the project or Contractor work sites outside of plan work limits prior to the responsible party obtaining the required environmental clearances.
  - Department Designated and Designated Option: For Department designated and designated option material sources, stockpile sites, storage areas, and waste sites, the Department will obtain all required environmental clearances.

If the Contractor discovers, finds, locates, or becomes aware of a cultural or historical site or other unanticipated environmental effect, immediately suspend operations at the site or sites and immediately notify the Engineer. The Engineer will contact the Department's Environmental Engineering office to determine an appropriate course of action.

Aid and assist in all salvage or preservation programs as directed within Department designated areas. Additional work and expenses caused by compliance with requests for assistance will be considered as extra work in accordance with provisions of <a href="Section 4.2">Section 4.2</a></a><a href="E">E</a>.

2. Contractor Furnished: For Contractor furnished material sources, material processing sites, stockpile sites, storage areas, staging areas, plant sites, and waste sites and Contractor work sites outside of plan work limits including but not limited to, off project private work, the Contractor is responsible to obtain all required environmental clearances. The Contractor is encouraged to consider the use of locations previously cleared or disturbed by farming, mining, or construction activities. Obtain the necessary environmental clearances and permits prior to the commencement of work and comply with all restrictions attached to these clearances and permits associated with Contractor's use of area for the project.

Do not create staging areas, store materials and equipment, or store borrow or waste materials in areas labeled as an Environmental Sensitive Site in the contract documents.

The Contractor is responsible for the arrangement and payment of specialized environmental consultants necessary to perform this work. The Department will not make payment for costs associated with obtaining the required clearances, certifications, and permits. The following are required:

a. Cultural Resources Clearance: All earth disturbing activities not designated within the plans require cultural resources clearance. Arrange and pay for a cultural resources survey, a records search, or both. A record search may be sufficient for clearance; however, a cultural resources survey by a qualified archaeologist may be required.

The Contractor may obtain a list of individuals with professional qualifications to perform this work from the South Dakota Historic Preservation Office.

For work activities outside of the plan work limits, submit the cultural resources clearance to the Engineer prior to beginning an earth disturbing activity.

The Department will not be responsible for costs incurred by the Contractor or for delays or other inconveniences encountered in obtaining the cultural resources clearance.

Cultural resources clearance will not relieve the Contractor of the responsibility of complying with all laws and regulations which govern the salvage and preservation of all cultural resources discovered during execution of the work.

If the Contractor discovers, finds, locates, or becomes aware of a cultural or historical site or other unanticipated environmental effect during construction operations, immediately suspend construction operations at the site or sites and immediately notify the Engineer. The Engineer will contact the Department's Environmental Engineer to determine an appropriate course of action.

Aid and assist in all salvage or preservation programs as directed. Pay all costs related to additional work and expenses caused by compliance with requests for assistance.

b. US Army Corps of Engineers 404 Permit and South Dakota Department of Agriculture and Natural Resources 401 Water Quality Certification: Soil disturbing activities outside the plan work limits in or around "Waters of the United States", which include jurisdictional streams and wetlands, may require a 404 permit from the USACE and a 401 Water Quality Certification from the SDDANR. The Contractor is responsible to coordinate with the USACE and SDDANR for a determination on the need for a 404 Permit or 401 Certification.

For regulatory purposes under the Clean Water Act, the term wetlands means "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas."

- c. Endangered Species Act Clearance: No activity is authorized under permits that are likely to jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act, or that is likely to destroy or adversely modify the critical habitat of such species. The Contractor will notify the Project Engineer if a listed species or critical habitat might be affected or is near the project and will not begin work on the activity until notified by the Project Engineer that the requirements of the Endangered Species Act have been satisfied, and that the activity is authorized. Information on the location of threatened and endangered species and their critical habitat can be obtained from the USFWS.
- d. Public Lands: The Contractor's use of public lands must not impact the following:
  - Lands meeting the criteria of 49. U.S.C. 303, 23 CFR 774: Section 4(f) of the DOT Act.
  - Lands meeting the criteria of 16 U.S.C. 4601-4, 36 CFR 59: Section 6(f) of the Land and Water Conservation Fund Act.
- C. Structure Work Over or Within Waterways: Prevent construction waste and debris, from bridge construction or demolition, from entering or being placed into wetlands, streams, rivers, and lakes.

Perform excavation, dewatering, and removal of temporary works in waterways in such a manner as to prevent siltation. If deemed necessary by the Engineer, pump water from cofferdams to a settling basin or a containment unit.

Perform operations required within rivers and streams, specifically jetting or spudding, within silt containment areas, cofferdams, silt fence, sediment barriers, or other devices to minimize migration of silt off the project.

- D. Temporary Works in Wetlands and Waters of the United States: Whenever temporary work is required in wetlands or waters of the United States, submit a plan to the Engineer for approval that utilizes temporary structures, timber, soil with geotextile fabric, or other suitable matting. The plan must conform to the requirements of Section 423.3 A. The plan must include erosion and sediment controls in accordance with the specifications. The Contractor's plan must include a schedule for installation and removal of temporary materials so a field inspection can certify the materials were properly removed and the area properly restored. The Contractor is responsible for all corrective action required to complete this work.
- **7.19 SOUND CONTROL REQUIREMENTS** Comply with all local sound control and noise level rules, regulations, and ordinances which apply to work performed pursuant to the contract. All engines, used for any purpose on the job or related to the job, will be equipped with a muffler of a type recommended by the manufacturer and maintained in a satisfactory working condition.
- **7.20 AMERICANS WITH DISABILITIES ACT** The Contractor, by signing and submitting a bid proposal, agrees that it will provide services in compliance with the Americans with Disabilities Act. and all amendments.

**7.21 RESTRICTION OF BOYCOTT OF ISRAEL** - In accordance with the State of South Dakota Office of the Governor Executive Order 2020-01 the following will apply to all contracts unless the amount being bid is less than \$100,000:

By submitting a bid proposal for this contract, the bidder certifies and agrees the following information is correct for the bidder and all subcontractors (all tiers) and suppliers with five (5) or more employees:

The bidder, in preparing the bid proposal or in considering proposals submitted from qualified potential suppliers and subcontractors, or in the solicitation, selection, or commercial treatment of any supplier or subcontractor; has not refused to transact business activities, has not terminated business activities, and has not taken other similar actions intended to limit its commercial relations, related to the subject matter of the bid proposal, with a person or entity on the basis of Israeli national origin, or residence or incorporation in Israel or its territories, with the specific intent to accomplish a boycott or divestment of Israel in a discriminatory manner. It is understood and agreed that, if this certification is false, such false certification will constitute grounds for the Department to reject the bid proposal submitted by the bidder on this contract and terminate any contract awarded based on the bid. The bidder agrees to provide immediate written notice to the Department if, during the term of the contract awarded to the bidder, the bidder no longer complies with this certification. The bidder further agrees such noncompliance may be grounds for contract termination.

### 8 PROSECUTION AND PROGRESS

**SUBCONTRACTING** - Do not subcontract, assign, transfer, or otherwise dispose of the contract or contracts in whole or in part, without the Engineer's prior written approval. Submit all requests to subcontract using the Department's Request to Sublet Work form. Submit, on the Request to Sublet Work form, requests by subcontractors to subcontract to a lower tier subcontractor. No subcontractor, regardless of tier, may begin work without the Engineer's written approval.

The Contractor may subcontract up to 70% of the original contract amount, based on the contract unit prices, but must perform not less than 30% of the total amount of the original contract with the Contractor's own organization.

The Contractor's own organization includes the following: workers employed and paid directly by the Contractor, equipment owned or rented by the Contractor, and materials purchased by the Contractor for the Contractor's use in performing contract work. The Contractor's own organization does not include employees paid by, equipment owned by, or materials purchased by or incorporated into work by subcontractors, assignees, or agents of the Contractor.

The term "subcontract" does not include the following: 1) the production of material outside the project limits, including but not limited to, the production of sand, gravel, crushed stone, batched concrete aggregates, ready mix concrete, off-site fabricated structural steel, other off-site fabricated items, and materials delivered by established and recognized commercial plants; or 2) delivery of these materials to the work site from an off-site location in vehicles owned or operated by such plants or by recognized independent or commercial hauling companies. Project limits are defined as being within 1/2 mile of the project work limits.

An item designated in the contract as a "specialty item" may be performed by subcontract, and the cost of a designated specialty item performed by subcontract will be deducted from the total amount of the original contract before computing the percentage of work performed by the Contractor's own organization.

Include all pertinent provisions of the prime contract in every subcontract. No subcontract will relieve the Contractor of the Contractor's responsibilities and liability under the contract and bonds.

- **8.2 NOTICE TO PROCEED** The Department will provide a written Notice to Proceed to the Contractor within 10 business days following the receipt from the Contractor of the signed contract and related documents. Do not begin work prior to the date of the Notice to Proceed.
- **8.3 CONTRACTOR LED PRECONSTRUCTION MEETING** The Engineer will provide the Contractor the Authorization Form for Preconstruction Meeting and the Contractor's Submittal List after the date of the Notice of Award and no later than 10 business days after the date of the Notice to Proceed.

The Contractor's authorized representative, as indicated on the Signature Authorization Form, will complete, in its entirety, the first page of the Authorization Form for Preconstruction Meeting and will initial each proceeding section. By initialing each section, the Contractor confirms comprehension of each section.

The Contractor's Submittal List includes two types of submittals; 1) information required before scheduling a preconstruction meeting and 2) information required before the Contractor begins related work. The Department reserves the right to request additional information not included in the original list of required submittals. The list of required submittals will include, but is not limited to, proposed sequence changes, shop drawings, permits, certifications, mix designs, labor compliance, equal employment opportunity, and disadvantaged business enterprise documents. The Engineer will update the Contractor's Submittal List with project specific requirements and cross out or delete those that do not apply before providing the document to the Contractor.

Before scheduling the preconstruction meeting, complete and provide to the Engineer all items on the Contractor's Submittal List that are required as described in 1) above. If the Contractor cannot complete and provide an item or items required before scheduling the preconstruction meeting, contact the Engineer to establish a mutually agreed upon date when the required submittal or submittals will be completed and submitted.

Do not begin work on an item before providing the Engineer with all required information for the applicable work item and the appropriate office has approved the information, if necessary. Make every reasonable effort to deliver the required submittals at the earliest possible time.

When the Contractor has provided the Engineer all required submittals, except those mutually agreed upon to be provided later, schedule a preconstruction meeting with the Engineer.

Within 2 business days following the Contractor's scheduling the preconstruction meeting with the Engineer, the Engineer will prepare and send the Contractor a meeting confirmation and the Preconstruction Meeting Outline.

The Engineer will edit and amend the Preconstruction Meeting Outline as necessary to meet the specific needs of the project. The Engineer will complete the project information and the Department information before sending the form to the Contractor.

Upon receipt from the Engineer, complete the Contractor's portion of the Preconstruction Meeting Outline and add additional discussion items as needed. Send the meeting notice and final Preconstruction Meeting Outline to the Engineer, all subcontractors, utility companies, railroad companies (if applicable), and all suppliers at least 5 business days prior to the preconstruction meeting.

The Engineer will send the notice of the meeting and the final Preconstruction Meeting Outline of discussion items to other government entities and other principal stakeholders involved in the project at least 3 business days before the preconstruction meeting.

At the discretion of the Engineer, the preconstruction meeting may be held in person, videoconference, or over the phone.

The Contractor's Project Manager will lead the meeting discussion as described in the Preconstruction Meeting Outline. The Engineer will prepare the meeting minutes, including a list of unresolved items, and distribute the minutes to all attendees and principal stakeholders within 5 business days following the preconstruction meeting.

## **8.4** PROSECUTION AND PROGRESS - Include the proposed starting date with the signed contract.

Provide sufficient materials, equipment, and labor to complete the project within the contract time requirements. By executing the contract, the Contractor warrants that it can complete the work within the allowable contract time.

Regardless of the reason, should the Contractor discontinue the work, provide at least a 24-hour notice to the Engineer before discontinuing and before resuming operations. Prior to discontinuing work, coordinate with the Engineer to accommodate traffic. Accommodation may include removal or modification of traffic control devices at no additional expense to the Department.

A. Progress Schedules: Prepare and submit to the Engineer a schedule in accordance with this section and in accordance with the current edition of the AGC's Construction Planning & Scheduling Manual. In case of a conflict between the Construction Planning & Scheduling Manual and the scheduling requirements in the contract, the contract requirements will take precedence.

Include activities for the Contractor, the Department, subcontractors, vendors, suppliers, utilities, railroads, government agencies or authorities, and other parties involved with the project correlated to the contract time completion requirements.

The construction schedule is used as a tool for the Contractor to monitor and manage work progress. The construction schedule is also used as a tool for the Department to monitor work progress and as a resource for time extension determinations in accordance with Section 8.8 and this section. Conduct all construction activities in accordance with the construction schedule. Ensure that all contracting parties follow the construction schedule regardless of the amount of work subcontracted.

If the Contractor or Engineer discovers an error after the Engineer accepts the schedule, correct the error in the next schedule submission.

Float is a shared commodity available to the project and is not for the exclusive use of either party. Do not sequester float. Examples of sequestered float include relationships between unrelated activities, overly restrictive relationships between activities, and activities with excessively long durations.

If the critical path of the accepted schedule shows a different project type than specified in the contract, the Contractor may request, and the Engineer may agree to change the project type.

Incorporate expected adverse weather days, expected seasonal conditions, and seasonal limitations into the progress schedule. Describe in the narrative the method used to incorporate the expected adverse weather days shown in <u>Section 8.4 I</u> into the schedule. The Contractor's method of incorporating expected adverse weather days must clearly identify the days for use in progress schedule updates and any potential time extension requests. Include State of South Dakota holidays in the schedule as non-workdays unless permission to work on a holiday is granted by the Region Engineer. When all construction activities are stopped for anticipated winter shutdown, include those days as non-workdays.

Include an estimate of the duration of utility company work activities identified in the contract documents. If the contract documents provide estimated durations for utility company work, use the estimated durations from the contract documents in the progress schedule.

- **B. Project Categories:** Prepare the schedule in accordance with the requirements of the applicable project category listed below. The project category, project type, and project geographic zone are defined for each contract in the Notice to Contractors.
  - Category I: Prepare a schedule in accordance with <u>Section 8.4 D</u> Written Narrative Progress Schedule. The Department will also accept a schedule prepared in accordance with <u>Section 8.4 E</u> - Bar Chart Method (BCM) Progress Schedule, or <u>Section 8.4 F</u> -Critical Path Method (CPM) Progress Schedule.
  - Category II: Prepare a schedule in accordance with <u>Section 8.4 E</u> BCM or <u>Section 8.4 E</u> CPM.
  - 3. Category III: Prepare a schedule in accordance with Section 8.4 F CPM.
- C. Startup Schedule and Baseline Schedule Submittals: Submit a baseline schedule to the Engineer prior to the scheduling of the preconstruction meeting. For Category II and III projects, the Contractor may submit a startup schedule. The startup schedule must contain a detailed breakdown of all work activities for the first 15 working days from the start of work for a Category II project or 30 working days from the start of work for a Category III project. At a minimum, the startup schedule must meet the requirements of a BCM.

If the Contractor elects to submit a startup schedule, schedule a construction scheduling meeting between the Department and the Contractor at the time of submitting the startup schedule. The Contractor and Engineer will review the startup schedule and the proposed construction baseline schedule and collaborate to include all remaining work activities for the remainder of the project. Submit a complete baseline schedule within 20 calendar days of the scheduling meeting. Do not show actual work progress in the complete baseline schedule.

Within 5 business days of the complete baseline schedule submission, the Engineer will accept or require revisions to the schedule. If the Engineer does not accept or does not require revisions to the schedule within 5 business days of receiving the complete baseline schedule, or a longer timeframe if mutually agreed upon by the Contractor and the Engineer, the construction schedule as submitted will be considered accepted by the Engineer.

If revisions are needed prior to acceptance of the baseline schedule, make the required revisions and submit the revised baseline schedule to the Engineer within 10 business days or a mutually agreed upon amount of time. Submit a narrative with each revision identifying the differences between the previous and current schedule submissions. The Engineer will accept or require further revisions to the revised schedule within 2 business days of the date of receiving the revised baseline schedule.

Acceptance of a schedule by the Engineer does not modify the contract or constitute endorsement or validation by the Engineer of the Contractor's logic, activity durations, or assumptions in creating the schedule. Acceptance of a schedule does not relieve the Contractor of the obligation to complete all work within the contract time completion

requirements and does not guarantee that the Contractor can perform the work as scheduled. Acceptance of a schedule does not serve to excuse omissions or errors in the Contractor's schedule and the Contractor will be responsible to correct all omissions and errors at no additional cost or time.

The Contractor will preface each construction schedule with the following information:

- 1. Project Number;
- 2. PCN;
- 3. Contractor;
- **4.** Original contract time allowed including phase, interim, substantial, and field work completion requirement(s) specified;
- **5.** Type of construction schedule (startup, baseline, or update); and,
- **6.** Data date of the schedule as applicable by scheduling type.
- **D. Written Narrative Progress Schedule:** The written narrative progress schedule consists of a written description of the Contractor's work plan. At a minimum, the written description must include:
  - 1. A description of the overall plan to complete the project;
  - Estimated starting and completion dates of each activity;
  - **3.** Applicable project milestones, including notice to proceed, the start date of the work, and the completion date associated with the expiration of the contract time;
  - **4.** Description of work to be performed within each including the type and quantity of equipment and labor;
  - **5.** Description of the location on the project where each activity occurs;
  - **6.** Description of planned production rates by major work activities (example: cubic yards of excavation per day/week);
  - **7.** Description of planned workdays per week, holidays, number of shifts per day, and number of hours per shift;
  - **8.** An estimate of all periods which an activity is planned to be idle or partially idle including the beginning and end dates of the reduced production or idle timeframe;
  - **9.** Description of expected and critical delivery dates for equipment and materials that may affect timely completion of the project;
  - **10.** A description of how the schedule accounts for adverse weather days;

- 11. Description of the critical path; and,
- **12.** Identification of the vendor, supplier, subcontractor, or utility company to perform the activity including stating all assumptions made by the Contractor in the scheduling of the subcontractor's, supplier's, or utility company's work.
- **E.** Bar Chart Method (BCM) Progress Schedule: The BCM progress schedule consists of a bar chart diagram and a written narrative meeting the following requirements:
  - 1. Bar Chart Diagram: The Contractor must show the following in the bar chart diagram:
    - a. Planned start and completion dates for each activity, the duration of each activity (stated in working days), and the sequencing of all activities. Show activities in chronological order. Do not use durations longer than 15 working days unless approved by the Engineer;
    - **b.** Applicable project milestones, including notice to proceed, the start date of the work, and the completion date associated with the expiration of the contract time.
    - c. Identification of all critical activities;
    - **d.** All planned non-work periods, including winter shutdowns;
    - **e.** Estimated dates of the procurement of significant materials and articles of special manufacture;
    - **f.** Activities related to the preparation and submission of working drawings, shop plans, and other data specified for review by the Engineer;
    - **g.** Activities related to specified activities by the Department and third parties (including, but not limited to, review of working drawings and material quality, mix design, mix design verification, and compatibility test results from the Department's Central Materials Laboratory);
    - **h.** Show the time needed to perform each activity and the activity's relationship in time to other activities; and,
    - i. Dates related to work by the Department and other parties, including utility companies.

In addition, provide enough space for each activity to allow 2 additional plots parallel to the original time span plot. Use one spot for revision of the planned time span and one spot for showing the actual time span achieved.

**2. Written Narrative:** If all information required in <u>Section 8.4 D</u> is shown in the BCM construction schedule, the Contractor will not be required to provide a written narrative. For required information not included in the BCM diagram, submit a written narrative consisting of the missing information required by <u>Section 8.4 D</u>.

**F. Critical Path Method (CPM) Progress Schedule:** Submit an electronic copy of a CPM schedule containing the entire schedule. The CPM schedule must be in a format compatible with current industry standard scheduling software.

Calculate the CPM schedule using retained logic. Calculate total float based on finish dates. Calculate schedule durations as contiguous. Calculate start-to-start lags from early dates.

- 1. Include the following activities as applicable:
  - **a.** Work to be performed by the Contractor, subcontractors, and suppliers;
  - **b.** Work to be performed by the Department and third parties;
  - **c.** The project start date, scheduled completion date, and other milestones required by the contract;
  - **d.** Start and finish dates for phases and site access or availability dates;
  - **e.** Submittal review and approval activities, including time for the Department's approval as specified in the contract;
  - **f.** Fabrication, delivery, installation, testing, and similar activities for materials, plants, and equipment;
  - **g.** Sampling and testing requirements;
  - Settlement or surcharge periods;
  - i. Cure periods;
  - j. Utility notification and relocation;
  - **k.** Installation, erection, and removal, and similar activities related to temporary systems or structures;
  - **I.** Final inspection, final cleanup, and similar activities;
  - **m.** Required acceptance testing, inspections, or similar activities;
  - **n.** Activities representing acquisition of permits or acquisition of right of way.
- **2.** Do not use or allow the following:
  - a. Negative Lags;
  - **b.** Start-to-finish relationships;
  - **c.** Open ends; only the first activity will have no predecessor and only the last activity will have no successor;

- d. Constraints, other than constraints specified in the contract for phasing, staging, milestones, or project completion activities. The Contractor may use additional constraints when approved by the Engineer. Provide a note explaining why all constraints are being used;
- **e.** Activities with durations of more than 15 working days, unless approved by the Engineer.
- 3. Activity Attributes: Provide the following attributes for each activity in the schedule:
  - a. A unique alphanumeric Activity ID;
  - **b.** A unique activity description that includes a verb, object, and location;
  - c. A duration stated in workdays;
  - **d.** Codes for responsibility and phasing or staging;

The following is an example of the activity attributes required:

Activity ID	Description	Duration	Code
21	Concrete Paving Sta. 76+94 to 79+74	2 days	Ph: 1B

- 4. Written Narrative: Submit a written narrative that includes:
  - **a.** An explanation of the overall plan to complete the project;
  - **b.** The number of crews and the following for each crew:
    - The number and types of workers;
    - The number and types of equipment;
    - The working days per week, the number of shifts per day, the number of hours per shift, and the holidays to be observed; and
    - · The schedule activities being performed;
  - **c.** A description of how the schedule accounts for adverse weather days;
  - **d.** The quantity and estimated production rates for each critical activity;
  - **e.** Activities requiring coordination with the Department, other parties, or both;
  - **f.** A description of the critical path.
- **5. Gantt Chart Printout:** Submit a Gantt chart printout in .pdf format of the following:
  - **a.** An "All Activities" printout showing all activities grouped by phase, state, and location, with critical activities shown in red;
  - **b.** An "All Activities by Responsibility" printout showing the entire schedule grouped together by the parties responsible for the activities;

- **c.** A "Critical Path" printout showing the critical path to project completion.
- **d.** Ensure that each Gantt chart printout contains the following columns:
  - Activity ID;
  - activity name;
  - original duration (OD);
  - remaining duration (RD);
  - start;
  - finish; and
  - total float.
- **G. Construction Schedule Updates:** Submit schedule updates monthly after approval of the baseline schedule. Identify all changes to the previous schedule and their impact on the schedule in the update. Provide the first monthly schedule update as an update of the baseline schedule with a data date coordinated with the date of the pay estimate. Submit monthly schedule updates within 7 calendar days of the schedule data date. Before submitting the monthly schedule update, meet with the Engineer to review and agree on the progress achieved in the previous month. Show the progress agreed upon in the meeting in the monthly schedule update. Include actual start dates, actual finish dates, the agreed upon adverse weather days, and the new remaining durations for activities that show as started and continuing.

The Engineer will respond within 7 calendar days of receipt of the monthly schedule update by approving the monthly schedule update, rejecting the monthly schedule update and identifying the reason for the rejection, or asking for more information. Continue to submit monthly schedule updates even if the Engineer has not accepted the previous monthly schedule update. The requirements for the monthly schedule update are, other than these requirements, the same as for the baseline schedule.

- H. Revised Schedules: The Engineer may request a revised schedule if one of the following occurs:
  - **1.** The Contractor substantially deviates from the sequence or durations of planned work in the current monthly schedule update;
  - 2. the Engineer asks the Contractor to show how it will recover a forecast completion date that is delayed more than 14 calendar days from the dates established by the contract time:
  - 3. the Engineer concludes that there is a substantial difference between the actual sequence or actual duration of the work, and the work as depicted in the monthly schedule update;
  - **4.** the issuance of a change order revises the planned sequence of work or the method and manner of its performance;
  - **5.** the Engineer extends the contract time; or
  - **6.** there are significant changes to the critical path or near-critical paths of the schedule.

If the Engineer requests a revised schedule, submit the revised schedule within 7 calendar days of the request. The Engineer will respond within 7 calendar days of receipt of a revised schedule by approving the revised schedule, rejecting the revised schedule and identifying the reasons for rejection, or asking for more information. The requirements for the revised schedule are, other than these requirements, the same as the requirements for the baseline schedule. A Contractor will not interpret a Department directive to prepare a revised schedule as a directive to accelerate the work.

I. Expected Adverse Weather Days: Figure A and Table 1 below depict the typical number of adverse weather days expected for a given month based on historical records. Expected adverse weather days are cumulative over the time period covered by the accepted baseline schedule. The time period begins on the date the Contractor plans to actively pursue completion of the work and ends when the Contractor completes the work or when work is suspended for any reason. Utilize the expected adverse weather days shown in Table 1 when establishing and updating the construction schedule.

The expected adverse weather days shown in Table 1 include all days (7 days per week) of each month including holiday and weekends. Prorate the numbers shown in Table 1 based on the combination of the Contractor's and their subcontractors planned work schedules. For example, if the combined schedule of the contractors is to regularly work 5 days per week, use 5/7 of the number shown in Table 1.

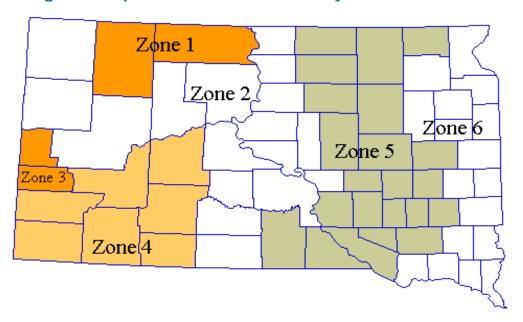


Figure A. Expected Adverse Weather Days for South Dakota

**Tables 1. Expected Adverse Weather Days for Grading Projects** 

	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6
Jan	18	18	16	16	22	24
Feb	19	18	12	14	19	21
Mar	12	10	9	8	11	13
Apr	6	5	8	5	6	6
May	6	6	8	6	6	6
June	7	6	7	6	7	8
July	5	5	6	5	6	7
Aug	4	4	5	4	5	6
Sept	3	3	4	3	4	5
Oct	4	3	5	3	4	4
Nov	11	9	8	7	10	12
Dec	21	19	15	14	20	22

**Tables 2. Expected Adverse Weather Days for Surfacing and Structure Projects** 

	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6
Jan	18	18	15	16	21	23
Feb	19	18	12	14	19	21
Mar	12	10	9	8	10	12
Apr	5	4	6	4	4	4
May	5	5	6	4	4	5
June	5	5	5	4	5	6
July	4	4	5	3	4	5
Aug	3	3	4	3	4	4
Sept	2	2	3	2	3	4
Oct	3	3	4	2	3	3
Nov	11	9	8	7	10	11
Dec	21	19	15	14	20	22

## J. Construction Schedule Payment and Assessments:

- 1. Construction Schedule Payment: For contracts that include a pay item for construction schedule, payment of the construction schedule item will be full compensation for the work prescribed in <u>Section 8.4</u>, including schedule updates and revised schedules. The Engineer will make progress payments for the construction schedule item in accordance with the following:
  - **a.** The Engineer will pay 25% of the lump sum contract unit price after the baseline schedule is accepted by the Department.
  - b. Payment of the remaining portion of the lump sum contract unit price will be prorated based on the total remaining number of monthly schedule updates required to complete the remaining contract work. The Engineer will make the prorated payment for each monthly schedule update submitted by the Contractor and accepted by the Department.

2. Construction Schedule Payment for Contracts that do not Include a Pay Item for the Construction Schedule: For contracts that do not include a pay item for construction schedules, all work performed in accordance with Section 8.4 is incidental to the contract.

### 3. Construction Schedule Assessments:

a. Construction Schedule: If the Contractor begins work prior to submitting the construction schedule as required in <u>Section 8.4.</u>, the Engineer will make an assessment of \$100 for Category I projects, \$250 for Category II projects, and \$500 for Category III projects for each working day until the construction schedule is submitted.

If the Contractor chooses to use the startup schedule option, the assessment will not apply until 15 working days for Category II projects or 30 working days for Category III projects from start of work.

- b. Construction Schedule Updates: If the Contractor does not submit the updated construction schedule by the agreed upon date each month or as required in <u>Section 8.4 G</u>, the Engineer will make an assessment of \$100 for Category I projects, \$250 for Category II projects, and \$500 for Category III projects for each working day until the updated construction schedule is submitted.
- **8.5 LIMITATION OF OPERATIONS** Conduct the work in a manner and sequence to minimize interference with traffic, giving due consideration to the location of detours and to the provisions for handling traffic. The Engineer may require the Contractor to finish a particular section of work before starting an additional section if in the Engineer's opinion the opening of the section to be finished is essential for the public convenience.
- **8.6 CHARACTER OF WORKERS, METHODS, AND EQUIPMENT** Employ workers who have sufficient skill and experience to perform the work assigned to them and operate the equipment required to perform the work.

Use equipment of appropriate size and sufficient mechanical condition to meet requirements of the work and to produce a satisfactory quality of work. Do not use equipment which will cause damage to the roadway, adjacent property, or other highways.

When the method or equipment to be used is specified in the contract, do not use another method or other equipment in the performance of the work without the Department's written authorization. Request this authorization in writing, including a full description of the method and equipment proposed and the Contractor's justification for the proposed change. If the Engineer determines the Contractor's proposal would meet contract requirements, the Engineer may allow the Contractor to work using the substitute method or equipment. If the Engineer later determines the work produced does not meet contract requirements, remove and replace or repair the deficient work to the satisfaction of the Engineer and discontinue the use of the substitute method or equipment. No authorized change in method or equipment will be a basis for adjusting the payment for the work involved or the contract time.

8.7 DETERMINATION OF CONTRACT TIME - The contract states the time or times allowed for the completion of the work included in the contract. Contract time will begin on the first day the Contractor performs work, the date stipulated for work to begin in the notice to proceed, or the

date or condition stipulated for work to begin in the special provision for contract time (if applicable), whichever is earlier. The day the contract time begins is called the "first chargeable day."

**A. General:** The Department will use a fixed calendar date to specify the field work completion date. In addition, the Department may use a fixed calendar date to specify a substantial completion date. These requirements will be specified on the Notice to Contractors page of the contract.

The contract will define completion of the work either as a field work completion requirement, or as a combination of substantial completion and field work completion requirements. If no substantial completion requirement is stated, the Contractor must complete all work within the allowable time for the field work completion requirement. When substantial completion (if applicable) or field work completion is specified as a fixed calendar date, the Department will count contract time in accordance with Section 8.7 B.

- 1. Substantial Completion (if applicable): Unless otherwise specified, the Department will consider the work substantially complete when, in the Engineer's discretion, the project is open to unimpeded traffic and the Contractor's work will not impede traffic again. When the Engineer determines the work is substantially complete, the contract time count for substantial completion will cease. The contract time count will resume when the Contractor resumes work included in the substantial completion requirement, regardless of reason. The contract time count for field work completion will continue.
- 2. Field Work Completion: The Department will consider the field work complete when, in the Engineer's discretion, all contract work is complete including work as defined by the substantial completion date and all clean-up work. When the Engineer determines the field work is complete, the contract time count for field work completion will cease. The contract time count will resume when the Contractor resumes work, regardless of reason.
- B. Fixed Calendar Date Completion Requirements: Fixed calendar date completion requirement contracts specify the contract time as a calendar date. If the Contractor does not complete the work by the date specified, the Engineer will keep a record of working days, as defined in this section, counted after that date. The Engineer will furnish the Contractor a biweekly statement showing the number of days counted for the preceding two weeks. The biweekly statement will be deemed accepted by the Contractor as correct unless the Contractor, within 7 calendar days of the bi-weekly statement date, files a written protest with the Engineer clearly setting forth in what respect the Contractor believes the bi-weekly statement is incorrect. If the Engineer and the Contractor do not reach an agreement on a statement of working days, the Engineer will refer the statement and the written protest to the Region Engineer for review and determination.

A working day is a calendar day between January 1 and December 31, inclusive, except Saturdays or holidays. If a Contractor utilizes a Saturday or holiday for construction work, that day will then be considered a working day.

A working day will be counted on days when the Contractor could be working on a critical activity, but elects not to work, or elects to work elsewhere. A full working day will be counted for any day on which conditions are such that the Contractor would be expected to do or does 6 hours or more of work on a critical activity. A 1/2 working day will be counted for any

day on which conditions are such that the Contractor would be expected to do or does at least 2 hours but not more than 6 hours work on a critical activity. A 1/2 working day will be counted on Saturdays that the Contractor elects to work at least 2 hours but not more than 6 hours. A full working day will be counted for a holiday that the Contractor elects to work regardless of duration. Days designated by the Governor of this State as administrative leave days for State employees will be considered for working day purposes the same as a Saturday.

The Engineer will determine which days are working days based on the requirements of this section.

When the Contractor is or could be working on a critical activity, but, in the judgment of the Engineer, weather or job conditions beyond the Contractor's control are such that the Contractor could or does work at least 2 hours but not more than 6 hours on a critical activity or the Contractor's efficiency is materially reduced the Engineer may count 1/2 of a working day.

The Department will not count a working day under the following conditions:

- **1.** When adverse weather prevents the Contractor from performing at least 2 hours of work on a critical activity;
- 2. When job conditions due to recent weather prevent work on a critical activity;
- 3. When work has been suspended by an act or omission of the Department;
- **4.** When a strike, lockout, or extraordinary delay in the delivery of materials not due to the fault of the Contractor suspends work on a critical activity; or,
- **5.** When seasonal limitations cause suspension of work on the critical path and no other work is performed anywhere within the roadway of the project.

Do not perform work on holidays without written permission from the Region Engineer except to make emergency repairs or to provide proper protection of the work.

- C. Special Provision for Contract Time (If Applicable) Requirements: The Department may include a special provision for contract time as part of the contract completion requirements. The special provision for contract time may specify additional requirements or a combination of requirements. The following general working day count, calendar day count, and fixed calendar date provisions will apply to the specific requirements in the special provision for contract time:
  - 1. Working Day Count: When the contract time is specified as a working day count, contract time will be counted as the number of working days allowed for the completion of the specified work. The Engineer will, except during periods of suspension, furnish the Contractor a bi-weekly statement showing the number of working days counted for the preceding two weeks. The Engineer will only furnish a bi-weekly statement for the two-week periods the working day count is active. If the Contractor does not complete the work within the number of working days allowed, the bi-weekly statement will note those working days counted in excess of the working day count requirement. The bi-weekly

statement will be deemed accepted by the Contractor as correct unless the Contractor, within 7 calendar days of the bi-weekly statement date, files a written protest with the Engineer clearly setting forth in what respect the Contractor believes the bi-weekly statement is incorrect. If the Engineer and the Contractor do not reach an agreement on any statement of working days, the Engineer will refer the statement and the written protest to the Region Engineer for review and determination.

A working day is any calendar day between January 1 and December 31, inclusive, except Saturdays and holidays. If a Contractor utilizes a Saturday or holiday for construction work, that day will be considered a working day.

A working day will be counted on days when the Contractor could be working on a critical activity, but elects not to work, or elects to work elsewhere. A full working day will be counted for any day on which conditions are such that the Contractor would be expected to do or does 6 hours or more of work on a critical activity. A 1/2 working day will be counted for any day on which conditions are such that the Contractor would be expected to do or does at least 2 hours but not more than 6 hours work on a critical activity. A 1/2 working day will be counted on Saturdays that the Contractor elects to work at least 2 hours but not more than 6 hours. A full working day will be charged for a holiday that the Contractor elects to work regardless of duration. Days designated by the Governor of this State as administrative leave days for State employees will be considered for working day purposes the same as a Saturday.

The Engineer will determine which days are working days based on the requirements of this section.

When the Contractor is or could be working on a critical activity, but, in the judgment of the Engineer, weather or job conditions beyond the Contractor's control are such that the Contractor could or does work at least 2 hours but not more than 6 hours on a critical activity or the Contractor's efficiency is materially reduced the Engineer may count 1/2 of a working day.

The Department will not count a working day under the following conditions:

- When adverse weather limits the Contractor to less than 2 hours of work on a critical activity;
- **b.** When job conditions due to recent weather prevent work on a critical activity;
- **c.** When work has been suspended by an act or omission of the Department;
- **d.** When a strike, lockout, or extraordinary delay in the delivery of materials not due to the fault of the Contractor suspends work on a critical activity; or,
- **e.** When seasonal limitations cause suspension of work on the critical path and no other work is performed anywhere within the roadway of the project.

Do not perform work on holidays without written permission from the Region Engineer except to make emergency repairs or to provide proper protection of the work.

When the Engineer determines the work subject to the working day count is complete, the contract time count will cease. The contract time count will resume when the Contractor resumes work, regardless of reason, on the work subject to the working day count.

2. Calendar Day Count: When the contract time is specified as a calendar day count, contract time will be counted as the number of calendar days allowed for the completion of the specified work. The Engineer will, except during periods of suspension, furnish the Contractor a bi-weekly statement showing the number of calendar days counted for the preceding two weeks. The Engineer will only furnish a bi-weekly statement for the two-week periods the calendar day count is active. If the Contractor does not complete the work within the number of calendar days allowed, the bi-weekly statement will note those calendar days counted in excess of the calendar day count requirement. The bi-weekly statement will be deemed accepted by the Contractor as correct unless the Contractor within 7 calendar days of the bi-weekly statement date, files a written protest with the Engineer clearly setting forth in what respect the Contractor believes the bi-weekly statement is incorrect. If the Engineer and the Contractor do not reach an agreement on any statement of calendar days, the Engineer will refer the statement and the written protest to the Region Engineer for review and determination.

A calendar day is a day shown on a calendar from January 1 to December 31.

The Department will not count a calendar day under the following conditions:

- **a.** When work has been suspended by an act or omission of the Department; or,
- **b.** When a strike, lockout, or extraordinary delay in the delivery of materials not due to any fault of the Contractor suspends work on the critical path.

Do not perform work on holidays without written permission from the Region Engineer, except to make emergency repairs or to provide proper protection of the work.

When the Engineer determines the work subject to the calendar day count is complete, the contract time count will cease. The contract time count will resume when the Contractor resumes work, regardless of reason, on the work subject to the calendar day count.

3. Fixed Calendar Date: Fixed calendar date completion requirements specify the contract time as a calendar date. If the Contractor does not complete the required work by the date specified, the Engineer will keep a record of working days, as defined in this section, counted after that date. The Engineer will furnish the Contractor a bi-weekly statement showing the number of days counted for the preceding two weeks. The bi-weekly statement will be deemed accepted by the Contractor as correct unless the Contractor within 7 calendar days of the bi-weekly statement date, files a written protest with the Engineer clearly setting forth in what respect the Contractor believes the bi-weekly statement is incorrect. If the Engineer and the Contractor do not reach an agreement on a statement of working days, the Engineer will refer the statement and the written protest to the Region Engineer for review and determination.

A working day is a calendar day between January 1 and December 31, inclusive, except Saturdays or holidays. If a Contractor utilizes a Saturday or holiday for construction work, that day will then be considered a working day.

A working day will be counted on days when the Contractor could be working on a critical activity, but elects not to work, or elects to work elsewhere. A full working day will be counted for any day on which conditions are such that the Contractor would be expected to do or does 6 hours or more of work on a critical activity. A 1/2 working day will be counted for any day on which conditions are such that the Contractor would be expected to do or does at least 2 hours but not more than 6 hours work on a critical activity. A 1/2 working day will be counted on Saturdays that the Contractor elects to work at least 2 hours but not more than 6 hours. A full working day will be counted for a holiday that the Contractor elects to work regardless of duration. Days designated by the Governor of this State as administrative leave days for State employees will be considered for working day purposes the same as a Saturday.

The Engineer will determine which days are working days based on the requirements of this section.

When the Contractor is or could be working on a critical activity, but, in judgment of the Engineer, weather or job conditions beyond the Contractor's control are such that the Contractor could or does work at least 2 hours but not more than 6 hours on a critical activity or the Contractor's efficiency is materially reduced the Engineer may count 1/2 of a working day.

The Department will not count a working day under the following conditions:

- **a.** When adverse weather prevents the Contractor from performing at least 2 hours of work on a critical activity;
- **b.** When job conditions due to recent weather prevent work on a critical activity;
- **c.** When work has been suspended by an act or omission of the Department;
- **d.** When a strike, lockout, or extraordinary delay in the delivery of materials not due to the fault of the Contractor suspends work on a critical activity; or,
- **e.** When seasonal limitations cause suspension of work on the critical path and no other work is performed anywhere within the roadway of the project.

Do not perform work on holidays without written permission from the Region Engineer except to make emergency repairs or to provide proper protection of the work.

8.8 EXTENSION OF CONTRACT TIME - Prosecute the work continuously and effectively with the least possible delay to complete all the work within the contract time. Upon encountering an excusable delay that meets the criteria specified in <a href="Section 8.8 B">Section 8.8 B</a> or <a href="Section 8.8 C">Section 8.8 C</a>, submit a written request to the Engineer for a contract time extension in accordance with <a href="Section 8.8 A">Section 8.8 A</a>. Provide timely notice of the occurrences or conditions causing a delay in accordance with <a href="Section 4.3">Section 4.3</a>. Failure to provide timely notice of a delay in accordance with <a href="Section 4.3">Section 4.3</a> constitutes a waiver of the right to a time extension for the delay.

The Department will only extend contract time if the Contractor experiences an excusable delay to work on the critical path and the excusable delay causes a delay to the scheduled completion date of the project. The Department will use the same criteria to extend the contract time for a milestone date as it uses to determine an extension of contract time for project completion.

Base all requests for time extensions on progress schedules submitted to, and accepted by, the Department in accordance with <u>Section 8.4</u>. The Engineer will not use schedules to evaluate delays that were not submitted by the Contractor and accepted by the Department, nor will the Engineer permit the use of schedules the Contractor created after the delay occurred. Failure to submit and receive acceptance of a progress schedule or failure to maintain the progress schedule in accordance with <u>Section 8.4</u> constitutes a waiver of entitlement to a time extension. Calculate a time extension using the progress schedule submitted to and accepted by the Engineer that was in force when the delay was experienced.

A. Time Extension Requests: Submit requests for time extensions to the Engineer. The Engineer will not modify contract time without a written request from the Contractor. The Engineer will review a time extension request and determine if a time extension is warranted. The Engineer will grant contract time extensions using working days for working day count requirements and for fixed calendar date requirements, and calendar days for calendar day count requirements. If approved, the Engineer will prepare a change order to modify the contract time.

When submitting a request for a time extension for a CPM schedule, comply with the following requirements:

- **1.** Use Time Impact Analysis (TIA) to identify and measure critical delays that have not yet occurred. Do not use this method to evaluate delays that have already occurred. In general terms, perform a TIA as follows:
  - **a.** Develop a "mini" schedule for the changed work. This schedule is known as a fragnet;
  - **b.** Identify the current accepted schedule and record the scheduled completion date on that schedule;
  - **c.** Insert the fragnet into the current schedule by properly linking the fragnet with the existing activities in the current accepted schedule;
  - **d.** Recalculate the current schedule with the fragnet inserted and record this scheduled completion date; and
  - **e.** The difference in the calculated scheduled completion dates between the current schedule and the schedule calculated with a properly inserted and properly composed fragnet is the delay attributable to the changed work. The Engineer will base the time extension due, if any, on this delay.
- **2.** Use a contemporaneous analysis when evaluating delays that have already occurred. In general terms, perform a contemporaneous analysis as follows:

- **a.** Identify the most recent accepted schedule with a data date before the start of the delay being evaluated;
- **b.** Identify each accepted schedule in effect during the delay and the schedule with a data date that immediately follows the conclusion of the delay;
- **c.** Identify the critical path each day from immediately before the start of the delay to the schedule immediately following the delay;
- **d.** Determine whether the delay falls on the critical path;
- **e.** If the delay does not fall on the critical path, then no project delay occurred, and no time extension is due:
- **f.** If the delay falls on the critical path, then determine the number of days the critical path is delayed. The Engineer will base the time extension due, if any, on this delay.
- **B. Excusable, Non-Compensable Delays:** Excusable, non-compensable delays are delays that are not the fault or responsibility of the Contractor or the Department.

The Department will grant a time extension but will not compensate the Contractor for the costs associated with an excusable, non-compensable delay. Excusable, non-compensable delays include delays due to:

- **1.** Unforeseen events such as hurricanes, fires, floods, tornadoes, lightning strikes, earthquakes, or epidemics.
- **2.** Material delivery delays resulting from events or actions the Contractor, its subcontractors, and suppliers could not foresee or avoid, and were not responsible for.
- 3. Civil disturbances or terrorism.
- **4.** Labor strikes not caused by improper acts or omissions of the Contractor, subcontractor, or supplier that are beyond the Contractor's, subcontractor's, and supplier's power to settle.
- **5.** The added quantity of a major item of work where the added quantity exceeds 125% of the estimated quantity shown in the bid proposal.
- **6.** Utility delays caused by the utility's failure to timely perform its work or unanticipated conflicts between the utility's facilities and the work.
- 7. Railroad delays caused by the railroad's failure to timely perform its work or unanticipated conflicts between the railroad's facilities and the work.
- **8.** Acts of government or political subdivisions other than the Department.

- **9.** Weather delays. The Engineer will determine time extensions due to weather delays in accordance with <u>Section 8.8 F</u>.
- **10.** All other delays not the Contractor's or Department's fault or responsibility that could not have been reasonably foreseen by the Contractor or the Department.
- **C. Excusable, Compensable Delays:** Excusable, compensable delays are delays that are the fault and responsibility of the Department. The Department will grant a time extension and will compensate the Contractor for delay damages in accordance with <u>Section 9.4.D</u> for excusable, compensable delays.

Excusable, compensable delays are limited to:

- 1. Changed work as specified in <u>Section 4.2 B</u>, <u>Section 4.2 C</u>, and <u>Section 4.2 E</u>.
- 2. Delays due to an Engineer-ordered suspension that are compensable in accordance with Section 4.2.D.
- **D. Non-Excusable Delays:** Non-excusable delays are the fault and responsibility of the Contractor. The Department will not grant a time extension and will not compensate the Contractor for delay damages for non-excusable delays.

Non-excusable delays include, but are not limited to, delays caused by:

- **1.** Insolvency or mismanagement of the Contractor, a subcontractor, or a supplier.
- 2. Slow material delivery when the material was available, or when delivery was delayed for reasons of late ordering or for financial considerations.
- **3.** The Contractor's failure to provide sufficient forces and equipment to commence and maintain progress in accordance with the accepted construction schedule.
- **4.** Plant and equipment failure, failure to provide and maintain equipment in good mechanical condition, or failure to provide for immediate emergency repairs.
- **5.** Conditions on the project the Contractor could have foreseen or anticipated, such as traffic.
- E. Concurrent Delays: Concurrent delays are independent delays to the critical path that begin on the same date and end on the same date. When a non-excusable delay is concurrent with an excusable delay, the Contractor is not entitled to a contract time extension for the time the non-excusable delay is concurrent with the excusable delay. When an excusable, non-compensable delay is concurrent with a compensable delay, the Contractor is entitled to a contract time extension but is not entitled to compensation for the period the non-compensable delay is concurrent with the compensable delay.
- **F. Weather Delays:** A weather day is defined as a day that the Contractor was planning to work in accordance with the Contractor's progress schedule but could not work because weather or seasonal conditions prevented work on the critical path for at least 1/2 of the day in accordance with <u>Section 8.7</u>.

Submit the dates and number of weather days in writing to the Engineer weekly for the Engineer's review. Failure to submit weather days at the end of a week will result in the Engineer determining the dates and number of weather days. The Engineer will, except during periods of suspension, furnish the Contractor a bi-weekly statement showing the number of weather days counted for the preceding two weeks. The bi-weekly statement will be deemed accepted by the Contractor as correct unless the Contractor, within 7 calendar days of the bi-weekly statement date, files a written protest with the Engineer clearly setting forth in what respect the Contractor believes the bi-weekly statement is incorrect. If the Engineer and the Contractor do not reach an agreement on a statement of weather days, the Area Engineer will refer the statement and the written protest to the Region Engineer for review and final determination.

The Department will extend contract time by 1/2 day or 1 day, as applicable, for each weather day that exceeds the total number of anticipated weather days as shown in the table of <u>Section 8.4 I</u> for the project.

If a non-excusable delay extends the performance of the work beyond the contract time, the Contractor is not entitled to time extensions for weather days or seasonal conditions encountered beyond the contract time, even if the number of weather days exceeds the total number of weather days anticipated for the project.

**8.9 FAILURE TO COMPLETE ON TIME** - If the Contractor does not complete the work within the required time provided in the contract, or as extended by formally approved extensions granted by the Department, the Department will deduct an amount pursuant to the following schedules from any amount due or that may become due the Contractor for each working day the work remains incomplete. The Department will use the amount shown in the schedules per working day. The amount deducted will be considered not as a penalty but as liquidated damages due the Department from the Contractor by reason of added cost to the Department for contract administration resulting from the work not being completed within the required time.

The Department may permit the Contractor to complete the work covered by the terms of the contract after the expiration of the contract time, including all extensions. This will in no instance be construed as a waiver by the Department of rights or obligations under the contract.

- **A.** Table A schedule of liquidated damages will be used in the following instances:
  - 1. When the Contractor does not complete the work within the time specified, or extended, for the substantial completion of the project. In this instance, the Engineer will use the value in Table A for each day after the time specified, or extended, for substantial completion of the work until the Contractor substantially completes the work;
  - 2. When the Contractor does not complete all work required for the field work completion of the project specified, or extended, but has not used all days specified by a working day count or calendar day count substantial completion requirement. In this instance, the Engineer will use the value in Table A for each day after the time specified, or extended, for the field work completion of the project until the Contractor substantially completes the work; or,

**3.** When the Contractor does not complete all work required for the field work completion of the project specified, or extended, in cases where substantial completion is not specified.

SCHEDULE OF LIQUIDATED DAMAGES
TABLE A

Original Cor	tract Amount	Amount of Liquidated Damages		
From More Than	To and including	Per Calendar Day	Per Working Day	
\$0	\$100,000	\$600	\$800	
\$100,000	\$500,000	\$700	\$1,000	
\$500,000	\$1,000,000	\$1,000	\$1,400	
\$1,000,000	\$2,000,000	\$1,300	\$1,800	
\$2,000,000	\$4,000,000	\$1,600	\$2,200	
\$4,000,000	\$6,000,000	\$1,850	\$2,600	
\$6,000,000	\$8,000,000	\$2,150	\$3,000	
\$8,000,000	\$10,000,000	\$2,600	\$3,600	
\$10,000,000	\$15,000,000	\$3,000	\$4,200	
\$15,000,000	\$25,000,000	\$3,400	\$4,800	
\$25,000,000	Over \$25,000,000	\$4,100	\$5,800	

**B.** Table B schedule of liquidated damages will be used when substantial completion is specified, and has been met, but the Contractor does not complete all work required for the field work completion within the time specified, or extended, for the field work completion of the project. In this instance, the Engineer will use the values in Table B for each day after the time specified, or extended, for field work completion until the Contractor completes all work required for the field work completion of the project.

# SCHEDULE OF LIQUIDATED DAMAGES TABLE B

Original Con	tract Amount	Amount of Liquidated Damages		
From More Than	To and including	Per Calendar Day	Per Working Day	
\$0	\$100,000	\$300	\$400	
\$100,000	\$500,000	\$350	\$500	
\$500,000	\$1,000,000	\$500	\$700	
\$1,000,000	\$2,000,000	\$650	\$900	
\$2,000,000	\$4,000,000	\$800	\$1,100	
\$4,000,000	\$6,000,000	\$925	\$1,300	
\$6,000,000	\$8,000,000	\$1,075	\$1,500	
\$8,000,000	\$10,000,000	\$1,300	\$1,800	
\$10,000,000	\$15,000,000	\$1,500	\$2,100	
\$15,000,000	\$25,000,000	\$1,700	\$2,400	
\$25,000,000	Over \$25,000,000	\$2,050	\$2,900	

If the Contractor does not meet the contract time requirements for both the substantial and field work completion simultaneously, only the values shown in the schedule of liquidated damages Table A will be used.

8.10 DEFAULT AND TERMINATION OF CONTRACT - The Engineer may give written notice to the Contractor and the surety declaring the contract in default if the Contractor does one or more of the following:

- **A.** Does not perform the work with sufficient resources to assure the prompt completion of the work;
- **B.** Does not perform the work in accordance with the contract or neglects or refuses to remove and replace rejected materials or unacceptable or unsuitable work;
- **C.** Discontinues the prosecution of the work;
- **D.** Does not resume work which has been discontinued within a reasonable time after notice to do so;
- E. Does not maintain insurance in accordance with Section 7.14;
- **F.** Becomes insolvent or is declared bankrupt, or commits an act of bankruptcy or insolvency;
- **G.** Allows a final judgement to remain unsatisfied for a period of 10 calendar days;
- **H.** Makes an assignment for the benefit of creditors, without the Department's approval; or,
- **I.** Does not carry on the work in an acceptable manner.

The Engineer will give written notice to the Contractor and the Contractor's Surety of such default. The Contractor or surety must remedy the conditions identified in the written notice within 10 calendar days of the written notice, or by the deadline prescribed by the Department in the written notice. If the Contractor or surety fails to remedy the conditions in the written notice within the time period described in this paragraph, the Department will have full power and authority without violating the contract to terminate the contract and take the prosecution of the work out of the hands of the Contractor. The Department may use materials on the project and may enter into an agreement to complete the contract according to the terms and provisions thereof, or use such other methods as recommended by the Engineer for the completion of this contract.

Costs and charges incurred by the Department, together with the cost of completing the work under contract, will be deducted from monies due or which may become due said Contractor. If such expense exceeds the sum which would have been payable under the contract, the Contractor and the Surety will be liable and will pay to the Department the amount of such excess.

**8.11 TERMINATION OF CONTRACT FOR CONVENIENCE** - The Department may, by written order, terminate the contract or any portion thereof when termination is in the best interests of the Department. Reasons for termination may include, but not be 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 obtained by third-party citizen action resulting from national or local environmental protection laws or where the issuance of such order or injunction is primarily caused by acts or omissions of persons or agencies other than the Contractor.

When the Department terminates a contract effective on a certain date, the Department will pay for items of work completed as of that date at the contract bid price. The Department will pay for partially completed work either at agreed prices or by force account methods. The Department will pay for eliminated items as provided in <u>Section 4.2 F</u>.

The Department may, at the Department's option, purchase from the Contractor, at actual cost delivered to a prescribed location, acceptable materials obtained by the Contractor which have not been incorporated into the project or otherwise disposed of as mutually agreed.

The Department may consider reimbursement for organization of the work, other overhead expense (when not otherwise included in the contract), and moving equipment and materials to and from the job; the intent being an equitable settlement with the Contractor. The Department will not consider the loss of anticipated profits in the settlement.

Make all cost records available to the Department for determining validity and amount of each item claimed and to provide a basis for negotiating an equitable settlement.

The Department's termination of a contract, in whole or in part, will not relieve the Contractor of contractual responsibilities for the work completed, nor will it relieve the Surety of its obligation for and concerning all just claims arising out of the work performed.

### 9.1 MEASUREMENT OF QUANTITIES

**A. General:** The bid schedule specifies the unit of measure for each contract item. The Engineer will measure accepted quantities of work for each contract item in accordance with this section and the "Method of Measurement" subsection in the relevant specifications. In the case of a discrepancy, the method of measurement in the relevant specifications supersedes the method of measurement in this section. Unless the contract specifies otherwise, the Engineer will measure the actual quantity of accepted work for each contract item.

A station when used as a definition or term of measurement will be 100 linear feet.

The term "ton" will mean the short ton consisting of 2,000 pounds.

When the contract item has a lump sum unit, the contract unit price is full compensation for the contract item.

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

- **B. Area:** The Engineer will make longitudinal measurements for area computations horizontally, with no deductions for individual fixtures having an area of 1 square yard or less. The Engineer will make transverse measurements for area computations by the neat dimensions shown on the plans or ordered in writing by the Engineer.
- **C. Structures:** The Engineer will measure structures according to neat lines shown on the plans or as altered to fit field conditions, except as otherwise provided in these specifications.
- **D. Linear Units:** The Engineer will measure items which are measured by the foot, including, but not limited to pipe culverts, guardrail, and underdrains, parallel to the base or foundation upon which such structures are placed, except as otherwise provided in these specifications.
- **E. Volume:** For volume calculations, the Engineer will use the average end area method, the truck/vehicle method, or an alternate method approved by the Engineer.
- **F. Truck/Vehicle Volume:** When using the truck/vehicle method, the Engineer will measure the volume in a vehicle at the point of delivery. Use vehicles which allow easy and accurate measurement of the contents. The Engineer may direct the Contractor to level the loads at the point of delivery to determine the actual volume of the load. Do not exceed the legal load limits for the gross weight.
- **G. Standard Manufactured Materials:** The thickness of plates and galvanized sheet metal used in the manufacture of corrugated metal pipe, metal plate pipe culverts and arches, and metal cribbing will be specified and measured in decimal fractions of inches.

The term "gauge," when used to refer to the measurement of wire, will mean the wire gauge; which will be specified and measured in decimal fractions of inches in accordance with the applicable specifications.

When standard manufactured items are specified such as fence, wire, plates, rolled shapes, or pipe conduit, and these items are identified by size, gauge, unit weight, or section dimensions, the Engineer will consider this identification to be nominal weights or dimensions. Unless more stringently controlled by tolerances in cited specifications, the Engineer will accept manufacturing tolerances established by the industries involved.

# H. Material Weight

### 1. General:

The Engineer will measure asphalt materials by the ton.

The Engineer may accept validated refinery weigh tickets accompanying bituminous materials transported from the refinery in truck transports, for measurement purposes.

The Engineer will weigh asphalt materials shipped by rail in a manner determined by the Engineer, prior to use on the project.

The Engineer will measure cement by the hundred weight.

Weigh materials on a certified scale and will issue weigh tickets. Provide a scale operator to operate the scale and perform accuracy checks.

Furnish dust proof and watertight scale houses with satisfactory lighting and heating equipment.

Anytime during production, the Engineer may call for checks such as the accuracy check or adding known weights to the scale.

- a. Scale Certification: Provide to the Engineer a letter or seal of certification performed by a State Scale Inspector, a licensed private testing company, or a qualified representative of the scale manufacturer. The Department will certify portable platform scales and loader scales. The Department will use an accuracy check to certify portable platform scales and loader scales.
- **b. Accuracy:** Except as provided elsewhere in the specifications, scales will be accurate within 0.5% at any point throughout the range of use of the scale. For asphalt plant scales, the 0.5% accuracy will be based on the net weight.
- c. Accuracy Check: Weigh a loaded truck on the nearest certified scale. Weigh the same loaded truck on the Contractor's scale in at least two different positions and three if possible. The rear wheels should be positioned first on one end of the scale and then the other end. If the scale is long enough, weigh the truck again with the rear wheels in the center of the platform. The weights obtained must all be within 0.5% of the weight obtained on the certified scale.

A piece of equipment with a fixed known weight may be used to ensure the scale accuracy at the same rate specified above, provided the piece of equipment being

used to check the scale accuracy is fully fueled, free of mud and dirt, and weighs at least 60% of the maximum weight to be applied to the scale during the life of the project.

- 2. **Trucks:** Prior to performing hauling operations, provide the Engineer with a list containing the following information for each truck that will be hauling on the project:
  - **a.** Truck, Trailer and Pup Identification Number(s) (or license number);
  - **b.** Maximum Allowable Gross Weight (for the configuration to be used on the project);
  - **c.** Fully Fueled Tare Weight (including date and time of current tare);
  - **d.** Number of tires per axle and tire sizes; and,
  - e. Axle spacing.

The Engineer may perform checks to verify the information provided by the Contractor.

Tare each unit, fully fueled, before hauling to the project and once a week thereafter. Furnish the Engineer with a printout of each tared unit. The printout will include the tare weight, time, and date. The Engineer will verify the tare weight within one week of commencing use on the project and a minimum of once per project thereafter.

Tractor-trailer combinations and truck-pup combinations may be weighed separately without uncoupling. The scale approaches will be level for a minimum of 100 feet or as approved by the Engineer, so the trailer or pup unit coupling does not transfer significant weight to the tractor or primary hauling unit to allow for accurate weighing.

Each truck used to haul material being paid for by weight will bear a plainly legible identification and will be weighed empty at such times as the Engineer directs.

- 3. Contractor Computerized Scales: Perform and document scale accuracy checks at the frequency outlined below on all computerized scales used on the project and submit a copy of the documentation to the Engineer once each week.
  - **a. Balance for Zero Load**: Perform this test twice daily.
  - **b. Accuracy Check**: Check the scale accuracy prior to weighing material for payment and then once each week thereafter. Rerun the accuracy check if the scale is moved.
- **4. Portable Platform Scales:** Recertify a platform scale if the platform scale is moved or sits over the winter months.
- Stationary Commercial Scales and Plants: The Contractor may use a commercial scale or plant if the scale has been certified within the previous 12 months. All other checks may be omitted.
- **6. Portable Plant Scales:** Recertify a plant scale if the plant is moved or sits over the winter months.

- 7. Belt Scales: Perform an accuracy check by weighing an empty truck on the nearest certified scale to determine the tare, then loading the truck using the belt scale, then reweighing the truck on the same certified scale. The weight obtained from the belt scale must be within 0.5% of the net weight obtained on the certified scale. Perform the accuracy check prior to weighing the material for payment and then once each week thereafter.
- **8. Loader Scales:** The Contractor may use a loader scale on contracts if the quantity per line item of material to be weighed for payment is less than 10,000 tons.

The bucket used for certification and calibration will be the bucket used on the project. Re-zero the weight of the bucket as needed.

Perform accuracy checks by weighing an empty truck on the nearest certified scale to determine the tare, then loading the truck using the loader scale in dynamic mode, then re-weighing the truck on the same certified scale. The weight obtained from the loader scale must be within 1.0% of the net weight obtained on the certified scale. Perform the accuracy check prior to weighing the material for payment and then once each week thereafter.

The Contractor may use an object with a fixed known weight to ensure the scale accuracy at the same rate specified above, provided the object being used to check the scale accuracy weighs at least 60% of the maximum weight being applied to the scale.

The loading area will be level. Operation of the loader scale will be as recommended by the manufacturer for accurate weighing.

If all weights obtained from the loader scale are within 0.5% of the net weight obtained while performing the required accuracy checks, the Contractor may continue the use of a loader scale for up to 40,000 tons per line item of material.

## 9. Automated Scale Tickets:

**a. General:** Supply all scales with computerized (automated) ticketing capability for all materials weighed for measurement and payment, unless otherwise specified in the plans. The Contractor will be responsible for the operation of the weighing system.

The ticket will contain the necessary information required by this section, unless otherwise approved by the Engineer. Ensure that the tickets are clear, legible, and accessible during the duration of the project. Provide a daily summary of the material hauled to the project, unless otherwise allowed by the Engineer.

Supply a printed ticket or an e-ticket meeting the following requirements specified. If a contract item for e-ticketing is included in the contract, supply e-tickets meeting the e-tickets requirements for all materials with e-ticketing specified in the contract.

- b. Printed Tickets: The printed ticket will contain the following information:
  - 1) Ticket Number;
  - 2) Project Number or PCN;

- 3) Date and Time Material is Weighed;
- 4) Material Identification (Bid Item Number or Bid Item Description);
- 5) Material Source;
- **6)** Truck (and Pup) Identification Number(s) (or license number);
- 7) Maximum Allowable Gross Weight;
- 8) Gross Weight;
- 9) Fully Fueled Tare Weight (including date and time of current tare);
- 10) Net Weight;
- 11) Net Weight Allowed (loader scale only); and,
- 12) Net Weight Loaded (loader and belt scales only).
- c. E-tickets: Use a wireless fleet management system or Global Navigation Satellite System (GNSS) management system and integrated ticket capture software for capturing computer generated weight tickets into a digital format (e-ticketing) and tracking trucks during transit for recording of truck exchanges (truck loaded at the source and truck delivery of material at the point of placement on the project).

Provide wireless fleet management or GNSS devices capable of tracking all trucks used to deliver materials, providing real time monitoring using mobile devices, and providing e-tickets.

Use an e-ticketing system meeting the following minimum components:

- 1) Software to digitally capture the computer-generated weight ticket for the creation of the e-ticket containing the information required in <u>Section 9.1 H.9.b</u> and the information required in <u>Section 9.1 H.9.c.4</u>). The software must prevent the data on the computer-generated weight ticket from being altered at any time. The software will be compatible with iOS and android devices in a windows environment.
- 2) Hardware to establish a static geofence around the material source and mobile geofence around the point of placement to capture truck exchange locations.
- 3) Cloud storage and cloud computing to allow for viewing and exporting of e-tickets.
- 4) Ability to have fillable fields on the e-ticket to:
  - a) Accept load or reject load;
  - **b)** Input comments for wasted tons;
  - **c)** Input temperatures of asphalt concrete at the plant and at the point of delivery on the road:
  - **d)** Input notes where materials were placed including, but not limited to, lanes, shoulders, approaches, intersecting roads, radii, and locations of split loads; and.
  - **e)** Input notes where samples were taken (truck # and location).
- 5) Continuous access for the Engineer to real time viewing, per day, of the following:
  - **a)** Truck identification and associated e-ticket:
  - **b)** Total number of e-tickets;
  - c) Tons scaled; and,
  - d) Tons placed.
- 6) Continues to collect and store data when there is limited cellular data connectivity.

Provide the Engineer with access to cloud storage and cloud computing prior to the start of work where e-tickets will be used until 90 days after final acceptance of the project in accordance with Section 5.16.

Provide the Engineer with training or a user's manual detailing the procedure for real time viewing of the information listed in Section 9.1 H.9.c.5) and for exporting e-tickets.

Provide e-tickets containing the same information included on the computergenerated weigh ticket, all information required in <u>Section 9.1 H.9.b</u>, and the fillable fields listed in <u>Section 9.1 H.9.c.4</u>).

Ensure e-tickets are exportable in a \*.pdf and \*.csv format.

Issue each truck driver an e-ticket (paperless ticket). The Engineer will collect the e-ticket on the jobsite electronically and use the e-ticket to document the details of delivery.

Ensure e-tickets are available from cloud storage and cloud computing at the time of material delivery. If adequate cellular data connectivity is not available or e-ticket software fails, provide the Engineer a printed ticket in accordance with <a href="Section 9.1">Section 9.1</a> <a href="H.9.b">H.9.b</a>.

When a contract item for e-ticketing is included in the contract, payment will include all costs related to setting up and using a fleet management system or GNSS management system; providing the Engineer access to the fleet management system or GNSS management system; providing e-tickets; performing all related duties; and furnishing all materials, equipment, labor, and incidentals to complete the work.

10. Automated Weighing System: Provide an automated weighing system that is capable of providing a security password allowing only authorized Department and supervisory Contractor personnel access to maximum allowable gross weight, tare weight, and net weight allowed (loader and belt scales only) input data and allowing only these authorized personnel to print the daily load summary by material type.

The automated weighing system must generate a single ticket when tractor-trailer units cannot be simultaneously weighed, and must generate a separate ticket for pups, when the truck-pup combination cannot be simultaneously weighed.

Use truck and pup combinations in such a manner that correct gross, tare weights, and net weight allowed (loader and belt scales only) are entered into the automated weighing system. Change or substitute a pup only after the Engineer has been notified and the maximum allowable gross weights and tare weights or net weight allowed (loader and belt scales only) are properly entered into the automated weighing system and can accurately accommodate this type of change.

Program the automated weighing system so that when an overweight (illegal load) is on the scale, a ticket will not be printed, and an overload message with the gross weight will be displayed so that the overload amount is known allowing guidance to reduce the load prior to re-weighing and ticket printing.

Program the loader scale so that when the net weight loaded is over the net weight allowed the loader operator may adjust the weight of the material in the bucket to allow the net weight loaded not to exceed the net weight allowed.

The automated weighing system must automatically print the weigh ticket for each load of material when the truck driver or qualified Contractor scale person enters the truck or pup identification number. Keep the weigh ticket with each load of material delivered to the project and will present the weigh ticket to the Engineer prior to unloading the material. The automated weighing system will provide the Engineer with a printed daily summary of the individual net weights with truck and pup identification numbers and the daily total weight by material type.

All equipment, materials, labor, and incidentals required for the automated weighing system and scales will be incidental to the related contract items.

11. Inoperable Automated Weighing System: If the automated weighing system becomes inoperable during the work shift, the Department will allow the Contractor to continue if the Contractor furnishes a scale operator to perform the weighing duties according to the specified requirements. If the automated weighing system is not fully operational within 2 working days following the affected work shift, the Department will not allow the Contractor to continue.

If the automated weighing system becomes inoperable, furnish an experienced scale operator fully capable of accurately operating a permanent commercial scale or a portable automated scale system. The Contractor furnished scale operator is subject to the Engineer's approval.

If a loader scale or belt scale becomes inoperable during the work shift, the Contractor may not complete the effected work shift unless another certified scale is available.

- I. Weight and Volume Conversion When requested by the Contractor and approved by the Engineer, the Engineer will convert weight measurement to volume measurement or volume measurement to weight measurement for payment purposes. The Engineer and the Contractor will agree to factors for conversion before using this method of measurement of pay quantities.
- **J. Timber -** The Engineer will measure timber by the thousand board foot measure of material incorporated in the work. The Engineer will base measurement on nominal widths and thicknesses and the extreme length of each piece.
- **K. Lump Sum Items -** The term "lump sum" when used as an item of payment will 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 Engineer will construe the unit to include necessary fittings and accessories.

- L. Equipment Rental The Engineer will measure rental of equipment in hours of actual working time of the equipment within the limits of the project, except when special conditions make some other method of measurement desirable.
- **9.2 SCOPE OF PAYMENT** Receive and accept compensation provided in the contract as full payment for furnishing materials and for performing work under the contract in a complete and

acceptable manner and for risk, loss, damage, or expense of whatever character arising out of the nature of the work or the prosecution thereof, subject to the provisions of <u>Section 7.17</u>.

Payment for an item of work will include full compensation for furnishing labor, materials, equipment, and incidentals required to complete the work not specifically measured and paid for under a separate bid item.

If the "Basis of Payment clause" for an item relating to a unit price in the contract states that the unit price is compensation for certain work or materials used to complete the work for that pay item, the Department will not measure or pay this same work or material under any other pay item appearing in the contract.

**9.3 PAYMENT FOR EXTRA HAUL OF MATERIALS** - The Department will pay for the extra haul of materials in accordance with Section 9.3 A, Section 9.3 B, or Section 9.3 C, as applicable.

Payment for the extra haul of materials in accordance with this section will be full compensation for the cost of moving equipment, the cost of delays to the Contractor's operation, the cost of additional labor, the cost of equipment, and all other costs incurred by the Contractor for the extra haul of the materials. Obtain written approval from the Department before performing extra haul work. Section 9.3 only applies to the following materials: excavation and backfill materials, subbase materials, base course materials, and surfacing materials (including clay and filler).

The Department will not pay for the extra haul of materials caused by the negligence or fault of the Contractor. Such costs include, but are not limited to, costs due to the contamination of the material, costs due to the segregation of the material, and costs due to stockpiles not constructed in accordance with the requirements of the contract.

The Department will include the costs for extra haul calculated in accordance with <u>Section 9.3 A</u>, <u>Section 9.3 B</u>, and <u>Section 9.3 C</u> as a new item on a Construction Change Order.

**A.** Department Designated Sources and Department Designated Option Sources: For materials from Department designated sources and Department designated option sources, the following will apply:

If materials cannot be secured and used as shown on the plans because of a contract change, the Engineer will calculate an adjustment to the contract by multiplying the haul rate specified in <u>Section 4.4</u> by the increase in the average one-way haul distance for the material caused by the contract change.

The Engineer will use the rate per ton mile for truck hauled materials and will use the rate per cubic yard station for scraper hauled materials.

For excavation and embankment materials, the average one-way haul distance provided in the contract is obtained by dividing the haul units shown in the contract for a material by the contract quantity of the material.

For subbase, base course, and surfacing materials (including clay and filler), the average one-way haul distance provided in the contract is obtained by measuring the one-way distance from the designated source to the center of the project or designated location of use if the material is only used on a portion of the project.

The changed average one-way haul distance for all materials is obtained by measuring the one-way distance from the new source to the average location where the materials are used on the project.

**B.** Contractor Furnished Sources: For Contractor furnished sources the following will apply:

If a contract change causes an increase in the quantity of a material included in the first paragraph of <u>Section 9.3</u>, the Engineer will calculate an adjustment to the contract by multiplying the haul rate for the material specified in <u>Section 4.4</u> by the increase in the average one-way haul distance for the material caused by the contract change.

The Engineer will use the per ton mile rate for truck hauled materials and will use the per cubic yard station rate for scraper hauled materials.

The Department will calculate the planned average haul by measuring the one-way haul distance from the original Contractor furnished source to the center of the project or designated location of use if the material is only used on a portion of the project.

The Department will calculate the changed average one-way haul distance by measuring the one-way distance from the new source to the average location where the materials are used on the project.

**C. Production Stockpiles:** If the quantity of subbase materials, base course materials, and surfacing materials (including clay and filler) overruns the estimated plan quantity by more than 10%, the following apply:

The Engineer reserves the right to determine the most cost-effective method for addressing an overrun in quantities exceeding 10% of the plan estimated quantity. The Engineer may require the Contractor to remobilize equipment to produce the overrun beyond 10% or may require the Contractor to acquire the material from a new source. The Contractor retains the right to produce the additional material from any approved source if the Contractor does so at no additional expense to the Department.

If the overrun in quantity causes the Contractor to incur costs to remobilize equipment to produce the overrun in material quantity, the Department will pay for the costs to remobilize the equipment in accordance with <u>Section 9.4</u>.

If the overrun in quantity causes the Contractor to haul material from a new source, the Department will pay for the extra haul of the material beyond the 10% overrun in quantity in accordance with <u>Section 9.3 A</u> or <u>Section 9.3 B</u>, as applicable.

9.4 COMPENSATION FOR CONTRACT REVISIONS - If the contract is changed as provided in Section 4.2, the Engineer will determine the pricing method for the change following the sequence specified below in Section 9.4 A through Section 9.4 D. If the change includes a time extension for compensable delays as provided by Section 8.8 C, the Department will compensate the Contractor for the costs associated with the time extension in accordance with Section 9.4 E. Compensation for a change in accordance with Section 9.4 and Section 8.8 constitutes full and complete compensation for performing changed work.

The Department will not pay for non-allowable charges specified in <u>Section 9.4 F</u> or duplicate payments that may result from the application of <u>Section 9.4 E</u> or other provisions of the contract.

**A. Contract Unit Price:** For contract revisions covered by contract items, the Engineer will determine compensation using the existing contract unit prices.

If the contract does not contain the appropriate contract items, the Department will pay the Contractor in accordance with Section 9.4 B.

**B.** Price Schedule for Miscellaneous Items: For contract revisions covered by items set forth in Section 4.4 (Price Schedule for Miscellaneous Items), the Engineer will determine compensation using the unit prices in Section 4.4.

If the contract revision does not include work covered by items listed in <u>Section 4.4</u>, the Engineer will proceed with determining compensation in accordance with <u>Section 9.4 C</u>.

C. Negotiated Prices: For revised work covered by contract items that involves significant changes to the character of the work in accordance with <u>Section 4.2 C</u> and for revised work involving extra work in accordance with <u>Section 4.2 B</u> and <u>Section 4.2 E</u>, the Engineer and the Contractor will attempt to negotiate unit prices or lump sum prices for the changed work. The Engineer may request an itemized breakdown of the Contractor's proposed pricing, including labor rates and hours, equipment costs and hours, and material costs.

If the Engineer and the Contractor cannot successfully negotiate a price, the Engineer will pay for the revised work in accordance with <u>Section 9.4 D</u>.

- **D. Force Account:** In the absence of agreement, the Department may require the Contractor to perform revised work on a force account basis. The Engineer may direct the Contractor to do any one or more of the following for revised work tracked on a force account basis:
  - change equipment, supervision, and labor forces assigned to the revised work;
  - limit overtime on the revised work to the level previously used by the Contractor on the project for work of a similar nature;
  - work overtime for an emergency; or,
  - stop the revised work when adverse conditions limit productivity.

Provide the Engineer with certified payrolls from all periods in which the Contractor performed force account work.

The Engineer will compensate the Contractor for force account work in the following manner:

1. Labor: The Department will compensate the Contractor for labor and supervision. For hourly employees, the Department will compensate the Contractor at the actual rate of wage paid and shown on the payroll for every hour that laborers perform the revised work. For salaried employees, the Department will compensate the Contractor at a rate agreed upon in writing. Salaried employees must be in direct charge of the specific operations and must be at the project site to be included in this compensation. Unless already included in the wage rates paid, the Contractor will also receive the actual labor-related costs incurred by reason of subsistence and travel allowances, health and welfare

benefits, pension fund, or other fringe benefits, provided those payments are required by collective bargaining agreement or other employment contract generally applicable to the classes of labor employed on the work. The Department will not pay the Contractor for travel and subsistence expenses unless the Contractor's employees are traveling for the sole purpose of performing force account work.

The Department will prorate the wages of salaried employees who are performing work partly on force account work and partly on other work. The Department will determine the prorated wage based on the number of workers employed on each class of work as shown in the payrolls and the hours worked on force account work. The Department will not compensate the Contractor for subsistence or travel allowances paid to salaried employees unless the employee's travel costs were incurred for the sole purpose of performing force account work.

If an hourly employee works overtime during a calendar week and performs work partly on force account work and partly on other work, the Department will prorate the overtime premium payment for each Contractor employee between the force account work and the other work based upon the ratio of force account hours worked to total hours worked during the calendar week.

The Department will pay 100% of overtime premium wages incurred by the Contractor due to the Department requiring the Contractor to perform force account work during periods not normally worked by the Contractor. Overtime premium wages incurred, and overtime hours worked during periods not normally worked by the Contractor will not be included in the calculation to prorate other overtime premium payments described in the previous paragraph.

The Department will pay the Contractor an amount equal to 15% of the sum for labor, calculated as described above, as full compensation for overhead costs.

- 2. Bond, Insurance, and Tax: The Department will pay the Contractor the actual cost of additional bond; property damage, liability, and workers' compensation insurance premiums; unemployment insurance contributions; and social security taxes incurred due to the force account work, with no markup added. Furnish the Engineer with satisfactory evidence of the rate or rates paid for such bond, insurance, and tax. In lieu of furnishing itemized statements to substantiate the costs of bond; property damage, liability, and workers' compensation insurance premiums; unemployment insurance contributions; and Social Security tax; the Contractor may elect to receive an amount equal to 25.1% of the actual labor costs, excluding the 15% markup on labor for overhead, as compensation for bond, insurance, and tax costs.
- 3. Materials: The Department will pay the Contractor the actual cost of acceptable materials delivered and incorporated into the project, including transportation charges paid by the Contractor, exclusive of equipment rentals as set forth in <u>Section 9.4 D.4</u>.

Provide the Engineer with paid invoices for materials used in the revised work, including invoices for transportation cost. If the Contractor does not specifically purchase the material for the revised work but takes the material from the Contractor's stock, provide an affidavit certifying the following:

- **a.** That the material was taken from stock;
- **b.** That the quantity of material claimed was used in the work; and
- **c.** That the Contractor paid the amount on the invoice for the material, including transportation cost.

The Department will add 15% to material and transportation costs as full compensation for overhead.

For materials used to perform the revised work but not permanently installed into the work, the Department will not pay the Contractor the full purchase price but will pay the Contractor for the depreciation in value of the material because of its use to perform the revised work. Submit this price to the Engineer for approval.

**4. Equipment:** The Department will pay the Contractor for each hour that the Contractor uses an approved piece of equipment to perform the revised work. The Engineer and Contractor mutually agree to use Engineer-determined equipment rates using the South Dakota Equipment Rental Rates Book, which is currently established as the "Rental Rate Blue Book" published by EquipmentWatch.

Use equipment that the Engineer agrees is in good operating condition. Select equipment of suitable size and suitable capacity for the changed work. The Engineer will determine the suitability of the equipment.

The Department will not pay the Contractor for the use of small tools not listed in the "Rental Rate Blue Book."

The Department will pay the Contractor for subcontractor-owned equipment in accordance with <u>Section 9.4 D.4.a</u>, and for equipment the Contractor has leased, rented, or hired from a subcontractor in accordance with <u>Section 9.4 D.4.b</u>.

a. Owned Equipment: Owned equipment is equipment and plant owned directly by the Contractor or by entities that are divisions, affiliates, subsidiaries, or otherwise related to the Contractor or its parent company. The Department will pay the Contractor for owned equipment at the hourly ownership cost determined in accordance with the "Rental Rate Blue Book." The hourly ownership cost equals the regionally adjusted monthly ownership cost divided by 176 hours per month. The Department will adjust this rate for regional factors, age, and operating expenses as set forth in the "Rental Rate Blue Book." Do not use the weekly, hourly, or daily rates listed from the "Rental Rate Blue Book." The Department will not pay for more than 176 hours per calendar month for a piece of equipment.

The Department will not pay the Contractor ownership costs exceeding the purchase price for an owned piece of equipment. Charge the same rate for equipment used on overtime as charged for regular hours.

If the owned equipment necessary for the revised work is not available at the project site, the Department will pay the Contractor for the cost of transporting the equipment to the project site ("move-in") and returning the equipment to its original location ("move-out") in accordance with the following:

- 1) Obtain the Engineer's approval of the original location of the equipment before transporting the equipment to the project site. If the Contractor chooses to keep the equipment at the project site to perform work other than the revised work, the Department will not pay the Contractor for the "move-out" costs. If the Contractor chooses to return the equipment to a location other than the original location, the Department will pay the Contractor for the "move-out" costs, not to exceed the "move-in" costs.
- 2) The Engineer will determine the Contractor's cost of transporting the equipment to and from the project site based on the hourly rates for labor and equipment determined in accordance with <u>Section 9.4 D.1</u> and <u>Section 9.4 D.4</u>. The Engineer will use standby equipment rates to calculate move-in and move-out equipment costs.

The rates established above include the cost of fuel, oil, lubrication, supplies, attachments, repairs, overhaul, maintenance, depreciation, storage, overhead, profits, insurance, incidentals, and all other costs.

b. Leased, Rented, or Hired Equipment: The Department will compensate the Contractor for leased, rented, or hired equipment by paying the invoiced rental rate for the time it is used to perform the changed work, including sales tax. Use leased, rented, or hired equipment that is available in the area if the cost of leased, rented or hired equipment is less than the cost of paying force account, including move in and move out costs, for Contractor owned equipment. The Engineer will convert weekly invoice rates to hourly rates by dividing the weekly rate by 40 hours per week, and monthly invoice rates to hourly rates by dividing the monthly rate by 176 hours per month.

The Department will not pay the Contractor more than the invoice price for a leased, rented, or hired piece of equipment. If the leased, rented, or hired equipment is from a subsidiary Contractor or owned by the Contractor, then the leased, rented, or hired equipment will be paid as owned equipment described above.

- c. Operating Costs: The Department will pay the Contractor for the operating costs of owned and leased, rented, or hired equipment based on the operating costs listed in the "Rental Rate Blue Book."
- d. Standby Rates: The Department will use standby equipment rates when the work requires a piece of equipment not already on the project to be brought in and, through no fault of the Contractor, the equipment is on standby status. Standby rates will be paid at 50% of the rates calculated in <u>Section 9.4 D.4.a</u> and <u>Section 9.4 D.4.b</u>. The Department will not pay operating expenses for equipment on standby. Standby rates will not exceed 8 hours per day or 40 hours per week.

If the equipment operates for more than 8 hours in a day or 40 hours in a week, the Department will not pay the Contractor for standby time for that day or week. If the equipment operates for less than 8 hours on a normal workday or less than 40 hours in a normal work week, the Department will only pay the Contractor for standby time based on the difference between the operating time on a normal workday and 8 hours per day, or the difference between the operating time in a normal work week and 40

hours per week. The Department will not pay the Contractor for standby time on a day that the Contractor is not normally scheduled to work.

- **5. Overhead:** The Department defines overhead to include the following:
  - **a.** Home office expenses, including the salaries and expenses of executive officers, area or regional managers, managers, supervisors, and engineering, estimating, administrative, and clerical personnel. Home office expenses are expenses incurred by the Contractor not charged directly to a project.
  - **b.** All field office expenses and administrative expenses, including field office rental and utility costs, project executives, project managers, general superintendents, superintendents, assistants, estimators, and non-working foremen.
  - **c.** Cost of small tools, such as shovels, picks, axes, saws, bars, sledges, lanterns, jacks, cables, pails, wrenches, and the cost of other miscellaneous supplies and services.
  - **d.** Computers, copiers, and other office equipment.
- **6. Daily Records:** Compare and reconcile the records of labor, materials, and equipment used in the performance of the revised work at the end of each day or shift with the Engineer.
- **7. Statements:** The Department will pay for work performed by force account based on itemized statements of the cost of such force account work detailed as follows:
  - **a.** Name, classification, date, daily hours, total hours, rate, and extension for each laborer and working foreman;
  - **b.** Designation, dates, daily hours, total hours, rental rate, and extension for each unit of machinery and equipment;
  - c. Quantities of materials, prices, and extensions;
  - **d.** Transportation of materials; and,
  - **e.** Cost of additional bond; property damage, liability, and workers' compensation insurance premiums; unemployment insurance contributions; and social security tax.

Support each statement by attaching paid invoices for rented equipment and materials used, including transportation charges in accordance with <u>Section 9.4 D.4</u> and <u>Section 9.4 D.3</u>.

**8. Subcontracting:** When a subcontractor performs work on a force account basis, the Engineer will allow the prime Contractor a percentage for the overhead expenses incurred in connection with the work. This administrative allowance will be based on the following table and is applicable to charges for labor and materials only and will be applied to all charges and added percentages specified in <a href="Section 9.4 D.1">Section 9.4 D.3</a> above. Bid items in the original contract are not eligible for this administrative allowance. The

Department will pay the administrative allowance only once, regardless of the subcontracting tier performing the work.

\$ 0 to \$5,000.00	10%
\$ 5,000.01 to \$50,000.00	\$500 plus 5% of excess over \$5,000
\$ 50,000.01 and over	\$2,750 plus 3% of excess over \$50,000

- **9. Profit:** The Department will add 10% to the sum of <u>Section 9.4 D.1</u> through <u>Section 9.4 D.3</u> for profit.
- **10. Excise Tax:** The Department will add applicable excise tax due to the South Dakota Department of Revenue. The Department will compute the excise tax from the sum of Section 9.4 D.1 through Section 9.4 D.9.
- E. Delay Costs: For a compensable delay as identified in Section 8.8 C, the Department will pay for the costs incurred by the Contractor because of the delay as specified in Section 9.4 E. The Department will not pay for delay costs until the Contractor submits an itemized statement of those costs. The Engineer will verify the statements before authorizing payment. The Department will not compensate the Contractor for non-allowable charges specified in Section 9.4 F or duplicate payments made under other payment provisions in the contract.
  - **1. Extended Field Office Overhead:** The Department will pay the Contractor for extended field office overhead costs as follows:
    - **a.** For general field supervision, including supervisors, assistants, watchpersons, clerks, and other field support staff, calculate the labor costs as specified in <u>Section 9.4 D.1</u>.
    - **b.** For field office facilities and supplies, which include field office trailers, tool trailers, office equipment rental, temporary toilets, and other incidental facilities and supplies, calculate the costs as follows:
      - 1) For field office trailers, tool trailers, and other rented or owned equipment at a daily rate equal to 8 hours per day at the hourly rate determined in accordance with Section 9.4 D.4. Apply the daily rate to the number of days that each trailer or equipment is at the project site longer because of the delay.
      - 2) For office equipment rental, temporary toilets, and other incidental facilities and supplies, at a daily rate determined by dividing the monthly rental costs by the number of calendar days in each month. Apply the daily rate to the number of days that each facility or supply is at the project site longer because of the delay.
      - 3) For maintenance of field operations costs, which include telephone, electric, water, and other similar costs, calculate a daily rate for these costs by dividing the monthly charges for these services by the number of calendar days each month. Apply the daily rate to the number of days of delay.
  - 2. Idle or Extended Labor: Calculate labor costs during delays as specified in <u>Section 9.4</u> <u>D.1</u> for all non-salaried personnel remaining on the project as approved by the Engineer.

- **3. Escalated Labor:** To receive payment for escalated labor, demonstrate that the delay forced performance of the work into a period where the Contractor paid higher labor costs than the Contractor would have paid absent the delay. Provide adequate supporting documentation for labor costs, allowances, and benefits.
- **4. Standby Equipment or Equipment Demobilization:** The Department will pay the Contractor the standby equipment rate determined in <u>Section 9.4 D.4.d</u> for equipment, other than small tools, required to remain at the project site during the delay. The Department will pay the Contractor's transportation costs to remove and return equipment not required to remain at the project site during the delay.
- **5. Materials Escalation or Material Storage:** The Department will pay the Contractor for increased material costs or material storage costs due to the delay. Obtain the Engineer's approval before storing material due to a delay.
- **F. Non-Allowable Charges:** The Department will not pay for the following non-allowable charges:
  - **1.** Extended, under-absorbed, or unabsorbed home office overhead or profit in excess of the percentage markups specified in <u>Section 9.4 D.1</u>, and <u>Section 9.4 D.3</u>.
  - Consequential damages, including loss of bonding capacity, loss of bidding opportunities, or insolvency.
  - 3. Inefficiency or loss of productivity.
  - 4. Indirect costs.
  - **5.** Attorney's fees or other costs of dispute resolution, arbitration, or litigation.
  - 6. Claim preparation expenses.
  - 7. Interest other than interest allowed in Section 9.7.
  - **8.** Profit on costs of suspensions or delays as specified in <u>Section 4.2</u>. Remove profit from the mark-ups allowed in Section 9.4 D.1, and Section 9.4 D.3.
  - **9.** Damages or losses incurred or sustained by the Contractor on, or in connection with, another project, anticipated project, or with other business or bonding relationships.
  - **10.** All other costs not specifically allowed by Section 9.4.
- **9.5 PROGRESS PAYMENTS** The Department will make partial payments at least once each month as the work progresses if the total value of work done since the last estimate amounts to \$500 or more. The Department will make partial payments more frequently each month if the amount of work performed is sufficient to warrant such payment.

The Contractor may submit items and quantities that may warrant the Engineer's consideration for payment on an estimate.

The Department's payments will be based upon estimates prepared by the Engineer of the value of the work performed and materials complete in place in accordance with the contract and for materials delivered in accordance with <u>Section 9.6</u>. Progress payments will not constitute acceptance of the work.

From the total amount determined payable, the Engineer will deduct payments due the landowner, as provided under <u>Section 6.2</u>. For each working day or calendar day counted after the contract time specified for the work as extended, the Engineer will retain the appropriate amount shown in the schedule of liquidated damages (<u>Section 8.9</u>) from the amount payable.

**9.6 PAYMENT FOR MATERIALS DELIVERED TO PROJECT** - The Department will not pay for materials delivered to, or stockpiled on, the project until incorporated in the work in final position, except as specified hereinafter.

The Department may make partial payments upon the Contractor's written request on specific items which will form a part of the completed work, and which are stockpiled in a manner and location satisfactory to the Engineer. The Department will not make payment for stockpiled materials unless the Contractor provides the Engineer evidence of material acceptability.

The Department will not pay for structural or reinforcing steel prior to fabrication, except the Department may make partial payment on structural steel to be used in bridge girders when requested in writing by the Contractor. The Department will make partial payment only for structural steel delivered to and stockpiled at the fabrication shop.

The Department may pay for mulch and seed provided the Contractor has satisfactory precautions in place to ensure proper storage.

If stored materials are lost or damaged, repair and replace the lost or damaged materials. If the Department has made prior payment, the Department will deduct the amount allowed, in whole or a proportionate part, from the next partial payment until the materials have been satisfactorily repaired or replaced.

The Department will pay for stockpiled materials on the basis of the quantities placed in storage.

The rate of payment will be on the basis of actual costs as evidenced by a delivery invoice or other satisfactory evidence of cost furnished by the Contractor. The payment will not exceed the contract amount or contract unit price for the item involved.

Supply a delivery invoice or invoices for all stockpiled materials, except materials manufactured by the Contractor which the Department will pay according to the percentage established in the following table. Obtain mix design verification before the Engineer will make a stockpile payment for AC mineral aggregate or PCCP aggregates.

SPEC REF.	CONTRACT BID ITEM	TYPE OF MATERIAL & PAYMENT UNIT	RATE OF PAY (% CONTRACT UNIT PRICE)
260	*1	Gravel, ton	60%
320	Asphalt Concrete	Mineral Aggregate, ton	40%
380	PCCP	Coarse Agg., ton Fine Agg., ton	30% 10%
460	Structural Concrete	Crushed Gravel or Rock, ton	5%

<sup>\*1</sup> Various items depending on material involved.

Furnish paid invoices for all stored manufactured or fabricated materials that have not been incorporated into the permanent work within 60 calendar days from the date payment was

requested. The paid invoice will include a notarized statement from the supplier or fabricator certifying that payment has been received. In the event a paid invoice is not received, the quantity of all previously allowed material remaining in storage will be deducted from the next progress estimate, and further allowance will not be made until the material is incorporated into the work.

9.7 FINAL PAYMENT - After the Contractor has provided all project documentation, the Engineer will prepare the final estimate of the quantities of work performed. After the Engineer determines the final estimate, the Department will pay the Contractor the entire sum found to be due after deducting previous payments and amounts to be retained or deducted under the provisions of the contract.

Prior partial estimates and payments will be subject to correction in the final estimate of payment. Final payment will be due 120 calendar days after the date shown on the Engineer's letter of Final Acceptance.

The Department will add interest to payments in excess of \$10,000 which are due the Contractor and remain unpaid 120 calendar days after the date shown on the Region Engineer's letter of Final Acceptance. Interest will accrue at a rate of 8.50% per annum for the time period after the noted 120 calendar days until final payment is made.

**9.8 MOBILIZATION** - Mobilization consists of preparatory work and operations, including, but not limited to the necessary movement of personnel, equipment, and incidentals to the project site; for the establishment of offices, buildings, and other facilities necessary for work on the project; for work and operations which must be performed; and for cost incurred before starting work on the various contract items on the project site.

When an item for mobilization is included in the bid proposal, the Department payment at the contract lump sum price will be considered full compensation for mobilization costs.

The Department will make partial payments on the following schedule:

- **A.** When the contract has been fully executed by parties thereto, the Department will make a partial mobilization payment. The partial mobilization payment will be made at 25% of the total amount bid for mobilization except the payment will not exceed 2.5% of the total contract amount.
- **B.** When 10% or more of the original contract amount is earned, an additional amount will be paid to bring the total payment for mobilization to 50% of the amount bid except the payment will not exceed 5% of the total contract amount.
- **C.** When 25% or more of the original contract amount is earned, an additional amount will be paid to bring the total payment for mobilization to 70% of the amount bid except the payment will not exceed 7% of the total contract amount.
- **D.** When 50% or more of the original contract amount is earned, an additional amount will be paid to bring the total payment for mobilization to 100% of the amount bid except the payment will not exceed 10% of the total contract amount.

**E.** When either 90%, or more, of the original contract amount is earned or when the Engineer issues the Acceptance of Field Work, whichever occurs earlier; an additional payment will be made to bring the total payment for mobilization to 100% of the amount bid.

If, at any time, it becomes evident the Contractor will not reach the 90% of the original contract amount threshold and the final mobilization will not be automatically prompted, the Contractor may request the final mobilization payment from the Department. Make such request in writing to the Engineer. If the Engineer determines the Contractor's request is valid and it is evident the final mobilization payment will not be automatically prompted, the Engineer will process the final mobilization payment.

When an item for "mobilization" is not included in the proposal, this work will be considered incidental to the various contract items.

**9.9 FREIGHT RATES** - Bidders will fully inform themselves as to the source of supply of acceptable materials needed for the performance of the work and as to carrier rates and other transportation costs and facilities for these materials before submitting proposals.

Changes in carrier rates or in the cost of other transportation facilities used for materials during the life of the Contract will not constitute cause for a claim for additional compensation.

- **9.10 FUEL COST ADJUSTMENT** The Engineer will determine compensation adjustments for motor fuels and burner fuels consumed in prosecuting the work in accordance with the following provisions:
  - **A. General:** The Engineer will assess compensation adjustments for the cost of the motor fuels and burner fuels whenever the Current Fuel Index (CFI) is outside the range of 85% to 115% of the Base Fuel Index (BFI). The Engineer will only make compensation adjustments for burner fuel when asphalt concrete bid items are paid for on the estimate.

The Contractor is not required to notify the Department at the time of submitting a bid proposal whether the Contractor will or will not participate in the fuel cost adjustment program. Prior to execution of the contract, submit a completed Fuel Adjustment Affidavit included in the proposal or available from the Department to the Department for approval.

Determination of whether to participate in the Fuel Adjustment program is the decision of the prime Contractor. If the prime Contractor decides not to participate, or if the prime Contractor has a fixed fuel cost for any of the fuel types, the Department will make no compensation adjustment for the subcontractors. If the prime Contractor chooses to participate in the fuel cost adjustment program, the Fuel Adjustment Affidavit must include the anticipated fuel cost of subcontractors. If compensation adjustments are made, ensure all subcontractors including second and lower tier, are included in the adjustments in proportion to the percentage of work and anticipated fuel cost by that subcontractor.

Each week the Department will record the average wholesale price for #2 fuel oil (diesel), regular unleaded gasoline, and propane (LPG), Freight On Board (FOB) South Dakota terminals, as listed in the "Oil Price Information Service" (OPIS) publication.

The BFI price for motor fuels and burner fuel to be used in the contract will be the average of the recorded wholesale fuel prices for the four most recent weekly reporting periods prior to the week of the bid letting.

The CFI price for motor fuels and burner fuel to be used for each progress payment will be the average for the recorded wholesale fuel prices for the four most recent weekly reporting periods available at the time when the progress payment is prepared.

Burner fuel adjustment will use the BFI and CFI as determined for #2 fuel oil (diesel), except when the Contractor lists the burner fuel as propane (LPG) on the Fuel Adjustment Affidavit. In that case, the BFI and CFI will be as determined for propane (LPG).

The Engineer will not assess compensation adjustments for fuel items which the Contractor has obtained a fixed fuel cost, or if the Contractor elects not to participate in fuel adjustments on the Fuel Adjustment Affidavit. Fixed fuel costs are defined as a fuel cost that has been set and will remain the same for the entire length of the contract.

The Engineer may make compensation adjustments in accordance with these provisions on progress payments without a prior approved Construction Change Order.

**B. Fuel Cost Percentage Change:** The Engineer will determine the biweekly change in fuel cost percentage by Equation 1 as follows:

## Equation 1

$$Change_{(x, y, z)} = \left(\frac{CFI_{(x, y, z)} - BFI_{(x, y, z)}}{BFI_{(x, y, z)}}\right)$$

(x) = Motor Fuel (Diesel)

(y) = Motor Fuel (Unleaded)

(z) = Burner Fuel

 $Change_{(x,y,z)}$  = Percent change in the respective fuel price compared to the Base Fuel Index Price set for the contract.

 $CFI_{(x,y,z)}$  = Current Fuel Index Price for the respective fuel type (\$).

 $\mathsf{BFI}_{(x,y,z)}$  = Base Fuel Index Price for the respective fuel type (\$).

**C. Contract Fuel Percentage:** For determining fuel cost adjustment, the Engineer will determine a percent of contract for motor fuel (Diesel) and motor fuel (Unleaded) based on the original contract prices. The Engineer will adjust burner fuel based on the original contract prices of the plant mix asphalt concrete pavement bid items.

The percent of the contract will remain the same throughout the length of the contract. No changes to this percentage will be allowed. The sum of the individual fuel costs must not exceed 15% of the original contract cost. The Engineer will determine the percent of the contract by Equation 2 as follows:

## Equation 2

$$\% \ \textit{Contract}_{(x,y,z)} = \left(\frac{\textit{Affidavit Cost}_{(x,y,z)}}{\textit{Original Contract Cost}_{(x,y,z)}}\right) \times 100$$

(x) = Motor Fuel (Diesel)

(y) = Motor Fuel (Unleaded)

(z) = Burner Fuel

% Contract $_{(x,y,z)}$  = Percent of contract for each respective fuel item.

Affidavit  $Cost_{(x,y,z)}$  = Cost from Fuel Adjustment Affidavit (Form DOT-208)

Original Contract  $Cost_{(x,y)}$  = Total of the original contract bid cost excluding lane rental, and Part

B of the bid (when A+B bidding is used), if applicable (\$).

Original Contract  $Cost_{(z)}$  = Total original contract cost for all plant mix asphalt concrete pavement

bid items combined, excluding bid items for asphalt binder, stabilizing additive, and hydrated lime. Only bid items measured by the Ton will

be included in the calculation.

**D. Compensation Adjustment:** The Engineer will determine the compensation adjustments for motor fuel (diesel), motor fuel (unleaded), and burner fuel separately. The Engineer will base the calculation on the current Engineer's pay estimate, the percent of the contract for each of the respective fuel items, and the portion of the CFI price that falls outside the 85% to 115% range of the BFI price.

When the "Change(x, y, z)" from Equation 1 is greater than 15%, the Engineer will determine the compensation for each item by Equation 3 as follows:

## Equation 3

$$FCA_{(x,y,z)} = \frac{\% \ Contract_{(x,y,z)}}{100} \times Estimate \ Cost_{(x,y,z)} \times \left(Change_{(x,y,z)} - 0.15\right)$$

(x) = Motor Fuel (Diesel)

(y) = Motor Fuel (Unleaded)

(z) = Burner Fuel

 $FCA_{(x,y,z)}$  = Fuel Cost Adjustment for the respective fuel item for the current Engineer's estimate (\$).

% Contract<sub>(x,y,z)</sub> = Percent of contract for each respective fuel item (from Equation 2).

Estimate  $Cost_{(x,y)}$  = Amount to be paid on the biweekly pay estimate excluding all pay adjustments made for incentive, disincentive, price adjustments, pay factor adjustments,

liquidated damages, and royalties.

Estimate  $Cost_{(z)}$  = Amount to be paid on the biweekly pay estimate for all plant mix asphalt

concrete pavement bid items combined, excluding bid items for asphalt binder, stabilizing additive, hydrated lime, sawing and sealing joints, compaction samples, and all pay adjustments made for incentive, disincentive, price adjustments, pay factor adjustments, liquidated damages, and royalties. The Engineer will only include asphalt concrete bid items measured by the ton in

the calculation.

Change in the respective fuel price compared to the BFI price (from Equation 1).

When the "Change $_{(x,y,z)}$ " from Equation 1 is less than -15%, the Engineer will determine the compensation adjustment for each item by Equation 4 as follows:

## Equation 4

$$FCA_{(x,y,z)} = \frac{\% \ Contract_{(x,y,z)}}{100} \times Estimate \ Cost_{(x,y,z)} \times \left(Change_{(x,y,z)} + 0.15\right)$$

(x) = Motor Fuel (Diesel)

(y) = Motor Fuel (Unleaded)

(z) = Burner Fuel

 $FCA_{(x,y,z)}$  = Fuel Cost Adjustment for the respective fuel item for the current Engineer's estimate (\$).

% Contract<sub>(x,y,z)</sub>= Percent of contract for each respective fuel item (from Equation 2).

Estimate Cost<sub>(x,y)</sub> = Amount to be paid on the biweekly pay estimate excluding all pay adjustments made for incentive, disincentive, price adjustments, pay factor adjustments, liquidated damages, and royalties.

Estimate  $Cost_{(z)}$  = Amount to be paid on the biweekly pay estimate for all plant mix asphalt concrete pavement bid items combined, excluding bid items for asphalt binder, stabilizing additive, hydrated lime, sawing and sealing joints, compaction samples, and all pay adjustments made for incentive, disincentive, price adjustments, pay factor adjustments, liquidated damages, and royalties. The Engineer will only include asphalt concrete bid items measured by the ton in

the calculation.

Change $_{(x,y,z)}$ = Change in the respective fuel price compared to the Base Fuel Index price (from Equation 1).

- **E. Payment:** The Engineer will determine adjustments on biweekly progress payments based on when the completed work is paid for, not when the work is completed. The Engineer will make adjustments by utilizing the following lump sum line items: motor fuel cost adjustment, diesel; motor fuel cost adjustment, unleaded; burner fuel cost adjustment, propane; and burner fuel cost adjustment, diesel.
- **9.11 PROMPT PAYMENT AND RETAINAGE** Pay subcontractors or suppliers within 15 calendar days of receiving payment for work that is submitted for progress payment by the Department.

If the Contractor elects to utilize retainage on subcontract work, the retainage will be released within 15 calendar days after the work is satisfactorily completed. A subcontractor's work is satisfactorily completed when all the tasks called for in the subcontract have been accomplished, paid for, and documented in accordance with the contract. The required documentation may include, but is not limited to certified payrolls, material certifications, haul road releases, pit releases, warranties, operating manuals, product literature, and verification of final quantities. The maximum amount permitted for retainage for a subcontract will be 10% of each progress payment.

The prompt payment and release of retainage applies to all tiers of subcontracts.

If the Contractor withholds payment beyond these time periods, submit written justification to the Engineer upon request. If the Engineer determines a subcontractor or supplier has not received

payment due without just cause, the Department may withhold future estimated payments and may direct the prime Contractor to make such payment to the subcontractor or supplier. Provide written notification to the Engineer upon making the payment.