PART I

GENERAL CONTRACT PROVISIONS
SECTION 10
DEFINITIONS AND TERMS

10-01 GENERAL. The following terms and definitions apply in these Specifications. If a term is not defined, the ordinary, technical, or trade meanings for that term shall apply, within the context in which it is used.

Titles and headings of sections, subsections, and subparts are intended for convenience of reference and will not govern their interpretation. Any reference to a specific requirement of a numbered paragraph of the contract specifications or a cited standard shall be interpreted to include all general requirements of the entire section, specification item, or cited standard that may be pertinent to such specific reference.

Cited publications refer to the most recent issue, including interim publications, in effect on the date of the Invitation To Bid, unless specified by year or date.

These Specifications are written to the Bidder or Contractor. Unless otherwise noted, all actions required by the specifications are to be performed by the Bidder, the Contractor, or the Contractor's agent.

Some portions of these Specifications are written using imperative mood and active voice to communicate the Contractor's responsibilities in a direct and concise manner. Omission of words or phrases such as “a,” “an,” “the,” “the Contractor shall,” “unless otherwise specified,” or “unless otherwise directed” is intentional. Interpret the Contract as if they were included.

For all Specification language except the General Contract Provisions, whenever anything is, or is to be, done, if, as, or, when, or where “acceptable, accepted, approval, approved, authorized, determined, designated, directed, disapproved, ordered, permitted, rejected, required, satisfactory, specified, submit, sufficient, suitable, suspended, unacceptable, unsatisfactory, or unsuitable,” the expression is to be interpreted as if it were followed by the words “by the Engineer” or “to the Engineer.”

10-02 ACRONYMS. Wherever the following abbreviations are used in these Specifications or on the Plans, they are to be construed the same as the respective expression represented:

AAC      Alaska Administrative Code
AASHTO  American Association of State Highway and Transportation Officials
AC      FAA Advisory Circular
ACI      American Concrete Institute
AIA      American Institute of Architects
AIP      Airport Improvement Program
AKOSH    Alaska Occupational Safety and Health
ANSI     American National Standards Institute
AOA      Air Operations Area
AS      Alaska Statute
ASDS    Alaska Sign Design Specifications
ASTM    American Society for Testing & Materials
ATM     Alaska Test Method (See Alaska Test Methods Manual)
CFR     Code of Federal Regulations
CSP     Construction Safety Plan
DOLWD   Alaska Department of Labor and Workforce Development
DOT&PF  Alaska Department of Transportation and Public Facilities
EPA     Environmental Protection Agency
FAA     Federal Aviation Administration
FOP     Field Operating Procedure (See Alaska Test Methods Manual)
FSS     Flight Service Station
ICEA    Insulated Cable Engineers Association (formerly IPCEA)
MRP     Mining and Reclamation Plan
NEC     National Electrical Code
NEMA    National Electrical Manufacturers Association
NOTAMs  Notices to Airmen
SSAC  DOT&PF Standard Specifications for Airport Construction
SSPC  Society for Protective Coatings
SPCC  Spill Prevention, Control, and Countermeasure (Plan)
SWPPP  Storm Water Pollution Prevention Plan
TCP  Traffic Control Plan
UL  Underwriters Laboratory
WAQTC  Western Alliance for Quality in Transportation Construction (See Alaska Test Methods Manual)

10-03 DEFINITIONS.

ACCEPTANCE SAMPLING AND TESTING. Sampling and testing performed by the State of Alaska, or its designated agent, to evaluate acceptability of the final product. This is also called verification sampling and testing when specifically used to validate the contractor’s data.

ACCESS ROAD. The right-of-way, the roadway, and all improvements constructed thereon connecting the airport to another public thoroughfare.

ADDENDA. Clarifications, corrections, or changes to the Plans, Specifications, or other Contract documents issued graphically or in writing by the Department after the advertisement but prior to bid opening.

ADVERTISEMENT. The public announcement, as required by law, inviting bids for specified work or materials.

AGREED PRICE. An amount negotiated between the Department and the Contractor after Contract award for additional work performed or additional materials supplied under the Contract.

AIR OPERATIONS AREA (AOA). Any area of the airport used or intended to be used for the landing, takeoff, surface maneuvering, or parking of aircraft. An air operation area shall include such paved or unpaved areas, that are used or intended to be used for the movement of aircraft, in addition to its associated runway, runway safety area, taxiway, taxiway safety area and apron.

AIRPORT. An area of land or water that is used or intended for use for the landing and takeoff of aircraft, and any appurtenant areas that are used or intended for use for airport buildings or other airport facilities or right of way, together with airport buildings and facilities.

AIRPORT IMPROVEMENT PROGRAM (AIP). A grant-in-aid program, administered by the FAA.

ALASKA TEST METHODS MANUAL. The materials testing manual used by the Department. It contains Alaska Test Methods, WAQTC Test Methods, WAQTC FOPs for AASHTO Test Methods, and Alaska Standard Practices for evaluating test results and calibrating testing equipment.

AWARD. Acceptance of the successful bid by the Department. The award is effective upon execution of the Contract by the Contracting Officer.

BASE COURSE. One or more layers of specified material placed on a subbase or subgrade to support a surface course.

BID. The bidder’s offer, on the prescribed forms, to perform the specified work at the prices quoted.

BID BOND. A type of bid guaranty.

BIDDER. An individual, firm, corporation, joint venture, or any acceptable combination of individuals and entities submitting a bid for the advertised work.

BID GUARANTY. The security furnished with a bid to guarantee that the bidder will enter into a contract if the Department accepts the bid.

GCP-10-2  3/12
CALENDAR DAY. Every day shown on the calendar, beginning and ending at midnight.

CHANGE ORDER. A written order by the Department to the Contractor making changes to the Contract, within its general scope, and establishing the basis of payment and time adjustment, if any, for the work affected.

COMPLETION DATE. The date on which all Contract work is specified to be completed.

CONSTRUCTION. Physical activity by the Contractor or any Subcontractor using labor, materials or equipment within the Project, or within material sources planned for use on the Project.

CONSTRUCTION SAFETY PLAN (CSP). A Contract document that specifies methods of controlling the operations of the Contractor, subcontractors, and suppliers so as to provide for (1) safety of workers, equipment, and public, (2) the movement of aircraft in the Air Operations Areas of the airport, and (3) the least inconvenience to traffic.

CONTINGENT SUM. A method for paying for a Contract bid item reserved by the Department for specified contingencies. The Contractor shall perform Contingent Sum work only upon the Directive of the Engineer. The basis of payment for Contingent Sum work shall be specified in the Contract or the Directive.

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

The Contract includes the Invitation To Bid, Bid Form, Standard Specifications, Special Provisions, Plans, Bid Schedule, Contract Forms, Contract Bonds, Addenda, and any Change Orders, Interim Work Authorizations, Directives, or Supplemental Agreements that are required to complete the work in an acceptable manner, all of which constitute one instrument.

CONTRACTING OFFICER (PROCUREMENT OFFICER). The person authorized by the Commissioner of the Department to enter into and administer the Contract on behalf of the Department. The Contracting Officer has authority to make findings, determinations, and decisions with respect to the Contract and, when necessary, to modify or terminate the Contract. The Contracting Officer is identified on the Invitation To Bid.

CONTRACT ITEM (PAY ITEM). A specifically described item of Contract work listed on the Bid Schedule or in a Change Order.

CONTRACTOR. The individual, firm, corporation, joint venture, or any acceptable combination of individuals and entities contracting with the Department for performance of the Contract.

CONTRACT TIME. The time allowed under the Contract, including authorized time extensions, for the completion of all work by the Contractor. Contract time may be specified either in calendar days or by completion date.

CONTROLLING ITEM. Any feature of the work considered at the time by the Engineer: (1) essential to the orderly completion of the work and (2) a feature which, if delayed, will delay the time of completion of the Contract (such as an item of work on the critical path of a network schedule).

COST. Amounts actually incurred by the Contractor in the performance of the Contract that are (a) actually reflected in contemporaneously maintained accounting or other financial records and (b) supported by original source documentation. Costs are to be stated in U.S. dollars.

CULVERT. A pipe or arch half pipe, that provides an opening under the embankment.

DAY. Calendar day unless preceded by the word “working”.

DEPARTMENT. The State of Alaska Department of Transportation and Public Facilities.
DIRECTIVE. A written communication to the Contractor from the Engineer enforcing or interpreting a Contract requirement or ordering commencement or suspension of an item of work already established in the Contract.

DRAINAGE SYSTEM. The system of pipes, ditches, and structures by which surface or subsurface waters are collected and conducted from the airport area.

ENGINEER. The authorized representative of the Department's Contracting Officer. The Engineer is responsible for administration of the Contract.

EQUIPMENT. All machinery, tools, apparatus, and supplies necessary to preserve, maintain, construct, and complete the work.

EQUITABLE ADJUSTMENT. An increase or decrease in Contract price or time calculated according to the terms of this Contract.

EXTRA WORK. An item of work not provided for in the Contract as awarded but found essential by the Engineer for the satisfactory completion of the Contract within its intended scope.

FEDERAL AVIATION ADMINISTRATION (FAA). Branch of the U.S. Department of Transportation. When used to designate a person, FAA shall mean the Administrator or their duly authorized representative.


HIGHWAY, STREET, OR ROAD. A general term denoting a public way used by vehicles and pedestrians, including the entire area within the right-of-way.

HOLIDAYS. State of Alaska legal holidays are:

1. New Year's Day - January 1
2. Martin Luther King, Jr. Day - Third Monday in January
3. Presidents' Day - Third Monday in February
4. Seward's Day - Last Monday in March
5. Memorial Day - Last Monday in May
6. Independence Day - July 4
7. Labor Day - First Monday in September
8. Alaska Day - October 18
9. Veteran's Day - November 11
10. Thanksgiving Day - Fourth Thursday in November
11. Christmas Day - December 25
12. Every Sunday
13. Every day designated by public proclamation by the President of the United States or the governor as a legal holiday.

If a holiday listed above falls on a Saturday, Saturday and the preceding Friday are both legal holidays for officers and employees of the state. If the holiday falls on a Sunday, except (12) above, Sunday and the following Monday are both legal holidays (See AS 44.12).

INDEPENDENT ASSURANCE (IA). Activities that are an unbiased and independent evaluation of all the sampling and testing (or inspection) procedures used in the quality assurance program. [IA provides an independent verification of the reliability of the acceptance (or verification) data obtained by the agency and the data obtained by the contractor. The results of IA testing or inspection are not to be used as a basis of acceptance. IA provides information for quality system management.]
INSPECTOR. The Engineer's representative authorized to make detailed inspections of Contract performance and materials.

INTERIM WORK AUTHORIZATION. A written order by the Engineer initiating changes to the Contract, within its general scope, until a subsequent Change Order is executed.

INVITATION TO BID. The advertisement for bids for all work or materials on which bids are required.

LABORATORY. The official testing laboratories of the Department or such other laboratories as may be designated by the Engineer.

LIGHTING. A system of fixtures providing or controlling the light sources used on or near the airport or within the airport buildings. The field lighting includes all luminous signals, markers, floodlights, and illuminating devices used on or near the airport or to aid in the operation of aircraft landing at, taking off from, or taxiing on the airport surface.

MAJOR CONTRACT ITEM. A Contract item with a total value of 5 percent or more of the Contract award amount.

MATERIALLY UNBALANCED BID. A mathematically unbalanced bid that either (a) gives rise to a reasonable doubt that it will ultimately result in the lowest overall cost to the Department, even though it may be the lowest bid or (b) is so unbalanced as to be tantamount to allowing a significant advance payment.

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

MATERIALS CERTIFICATION LIST (MCL). A list of materials for which the Contractor shall submit certifications to the Engineer. The MCL is included in the Contract documents as an appendix.

MATHEMATICALLY UNBALANCED BID. A bid (a) where each pay item fails to carry its share of the cost of the work plus the bidder's overhead and profit, or (b) based on nominal prices for some pay items and enhanced prices for other pay items.

MINOR CONTRACT ITEM. A Contract item with a total value of less than 5 percent of the Contract award amount.

NON-FROST SUSCEPTIBLE. Stone, gravel or sand, that contains 6 percent or less material passing the No. 200 screen as determined by sieve analysis performed with WAQTC FOP for AASHTO T27/T 11 on the minus 3-inch material, and has a plastic index of 6 or less as determined by WAQTC FOP for AASHTO T 90.

NOTICE OF INTENT TO AWARD. The written notice by the Department announcing the apparent successful bidder and establishing the Department's intent to award the Contract when all required conditions are met.

NOTICE TO PROCEED. Written notice to the Contractor to begin the Contract work.

ORIGINAL GROUND (OG). The ground surface prior to the start of work.

PAVEMENT STRUCTURE. The combination of subbase, base course, and surface course placed on a subgrade to support and distribute the traffic load. Some layers may not be present, see Plans.

PAYMENT BOND. The security furnished by the Contractor and the Contractor’s Surety to guarantee payment of all persons who supply labor and material in prosecution of the work provided for in the contract.

PERFORMANCE BOND. The security furnished by the Contractor and the Contractor’s Surety to guarantee performance and completion of the work provided for in the contract.

PLANS. The Department's contract drawings, profiles, typical cross sections, and supplemental drawings or reproductions showing the location, character, dimensions, and details of the work.
PRECONSTRUCTION CONFERENCE. A meeting between the Contractor and the Engineer to discuss the project before the Contractor begins the work.

PROCESS CONTROL. See quality control.

PROFILE. The vertical elevation of the surface of the layer at the location indicated. It is typically indicated at the longitudinal centerline of the top layer of pavement on the runway, taxiway, apron, or roadway. On a material or fabrication it may be used to indicate a shape, or a thickness of material or thickness of a coating.

PROJECT. (a) The specific section of the airport or other property and related facilities on which construction is to be performed, or (b) the work that is to be performed under the Contract whether completed or partially completed.

QUALITY ASSURANCE (QA) (1) All those planned and systematic actions necessary to provide confidence that a product or facility will perform satisfactorily in service; or (2) making sure the quality of a product is what it should be. [QA addresses the overall process of obtaining the quality of a service, product, or facility in the most efficient, economical, and satisfactory manner possible. Within this broad context, QA includes the elements of quality control, independent assurance, acceptance, dispute resolution etc. The use of the term QA/QC or QC/QA is discouraged and the term QA should be used. QA involves continued evaluation of the activities of planning, design, development of plans and specifications, advertising and awarding of contracts, construction, and maintenance, and the interactions of these activities.]

QUALITY ASSURANCE SPECIFICATIONS. Specifications that require contractor quality control and agency acceptance activities throughout production and placement of a product. Final acceptance of the product is usually based on a statistical sampling of the measured quality level for key quality characteristics. [QA specifications typically are statistically based specifications that use methods such as random sampling and lot-by-lot testing, which let the contractor know if the operations are producing an acceptable product.]

QUALITY CONTROL (QC) also called PROCESS CONTROL. The system used by a contractor to monitor, assess and adjust their production or placement processes to ensure that the final product will meet the specified level of quality. Quality control includes sampling, testing, inspection and corrective action (where required) to maintain continuous control of a production or placement process.

RESOURCES. Labor, equipment, materials, supplies, tools, transportation, and supervision necessary to perform the work.

RESPONSIBLE BIDDER. A bidder that the Department determines has the skill, ability, financial resources, legal capacity to contract, equipment, required licenses, integrity, satisfactory record of performance and that is otherwise fully capable of performing the Contract.

RESPONSIVE BID. A bid that the Department determines conforms in all material respects with the solicitation for bids.

RETAINAGE. A percentage of a payment established in advance under a contract or subcontract to be withheld from a progress payment due on the contract or subcontract. Payment or a percentage of payment withheld for unsatisfactory performance is not retainage.

RIGHT-OF-WAY. Land or property or an interest in property available for a project. The uses allowed in portions of right-of-way may be restricted.

RUNWAY. The area of the airport prepared for the landing and takeoff of aircraft.

RUNWAY SAFETY AREA (RSA). A defined surface surrounding the runway prepared or suitable for reducing the risk of damage to airplanes in the event an aircraft undershoots, overshoots, or departs from the runway.
SECURITY PLAN. A Contract document that specifies methods of controlling the operations of the Contractor, subcontractors, and suppliers so as to provide for (1) security of workers, equipment, and public, (2) security of aircraft in the Air Operations Areas of the airport, and (3) security of the Airport property.

SPECIAL PROVISION. Addition or revision that amends or supersedes the Standard Specifications and is applicable to an individual project.

SPECIALTY ITEM. A Contract item identified in the Contract that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid on the contract.

SPECIFICATIONS. General term applied to all Contract terms, conditions, directions, provisions, and requirements.

STANDARD SPECIFICATIONS. A book or electronic file of specifications approved by the Department for general application and repetitive use.

STATE. The State of Alaska, acting through its authorized representative.

STRUCTURE. Bridge, building, catch basin or inlet, cribbing, culvert, electrical duct, flexible and rigid pavements, handholes, junction boxes, lighting fixture and base, manhole, navigational aid, retaining wall, storm and sanitary sewer lines, transformer, underdrain, vault, visual aid, water line, and other manmade features of the airport that may be encountered in the work and not otherwise classified herein.

SUBBASE. Layer of specified material between the subgrade and base course.

SUBCONTRACTOR. Individual or legal entity to whom or to which the Contractor sublets part of the Contract.

SUBGRADE. The soil or embankment upon which the pavement structure is constructed.

SUBSIDIARY. Work or material not measured or paid for directly. Compensation for such work is included in the payment for other items of work.

SUBSTANTIAL COMPLETION. The point at which the project (1) can be safely and effectively used by the public without further delays, disruption, or other impediments; and (2) pavement structure, shoulder, drainage, sidewalk, permanent signing and markings, guardrail and other traffic barrier, fencing, safety appurtenance, structures, utilities, lighting, bridge deck and parapet work, and guidance systems for aircraft is complete.

For projects built in phases the work is substantially complete when it is ready for the subsequent project.

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

SUPPLEMENTAL AGREEMENT. Negotiated written agreement between the Department and the Contractor authorizing performance of work beyond the general scope of, but in conjunction with, the original Contract. Supplemental agreements are new procurements under the State Procurement Code, AS 36.30.

SURETY. Corporation, partnership, or individual, other than the Contractor, executing a bond furnished by the Contractor.

SURFACE COURSE. Top homogenous layer of the pavement structure. It is designed to withstand the wear of traffic and the disintegrating effects of climate. Sometimes called the wearing course.

TAXIWAY. The portion of the air operations area of an airport that has been designated for movement of aircraft to and from runways or aircraft parking areas.
TAXIWAY SAFETY AREA (TSA). A defined surface alongside the taxiway prepared or suitable for reducing the risk of damage to an airplane unintentionally departing the taxiway.

TRAFFIC CONTROL PLAN (TCP). A Contract document that specifies methods of routing pedestrian and/or vehicular traffic through or around a construction area, including specifying the location of all traffic control devices, for work outside the air operations area.

UTILITY. Line, facility, or system for producing, transmitting, or distributing communications, power, electricity, light, heat, gas, oil, crude products, water, steam, waste, storm water not connected with highway drainage, or other similar commodity, including a publicly owned fire or police signal system, street lighting system, or railroad which directly or indirectly serves the public. Also means Lighting as defined in this subsection. Also means a utility company, inclusive of any subsidiary.

VERIFICATION SAMPLING AND TESTING. See ACCEPTANCE SAMPLING AND TESTING.

WORK. Depending on the context, (a) The act of furnishing all resources for the project and performing all duties and obligations required by the Contract or (b) the physical construction, facility or end-product that is contemplated under the Contract, whether completed or partially completed.

WORKING DAYS. Calendar days, except Saturdays and state holidays.

WORKING DRAWINGS. Stress sheets, shop drawings, erection plans, falsework plans, framework plans, cofferdam plans, bending diagrams for reinforcing steel, wiring diagrams and schematics, traffic control plans, or any other supplementary plans or similar data which the Contractor is required to submit to the Engineer for approval.
SECTION 20
BIDDING REQUIREMENTS AND CONDITIONS

20-01 QUALIFICATION OF BIDDERS. A bidder shall:

a. On wholly state-funded projects, submit evidence of Contractor Registration, under AS 08.18, and valid Alaska Business License at the time designated for bid opening;

b. On federal-aid projects, submit evidence of Alaska Business License and Contractor Registration prior to award; and

c. When requested, submit a completed Contractor’s Questionnaire (Form 25D-8) stating previous experience in performing comparable work, business and technical organization, financial resources, and equipment available to be used in performing the work.

All firms desiring to participate in DOT&PF construction projects must register annually by submitting a completed Bidder Registration (Form 25D-6).

20-02 CONTENTS OF BID PACKAGE. Upon request, the Department will furnish prospective bidders with a bid package, at the price stated in the Invitation To Bid.

The bid package includes the following:

a. Location and description of the project;

b. Estimates of quantities of work and materials to be furnished;

c. Schedule of contract items for which bid prices are invited;

d. Time in which the work must be completed

e. Amount of the bid guaranty;

f. Date, time, and place for the bid opening;

g. Plans and specifications; and

h. Bid forms.

Unless otherwise stated in the bid package, the Plans, Specifications, permits, forms and any other documents designated in the bid package are considered a part of the bid whether attached or not.

20-03 INTERPRETATION OF QUANTITIES IN BID SCHEDULE. Bid prices shall be based on the estimated quantities shown in the bid schedule. Quantities of work to be done and materials to be furnished are approximate and are prepared only for the comparison of bids. These quantities may increase, decrease, or be eliminated. Payment for unit price items will be made for the actual accepted quantities of work performed and materials furnished under the Contract, as determined using the method of measurement specified in the Contract.

20-04 EXAMINATION OF PLANS, SPECIFICATIONS, SPECIAL PROVISIONS, AND WORK SITE. Bidders shall examine the work site and all Contract documents before preparing a bid. Submitting a bid is a binding representation that the bidder has examined the work site, is aware of the conditions to be encountered, and has examined and understands all of the Contract documents, including plans and specifications. Bidders shall examine the bidding requirements listed under Subsection 50-06 Utilities.
The records of geotechnical investigations including boring logs, test results, geology data reports, soil reports, material site reports, and geotechnical reports included in a bid package or made accessible to bidders or Contractors, are for information purposes only. These records are not part of the Contract. These records indicate subsurface conditions only at specific locations and times, and only to the depths penetrated. They do not necessarily reflect variations in soil, rock or groundwater conditions that may exist between or outside such locations. Actual conditions may differ from what is shown in the records. Material sources referenced in these records may not contain materials of sufficient quantity or quality to meet project requirements. The accessibility of these records does not constitute approval, nor guarantee suitability of soils or sources, or the rights to use sources for this project, except as specifically provided in Subsections 60-02.d.(2) Mandatory Sources and 60-02.d.(3) Designated Sources. The records shall not substitute for independent investigation, interpretation, or judgment of the bidder or contractor. The Department is not responsible for any interpretation or conclusion drawn from its records by the bidder or Contractor.

Bidders and Contractors shall examine Subsection 60-02 Material Sources for further information about material source development.

Any questions about bidding procedures, site conditions, or Contract requirements must be submitted in writing to the persons designated on the Invitation To Bid. Questions must be submitted in sufficient time to get a reply before submitting a bid. No oral responses or other oral statements are binding on the Department. Any response to a material question shall be issued by addendum sent to all bidders.

20-05 PREPARATION OF BID. Bids shall only be submitted on the forms furnished by the Department or legible copies of the Department's forms. All entries shall be legible and in ink or type. Bidders shall:

- Enter all prices required on the Bid Schedule, in figures;
- Enter a unit price for each contract item for which a quantity is given;
- Enter the products of the respective unit prices and quantities in the column provided;
- Enter lump sum prices for lump sum contract items in the column(s) provided; and
- Enter the total amount of all contract items for the basic bid and, when specified, any alternates.

When a bid item contains a choice to be made by the bidder, the bidder shall indicate a choice according to the Specifications for that item. No further choice is permitted.

The bid must be signed in ink by the person or persons authorized to sign the Contract for the bidder. If a bidder is a corporation, the bid must be signed by a corporate officer or agent with authority to bind the corporation. If a bidder is a partnership, a partner must sign. If the bidder is a joint venture, each principal member must sign. If a bidder is a sole proprietorship, the owner must sign. Each person signing the bid must initial any changes made to entries on the bid forms.

For multiple-project bid openings, bidders may limit the total dollar amount or number of projects to be accepted by completing the following statement and adding it to the Bid Form for at least one of the projects being bid. The Department will then determine which of the low bids it will accept, up to the total indicated.

“We wish to disqualify all of our successful bids at this bid opening which exceed the total of $________ or ____ contracts and hereby authorize the Department to determine which bids to disqualify, based on this limit.”

20-06 NONRESPONSIVE BIDS. A responsive bid conforms to all significant terms and conditions contained in the Department's invitation to bid.

- A bid shall be rejected as nonresponsive if it:
(1) Is not properly signed by an authorized representative of the bidder in ink and in a legally binding manner;

(2) Contains unauthorized additions, conditional or alternative bids, or other irregularities that make the bid incomplete, indefinite, or ambiguous;

(3) Includes a reservation of the right to accept or reject any award, or to enter into a contract pursuant to an award, except for an award limitation under Subsection 20-05;

(4) Fails to completely fill out, sign (with written or electronic signature) and submit bid forms that are required for bid. These documents include but are not limited to:
   a. Bid Form
   b. Bid Schedule
   c. Acceptable Bid Guaranty
   d. Bid Modifications (if paper bid is revised)
   e. Certification of Buy American Compliance (Form 25D-151 or Form 25D-152)
   f. Certification for Tax Delinquency and Felony Convictions (Form 25D-159);

(5) Is materially unbalanced; or

(6) Fails to meet any other material requirement of the Invitation To Bid.

b. A bid may be rejected as nonresponsive, in the Department's discretion, if it:

(1) Is not typed or completed in ink;

(2) Fails to include an acknowledgement of receipt of each addendum by assigned number and date of issue; or

(3) Is missing a bid price for any pay item, except when alternate pay items are authorized.

20-07 BID GUARANTY. Bids shall be accompanied by a bid guaranty in the amount specified on the Invitation To Bid. The guaranty shall be unconditionally payable to the State of Alaska and shall be in the form of an acceptable Bid Bond (Form 25D-14), or a certified check, cashier's check, or money order.

The surety of a Bid Bond may be any corporation or partnership authorized to do business in Alaska as an insurer under AS 21.09. A legible power of attorney shall be included with each Bid Bond.

An individual surety will not be accepted as a bid guaranty.

20-08 DELIVERY OF BIDS. Bids shall be submitted in the envelope furnished by the Department, or one of the same general size and shape that has the same identifying information. The envelope shall clearly indicate its contents and the designated address, as shown on the Invitation to Bid. Bids for other work may not be included in the envelope. Electronic or faxed bids will not be considered, unless specifically called for in the Invitation to Bid.

20-09 WITHDRAWAL OR REVISION OF BIDS. Bidders may withdraw or revise a bid in writing delivered by mail or by fax, provided that the designated office receives the withdrawal or revision before the time set for opening of bids. Revisions shall be submitted on the forms furnished by the Department or legible copies of the Department's forms.

Revisions shall include both the modification of the unit bid price and the total modification of each item modified, but shall not reveal the amount of the total original or revised bids.
20-10 PROTEST OF INVITATION TO BID. An interested party, as defined in AS 36.30.699, may protest an Invitation to Bid before the bid opening according to AS 36.30.560 and AS 36.30.565. Submit a protest to the Contracting Officer.

20-11 ADDENDA REQUIREMENTS. The Department will issue addenda if it determines, in its discretion, that clarifications or changes to the Contract documents or bid opening date are needed. The Department may send addenda by any reasonable method such as mail, courier, fax, or may post the addenda on its web site. Unless picked up in person or included with the bid documents, addenda or notice that an addenda has been issued will be addressed to the individual or company to whom bidding documents were issued and sent to the address or fax number on the plan holders’ list. Notwithstanding the Department’s efforts to distribute addenda, bidders are responsible for ensuring that they have received all addenda affecting the Invitation To Bid. Bidders must acknowledge all addenda received, either on the Bid Form or by fax prior to the scheduled time of bid opening. If a bidder received no addenda, the bidder shall enter “None” on the Bid Form.

20-12 RECEIPT AND OPENING OF BIDS. The Department will only consider bids, revisions, and withdrawals received before the scheduled time of bid opening.

Bids will be opened and read publicly at the time and place indicated in the Invitation to Bid. The Department is not responsible for prematurely opening or failing to open bids that are improperly addressed or identified.

20-13 RESPONSIBILITY OF BIDDERS. The Department may find a bidder is nonresponsible for any one of the following reasons, but is not limited in its responsibility analysis to the following factors:

   a. Evidence of bid rigging or collusion;

   b. Fraud or dishonesty in the performance of previous contracts;

   c. More than one bid for the same work from an individual, firm, or corporation under the same or different name;

   d. Unsatisfactory performance on previous or current contracts;

   e. Failure to pay, or satisfactorily settle, all bills due for labor and material on previous contracts;

   f. Uncompleted work that, in the judgment of the Department, might hinder or prevent the bidder’s prompt completion of additional work, if awarded;

   g. Failure to reimburse the state for monies owed on any previous contracts;

   h. Default under previous contracts;

   i. Failure to submit evidence of registration and licensing;

   j. Failure to comply with any qualification requirements of the Department;

   k. Engaging in any activity that constitutes a cause for debarment or suspension under the State Procurement Code (AS 36.30) or submitting a bid during a period of debarment;

   l. Failure to satisfy the responsibility standards set out in state regulations;

   m. Lack of skill, ability, financial resources, or equipment required to perform the contract; or

   n. Lack of legal capacity to contract.
Nothing contained in this section deprives the Department of its discretion in determining the lowest responsible bidder.

20-14 FOREIGN TRADE RESTRICTION. The Contractor by submission of an offer and/or execution of a contract, certifies that it:

a. Is not owned or controlled by one or more citizens or nationals of a foreign country included in the list of countries that discriminate against U.S. firms published by the Office of the United States Trade Representative (USTR);

b. Has not knowingly entered into any contract or subcontract for this project with a contractor that is a citizen or national of a foreign country on said list, or is owned or controlled directly or indirectly by one or more citizens or nationals of a foreign country on said list; and

c. Has not procured any product nor subcontracted for the supply of any product for use on the project that is produced in a foreign country on said list.

Unless the restrictions of this clause are waived by the Secretary of Transportation according to 49 CFR 30.17, no contract shall be awarded to a contractor who is unable to certify to the above. If the Contractor knowingly procures or subcontracts for the supply of any product or service of a foreign country on the said list for use on the project, the FAA may direct, through the Department, cancellation of the contract at no cost to and with no damages available from the Department or the Federal government.

The Contractor shall incorporate this provision for certification without modification in each contract and in all lower tier subcontracts. The Contractor shall require subcontractors to provide immediate written notice to it if the subcontractor learns that its certification was erroneous, or has become erroneous, by reason of changed circumstances. The Contractor may rely upon the certification of a prospective subcontractor unless it has knowledge that the certification is erroneous.

The Contractor shall provide immediate written notice to the Department if the Contractor learns that its certification or that of a subcontractor was erroneous when submitted or has become erroneous by reason of changed circumstances.

This certification is a material representation of fact upon which reliance was placed when making the award. If it is later determined that the Contractor or subcontractor knowingly rendered an erroneous certification, the FAA may direct, through the Department, cancellation of the contract or subcontract for default at no cost to, and with no damages available from, the Department or the Federal Government.

Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by this provision. The knowledge and information of a contractor is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

This certification concerns a matter within the jurisdiction of an agency of the United States of America and the making of a false, fictitious, or fraudulent certification may render the maker subject to prosecution under Title 18, United States Code, Section 1001.
SECTION 30
AWARD AND EXECUTION OF CONTRACT

30-01 CONSIDERATION OF BIDS. After the bids are opened and read, the bids will be mathematically checked and compared on the basis of the sum of the products of the bid schedule quantities and the unit bid prices. The unit bid prices govern if there is an error in extending the unit bid prices, or in totaling the extensions, or if an extension is missing. The results of the bid comparisons will be made available to the public as soon as practicable.

Until the Award, the Department may reject any or all bids, waive minor informalities or advertise for new bids without liability to any bidder if the Department, in its discretion, determines that to do so is in the best interests of the state.

A bidder may request withdrawal of a bid after opening and before the Award only according to AS 36.30.160(b) and State procurement regulations. Submit the request to the Contracting Officer.

An interested party, as defined in AS 36.30.699, may protest a proposed Award of contract as per AS 36.30.560 and AS 36.30.565. Submit the protest to the Contracting Officer.

30-02 SUBCONTRACTOR LIST. The apparent low bidder shall submit a completed Subcontractor List, Form 25D-5, within five working days following receipt of written notification by the Department that it is the low bidder.

An apparent low bidder who fails to submit a completed Subcontractor List form within the time allowed will be declared nonresponsible and may be required to forfeit the bid security. The Department will then consider the next lowest bidder for award of the Contract.

If a bidder fails to list a subcontractor, or lists more than one subcontractor for the same portion of work, and the value of that work is in excess of one-half of one percent of the total bid amount, the bidder agrees to perform that portion of work without a subcontractor and represents that it is qualified to perform that work.

A bidder who lists as a subcontractor another contractor who, in turn, sublets the majority of the work required under the Contract, violates this subsection.

A bidder or Contractor may, without penalty, replace a listed subcontractor who:

a. Fails to comply with licensing and registration requirements of AS 08.18;

b. Fails to obtain a valid Alaska business license;

c. Files for bankruptcy or becomes insolvent;

d. Fails to execute a subcontract for performance of the work for which the subcontractor was listed, and the bidder acted in good faith;

e. Fails to obtain bonding acceptable to the Department;

f. Fails to obtain insurance acceptable to the Department;

g. Fails to perform the subcontract work for which the subcontractor was listed;

h. Must be replaced to meet the bidder's required state or federal affirmative action requirements;

i. Refuses to agree or abide with the bidder's labor agreement; or
j. Is determined by the Department to be not responsible.

In addition to the circumstances described above, a Contractor may in writing request permission from the Department to add a new subcontractor or replace a listed subcontractor. The Department will approve the request if it determines in writing that allowing the addition or replacement is in the best interest of the State.

A bidder or Contractor shall submit a written request to add a new subcontractor or replace a listed subcontractor to the Contracting Officer a minimum of five working days before the date the new subcontractor is scheduled to begin work on the construction site. The request must state the basis for the request and include supporting documentation acceptable to the Contracting Officer.

If a bidder or Contractor violates this Subsection, the Contracting Officer may:

a. Cancel the Contract after Award without any damages accruing to the Department; or

b. After notice and a hearing, assess a penalty on the bidder or Contractor in an amount not exceeding 10 percent of the value of the subcontract at issue.

30-03 AWARD OF CONTRACT. The Department will award the Contract to the lowest responsible and responsive bidder unless it rejects all bids. The Department will notify all bidders in writing of its intent to award.

The Department will notify the successful bidder in writing of its intent to award the Contract and request that certain required documents, including the Contract Form, bonds, and insurance be submitted within the time specified. The successful bidder's refusal to sign the Contract and provide the requested documents within the time specified may result in cancellation of the notice of intent to award and forfeiture of the bid security.

If an award is made, it will be made as soon as practicable and usually within 40 days after bid opening. Award may be delayed due to bid irregularities or a bid protest, or if the award date is extended by mutual consent. Bids shall be valid for 120 days after bid opening, and may be extended by mutual consent.

For AIP contracts, no award shall be made until the FAA has concurred in the Department's recommendation to make such award and has approved the Department's proposed contract to the extent that such concurrence and approval are required by 49 CFR Part 18.

30-04 RETURN OF BID GUARANTY. The Department will return bid guaranties, other than bid bonds:

a. To all except the two lowest responsive and responsible bidders, as soon as practicable after the opening of bids; and

b. To the two lowest responsive and responsible bidders immediately after Contract award.

30-05 PERFORMANCE AND PAYMENT BONDS. The successful bidder shall furnish all required Performance and Payment Bonds on forms provided by the Department for the sums specified in the Contract. If no sum is specified, the successful bidder shall comply with AS 36.25.010. The Surety on each bond may be any corporation or partnership authorized to do business in the state as an insurer under AS 21.09 or two responsible individual sureties approved by the Contracting Officer.

If individual sureties are used, two individual sureties must each provide the Department with security assets located in Alaska equal to the specified amount of each bond. The net worth and the total value of the security assets of each individual surety shall not be less than the penal amount of the bond. In addition, each individual Surety, upon the Department's request, shall execute an affidavit of individual surety on a form provided by the Department. Each individual surety affidavit contains a Certificate of Sufficiency that must be signed by an official of an institution having full knowledge of assets and responsibilities of the Surety. Any costs incurred by the Contractor and the individual Surety are subsidiary and shall be borne by the Contractor or the individual Surety. In no event will the Department be liable for these costs.
Individual sureties shall provide security by one, or a combination, of the following methods:

a. **Escrow Account.** An escrow account with a federally insured financial institution, in the name of the Department. Acceptable securities include, but are not limited to, cash, treasury notes, bearer instruments having a specific value, or money market certificates.

b. **First Deed of Trust.** A first deed of trust with the Department named as beneficiary, against the unencumbered value of real property or an agreement by a second party, including deeds of trust, mortgage, lien, or judgment interests to subrogate their interests to the Department in the real property offered by the individual Surety. A title insurance policy, with the Department as a named beneficiary, and a current (within three months) professional appraisal or assessed valuation is required to ascertain the true value of the property offered as collateral. Fire and casualty insurance, with the Department as a named insured, and in limits and coverages acceptable to the Contracting Officer, are required if buildings or other valuable improvements are involved. The appraiser must acknowledge in writing that the appraisal is prepared for the benefit of the Department and the Department has the right to rely on its contents. The deed of trust must be recorded in the recording office where the property is located.

These bonds and security assets, as applicable, shall remain in effect for 12 months after the date of final payment or, if longer, until all obligations and liens under this Contract are satisfied, including, but not limited to, obligations under Subsection 70-19.

The Department may, in its discretion, notify the bonding company or Surety of any potential default or liability.

The Contractor shall substitute, within five working days, another bond or surety acceptable to the Department if an individual Surety or the Surety on any bond furnished in connection with the Contract:

a. Becomes insolvent or is declared bankrupt;

b. Loses its right to do business in any state affecting the work;

c. Ceases to meet Contract requirements;

d. Fails to furnish reports of financial condition upon request; or

e. Otherwise becomes unacceptable to the Department.

When approved by the Contracting Officer, the Contractor may replace:

a. An individual surety with a corporate surety; or

b. Posted collateral with substitute collateral.

Failure to maintain the specified bonds or to provide substitute bonds when required under this section may be grounds for withholding contract payments until substitute bonding is obtained, and may, in the Department's discretion, be grounds for declaring the Contractor in default.

### 30-06 INSURANCE REQUIREMENTS

The Contractor shall provide evidence of insurance with an insurance carrier or carriers satisfactory to the Department covering injury to persons and property suffered by the State of Alaska or by a third party as a result of operations under this contract by the Contractor or by any subcontractor. The Contractor’s insurance shall provide protection against injuries to all employees of the Contractor and the employees of any subcontractor engaged in work under this Contract. All insurance policies shall be issued by insurers that (i) are permitted to transact the business of insurance in the State of Alaska under AS 21 and (ii) have a financial rating acceptable to the Department. The Contractor shall notify the Engineer, in writing, at least 30 days before cancellation of any coverage or reduction in any limits of liability.

Where specific limits and coverages are shown, it is understood that they shall be the minimum acceptable. The requirements of this subsection shall not limit the Contractor’s indemnity responsibility under Subsection
70-13. Additional insurance requirements specific to this contract are contained in the Special Provisions, when applicable.

The Contractor shall maintain the following policies of insurance with the specified minimum coverages and limits in force at all times during the performance of the Contract:

a. **Workers’ Compensation:** as required by AS 23.30.045, for all employees of the Contractor engaged in work under this Contract. The Contractor shall be responsible for Workers’ Compensation Insurance for any subcontractor who performs work under this Contract. The coverage shall include:

   (1) Waiver of subrogation against the state;
   
   (2) Employer’s Liability Protection at $500,000 each accident/each employee and $500,000 policy limit;
   
   (3) “Other States” endorsement if the Contractor directly utilizes labor outside of the State of Alaska;
   
   (4) United States Longshore and Harbor Workers’ Act Endorsement, whenever the work involves activity over or about navigable water; and
   
   (5) Maritime Employer’s Liability (Jones Act) Endorsement with a minimum limit of $1,000,000, whenever the work involves activity from or on a vessel on navigable water.

b. **Commercial General Liability:** on an occurrence policy form covering all operations with combined single limits not less than:

   (1) $1,000,000 Each Occurrence;
   
   (2) $1,000,000 Personal Injury;
   
   (3) $2,000,000 General Aggregate; and
   
   (4) $2,000,000 Products-Completed Operations Aggregate.

c. **Automobile Liability:** covering all vehicles used in Contract work, with combined single limits not less than $1,000,000 each occurrence.

d. **Umbrella Coverage:** for Contract amounts over $5,000,000 not less than $5,000,000 umbrella or excess liability. Umbrella or excess policy shall include products liability completed operations coverage and may be subject to $5,000,000 aggregate limits. Further, the umbrella or excess policy shall contain a clause stating that it takes effect (drops down) in the event the primary limits are impaired or exhausted.

The State of Alaska shall be named as an additional insured on policies required by paragraphs b thru d above. All of the above insurance coverages shall be considered to be primary and non-contributory to any other insurance carried by the State of Alaska, whether through self-insurance or otherwise.

In any contract or agreement with subcontractors performing work, the Contractor shall require that all indemnities and waivers of subrogation it obtains, and any stipulation to be named as an additional insured it obtains, shall also be extended to waive rights of subrogation against the State of Alaska and to add the State of Alaska as an additional named indemnitee and as an additional insured.

The apparent low bidder shall furnish evidence of insurance to the Department before award of the Contract. The evidence shall be issued to the Department and shall be either a certificate of insurance or the policy declaration page with all required endorsements attached and must:
a. Denote the type, amount, and class of operations covered;
b. Show the effective (and retroactive) dates of the policy;
c. Show the expiration date of the policy;
d. Include all required endorsements;
e. Be executed by the carrier's representative; and
f. If a certificate of insurance, include the following statement:

“This is to certify that the policies described herein comply with all aspects of the insurance requirements of (Project Name and Number). The insurance carrier agrees that it shall notify the Engineer, in writing, at least 30 days before cancellation of any coverage or reduction in any limits of liability.”

The Department’s acceptance of deficient evidence of insurance does not constitute a waiver of Contract requirements.

Failure to maintain the specified insurance or to provide substitute insurance if an insurance carrier becomes insolvent, is placed in receivership, declares bankruptcy, or cancels a policy may be grounds for withholding Contract payments until substitute insurance is obtained, and may, in the Department's discretion, be sufficient grounds for declaring the Contractor in default.

30-07 EXECUTION AND APPROVAL OF CONTRACT. The successful bidder shall execute and return the Contract Form and all other required documents to the Department within the time specified, or within 15 days after receipt by the bidder if no time is specified. A contract is awarded only after it has been signed by the Contracting Officer.

30-08 FAILURE TO EXECUTE CONTRACT. If the successful bidder fails to appropriately execute and return the Contract Form and other documents within time specified, as required above, the Department may cancel the intent to award and keep the bid guaranty. The Department will then, in its discretion, award the Contract to the next lowest responsive and responsible bidder or readvertise the work.

30-09 ORAL STATEMENTS. The written terms of the Contract are binding. No oral statement of any person shall, in any manner or degree, modify or otherwise affect, change, or amend the terms of the Contract.

30-10 INTEGRATED CONTRACT. This Contract is an integrated document and contains the complete agreement and understanding of the parties. There are no unwritten agreements or understandings between the parties. Changes ordered or agreed upon, Directives given, or Equitable Adjustments issued under this Contract, and all other matters affecting the Contract, must be in writing in order to be binding and effective.
SECTION 40
SCOPE OF WORK

40-01 INTENT OF CONTRACT. The intent of the Contract is to provide for the construction and completion of every detail of the described work. The Contractor shall furnish all labor, material, supervision, equipment, tools, transportation, supplies, and other resources required to complete the work in the time specified and according to the Contract.

40-02 CHANGES.

a. Within Contract Scope. The Engineer may order changes within the general scope of the Contract at any time, and without notice to sureties, including altering, ordering additions to, or ordering deletions of quantities of any item or portion of the work. These changes shall be made by a written Change Order and shall not invalidate the Contract or release the sureties.

(1) If the change does not materially differ in character or unit cost from specified Contract work, the Contractor shall perform the work at the original contract measurement methods and prices, subject to the provisions of Subsection 90-04.

(2) If the change is materially different in character or unit cost from that specified in the Contract, a new Contract Item will be established, and an equitable adjustment to Contract price and Contract time shall be calculated by one of the following methods:

(a) The Engineer and Contractor agree upon an adjustment to Contract price and Contract time, and the Engineer issues a change order for the described work;

(b) The Engineer requires the Contractor to proceed with the described work, with an adjustment to contract price and contract time, calculated by time and materials basis under Subsection 90-05, and the Engineer issues a change order for the work. The Contractor shall keep complete daily records of the cost of such work; or

(c) The Engineer may issue a unilateral Change Order requiring the Contractor to proceed with the work with an adjustment to the payment amount or Contract time based on the Engineer's estimate of reasonable value. The Contractor shall keep complete daily records of the cost of such work.

(3) If the Engineer eliminates a Contract item, the Contractor shall accept compensation under Subsection 90-09.

b. Outside Contract Scope. Changes determined to be outside the general scope of the Contract shall be made only by Supplemental Agreement issued according to AS 36.30 and the State's procurement regulations. Additional bonding or insurance may be required.

c. Cost and Pricing Data. Before a Change Order or Supplemental Agreement covering work for which there is no established Contract price will be approved, the Contractor shall submit detailed cost or pricing data regarding the changed work. The cost or pricing data shall include an itemization of production rates and all costs including labor, materials, and equipment required for the work. The Contractor shall certify that the data submitted are, to the best of its knowledge and belief, accurate, complete, and current as of a mutually agreed date and that the data will continue to be accurate and complete during the performance of the changed work.
40-03 DIFFERING SITE CONDITIONS. The Contractor shall immediately notify the Engineer in writing and specifically describe the alleged differing site condition if the Contractor discovers:

a. Subsurface or latent physical conditions at the site, differing materially from those shown in the Contract documents, that could not have been discovered by a careful examination of the site; or

b. Unknown physical conditions at the site, of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract.

Failure to give the Engineer immediate written notice of the alleged differing site condition as required under this section constitutes a waiver of any future claim arising from or relating to the alleged differing site condition.

Unless otherwise directed by the Engineer, the Contractor shall leave the affected area undisturbed and suspend work in that area until the Engineer investigates the conditions.

If the Engineer finds that such conditions differ materially and increase or decrease the cost of, or the time required for, performance of the Contract, the Engineer will prepare a Change Order for an Equitable Adjustment to the Contract. The Contractor shall cooperate with the Engineer’s preparation of the Change Order.

If the Contractor and the Engineer are unable to reach an agreement concerning the alleged differing site condition, the Contractor may file a claim under Subsection 50-17.

The Contractor shall keep accurate and detailed records of the actual cost of the work done as a result of the alleged differing site condition and shall allow the Engineer access to those records. Failure to keep records, to provide the Engineer with access to those records, or to give the notice required above will bar any recovery for the alleged differing site condition.

40-04 USE OF MATERIALS FOUND ON THE WORK. Before using borrow, the Contractor shall utilize Useable Excavation to construct the embankment layer on the project. Useable Excavation is stone, gravel, sand, or other material that is determined suitable by the Engineer, and that is encountered within the lines and grades of the project. For excavating the Useable Excavation and constructing the embankment with Useable Excavation, the Contractor shall be paid only the unit bid price for excavation. Hauling, placing, compacting and other activities required to construct the embankment with Useable Excavation shall be subsidiary to excavation, and the Contractor shall not be paid additional sums for those activities. The Engineer may approve the use of borrow when Useable Excavation is not available.

The Engineer may authorize the Contractor to use the Useable Excavation for Contract items other than construction of embankment, and the Contractor shall be paid both for the excavation of the Useable Excavation and for the other Contract Item for which it is acceptably used. If this action results in a shortage of embankment material:

a. The Contractor shall replace the Useable Excavation used for Contract items other than embankment, on a yard for yard basis with borrow acceptable to the Engineer; and

b. This replacement shall be at the Contractor’s expense and at no additional cost to the Department. The Contractor shall pay any royalties required for the borrow.

The Contractor shall not excavate or remove any material that is within the project limits but outside the lines and grades, without written authorization from the Engineer.

In the event the Contractor has processed material from state-furnished sources in excess of the quantities required for performance of the Contract, the Department may retain possession of the surplus processed materials, including any waste material produced as a by-product, without obligation to pay the Contractor for
processing costs. When the surplus materials are in a stockpile, the Engineer may direct the Contractor to leave the materials in the stockpile, level the stockpile(s) or remove the materials and restore the premises to a satisfactory condition at no additional cost to the Department.

The Contractor may temporarily use material from a structure that is designated to be removed to erect a new structure, but shall not cut or otherwise damage such material without the Engineer's approval.

40-05 MAINTENANCE OF TRAFFIC. It is the explicit intention of the Contract that the safety of aircraft, the public, the airport’s equipment and personnel, and the Contractor's equipment and personnel, shall be the most important consideration. It is understood and agreed that the Contractor shall provide for the free and unobstructed movement of aircraft in the air operations areas of the airport, except as specifically provided in this Contract, with respect to its own operations and the operations of all its subcontractors. It is further understood and agreed that the Contractor shall provide for the uninterrupted operation of visual and electronic signals (including power supplies thereto) used in the guidance of aircraft, whenever the airport is open to the arrival or departure of aircraft.

With respect to the Contractor’s own operations and the operations of all the Contractor’s subcontractors, the Contractor shall provide marking, lighting, and other acceptable means of identifying: personnel; equipment; vehicles; storage areas; and any work area or condition that may be hazardous to the operation of aircraft, fire-rescue equipment, maintenance vehicles, or support vehicles at the airport.

When the Contract requires the maintenance of vehicular traffic on an existing roadway, the Contractor shall keep such roadway open to all traffic, and shall provide such maintenance as may be required to accommodate traffic and to keep the roadway smooth and even. The Contractor shall furnish, erect, and maintain barricades, warning signs, flagpersons, and other traffic control devices in reasonable conformity with the Manual on Uniform Traffic Control Devices for Streets and Highways (published by the United States Government Printing Office) and the Alaska Traffic Manual Supplement, unless otherwise specified by the Department. The Contractor shall also construct and maintain in a safe condition any temporary connections necessary for ingress to and egress from abutting property or intersecting roadways, and as required in Subsection 50-13.

The Contractor shall make their own estimate of all labor, materials, equipment, and incidentals necessary for providing the maintenance of aircraft and vehicular traffic as specified in this subsection.

The cost of maintaining the aircraft and vehicular traffic specified in this subsection shall not be measured or paid for directly, but shall be subsidiary to the various contract items.

40-06 REMOVAL OF EXISTING STRUCTURES. The Contractor shall leave in place, work around and protect from damage existing structures encountered within the project lines and grades; unless such existing structures are to be removed, demolished, relocated, or salvaged.

Should the Contractor encounter an existing structure (above or below ground) in the work for which the disposition is not indicated on the Plans, the Contractor shall notify the Engineer prior to disturbing such structure. The Engineer will determine the disposition of existing structures so encountered according to the provisions of the contract.

The cost of working around and protecting existing structures, or removing existing structures including landfill waste fees, shall not be measured or paid for directly, but shall be subsidiary to the various contract items.

Structures that may be encountered within the project lines and grades shall be utilized in the work, and shall remain the property of the owner when so utilized in the work, unless otherwise indicated in the Contract.

40-07 CLEANUP. The Contractor shall remove all rubbish, solid waste, temporary structures, excess materials, and equipment from the project site, from state owned materials sources, and from all work areas before project completion.
40-08 VALUE ENGINEERING PROPOSALS BY CONTRACTOR.

a. Purpose and Scope. The purpose of this section is to encourage the Contractor to propose changes to Contract designs, materials, or methods based on the Contractor's experience and ingenuity. The Value Engineering Proposals (VEPs) contemplated are those that may result in immediate savings to the Department under this Contract without impairing essential functions and characteristics of the Project, including, but not limited to: service life, economy of operation, ease of maintenance, desired appearance, and safety. Cost savings on this project resulting from VEPs offered by the Contractor and accepted by the Department shall be shared equally between the Contractor and the Department.

The following are not eligible for value engineering proposals: changes in the basic design of a pavement type, runway and taxiway lighting, visual aids, hydraulic capacity of drainage facilities, or changes in grade or alignment that reduce the geometric standards of the project.

b. Submitting Proposals. All VEPs must be in writing. The Contractor shall submit the following with each VEP:

(1) A statement that the proposal is submitted as a Value Engineering Proposal under subsection 40-08;

(2) A description of the difference between the existing Contract requirements and the proposed change, stating the comparative advantages and disadvantages of each, including effects on service life, economy of operations, ease of maintenance, desired appearance, and safety;

(3) Drawings or specifications that show the proposed revisions relative to the original Contract requirements. The Contractor may submit schematics for conceptual approval of the proposal;

(4) A detailed and complete cost estimate comparing the original estimated costs for performing the work under the existing Contract and under the proposed VEP;

(5) A summary of the Contractor's development costs for the VEP, including costs for designing, testing, preparing and submitting the VEP;

(6) A description and estimate of added costs the Department may incur in implementing the VEP, such as review, testing and evaluation of the VEP and Contract administration costs;

(7) A date by which the Department must make a decision to obtain the cost savings projected in the VEP. The date identified must allow a reasonable time for the Department to conduct an adequate review and evaluation of the VEP and process a Change Order without affecting the Contractor's schedule;

(8) A statement of the probable effect the VEP would have on the Contract completion time. The Department's approval of the VEP shall not change the Contract completion date unless a change to the completion date is specifically provided for in the Change Order authorizing the VEP; and

(9) A description of any previous use or testing of the proposed change and the conditions and results. If the proposal was previously submitted on another Department project, indicate the date, project name and number, and the action taken by the Department.

c. Conditions. VEPs will be considered only when all of the following conditions are met:
(1) The Contractor has not based any bid prices on the anticipated acceptance of a VEP. If the VEP is rejected, the Contractor shall complete the work at the Contract prices.

(2) VEPs, regardless of their approval status, become the property of the Department. The Contractor shall submit VEPs without use or disclosure restrictions. The Department shall have the right to use, duplicate or disclose the VEP and any data necessary to use the VEP on the Project, on any other project, and on any other Contracts. The Contractor shall identify any trade secret information, patented materials or proprietary processes that restrict use of the VEP.

(3) The Department is the sole judge as to whether a VEP qualifies for consideration and evaluation. It may reject any VEP that does not allow a reasonable time for adequate review and evaluation by the Department or that requires excessive time or costs for review, evaluations, or investigations, or which is not consistent with the Department's design standards and policies, safety considerations, land use restrictions, permit stipulations, right-of-way limitations, or other essential criteria for the project. The Department may reject a VEP without obligation to the Contractor if it contains proposals that are already under consideration by the Department or that have already been authorized for the Contract.

(4) If additional information is needed to evaluate a VEP, the Contractor shall provide it in a timely manner. Failure to do so may result in rejection of the VEP.

(5) The Contractor may submit VEPs for an approved subcontractor if the Department makes reimbursement to the Contractor.

(6) If the Contractor hires a design professional to prepare the proposal, that professional must seal the documents and provide evidence of Professional Liability Insurance with limits acceptable to the Department.

(7) The Contractor shall not implement proposed changes before the Department accepts the VEP.

(8) The Department shall not consider VEPs to share in cost savings due to changes previously ordered or authorized under other Contract sections or for work already done.

(9) The Engineer shall reject all unsatisfactory work resulting from an accepted VEP. The Contractor shall remove all rejected work or materials, and shall reconstruct the work under the original Contract at the Contractor's sole expense under Subsection 50-11.

(10) Reimbursement for modifications to the VEP to adjust field or other conditions is limited to the total amount of the original Contract bid prices.

(11) The Department shall not be held liable for costs or delays due to the rejection of a VEP, including but not limited to the Contractor's development costs, loss of anticipated profits and increased material, labor or overhead costs.

d. Processing.

(1) The Engineer shall accept or reject the VEP, in writing, by the date the Contractor specifies, unless extended by mutual consent. If rejected, the Engineer will explain the reasons for rejection. A VEP may be rejected if the Contractor allows the Department insufficient time to adequately review and evaluate it.

(2) The Contractor may withdraw or modify a VEP at any time before it is accepted.

(3) If the VEP is approved in concept (without final drawings and specifications), the Department may either undertake the re-design itself or issue the Contractor a limited notice to proceed, subject to mutual agreement, authorizing the final design. The notice to proceed will include...
reference to any pertinent design criteria, Department policies, and other limitations on the
design or construction methods. Approval in concept does not constitute acceptance of the VEP
and will not obligate the Department to accept or pay for the final design.

(4) If the final VEP is accepted, the Engineer will issue a Change Order under Subsection 40-02
incorporating the VEP into the Contract.

e. Payment. If the Department accepts the VEP, payment will be authorized as follows:

(1) The Department will make a direct payment for the changed work at the unit or lump sum agreed
prices in the Change Order. Such prices will include reimbursement of the Contractor’s costs to
develop and submit the VEP, including overhead and profit.

(2) In addition, the Department will share the net savings with the Contractor in a separate lump
sum contract item, VEP Incentive, GCP-40a. The amount of the VEP incentive will be equal to
50 percent of the net savings to the Department. The net savings are the difference between the
original Contract price for the affected work and the cost of the revised work. For the purpose of
this calculation, the cost of the revised work will include costs the Department may incur as a
result of the VEP, such as review of the proposal, testing and evaluation, and added Contract
administration costs. These costs will be estimated and agreed to in the Change Order.

(3) The VEP Incentive, contract item GCP-40a, will be paid on a prorated basis as the revised work
is performed.
SECTION 50
CONTROL OF WORK

50-01 AUTHORITY OF THE ENGINEER. The Engineer has immediate charge of the engineering details of the project and is responsible for Contract administration. The Engineer has authority to reject defective material and suspend work being performed improperly. The Engineer has authority to accept completed work, issue Directives, issue Interim Work Authorizations, issue Change Orders, and recommend Contract payments.

The Engineer will decide all questions about the quality and acceptability of the materials furnished and the work performed by the Contractor, the Contractor’s rate of progress, Contract interpretation and all other questions relating to Contract performance.

The Engineer has authority to suspend work for reasons listed under Subsection 80-06. If the suspension is to protect workers or the public from imminent harm, the Engineer may orally order the suspension of work. Following an oral order of suspension, the Engineer will promptly give written notice of suspension. In other circumstances, the Engineer will give the Contractor written notice of suspension before suspension of work. A notice of suspension will state the defects or reasons for a suspension, the corrective actions required to stop suspension, and the time allowed to complete corrective actions. If the Contractor fails to take the corrective action within the specified time, the Engineer may:

   a. Suspend the work until it is corrected; and
   b. Employ others to correct the condition and deduct the cost from the Contract amount.

The Engineer may, at reasonable times, inspect any part of the plant or place of business of the Contractor or any subcontractor that is related to Contract performance, including private or commercial plants, shops, offices, or other places of business.

The Engineer may audit all books and records related to performance of the Contract, whether kept by the Contractor or a subcontractor, including cost or pricing data submitted under Subsection 40-02.

50-02 PLANS AND WORKING DRAWINGS. The Department shall provide the Contractor at least two full size sets of the conformed Plans and Contract including Special Provisions. If cross-sections are available, one set will be provided if requested in writing by the Contractor. The Contractor shall keep a complete set of these documents available on the project site at all times.

The Contractor shall supplement structure plans with working drawings that include all details that may be required to adequately control the work and that are not included in the Plans furnished by the Department. The Contractor shall not perform work or order materials until the working drawings for such work, or for changes, are approved by the Engineer.

The Contractor shall submit to the Engineer for approval five sets of any required preliminary detail or working drawings. The project name and number shall be stated in the title block for all drawings, as shall the state bridge number, when applicable. The Contractor shall use full-size (22”x34”) white paper with dark blue or black lines on all working and detail drawings.

The Contractor shall submit drawings to the Engineer in time to allow for review and correction before beginning the work detailed in the drawing. The Engineer shall return one set of these drawings, either approved or marked with corrections to be made, and shall retain the other sets.

Although the Contractor shall conduct its operations according to the approved working drawings, the Engineer's approval of working drawings does not change the Contract requirements or release the Contractor of the responsibility for successful completion of the work.
The Contractor is responsible for the accuracy of dimensions and details and for conformity of the working drawings with the Plans and Specifications. The Contractor shall indicate clearly on the working drawings any intended deviations from the Plans and Specifications and itemize and explain each deviation in the Contractor's transmittal letter. The Engineer may order the Contractor to comply with the Plans and Specifications at the Contractor's sole expense if the approved working drawings deviate from the Plans and Specifications and the Contractor failed to itemize and explain the deviations in the Contractor's transmittal letter.

Once the Contractor receives approval of the working drawings, the Contractor shall furnish to the Engineer:

- a. Enough additional copies to provide eight approved sets of prints;
- b. One set of reproducible transparencies (polyester film); and
- c. If requested, an electronic file in AutoCAD drawing interchange format (.DXF).

The Contractor shall include the cost of furnishing all working drawings in the Contract price.

50-03 CONFORMITY WITH PLANS AND SPECIFICATIONS. Work performed and materials furnished shall conform to the Plans, Specifications and approved Working Drawings, and be within specified tolerances. When tolerances are not specified, the Engineer will determine the limits allowed in each case.

All work or material not conforming to the Plans, Specifications, and approved Working Drawings is considered unacceptable unless the Engineer finds that reasonably acceptable work has been produced. In this event, the Engineer may allow non-conforming work or material to remain in place, but at a reduced price. The Engineer will document the basis of acceptance and payment by Change Order, unless the contract specifies a method to adjust the price of that item.

The failure of the Department to strictly enforce the Contract in one or more instances does not waive its right to do so in other or future instances.

50-04 COORDINATION OF PLANS, SPECIFICATIONS, AND SPECIAL PROVISIONS. These Standard Specifications, Plans, Special Provisions, and all supplementary documents are essential parts of the Contract. They are intended to complement each other and describe and provide for a complete project. A requirement occurring in one is as binding as if occurring in all.

In case of conflict, calculated dimensions will govern over scaled dimensions. In the event that any of the following listed contract documents conflict with another listed contract document, the order of precedence is (with a. having precedence over b., and b. having precedence over c., etc.):

- b. Plans
- c. Standard Specifications
- d. Materials testing standards
- e. FAA Advisory Circulars

The Contractor shall not take advantage of any apparent error or omission in the Contract documents. The Contractor may not base a claim for additional compensation or Contract time on a patent error, omission, or conflict in the Contract documents. The Contractor shall notify the Engineer immediately of any apparent errors or omissions in the Contract documents. The Engineer will make any corrections or interpretations necessary to fulfill the intent of the Contract.

50-05 COOPERATION BY CONTRACTOR. The Contractor shall give the work the constant attention necessary for its progress, and shall cooperate fully with the Engineer, Department staff, and other contractors in every way possible.

The Contractor shall employ, as its agent, a competent superintendently thoroughly experienced in the type of work being performed and capable of reading and thoroughly understanding the Plans and Specifications.
The Contractor shall ensure that the superintendent is available at all times to receive and execute Directives and other instructions from the Engineer, to supervise workers and to coordinate the work of subcontractors. The Contractor shall give the superintendent full authority to supply the resources required. The Contractor shall furnish superintendence regardless of the amount of work sublet.

50-06 UTILITIES.

a. Bid Considerations. Bidders shall include in their bid the cost of:

1. Providing uninterrupted operation of visual and electronic signals, including power supplies and Lighting used in the guidance of aircraft, whenever the airport is open to the arrival or departure of aircraft;

2. All utility work that is specified in the Contract as work to be performed by the Contractor;

3. Working around or through all permanent and temporary utilities shown on the Plans, in both their present and adjusted positions;

4. Accommodating the removal, adjustment, or relocation of utilities shown on the Plans by entities other than the Contractor;

5. Construction and removal of temporary utilities, to provide temporary utility service during the construction or repair of a permanent utility; and

6. Other utility work not specifically identified as compensable in Subparagraph d Compensation.

The Department will show the approximate locations of utilities it knows to be within the work zone on the Plans. Bidders shall expect that the location, elevation and nature of utilities may vary from what is shown on the Plans and shall factor those contingencies into the bid price. Additional utilities may exist that are not shown on the Plans. Compensation related to utilities not shown on the plans will only be available according to Subparagraph d Compensation.

When an entity other than the Contractor is to remove, adjust, or relocate any utility, the applicable completion dates or specific calendar days to complete the removal, adjustment, or relocation may be stated in the Special Provisions. If no date is stated in the Special Provisions, the Contractor shall work cooperatively with the utility owner during the Project.

b. Cooperation with Utility Owners. The Contractor assumes the obligation of coordinating their activities with utility owners, and shall cooperate with utility owners to facilitate removal, adjustment, or relocation operations, avoid duplication of work, and prevent unnecessary interruption of services. When a utility owner is identified in the Contract as being responsible for removing, adjusting, or relocating a utility, the Contractor shall give the utility owner 15 days advance written notice regarding the dates when the utility owner is required to begin and end operations.

The Contractor shall cooperate with utility owners to determine a utility progress schedule for all parties’ utility work. The Contractor shall submit the schedule to the Engineer before beginning that portion of utility work. The Contractor shall update the utility progress schedule monthly and shall note time delays and their cause.

Utility owners are not required to work in more than one location at a time, and shall be allowed to complete a specific section of work prior to commencing another section. Utility owners will not normally perform adjustment or relocation of underground utilities when the ground is frozen. Utility owners may prohibit the Contractor, through the Engineer, from working near utilities when the ground is frozen.
The Department has sole discretion to grant permits for utility work within the state right-of-way. The Contractor shall allow parties with utility permits to work and make excavations in the project.

If utility owners do not complete their work in a timely manner, the Engineer may direct the Contractor to temporarily relocate the utilities, to construct new utilities, or to make necessary repairs to complete the utility work.

c. Utility Work. The Contractor shall:

(1) Make all necessary arrangements with utility owners to locate all utilities that may be within an area of work before excavation in that area, according to AS 42.30.400;

(2) Provide right-of-way staking and construction staking with lines and grades before excavation in that area;

(3) Prevent damage to utilities or utility property within or adjacent to the project;

(4) Carefully uncover utilities where they intersect the work;

(5) Immediately stop excavating in the vicinity of a utility and notify the Engineer and the utility owner if an underground utility is discovered that was not field marked or was inaccurately field marked;

(6) Promptly notify the utility owner and the Engineer in the event of accidental interruption of utility service, and cooperate with the utility owner and the Engineer until service is restored;

(7) Take all precautions necessary to protect the safety of workers and the public when performing work involving utilities;

(8) Follow an approved traffic control plan;

(9) Keep the length of open trench excavation to a minimum, backfill trenches as work is completed;

(10) Cover open trenches with metal plates capable of bearing traffic where traffic will cross trenches;

(11) Maintain continuous utility service and install temporary utility systems where needed;

(12) Ensure all excavation conforms to AS 42.30.400 – 42.30.490;

(13) Ensure all excavation and utility work conforms to excavation requirements in 29 CFR 1926, Subpart P, and confined space requirements in 29 CFR 1926.21(b)(6);

(14) Ensure all work undertaken near energized high voltage overhead electrical lines or conductors conforms to AS 18.60.670, AS 18.60.675, AS 18.60.680 or other applicable law;

(15) Ensure all work undertaken near energized high voltage underground electric lines or conductors conforms to all applicable laws and safety requirements of the utility owner;

(16) When required by the utility owner, provide for a cable watch of overhead power, underground power, telephone, and gas;

(17) Obtain plan approval from the local fire authority, and provide for the continued service of fire hydrants, before working around fire hydrants;

(18) Do all pressure testing or camera testing required to verify utility acceptance in a timely manner; and
Coordinate the Storm Water Pollution Prevention Plan (SWPPP) (Section P-157) with their work and the utility companies’ work.

d. Compensation.

(1) Except as otherwise specifically provided in this Subparagraph d, no equitable adjustment will be paid by the Department:

(a) Due to any variations in location, elevation, and nature of utilities shown on the Plans, or the operation of removing, adjusting, or relocating them;

(b) For any delays, inconvenience, or damage sustained as a result of interference from utility owners, interference from utilities, or interference from the operation of removing, adjusting, or relocating utilities; or

(c) For any adjustments or relocations of utilities requested for the Contractor’s convenience.

(2) Except as otherwise specifically provided in this Subparagraph d, the Engineer will issue a Change Order with equitable adjustment if:

(a) Utilities not shown on the Plans require removal, adjustment, or relocation;

(b) Conflicts occur between utilities not shown on the Plans and other necessary work; or

(c) Conflicts due to the required elevation of a utility occur between new and existing utilities that are both shown on the Plans.

(3) When the Contractor damages utilities, the utility owner may choose to repair the damage or require the Contractor to repair the damage. When the Contractor damages utilities:

(a) No equitable adjustment will be paid by the Department, and the Contractor shall be solely responsible for repair costs and expenses, when:

1. The Contractor failed to obtain field locates before performing the work that resulted in the damage;

2. The utility was field located by the utility owner or operator, and the field locate is accurate within 24 horizontal inches if the utility is buried 10 feet deep or less, or the field locate is accurate within 30 horizontal inches if the utility is buried deeper than 10 feet;

3. The plan profile or the field locate does not indicate or inaccurately indicates the elevation of a buried utility;

4. The utility is visible in the field; or

5. The Contractor could otherwise reasonably have been aware of the utility.

(b) The Engineer will issue a Change Order with an equitable adjustment for the cost of repairing damage if:

1. The field locate by the owner or operator of a buried utility erred by more than 24 horizontal inches if the utility is buried 10 feet deep or less, or 30 horizontal inches if the utility is buried deeper than 10 feet;
2. The utility was not shown on the Plans or other Contract documents, and the Contractor could not reasonably have been expected to be aware of the utility’s existence; or

3. The Contractor made a written request for a field locate according to AS 42.30.400, the utility owner did not locate the utility according to AS 42.30.410, and the Contractor could not reasonably have been expected to be aware of the utility’s existence or location.

(4) If a delay is caused by a utility owner, is beyond the control of the Contractor, and is not the result of the Contractor’s fault or negligence, the Engineer may issue a Change Order with an equitable adjustment to contract time, but no equitable adjustment will be made for the cost of delay, inconvenience or damage. Additional contract time may be granted if the cause of delay is because a utility owner is to perform utility work:

(a) By dates stated in the Special Provisions, and the utility work is not completed by the dates stated; or

(b) In cooperation with the Contractor, and the utility owner does not complete the work in a timely manner, based on a written progress schedule agreed upon by the Contractor and the utility owner.

(5) If the Engineer orders the Contractor to make necessary construction or repairs due to incomplete utility work by utility owners, the Contractor will be paid as specifically provided for in the Contract, or the Engineer will issue a Change Order with equitable adjustment.

e. Cooperation with Airport Management and FAA. The Contractor shall coordinate their activities and cooperate with the Airport Management and the FAA, and shall provide 45 days advance written notice to them before working on utilities in the Air Operations Area. The Contractor shall include and cooperate with Airport Management, the FAA, and the Engineer, in determining a utility progress schedule for work on the Airport Property. The Contractor shall provide to the Engineer daily written updates of all actions that may effect the operation of visual and electronic signals, lighting, or power supplies, used in the guidance of aircraft.

The Contractor shall submit a written plan to repair damaged utilities to the Engineer, and shall follow the plan when repairing damaged utilities. The plan shall identify repair personnel or subcontractors. The Contractor shall not work on or adjacent to utilities unless repair personnel are available to repair damaged utilities. Personnel repairing utilities shall be licensed for the work required, and shall have the tools and material required to repair damaged utilities within the time limits required.

When damage affects, or may in the Engineer’s opinion affect, the function of navigational or visual aids, the Contractor shall repair damage within two hours. When damage affects, or may in the Engineer’s opinion affect, the function of utilities, the Contractor shall repair the damage within 24 hours.

50-07 COOPERATION BETWEEN CONTRACTORS. The Department may, at any time, contract for and perform other or additional work on or near the Project. The Contractor shall allow other contractors reasonable access across or through the Project.

The Contractor shall cooperate with other contractors working on or near the Project, and shall conduct work without interrupting or inhibiting the work of other contractors. All contractors working on or near the Project shall accept all liability, financial or otherwise, in connection with their Contract. No claim shall be made by the Contractor or paid by the Department for any inconvenience, delay, damage or loss of any kind to the Contractor due to the presence or work of other contractors working on or near the Project.

The Contractor shall coordinate and sequence the work with other contractors working within the same project limits. The Contractor shall properly join the work with work performed by other contractors and shall
perform the work in the proper sequence to that of the others. The Contractor shall arrange, place, and
dispose of materials without interfering with the operations of other contractors on the same project. The
Contractor shall defend, indemnify and save harmless the Department from any damages or claims caused
by inconvenience, delay, or loss that the Contractor causes to other contractors.

50-08 SURVEY CONTROL. The Department will provide sufficient horizontal and vertical control data to
establish the planned lines, grades, slopes, shapes, and structures. The Contractor shall provide all
additional survey work to maintain control during the project. The survey work shall meet the requirements
set forth in the Alaska Construction Surveying Requirements.

The Contractor shall provide all survey work including, but not limited to: project layout, cross sections, slope
stakes, grade stakes, as-built measurements, and quantity measurements. Immediately upon completion of
initial cross sections, the Contractor shall furnish reduced and checked survey notes to the Engineer. From
time to time throughout the work, as requested by the Engineer, the Contractor shall take appropriate
sections and shall provide the Engineer with reduced and checked notes from which quantity calculations for
progress payment purposes can be accomplished. Notes shall be kept in a neat, orderly, and legible form
according to professional surveying practices.

Upon completion of each phase of the work, the Contractor shall furnish the Engineer with all necessary
measurements for completion of the as-built drawings. The Contractor shall include identification and
location of project features where actual locations differ from locations shown on the Plans. All original
survey notes and field books shall become the property of the Department and shall be delivered to the
Engineer as a condition to final payment on this contract.

The cost of surveying is to be subsidiary to the items of work for which surveying is required, except where a
pay item for specified surveying work is included in the bid schedule.

50-09 DUTIES OF THE INSPECTOR. The Department’s inspectors are authorized to examine all work done
and materials furnished, but cannot approve work or materials. Only the Engineer can approve work or
materials. The inspectors can reject work or materials until any issues can be referred to and decided by the
Engineer. The inspectors may not alter or waive any Contract requirements, issue instructions contrary to the
Contract or act as foremen for the Contractor.

50-10 INSPECTION OF WORK. All materials and each part and detail of the work shall be subject to
inspection by the Department. The Contractor shall allow safe access to all parts of the work and provide
information and assistance to the Engineer to ensure a complete and detailed inspection.

Any work done or materials used without inspection by an authorized Department representative may be
ordered removed and replaced at the Contractor’s expense, unless the Department failed to inspect after
being given reasonable written notice that the work was to be performed.

The Contractor shall remove and uncover portions of finished work when directed. After inspection, the
Contractor shall restore the work to Contract requirements. The cost to uncover and restore work shall be at
the Contractor’s expense, except the Department will pay the cost to uncover and restore work if (1) an
authorized Department representative had previously inspected the work or the Contractor had provided
reasonable prior written notice that the work was to be performed and (2) the Department finds the
uncovered work to be acceptable. If the Department finds the uncovered work to be unacceptable, the cost
to correct the work, or remove and replace the work, shall be at the Contractor's expense.

Representatives of Contract funding agencies have the right to inspect the work. This right does not make
that entity a party to the Contract and does not interfere with the rights of parties to the Contract.

The Department’s observations, inspections, tests and approvals shall not relieve the Contractor from
properly fulfilling its Contract obligations and performing the work according to the Contract. Work that has
been inspected but contains latent or hidden defects shall not be deemed acceptable even though it has
been inspected and found to be according to the Contract.
The State of Alaska Department of Labor may require electrical inspection of Public Structures. The Contractor shall request inspection by contacting the Electrical Inspector in Anchorage, Alaska, Phone (907) 269-4925. The Contractor shall request inspection a minimum of two weeks prior to the expected date of inspection being needed. If more than one item requires inspection, the Contractor shall submit a list to the Engineer and Electrical Inspector, with dates for all stages that requires inspection. The Department has no control over or responsibility for the timing of inspections by the Electrical Inspector.

50-11 REMOVAL OF UNACCEPTABLE AND UNAUTHORIZED WORK. All work that does not conform to the requirements of the Contract shall be deemed unacceptable by the Engineer, unless otherwise determined acceptable under Subsection 50–03. The Contractor shall correct, or remove and replace, work or material that the Engineer deems unacceptable, as ordered by the Engineer and at no additional cost to the Department.

The Contractor shall establish necessary lines and grades before performing work. Work done before necessary lines and grades are established, work done contrary to the Department's instructions, work done beyond the limits shown in the Contract, or any extra work done without authority, will be considered as unauthorized and shall not be paid for by the Department, and may be ordered removed or replaced at no additional cost to the Department.

If the Contractor fails to promptly correct, remove, or replace unacceptable or unauthorized work as ordered by the Engineer, the Engineer may employ others to remedy or remove and replace the work and will deduct the cost from the Contract payment.

50-12 LOAD RESTRICTIONS. The Contractor shall comply with all vehicle legal size and weight regulations of 17 AAC 25 and the Administrative Permit Manual, and shall obtain permits from the DOT&PF Division of Measurement Standards & Commercial Vehicle Enforcement before moving oversize or overweight equipment on a state highway.

The Engineer may permit oversize and overweight vehicle movements within the project limits provided the Contractor submits a written request and an acceptable Traffic Control Plan. No overloads will be permitted on a pavement, base or structure that will remain in place in the completed project. The Contractor shall be responsible for all damage done by their equipment due to overloads, and for damage done by a load placed on a material that is curing and has not reached adequate strength to support the load.

50-13 MAINTENANCE DURING CONSTRUCTION. The Contractor shall maintain the airport and related airport facilities located within the project from the date construction begins until the Contractor receives a letter of substantial completion (definition in Subsection 10-03). The Contractor shall maintain these areas continually and effectively on a daily basis, with adequate resources to keep them in satisfactory condition at all times. The Contractor shall maintain those areas outside the project that are affected by the work, such as haul routes, detour routes, structures, material sites, and equipment storage sites during periods of their use.

The Engineer may relieve the Contractor of this maintenance responsibility for specified portions of the project:

a. During a seasonal suspension of work. Approximately one month prior to seasonal suspension of work, the Contractor shall hold a preliminary meeting with the Engineer and Airport Management to outline the work the Contractor expects to complete before shut down and the condition the project is to be left in. The Contractor shall then schedule a field review for acceptance by the Department for winter maintenance. At the field review a punch list shall be prepared for implementation prior to acceptance. In order for the Contractor to be relieved of winter maintenance responsibility, the surface of all embankments shall be properly crowned for drainage and all edge lighting shall be in good working order. After acceptance for winter maintenance and until the Contractor resumes construction operations, maintenance of the facility agreed upon will be the responsibility of the Department; or
b. Following partial acceptance (Subsection 50-14).

The Department is responsible for routine snow removal and ice control only on those portions of the project that the Department accepts for maintenance.

The Contractor shall maintain previously constructed work until a subsequent course, layer, or structure covers that work. The Contractor shall repair damage done to the work as described in Subsection 70-15.

All costs of maintenance work during construction and before the project is accepted as substantially complete shall be subsidiary to the prices bid on the various contract items, and the Contractor will not be paid an additional amount for such work.

If in the Engineer’s opinion, the Contractor at any time fails to provide adequate maintenance, the Engineer will notify the Contractor of such noncompliance. The notification will specify the areas or structures for which there is inadequate maintenance, the corrective maintenance required, and the time allowed to complete corrective maintenance. If the Contractor fails to take the corrective action within the specified time, the Engineer may:

a. Suspend the work until corrective maintenance is completed;

b. Assess a traffic price adjustment against the Contract Amount when an adjustment rate is specified in the Contract; and

c. Employ others for corrective maintenance and deduct the cost from the Contract amount.

50-14 PARTIAL ACCEPTANCE. The Contractor may submit a written request for partial acceptance of a geographically separate unit of the project. The Engineer will accept the unit in writing before project completion if the Engineer inspects the unit and finds that the unit is substantially complete to Contract requirements, and acceptance is in the best interest of the State.

The Contractor may submit a written request for partial acceptance of a completed useable portion of the project. The Engineer may, in their discretion, accept the portion in writing before project completion if the Engineer performs an inspection of the portion and finds that the portion is substantially complete to Contract requirements, and acceptance is in the best interest of the State.

Partial acceptance of the unit or portion neither voids nor alters any Contract terms.

50-15 PROJECT COMPLETION. The Contractor shall notify the Engineer, in writing, upon substantial completion of all work provided for under the Contract. The Engineer will then schedule and conduct the final inspection. If the inspection discloses that any work is incomplete or unsatisfactory, the Engineer will give the Contractor a list of work items that must be completed or corrected to reach substantial completion and to reach final completion. The Contractor shall promptly complete or correct any work determined unsatisfactory by the final inspection and request a re-inspection.

The Engineer will identify the date of substantial completion in a letter of substantial completion. The letter of substantial completion will relieve the Contractor of further maintenance responsibility except as listed under Subsection T-901-3.4 Maintenance of Seeded Areas. The letter of substantial completion will not stop Contract time or relieve the Contractor of the obligation to fully complete the work as required by the Contract specifications.

When all physical work and cleanup provided for under the Contract is found to be complete, except for work specified under Subsection T-901-3.4 Maintenance of Seeded Areas, the Engineer will issue a letter of project completion. Project completion stops the Contract time, but does not relieve the Contractor of any other Contract obligations.
50-16 FINAL ACCEPTANCE AND RECORD RETENTION. The Department will issue the letter of Final Acceptance after all of the following:

   a. Project completion;
   b. Receipt of all certificates, as-builts, warranties, and other required documents;
   c. Receipt of the Contractor's Release, with no exceptions;
   d. Certification of payment of payroll and revenue taxes by DOLWD and State Dept. of Revenue; and
   e. Final payment under the Contract.

Final Acceptance will release the Contractor from further Contract obligations, except those:

   a. Specified under Subsection 70-19;
   b. Required by law or regulation; or
   c. Continuing obligations established by provisions of this Contract, such as warranty, guaranty, indemnity, insurance, or bond.

The Contractor and the subcontractors shall maintain all books and records relating to performance of the Contract for three years after the date of final payment of the Contract and each subcontract.

50-17 CLAIMS. The Contractor shall notify the Engineer as soon as the Contractor becomes aware of any act or occurrence that may form the basis of a claim for additional compensation or an extension of Contract time or of any dispute regarding a question of fact or interpretation of the Contract. The Engineer has no obligation to investigate any fact or occurrence that might form the basis of a claim or to provide any additional compensation or extension of Contract time unless the Contractor notifies the Engineer in a timely manner of all facts the Contractor believes form the basis for the claim.

If the claim or dispute is not resolved by agreement within seven days of the date the Engineer is notified by the Contractor, the Contractor shall within the next fourteen days submit an Intent to Claim in writing to the Engineer.

If the Contractor believes additional compensation or time is warranted, the Contractor shall immediately begin keeping complete, accurate, and specific daily records concerning every detail of the potential claim including actual costs incurred, and shall give the Engineer access to any such records and furnish the Engineer copies, if requested. Equipment costs must be based on the Contractor's internal rates for ownership, depreciation, and operating expenses and not on published rental rates.

The Contractor shall submit a written claim to the Contracting Officer within 90 days after the date the Contractor became aware of the basis of the claim or should have known of the basis of the claim, whichever is earlier. The Contracting Officer will issue written acknowledgement of the receipt of the claim.

The Contractor waives any right to claim if the Engineer was not notified properly or afforded the opportunity to inspect conditions or monitor actual costs or if the Claim is not filed on the date required.

   a. The written Claim must include all of the following:

      (1) The act, event, or condition giving rise to the claim;
      (2) The Contract provisions that apply to the claim and that provide for the requested relief;
      (3) The item or items of Contract work affected and how they were affected;
(4) The specific relief requested, including Contract time if applicable, and the basis upon which it was calculated;

(5) Revised progress schedules under Subsection 80–03; and

(6) A certification signed by the Contractor that the claim is made in good faith, that the supporting cost and pricing data are accurate and complete to the best of the Contractor's knowledge and belief, and that the amount requested accurately reflects the Contract adjustment that the Contractor believes is due.

b. The claim, in order to be considered, must show:

(1) That the Contractor suffered damages or delay;

(2) The damages or delay were caused by the act, event, or condition listed in the claim; and

(3) That the Contract entitled the Contractor for relief due to the act, event, or condition specified in the Claim.

The Department may request the Contractor to provide additional information relating to the claim at any time before issuing a decision. The Contractor shall provide the Department with the requested additional information within 30 days of receiving a request. Failure to furnish the additional information may be regarded as a waiver of the claim.

TheContracting Officer will issue a decision within 90 days of receipt of all information relating to the claim. The time for the Contracting Officer to issue a decision may be extended according to AS 36.30.620.

The Contracting Officer's decision is final and conclusive unless the Contractor delivers a notice of appeal to the Commissioner within 14 days of receipt of the decision. The Contractor shall also serve a copy of the notice of appeal on the Contracting Officer.

Appeals from a Contracting Officer's decision shall be decided according to the State Procurement Code's appeal procedures, including AS 36.30.625, AS 36.30.627, AS 36.30.630, and AS 36.30.631.

Criminal and civil penalties authorized under AS 36.30.687 (including, but not limited to, forfeiture of all claimed amounts) may be imposed on the Contractor if the Contractor makes or uses a misrepresentation in support of a claim, or defrauds or attempts to defraud the Department at any stage of prosecuting a claim under this Contract.
SECTION 60
CONTROL OF MATERIAL

60-01 SOURCE OF SUPPLY AND QUALITY REQUIREMENTS. The Contractor shall furnish all materials required to complete the work except those specified to be furnished by the Department. The Contractor shall supply materials that are new and that meet Contract requirements. All manufactured materials shall be delivered and stored in their original containers and shall show the manufacturer’s name, brand, and identifying number.

The Contractor shall furnish airport lighting equipment that conforms to the requirements of cited materials specifications. In addition, where an FAA specification for airport lighting equipment is cited in the Plans or Specifications, the Contractor shall furnish such equipment that is certified and listed under AC 150/5345-53, Airport Lighting Equipment Certification Program.

The Contractor shall notify the Engineer of proposed sources of materials at least 30 days before shipment, and shall submit to the Engineer and to the Department's State Materials Engineer a complete list of materials to be purchased from suppliers sufficiently in advance of fabrication or shipment to permit the Department to inspect the materials.

The Department’s inspectors may inspect any materials, including those originating outside Alaska, at the supply source or other locations. Materials may be conditionally approved at the supply source or other location, but are subject to field inspection and may be ordered removed under Subsection 50-11 if they do not conform to Contract requirements. Inspectors are authorized to reject materials that do not conform to specifications until any issues can be referred to and decided by the Engineer. Inspectors will report their actions to the Engineer.

The Contractor shall submit a manufacturer’s certificate of compliance for each item listed on the Material Certification List. The Engineer may authorize the use of materials based on a manufacturer’s certificate of compliance, see Subsection 60-05. Materials incorporated into the project on the basis of a manufacturer’s certificate of compliance may be tested at any time, whether in place or not, and, if they do not conform to Contract specifications, they may be rejected and ordered removed under Subsection 50-11.

The Engineer may authorize the use of materials listed in the Department's Qualified Products List. Materials incorporated into the project on the basis of the Qualified Products List may be tested at any time, whether in place or not, and, if they do not conform to Contract specifications, they may be rejected and ordered removed under Subsection 50-11.

The Contractor may request substitution of specified materials with equivalent materials. Requests for substitution shall be submitted to the Engineer, and shall include a manufacturer's statement that certifies, for each lot delivered:

a. Conformance to the specified performance, testing, quality or dimensional requirements; and

b. Suitability for the use intended in the Contract work.

The Engineer will determine the acceptability of a proposed substitute for use in the project. If a substitute is approved, a Change Order will be executed. The Department is never required to accept substitution. The Contractor shall not incorporate substitute materials into the project without written approval from the Engineer. The Engineer may test substitute materials at any time, whether in place or not, and, if the substitute materials do not meet Contract specifications, they may be rejected and ordered removed under Subsection 50-11.

60-02 MATERIAL SOURCES.

a. General. The Contractor shall:
(1) Utilize Useable Excavation according to Subsection 40-04 before using material sources listed in Subsection 60-02.d. When there is insufficient useable excavation furnish additional required materials from sources of the Contractor’s choice, except that the Contractor shall use a mandatory source when identified in the Contract;

(2) Produce a sufficient quantity of materials meeting the specifications to complete the project;

(3) As a subsidiary cost: clear and grub, strip, drill and blast, excavate, crush, sort, blend, screen, wash, stockpile, haul, and rehandle material as needed to produce and deliver the specified product;

(4) Determine the type of equipment and methods to be used;

(5) Expect variations in material quality within the deposits, and procure material only from acceptable portions of the deposit, regardless of source ownership; and

(6) Prevent erosion, sedimentation, and pollution within a materials source.

The Contractor agrees that:

(7) The costs to explore and develop material sources, including all production effort, are subsidiary to the cost of providing the specified material;

(8) The Engineer may order the Contractor to procure material only from certain portions of the source and may reject material from other portions of the source that does not conform to the specifications; and

(9) All material required may not be procurable from any one source and the Contractor may need to change between sources. That contingency is to be factored into the unit bid price for the Contract Item.

b. Inspection and Acceptance. The Contractor shall perform sampling and testing during materials processing and placement according to its Quality Control Plan (Subsection 60-03.a.) and shall obtain acceptable material samples from locations designated within the source.

The Department will sample and test materials to determine the quality of the source, at its expense, as part of its Acceptance Testing (Subsection 60-03.b.). The Department will reject materials when the samples do not meet specifications. The Department may reject a proposed materials site when samples do not meet specifications.

c. Awareness Training. The operator of the Contractor’s sand and gravel surface mine or other similar materials source shall provide Site-Specific Hazard Awareness Training in compliance with 30 CFR 46.11 for all the Engineer’s personnel before beginning operations. All other workers shall be given training in compliance with 30 CFR 46 before exposure to mine hazards. The training must be offered at each surface mine that will be used to supply processed aggregates. A qualified person must provide the training. The training shall be according to the operator’s written training plan approved by the Mine Safety and Health Administration, covering the following items:

(1) Site-specific health and safety risks;
(2) Recognition and avoidance of hazards;
(3) Restricted areas;
(4) Warning and evacuation signals;
(5) Evacuation and emergency procedures;
(6) Other special safety procedures; and
(7) A site tour.
The Contractor shall require the Engineer’s personnel to sign the Visitor’s Log Book upon completion of the training to indicate that training was provided. Training is a subsidiary cost.

d. **Type of Sources.** The Contractor shall utilize Useable Excavation according to Subsection 40-04 before using material sources listed in this Subsection. When there is insufficient Useable Excavation, the Contractor shall furnish additional required materials from sources of the Contractor’s choice, except that the Contractor shall use a mandatory source when identified in the Contract.

When there is insufficient Useable Excavation, the Contractor shall supply additional required material from the following sources:

(1) **Contractor-Furnished Sources.** For a material source that is a commercial plant as defined in Subsection 80-01.c.(1) the Contractor shall:

   (a) Acquire the necessary rights and permits to obtain material from a commercial plant;
   
   (b) Pay as subsidiary costs all related costs to obtain and use material from the source; and
   
   (c) Be solely responsible for the quality and quantity of materials.

For all Contractor-Furnished sources that are not a commercial plant, the Contractor shall:

   (d) Acquire the necessary rights and permits to take materials from the sources including state-owned sources that are not under the Department’s control;
   
   (e) Pay as subsidiary costs all related costs to obtain, develop, and use the sources, including but not limited to permit costs and mineral royalties;
   
   (f) Be solely responsible for quality and quantity of materials; and
   
   (g) Obtain all necessary rights, permits, and plan approvals before clearing or disturbing the ground in the material source.

No equitable adjustment or other compensation will be made for any additional costs, including increased length of haul, if the Contractor:

   (h) Chooses to change material sources for any reason;
   
   (i) Is unable to produce a sufficient quantity or quality of materials from Contractor-Furnished sources; or
   
   (j) Encounters unexpected, unforeseen, or unusual conditions within Contractor-Furnished sources.

(2) **Mandatory Sources.** The Department may identify material sources in the Contract from which the Contractor is required to take a specified quantity of material. No other source will be permitted for that portion of material unless prior approval is obtained from the Engineer. The Contract will specifically define these sources as Mandatory Sources and define rights and stipulations for each site. The Department will provide a materials report that estimates quality and quantity of material for these sources.

The Contractor acknowledges that samples from within a source may not be representative of the entire source. The Contractor must expect variations of quality and quantity within the source.
and shall factor that contingency into the unit bid price for the material. No equitable adjustment will be paid for variations encountered within the source.

If it is subsequently found that the quality or quantity of material producible from a Mandatory Source is not as represented by the materials report, and a change of source is necessary for that reason alone, a Change Order with equitable adjustment will be made.

(3) **Designated Sources.** The Department may identify material sources in the Contract which are available to the Contractor but which the Contractor is not required to use. The Contract will specifically define these sources as Designated Sources and define rights and stipulations for each site. The Department will provide a materials report that estimates quality and quantity of material for these sources.

The Contractor acknowledges that samples from within a source may not be representative of the entire source. The Contractor must expect variations of quality and quantity within the source and shall factor that contingency into the unit bid price for the material. No equitable adjustment will be paid for variations encountered within the source.

If the Contractor elects to use a Designated Source, and it is subsequently found that the quality and quantity of material producible from that source is not as represented by the materials report, and a change of source is necessary for that reason alone, a Change Order with equitable adjustment will be made. If the Contractor chooses to change between or among sources for any other reason than quantity or quality of material, no equitable adjustment will be paid.

(4) **Available Sources.** The Department may identify other material sources that are available for use for the project by the Contractor. The Contract will specifically define these sources as Available Sources. The Department makes no guarantee as to quality or quantity of material in Available Sources. The Contractor is responsible for determining the quality and quantity of material, and if additional sources are needed. The Contractor shall be responsible for identifying the rights and stipulations for each site with the owner of the site.

When the Department furnishes copies of existing boring logs, test results, or other data in its possession concerning Available Sources, the Contractor is responsible for determining the accuracy and completeness of this data, for any assumptions the Contractor makes based on this data, and for exploring all Available Sources to the Contractor's satisfaction.

The Department makes no representation, guarantees, or warranty whatsoever, expressed or implied, as to:

(a) The quality or quantity of materials producible from an Available Source, even if such information is indicated in a Materials Report or Soils Investigation Report;

(b) Whether boring logs, test results or data reliably represent current existing subsurface conditions;

(c) Whether interpretations of the boring logs, test results, or other data are correct;

(d) Whether moisture conditions and indicated water tables vary from those found at the time borings were made;

(e) Whether the ground at the location of the borings was physically disturbed or altered after the boring was made; and

(f) The condition, materials, or proportions of the materials between borings, regardless of any subsurface information the Department may make available.
The availability of subsurface information from the Department shall not relieve the Contractor from any risks, or of any duty to make on-site examinations and investigations, or of any other responsibility under the Contract or as may be required by law.

No equitable adjustment will be made if the quality and quantity of material available from an Available Source is not as represented in any information provided by the Department, nor if a change of source is necessary for any other reason whatsoever. The use of Available Sources is entirely at the Contractor’s option and the Contractor bears all risk associated with their decision to use an Available Source.

(5) Excluded Material Sources. Some material sources may not be considered acceptable regardless of location or ownership. The bid documents may identify some material sources excluded from use. The Department reserves the right to exclude any material source or any portion of a material source, at any time after Contract award, that is determined by material testing to be unsuitable for use on the project.

e. Rights, Permits and Plan Approvals for Material Sources. Before disturbing the site of a material source, the Contractor shall acquire and pay for all necessary rights, permits and plan approvals indicated in this Subsection and in Subsection 70-02. For each material site the Contractor shall:

(1) Acquire approval for a Mining and Reclamation Plan (MRP) or receive an exemption, according to AS 27.19. The MRP shall include:

   (a) Plan and cross-sectional views of the site;

   (b) Applicable boundaries or property lines;

   (c) Areas and depths to be developed;

   (d) Locations of access roads, stripping, sorting, and waste piles, crushing and plant sites, stockpile sites, drainage features, erosion and pollution control features; and

   (e) Condition the Contractor will leave the site after the materials extraction is completed, including reseeding.

(2) Submit a SWPPP as required by Section P-157.

After completing work in a materials source, the Contractor shall finish and grade work areas to a neat, acceptable condition according to the approved MRP. Reclamation of a Contractor-furnished source will be in accord with the Contractor’s MRP.

60-03 TESTING AND ACCEPTANCE. Materials are subject to inspection and testing by the Department at any time before, during, or after they are incorporated into the project. Use of untested materials is at the Contractor’s risk. The Contractor shall remove and replace unacceptable material according to Subsection 50-11.

a. QUALITY CONTROL. The Contractor is responsible for the quality of construction and materials used in the work. Quality control is process control, and includes all activities that ensure that a product meets Contract specifications. Contractor quality control is subsidiary to the applicable items unless a contract item for Quality Control is established on the bid schedule.

The Contractor shall implement a Quality Control Program in conformance with Section GCP-100, Contractor Quality Control Program.
b. **ACCEPTANCE TESTING.** The Department has the exclusive right and responsibility for determining the acceptability of the construction and incorporated materials.

The Department will sample materials and perform acceptance tests at its expense. Copies of tests will be furnished to the Contractor upon request. When material is sampled by other than DOT&PF personnel or their agent(s), the sampling must be witnessed by, and possession of the sample immediately transferred to, DOT&PF personnel or their agent(s).

The Contractor shall not rely on the Department's acceptance testing for its quality control. The Department's acceptance testing is not a substitute for the Contractor's quality control. The Engineer may retest materials that have failed the Department's acceptance test, but is not required to do so.

Acceptance sampling and testing frequencies may be located in the Appendix to these Specifications, and are incorporated into the Contract.

60-04 **PLANT INSPECTION.** The Department may periodically inspect manufacturing methods, manufactured lots and materials at the source of production. The Department may approve, conditionally approve, or reject them.

The Contractor shall:

a. Notify the Department of the production and fabrication schedule at least 30 days before beginning work on any item requiring inspection, and notify the Department 48 hours before beginning production or fabrication;

b. Give the inspector full and safe access to all parts of the plant used to manufacture or produce materials; and

c. Cooperate fully and assist the inspector during the inspection.

Materials may be rejected if the Department requests a plant inspection and the materials are produced or fabricated without a plant inspection. The materials may be tested at any time before final acceptance, whether in place or not, and whether approved at a plant inspection or not. If the materials do not meet Contract specifications, they may be rejected and ordered removed under Subsection 50-11. If rejected materials are incorporated into the project, the Department may require those materials to be removed and replaced at the Contractor's expense under Subsection 50-11.

60-05 **CERTIFICATES OF COMPLIANCE.** The Engineer may authorize the use of certain materials or assemblies based on a manufacturer's certificate of compliance. The certificate must state that the material or assembly fully complies with Contract requirements, include the project name and number, and be signed by the manufacturer. The certificate must accompany each lot of the materials or assemblies delivered to the project and must clearly identify the lot.

The Contractor shall submit a manufacturer's certificate of compliance, as required, for each item listed on the Materials Certification List (MCL) included in the Contract documents. The Contractor shall submit additional manufacturer's certificates of compliance if required by the Contract or by the Engineer.

Materials or assemblies incorporated into the project on the basis of a manufacturer's certificate of compliance may be tested at any time, whether in place or not, and, if they do not meet Contract specifications, they may be rejected and ordered removed under Subsection 50-11. The Engineer may refuse permission to incorporate materials or products into the project based on a manufacturer's certificate of compliance that does not meet specifications.

60-06 **STORAGE OF MATERIALS.** Materials shall be stored to preserve their quality and fitness for the work, and so they can be readily inspected. Materials inspected before storage may be inspected again, before or after being incorporated into the project. The Contractor shall:
a. Use only approved portions of the project site for storage of materials and equipment or plant operations;

b. Provide any additional space needed for such purposes without extra compensation;

c. Restore Department-owned or controlled storage and plant sites to their original condition without extra compensation;

d. Obtain the landowner's or lessee's written permission before storing material on private property, and furnish copies of the permission to the Engineer, if requested; and

e. Restore privately owned or leased storage sites, without extra compensation from the Department, to their original condition or as agreed to between the Contractor and the private owner.

60-07 DEPARTMENT-FURNISHED MATERIAL. Material furnished by the Department will be made available to the Contractor at a state yard or delivered at the locations specified in the Special Provisions.

The Contractor shall include the cost of handling and placing all materials after they are delivered in the Contract price for the item in connection with which they are used. The Contractor is responsible for all material delivered to the Contractor. Deductions will be made from any monies due the Contractor to make good shortages and deficiencies from any cause whatsoever, for any damage that may occur after delivery, and for demurrage charges.

60-08 SUBMITTAL PROCEDURE. The Contractor shall complete a Submittal Register, and shall submit it to the Engineer on forms provided by the Department. The Submittal Register shall list all working drawings, catalog cuts, manufacturer's certifications, quality control testing plans, schedules of work and other items required to be submitted to the Department by the Contractor including but not limited to Storm Water Pollution Prevention Plan, Quality Control Program, Progress Schedule, Utility Repair Plan, Blasting Plan, Mining Plan, annual EEO reports, DBE payment documentation and subcontracts. The register shall be filled out sequentially by bid item and shall allow at least three spaces between bid items. The intent of the Submittal Register is to provide a blueprint for the smooth flow of specified project documents.

The number of copies required for submittals may be included in the specifications for individual bid items. If the number of copies of a submittal is not otherwise specified, three copies shall be required. On each sheet submitted to the Department, including working drawings, catalog cuts, manufacturer’s certifications, etc., space shall be provided for Contractor and Department review stamps.

Each copy of each submittal shall include a Submittal Summary sheet. The Contractor may use forms provided by the Department or a similar form of the Contractor’s choice as approved by the Department. The Contractor shall sign submittals and submit them to the Engineer. The Department will review submittals within 30 days after they are received. The Department will return submittals to the Contractor as either: approved, conditionally approved with the conditions listed, or rejected with the reasons listed. The Contractor may resubmit a rejected submittal to the Engineer with more information or corrections. The Department will review resubmittals within 30 days after they are received. The Department will review resubmittals within 15 days after they are received. The Contractor shall not order material or use working drawings that have not been approved by the Department. The Contractor shall be responsible for timely submittals. Failure by the Department to review submittals within the time given may be the basis for a request for extension of Contract time but not for additional compensation.

Payment for a specific contract item will not be made until the Department has received the Submittal Register for all items and approved all required submittals for that specific contract item.

60-09 BUY AMERICAN PREFERENCE.
a. GENERAL. The Contractor shall comply with 49 USC Section 50101. The Contractor shall ensure that all steel and manufactured goods used on federally funded projects are wholly produced in the United States and are of 100% U.S. Materials, unless:

(1) The FAA has issued a waiver for the product;

(2) The product is listed as an Excepted Article, Material or Supply in Federal Acquisition Regulation subpart 25.108; or

(3) The product is included in the FAA Nationwide Buy American Waivers Issued list.

b. BID PROPOSAL. The bidder must complete and submit with their bid the Certificate of Buy American Compliance (Form 25D-151 or Form 25D-152) provided in the bid documents. The Department will reject as nonresponsive any bid that does not include a completed Certificate of Buy American Compliance.

c. WAIVER SUBMITTAL. The apparent low bidder who indicates they will request a Type 3 waiver on the Certificate of Buy American Compliance, must complete Form 25D-153 and associated documentation including Form 25D-155 and Form 25D-156. Submit Form 25D-153 and associated documentation within 5 working days after date of notification of apparent low bidder.

An apparent low bidder who fails to submit a completed Type 3 waiver form within the time allowed, must agree to perform the work without a waiver, or they may be declared nonresponsible and may be required to forfeit the bid guaranty. The Department will then consider the next lowest bidder for award of the Contract.

The bidder agrees to refrain from seeking a waiver request after award of the contract, unless extenuating circumstances emerge that the FAA determines justified.

If FAA approves a waiver request, the bidder agrees to provide products in accordance with the waiver. If FAA will not approve a waiver, the bidder agrees to furnish U.S. domestic product for products listed on the waiver request that the FAA rejects.

A successful bidder's refusal to sign the Contract due to denial of a waiver request, will be considered nonresponsible, and will be addressed in accordance with subsection 30-03 Award of Contract.

d. MATERIAL SUBMITTALS. During performance of the Contract, the Contractor must provide a Material Submittal for Buy American Compliance (Form 25D-154), from the supplier for each steel or manufactured good, prior to incorporating any steel or manufactured good into the project. The supplier certifying Form 25D-154 may be the original manufacturer, fabricator, vendor, or subcontractor; provided the supplier has sufficient control and knowledge of the manufacturing process to accept responsibility and certify full and complete conformance with 49 USC Section 50101. Provide mill certificates or other material documentation when required by the Engineer. False statements may result in criminal penalties prescribed under AS 36.30.687 and Title 18 USC Section 1001.

60-10 OPERATION AND MAINTENANCE MANUALS. The Contractor shall provide operation and maintenance manuals for equipment and systems incorporated in the work. The Contractor shall submit one set of all manuals 60 days prior to substantial completion for review by the Department. The Contractor shall make corrections noted by the Department, and submit 5 complete sets of manuals 14 days prior to substantial completion.

The Contractor shall submit the manuals in neatly bound hard cover loose-leaf three ring binders. Include project name, Contractor's/Subcontractor's name, address and telephone number on each cover. Prepare data in the form of an instruction manual with a table of contents and a tabbed fly leaf for each section.

The Contractor shall provide a separate section for each product or system installed which includes the following:
a. Description of each unit or system and the component parts. Identify function, normal operating characteristics, and limiting conditions. Include performance curves, with engineering data and tests. Systems shall include:

(1) Heating System
(2) Fuel Oil Storage and Supply System
(3) Runway Lighting System

b. Product data with each sheet marked to clearly identify the specific products, component parts, and data applicable to installation. Delete inapplicable information. Product data shall include:

(1) Lighting Fixtures
(2) Wiring Devices
(3) Electric Power Distribution Components
(4) Runway Lighting System Components
(5) Thaw Wire and Heat Trace System Components

c. Include drawings to supplement product data and illustrate relations of component parts of equipment and systems. Show control and flow diagrams. Provide copies of all approved shop drawings. Drawings shall include:

(1) Equipment Storage Building Plans
(2) Electrical Equipment Enclosure Plans
(3) Runway Lighting One-line Control and Power Diagrams
(4) Electric Power One-line Diagrams
(5) Electric Power Panel Directories
(6) Thaw Wire and Heat Trace Systems

d. Type text as required to supplement product data and show logical sequence of operations for each procedure, incorporating the manufacturer’s instructions.

e. Operating procedures to include start-up, break-in, and routine normal operating instructions and sequences. Include regulation, control, stopping, shut-down, and emergency instructions. Include any special operating instructions. Include reprogramming instructions for all programmable equipment. Systems shall include:

(1) Runway Lighting System
(2) Heating System
(3) Fuel Oil Storage and Distribution System

f. Maintenance requirements and repair data. Include routine procedures. Provide a guide for troubleshooting, disassembly, repair, and reassembly. Provide alignment, adjusting, and checking instructions. Maintenance and repair data shall include:

(1) Heating System
(2) Fuel Oil Storage and Distribution System

g. Supplies and replacement parts. For each item of equipment and each system list names, addresses, and telephone numbers of subcontractors and suppliers. Provide local source of supplies and replacement parts with complete nomenclature and commercial number of replacement parts. Provide a copy of manufacturer’s recommended spare parts list for applicable equipment. Provide data for:

(1) Lamps for Runway Lighting System
(2) Lamps for Lighting Fixtures
(3) Fuel Oil System

h. Warranties. Include copies of warranties.
i. Tests. Include logs of all tests performed.
SECTION 70
LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC

70-01 LAWS TO BE OBSERVED. The Contractor shall keep fully informed of, observe, and comply with all federal, state, and local laws, ordinances, and regulations, and all orders and decrees of bodies or tribunals having any jurisdiction or authority, that in any manner affect those engaged or employed on the work or which in any way affect the conduct of the work.

In addition to all other laws, the Contractor shall fully comply with all laws, regulations and permits issued by agencies of the United States and the State of Alaska when working in, over or adjacent to wetlands, tidelands, anadromous fish streams, eagle nests, navigable waters, or coastal waters.

In addition to other laws, the Contractor shall ensure that all work in, over or adjacent to navigable waters is conducted so that free navigation of the waterways is not obstructed and that existing navigable depths are not impaired, except as allowed by the U.S. Coast Guard and the U.S. Army Corps of Engineers.

The Contractor and the Surety shall defend, indemnify, and hold harmless the state and its representatives against any claim or liability related to violations of any laws, ordinances, regulations, orders, decrees or permits by the Contractor, the Contractor's agents, the Contractor's employees, a subcontractor at any tier, or a supplier or service provider.

The Contractor has the affirmative duty to keep informed of and comply with all laws. The Contractor is not entitled to and shall not rely on any Department employee's interpretation, whether oral or written, of any law, ordinance, regulation, order, or decree, or any permit issued by an agency other than the Department.

70-02 PERMITS, LICENSES, AND TAXES. The terms, conditions, and stipulations in permits obtained either by the Department or by the Contractor are made a part of this Contract.

The Department will:

- Secure permits and licenses that the Department determines are required for the construction of the proposed project, and the use of mandatory sources, designated sources and designated waste disposal areas for the proposed project; and

- Modify Department-acquired permits during the performance of the contract, if deemed necessary by the Engineer.

The Contractor shall:

- Acquire any permits and licenses required to complete the project that are not acquired by the Department;

- Provide qualified professionals to collect data or perform studies necessary to acquire permits for the use of sites not previously permitted;

- Give all notices required for the prosecution of the work;

- Abide by all permits and licenses whether acquired by the Department or by the Contractor;

- Notify the Engineer promptly if any activity cannot be performed as specified in the permits, and cease conducting the activity until permit modifications or any required additional permits are obtained;

- Obtain modifications to permits acquired by the Contractor;
g. Pay all charges, fees and taxes; and

h. Provide proof of payment of all taxes before the Department makes final payment.

The Contractor shall not work in areas that are not permitted for use by the Contract. Before working in an area not previously permitted for use by the Contract, the Contractor shall:

a. Contact all government agencies having possible or apparent permit authority over that area;

b. Obtain all required permits and licenses from those agencies;

c. Obtain permission from any property owners or lessees with an interest in the property; and

d. Provide all of the following to the Engineer:

   (1) All permits or clearances necessary to use the site for its intended purpose(s);

   (2) A written statement that all permits or clearances necessary have been obtained;

   (3) Written evidence that the Contractor has contacted all of the relevant agencies and that no additional permits are required on the part of the Contractor, including at a minimum the name of the agency and staff person contacted, the date contacted, and result of coordination; and

   (4) A plan that identifies how the site will be finally stabilized and protected.

The Engineer may reject a proposed site if the Contractor fails to provide any of the above information or to demonstrate that a proposed site can be finally stabilized to eliminate future adverse impacts on natural resources and the environment.

**70-03 PATENTED DEVICES, MATERIALS AND PROCESSES.** If the Contractor employs any design, device, material, or process covered by patent, trademark, or copyright, the Contractor shall obtain and provide the Engineer with a copy of a suitable legal agreement with the patentee or owner.

The Contractor and the Surety shall defend, indemnify, and hold harmless the state and its representatives and any affected third party or political subdivision from any claim, cause of action, and damages for infringement arising from or relating to the Contractor’s use of a patented design, device, material, process, trademark, or copyright.

**70-04 WAGE RATES.** The Contractor and all subcontractors shall pay the current prevailing rate of wages as per AS 36.05.010 and this Contract. On federally funded projects the Contractor and all subcontractors shall pay the higher of the appropriate wage rates published by the Alaska Department of Labor and the U.S. Department of Labor, for each individual job classification. The Contractor and all subcontractors shall file certified payroll with the Alaska Department of Labor and Workforce Development (DOLWD) and with the Engineer for all work performed on the project.

Before beginning work the Contractor shall file a Notice of Work with DOLWD and pay all required fees. After finishing work the Contractor shall file a Notice of Completion with DOLWD and pay all additional fees required by increases in the Contract amount.

**70-05 FEDERAL PROVISIONS.** The Contractor shall:

a. Observe all federal laws, rules, regulations and grant requirements applicable to the project; and

b. Allow appropriate federal officials access to inspect the work.
The federal government is not a party to the Contract. The Contractor agrees that federal inspections will not form the basis for any claim against the federal government or the State for interference with the rights of the Contract parties.

70-06 SANITARY, HEALTH, AND SAFETY PROVISIONS. The Contractor shall provide and maintain neat and sanitary accommodations for employees that meet all federal, state and local requirements.

The Contractor shall comply with federal, state, and local laws, rules, and regulations concerning construction safety and health standards, including U.S. Mine Safety and Health Administration rules when the project includes pit or quarry operations.

The Contractor shall not expose the public to, or require any workers to work under, conditions that are unsanitary, hazardous, or dangerous to health or safety.

The Contractor is responsible for ensuring all workers are adequately protected. The Contractor shall have a safety and health management program that complies with AKOSH requirements, and includes:

a. A worksite hazard analysis;

b. A hazard prevention and control plan including personal protective equipment and safe work procedures required for specific tasks;

c. New employee training and periodic worker training regarding safety and health;

d. Regular safety meetings with written documentation of attendance, safety topics discussed, worker safety complaints, and corrective actions taken; and

e. A designated safety officer, employed by the Contractor, who monitors the construction site and is responsible for implementing the safety and health management program.

The Contractor and Surety shall defend, indemnify and hold harmless the State of Alaska from all claims, causes of action and judgments arising from or relating to the Contractor’s failure to comply with any applicable federal, state or local safety requirement, regulation or practice, whether or not listed above.

70-07 ARCHAEOLOGICAL OR HISTORICAL DISCOVERIES. When the Contractor’s operation encounters prehistoric artifacts, burials, remains of dwelling sites, paleontological remains, shell heaps, land or sea mammal bones, tusks, or other items of historical significance, the Contractor shall:

a. Immediately cease operations at the site of the find;

b. Immediately notify the Engineer of the find; and

c. Not disturb or remove the finds or perform further operations at the site of the finds until directed by the Engineer.

The Engineer will issue an appropriate Change Order if the Engineer orders suspension of the Contractor’s operations or orders the Contractor to perform extra work in order to protect an archaeological or historical find.

70-08 PUBLIC CONVENIENCE AND SAFETY, AND RAILWAY PROVISIONS. The Contractor shall control its operations and those of its subcontractors and all suppliers, to assure the least inconvenience to the traveling public. Under all circumstances, safety shall be the most important consideration.

The Contractor shall maintain the free and unobstructed movement of aircraft, airport personnel and vehicular traffic in the AOA, except as specifically provided in this Contract. The Contractor’s operations and
those of its subcontractors and all suppliers, shall be done according to subsection 40-05 and shall limit operations for the convenience and safety of the traveling public as specified in subsection 80-04.

The Contractor shall conduct all operations on or near a railroad according to the Contract, any contract between the Department and the railroad, and any permits issued by the railroad. The Department shall obtain permits for hauling materials across railroad tracks at locations specified in the Contract. If the Contractor desires additional crossings, the Contractor shall obtain any required permits at the Contractor's expense.

70-09 BARRICADES, WARNING SIGNS AND HAZARD MARKINGS. The Contractor shall furnish, erect, and maintain all barricades, warning signs and markings for hazards necessary to protect the public and the work. It shall be the Contractor's responsibility to maintain markers at all times to separate areas closed to aircraft from adjacent areas that are open to aircraft. When used during periods of darkness, such barricades, warning signs and hazard markings shall be suitably illuminated. Barricades, warning signs, and markings for hazards that are in the air operations area shall be a maximum of 18 inches high. Barricades shall be spaced not more than 25 feet apart.

For public vehicular and pedestrian traffic, the Contractor shall furnish, erect, and maintain barricades, warning signs, lights and other traffic control devices in conformity with the Manual on Uniform Traffic Control Devices for Streets and Highways (published by the United States Government Printing Office) and the Alaska Traffic Manual Supplement (published by the Department), and according to the Traffic Control Plan.

When the work requires closing an airport operations area of the airport or portion of such area, the Contractor shall furnish, erect and maintain temporary markings and associated lighting conforming to the requirements of AC 150/5340-1, Standards for Airport Markings, and according to the Construction Safety Plan.

For work within the airport property, the Contractor shall furnish, erect, and maintain markings and associated lighting of open trenches, excavations, temporary stockpiles, and parked construction equipment that may be hazardous to the operation of emergency, fire-rescue, maintenance or support vehicles on the airport in conformance to AC 150/5370-2, Operational Safety on Airports During Construction.

The Contractor shall identify each motorized vehicle or piece of construction equipment in conformance to AC150/5370-2.

Open-flame type lights shall not be permitted within the air operations areas of the airport.

70-10 USE OF EXPLOSIVES. The Contractor shall obey all laws, regulations and permits applicable to using, handling, loading, transporting, or storing explosives. When using explosives, the Contractor shall take utmost care not to endanger life, property, new construction, or existing portions of the project and facilities that are to remain in place after the project is complete.

The Contractor shall provide notice to property owners, the traveling public, and utility companies in the vicinity before using explosives. The Contractor shall provide a minimum of three working days notice to the Federal Aviation Administration and the airport manager. The Contractor shall notify police and fire authorities in the vicinity before transporting or using explosives. The Contractor shall provide notice sufficiently in advance to enable all potentially affected parties to take whatever steps they may deem necessary to protect themselves and their property from injury or damage. The Contractor shall not use explosives on or near airport property until a Notices to Airmen (NOTAMs) has been issued. Each new use of explosives may require a separate NOTAMs to be issued. The Contractor shall not use electric blasting caps within 1,000 feet of the airport property.

The Contractor is liable for all property damage, injury, or death resulting from the use of explosives on the project. The Contractor and Surety shall indemnify, hold harmless, and defend the State of Alaska from all claims related to the use of explosives on the project, including claims from government agencies alleging that explosives were handled, loaded, transported, used, or stored improperly.
70-11 PROTECTION AND RESTORATION OF PROPERTY AND LANDSCAPE.

a. **Property marks.** The Contractor shall:

(1) Be responsible for and protect from disturbance all land monuments and property marks until the Engineer has approved the witnessing or otherwise referenced their locations; and

(2) Not move such monuments or marks without the Engineer's approval.

b. **Damage to property.** The Contractor shall:

(1) Be responsible for all damage to public or private property resulting from any act, omission, neglect, or misconduct in the manner or method of executing the work;

(2) Be responsible for all damage to public or private property resulting from defective work or materials at any time, before, during, or after project completion; and

(3) Restore all such damaged property to a condition similar or equal to that existing before the damage occurred, at no additional cost to the Department.

c. **Protection of natural resources.** The Contractor shall:

(1) Conduct work in a manner that minimizes disturbance to and protects natural resources in compliance with all federal, state, and local laws and regulations;

(2) When working near designated wetlands, as defined by the Corps of Engineers, place no fill, nor operate equipment outside the permitted area;

(3) When working in or near designated anadromous fish streams, as defined by AS 41.14.840 and AS 41.14.870, place no fill or dredge material, nor operate equipment, within or on the banks of the stream (including fording) except as permitted by the State Fish Habitat Permit issued for the project; and

(4) Not refuel and service equipment within 100 feet of wetlands and/or other water bodies.

d. **Hazardous materials.** Hazardous materials include but are not limited to petroleum products, oils, solvents, paints, lead based paints, asbestos, and chemicals that are toxic, corrosive, explosive, or flammable. Except as otherwise specified in this Contract, the Contractor shall:

(1) Not excavate, nor use for fill, any material at any site suspected of or found to contain hazardous materials or petroleum fuels;

(2) Not raze and remove, or dispose of structures that contain asbestos or lead-based paints;

(3) Not stockpile, nor dispose of, any material at any site suspected of or found to contain hazardous materials or petroleum;

(4) Report immediately to the Engineer any known or suspected hazardous material discovered, exposed, or released into the air, ground, or water during construction of the project;

(5) Report any containment, cleanup, or restoration activities anticipated or performed as a result of such release or discovery;
(6) Handle and dispose of hazardous material with properly trained and licensed personnel who follow an approved Hazardous Material Control Plan as per Section P-157. Dispose of hazardous material according to federal, state and local laws and regulation.

(7) Store, handle and dispose of hazardous material that the Contractor or subcontractors brought to or used on the project, at no additional cost to the Department.

e. **Protected areas.** The Contractor shall not use land from any park, recreation area, wildlife or waterfowl refuge, or any historical site located inside or outside of the project limits for excess fill disposal, staging activities, equipment or material storage, or for any other purposes unless permitted by the Contract or unless all permits and clearances necessary for such work have been obtained by the Contractor as detailed in Subsection 70-02.

f. **Solid waste.** The Contractor shall remove all debris, trash, and other solid waste from the project site as soon as possible and according to the Alaska Department of Environmental Conservation Solid Waste Program.

g. **Restoring Areas.** Areas used by the Contractor, including haul routes, shall be restored to their original condition after the Contractor’s operations are completed. The original condition of an area shall be determined as follows: Prior to commencement of operations, the Engineer and the Contractor shall inspect each area and haul route that will be used by the Contractor and take photographs to document their condition. After construction operations are completed, the condition of each area and haul route will be compared to the earlier photographs. Prior to demobilization the Contractor shall repair damages attributed to its operations. The Contractor agrees that all costs associated with repairs shall be subsidiary to other items of work and will not be paid for directly.

h. **Material Disposal Sites.** Offsite disposal areas may be at locations of the Contractor’s choice, provided the Contractor obtains from the owner of such land written permission for such dumping and a waiver of all claims against the State for any damage to such land which may result therefrom, together with all permits required by law for such dumping. A copy of such permission, waiver of claims, and permits shall be filed with the Engineer before commencing work on private property. The Contractor’s selected disposal sites shall also be inspected and approved by the Engineer prior to use of the sites.

70-12 **FOREST PROTECTION.** The Contractor shall:

a. Comply with all laws and regulations of the United States and the State of Alaska, local governments, or other authorities governing the protection of forests and the carrying out of work within forests;

b. Keep forest areas in an orderly condition;

c. Dispose of all refuse and obtain permits for the construction and maintenance of all construction camps, stores, warehouses, residences, latrines, cesspools, septic tanks, and other structures according to the requirements of the supervising authorities;

d. Take all reasonable precautions to prevent and suppress forest fires;

e. Require workers and subcontractors, both independently and at the request of officials, to do all reasonably within their power to prevent and suppress and to assist in preventing and suppressing forest fires; and

f. Make every possible effort to notify the appropriate forestry agency at the earliest moment of the location and extent of any forest fire.
70-13 RESPONSIBILITY FOR DAMAGE CLAIMS. The Contractor shall indemnify, hold harmless, and defend the State of Alaska and its agents and employees from any and all claims or actions for injuries or damages whatsoever sustained by any person or property that arise from or relate to, directly or indirectly, the Contractor's performance of the Contract; however, this provision has no effect if, but only if, the sole proximate cause of the injury or damage is the Department's negligence.

This Contract does not create a third party benefit to the public or any member of the public, nor does it authorize any person or entity not a party to this Contract to maintain a suit based on this Contract or any term or provision of the Contract, whether for personal injuries, property damage, or any other claim or cause of action.

70-14 OPENING SECTIONS OF THE PROJECT TO TRAFFIC. The Engineer may, at their discretion, order the Contractor to open sections of the work to traffic prior to completion of the entire project. Openings under this section shall not constitute (a) acceptance of the opened sections or any other part of the work or (b) a waiver of any other provision of the Contract.

The Engineer may establish a time period for completing any features of the opened section of work that are behind schedule.

The Contractor shall:

   a. Maintain the opened portions of the work without additional compensation;
   b. Perform all necessary repairs or renewals on the opened sections of the work without additional compensation;
   c. Conduct the remainder of the work with minimum interference to traffic; and
   d. Maintain barricades and other safety devices required by AC 150/5370-2, *Occupational Safety on Airports During Construction*, to provide separation of opened and closed sections of the project.

70-15 CONTRACTOR'S RESPONSIBILITY FOR WORK. The Contractor shall be responsible for implementing all preventative measures necessary to protect, prevent damage, and repair damage to the work from all causes at no additional cost to the Department. This duty continues from the date construction begins until the date specified in a letter of Substantial Completion or Partial Acceptance of a specific section of the project. Where there is a Partial Acceptance, the duty ends only as to the accepted portion of the work. This duty continues during periods of suspended work, except in specific sections the Department has agreed to maintain under Subsection 50-13.a. Seasonal Suspension of Work.

The Contractor shall rebuild, repair, restore, and make good all losses or damages to any portion of the work including that caused by vandalism, theft, accommodation of public traffic, and weather. The Department will only be responsible for loss or damage due to unforeseeable causes beyond the control of and without the Contractor’s fault or negligence, such as Acts of God, the public enemy, and governmental authorities.

In case of suspension of work from any cause, the Contractor shall take such precautions as may be necessary to prevent damage to the work or facilities affected by the work. This will include providing for drainage and erecting any necessary temporary structures, signs, or other facilities and maintaining all living material such as plantings, seedings, and soddings.

70-16 RESERVED.

70-17 FURNISHING RIGHT-OF-WAY. The Department will secure all necessary right-of-way or property in advance of construction. Any exceptions will be indicated in the Contract.

70-18 PERSONAL LIABILITY OF PUBLIC OFFICIALS. There shall be no liability upon the Engineer and their authorized representatives, either personally or as officials of the state, in carrying out any of the
provisions of this Contract, or in exercising any power or authority granted to them by or within the scope of the Contract, it being understood that in all such matters the Engineer and their authorized representatives act solely as agents and representatives of the State. The Contractor shall bring no suit related to or arising under this Contract naming as defendants any State officer, employee or representative in either their personal or official capacities, and shall include a prohibition to that effect in all subcontracts entered into for this Project.

70-19 NO WAIVER OF LEGAL RIGHTS. The Department shall not be precluded nor estopped by any measurement, estimate, or certificate made either before or after the completion and acceptance of the work and payment, from showing the true amount and character of the work performed and materials furnished by the Contractor, nor from showing that any 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 shall not be precluded nor estopped, notwithstanding any measurement, estimate, or certificate and payment, from recovering from the Contractor or the Contractor’s Sureties, or both, such damages as it may sustain by reason of the Contractor's failure to comply with the terms of the Contract.

Neither the acceptance by the Department, or by any representative of the Department, nor any payment for or acceptance of the whole or any part of the work, nor any extension of time, nor any possession taken by the Department, shall operate as a waiver by the Department of any portion of the Contract or of any right of the Department to damages. A waiver by the Department of any breach of the Contract shall not be held to be a waiver of any other subsequent breach.

70-20 GRATUITY AND CONFLICT OF INTEREST. The Contractor shall not extend any loan, gratuity, or gift of money of any form whatsoever to any employee of the Department, nor will the Contractor rent or purchase any equipment or materials from any employee of the Department or to the best of the Contractor’s knowledge from any agent of any employee of the Department. The Contractor shall execute and furnish the Department an affidavit certifying that the Contractor has complied with this section before final acceptance.
SECTION 80
PROSECUTION AND PROGRESS

80-01 SUBCONTRACTING OF CONTRACT. The Contractor shall submit a Contractor Self Certification for Subcontractors and Lower Tier Subcontractors, Form 25D-042, before the Contractor or any subcontractor subcontracts, sells, transfers, assigns, or otherwise disposes of the Contract or any portion of the Contract. The Department has authority to review subcontracts and to deny permission to subcontract work. The Department may penalize the Contractor for false statements or omissions made in connection with Form 25D-042.

The Contractor shall perform, with the Contractor's own organization, work amounting to at least 30 percent of the difference between the original Contract price and the price of designated Specialty Items. For the purpose of this Subsection, work is defined as the dollar value of the services, equipment, materials, and manufactured products furnished under the Contract. The Engineer will determine the value of the subcontracts based on Contract unit prices or upon reasonable value, if entire items are not subcontracted.

The Department’s consent to the subcontracting, sale, transfer, assignment, or disposal of all or a part of the Contract shall not relieve the Contractor and the Surety of responsibility for fulfillment of the Contract or for liability under the bonds regardless of the terms of the transfer or sublet approvals.

a. The Contractor shall ensure that for all subcontracts (agreements):
   (1) The Department is furnished with one completed Contractor Self Certification, Form 25D-042, for each subcontract;
   (2) The subcontractors have submitted a Bidder Registration, Form 25D-6;
   (3) The required prompt payment provisions of AS 36.90.210 are included in all subcontracts;
   (4) A clause is included requiring the Contractor to pay the subcontractor for satisfactory performance according to AS 36.90.210 and within eight (8) working days after receiving payment from the Department from which the subcontractor is to be paid;
   (5) A clause is included requiring the Contractor to pay the subcontractor interest, according to AS 45.45.010(a), for the period beginning the day after the required payment date and ending on the day payment of the amount due is made:
   (6) A clause is included requiring the Contractor to pay the subcontractor all retainage due under the subcontract, within eight (8) working days after final payment is received from the Department, or after the notice period under AS 36.25.020(b) expires, whichever is later;
   (7) A clause is included requiring the Contractor to pay interest on retainage, according to AS 36.90.250 and AS 45.45.101(a);
   (8) Other required items listed in Form 25D-042 are included in the subcontracts;
   (9) The subcontractors pay current prevailing rate of wages as per Subsection 60-04 and file certified payrolls with the Engineer and DOLWD for all work performed on the project; and
   (10) Upon receipt of a request for more information regarding subcontracts, the requested information is provided to the Department within 5 calendar days.

b. The Contractor shall ensure that for all lower tier subcontracts (agreements between subcontractors and lower tier subcontractors):
   (1) The required prompt payment provisions of AS 36.90.210 are included in all lower tier subcontracts;
A clause is included requiring the subcontractor to pay the lower tier subcontractor for satisfactory performance according to AS 36.90.210, and within eight (8) working days after receiving payment from the Department from which the subcontractor is to be paid;

A clause is included requiring the subcontractor to pay the lower tier subcontractor interest, according to AS 45.45.010(a), for the period beginning the day after the required payment date and ending on the day payment of the amount due is made;

A clause is included requiring the subcontractor to pay the lower tier subcontractor all retainage due under the subcontract, within eight (8) working days after final payment is received from the Department, or after the notice period under AS 36.25.020(b) expires, whichever is later;

A clause is included requiring the subcontractor to pay the lower tier subcontractor interest on retainage, according to AS 36.90.250 and AS 45.45.101(a);

Other required items listed in Form 25D-042 are included in the lower tier subcontracts;

The lower tier subcontractors pay current prevailing rate of wages as per Subsection 60-04 and file certified payrolls with the Engineer and DOLWD for all work performed on the project; and

Upon receipt of a request for more information regarding subcontracts, the requested information is provided to the Department within 5 calendar days.

c. The following will be considered as subcontracting, unless performed by the Contractor:

Roadside Production. Roadside production of crushed stone, gravel, and other materials with portable or semi-portable crushing, screening, or washing plants set up or reopened in the vicinity of the project to supply materials for the project, including borrow pits used exclusively or nearly exclusively for the project.

Temporary Plants. Production of aggregate mix, concrete mix, asphalt mix, other materials, or fabricated items from temporary batching plants, temporary mixing plants, or temporary factories that are set up or reopened in the vicinity of the project to supply materials exclusively or nearly exclusively for the project.

Hauling. Hauling from the project to roadside production, temporary plants, or commercial plants, from roadside production or temporary plants to the project, from roadside production or temporary plants to commercial plants, and all other hauling not specifically excluded in this subsection.

Other Contractors. All other contractors working on the project site under contract with the Contractor are considered subcontractors unless specifically excluded in this subsection.

d. The following will not be considered as subcontracting, but the Contractor shall comply with the prompt payment provisions of AS 36.90:

Commercial Plants. The purchase of sand, gravel, crushed stone, crushed slag, batched concrete aggregates, ready-mixed concrete, asphalt paving mix, and any other material or fabrication produced at and furnished from established and recognized commercial plants that sell to both public and private purchasers.

Hauling. Delivery of materials from a commercial plant to a different commercial plant, and delivery from a commercial plant to the project site by vehicles owned and operated by the commercial plants or by commercial freight companies that have a contract with the commercial plant. Commercial freight companies are trucking or hauling companies that deliver multiple types of materials to multiple clients, both public and private, on an established route and on a recurrent basis.

Contractors’ General Business. Work within permanent home offices, branch plants, fabrication plants, tool yards, and other establishments that are part of a contractor’s or subcontractor’s general business operations.
e. **Owner-Operators.** Hauling of materials for the project by bona fide truck owner-operators who are listed as such on the certified payroll of the Contractor or approved subcontractor is not considered subcontracting for purposes of AS 36.30.115.

The Contractor shall ensure that the required prompt payment provisions of AS 36.90.210 are included in contracts with owner-operators.

The Contractor shall collect and maintain at the project site current and valid copies of the following to prove that each trucker listed is a bona fide owner-operator:

1. Alaska Driver’s License with appropriate CDL class and endorsements;
2. Business license for trucking with supporting documents that list the driver as the business owner or corporate officer;
3. Documents showing the driver’s ownership interest in the truck, including copies of:
   a. Truck registration; and
   b. Lease (if truck is not registered in driver’s name or in the name of the driver’s company).

The Contractor shall maintain legible copies of these records for a period of at least three years after final acceptance of the project.

Owner-operators must qualify as independent contractors under the current Alaska Department of Labor’s criteria. Owner-operators may be required to show:

1. The owner-operator’s right to control the manner in which the work is to be performed;
2. The owner-operator’s opportunity for profit or loss depending upon their managerial skill;
3. The owner-operator’s investment in equipment or materials required for their task, or the employment of helpers;
4. Whether the service rendered requires a special skill;
5. The degree of permanence of the working relationship; and
6. Whether the service rendered is an integral part of the owner-operator’s business.

The status of owner-operators is subject to evaluation throughout the project period. If the criteria for an independent contractor are not met, the Contractor shall submit amended payrolls listing the driver as an employee subject to all labor provisions of the Contract.

The Contractor shall issue each owner-operator a placard in a form approved by the Engineer that identifies both the truck driver and the vehicle. The placard shall be prominently displayed on the vehicle so that it is visible to scale operators and inspectors.

Notwithstanding the Department’s definitions of contracting and subcontracting, the Contractor shall be responsible for determining and complying with all federal and state laws and regulations regarding contracting, subcontracting, and payment of wages. The Contractor shall promptly pay any fines or penalties assessed for violations of those laws and regulations, and shall promptly comply with the directives of any government agency having jurisdiction over those matters.

80-02 NOTICE TO PROCEED. The Department will issue a Notice to Proceed authorizing construction to begin and indicating the date when Contract time will begin. The Contractor shall not begin construction before the effective date of the Notice to Proceed. The Department will, in its sole discretion, refuse to pay for construction begun before the effective date of the Notice to Proceed. The Contractor shall notify the Engineer at least 48 hours before construction begins at the project site.

80-03 PROSECUTION AND PROGRESS. The Contractor shall meet with the Engineer at the regional construction office for a preconstruction conference before beginning construction. The Contractor shall
submit the following documents to the Engineer at least five working days before the preconstruction conference:

a. A progress schedule, in a format acceptable to the Engineer, showing the order in which the Contractor proposes to carry out the work and the contemplated dates on which the Contractor and the subcontractors will start and finish each of the salient features of the work, including any scheduled periods of shutdown. The schedule shall indicate the anticipated hours of operation and any anticipated periods of multiple-shift work.

b. A list showing anticipated dates for procurement of materials and equipment, ordering of articles of special manufacture, furnishing of plans, drawings and other data required under Subsections GCP-50-02 and GCP-60-08, and for other events such as inspection of structural steel fabrication.

c. A list showing all proposed subcontractors and material suppliers.

d. A Submittal Register, according to Subsection GCP-60-08.

e. A Construction Phasing plan, when required under Section G-300.

f. A Storm Water Pollution Prevention Plan, a Hazardous Material Control Plan, and a Spill Prevention Control and Countermeasure Plan, with the line of authority and designated field representatives, as required under Section P-157.

g. A letter designating the Contractor's Project Superintendent, defining that person's responsibility and authority, and providing a specimen signature.

h. A letter designating an Equal Employment Opportunity Officer and a Disadvantaged Business Enterprise Officer, and designating those person's responsibilities and authority.

i. A Quality Control Plan, as required under Sections GCP-60-03 and GCP-100

j. A letter designating a Safety Officer for workers, and designating that person's responsibilities and authority.

k. A Traffic Control Plan, as required under Subsection GCP-70-09 and Section G-710.

l. A Utility Repair Plan, as required under Subsection GCP-50-06.e.

The Contractor shall provide adequate materials, labor and equipment to ensure the completion of the project according to the Plans and Specifications. The work shall be performed as vigorously and as continuously as weather conditions or other interferences may permit. The Contractor shall take into consideration and make due allowances at the Contractor's expense for foreseeable delays and interruptions to the work such as unfavorable weather, frozen ground, equipment breakdowns, shipping delays, quantity overruns, utility work, permit restrictions, and other foreseeable delays and interruptions. The Contractor shall identify these allowances on the progress schedule.

The Contractor shall adjust forces, equipment and work schedules as necessary to ensure completion of the work within the Contract time, and shall notify the Engineer at least 24 hours before resuming suspended operations. Upon a substantial change to the work schedule or when directed by the Engineer, the Contractor shall submit a revised progress schedule in the form required, including a written explanation for each revision made in the schedule or methods of operation.

The Engineer's review or approval of the documents, plans, and schedules provided by the Contractor under this section shall not change the Contract requirements, release the Contractor of the responsibility for successful completion of the work or relieve the Contractor of the duty to comply with applicable laws. The
Engineer’s review or approval of schedules shall not indicate agreement with any assertions of delay or claims by the Contractor.

It is the Contractor's responsibility to prepare and submit documents that satisfy all applicable contract requirements. By reviewing and approving the Contractor's documents, the Department does not warrant that following the Contractor’s documents will result in successful performance of the work. The Department's failure to discover defects in the Contractor's documents, the assumptions upon which they are based or conditions that prevent the Contractor from performing the work as indicated in the documents will not entitle the Contractor to additional compensation or time. If the Contractor becomes aware of any act or occurrence that may form the basis of a claim for additional compensation or an extension of time, it must specifically advise the Engineer of these conditions according to Subsection 50-17.

80-04 LIMITATION OF OPERATIONS. The Contractor shall not open up work to the detriment of work already started. The Contractor shall minimize interference with traffic within the project. The Contractor shall not stop or otherwise impede traffic outside the project limits without the Engineer's prior written permission. The Engineer may require the Contractor to finish a section of work in progress before starting additional sections if the Engineer determines it is necessary for the convenience of the public or the Department.

The Contractor shall control its operations and the operations of its subcontractors and all suppliers, so as to provide for the least inconvenience to traffic and the free and unobstructed movement of aircraft in the Air Operations Areas of the airport, except as specifically provided in this Contract. Under all circumstances, safety shall be the most important consideration.

a. Environmental Limitations. The Contractor shall comply with all environmental commitments, permit stipulations, and construction limitations, in the Contract permits and specifications. These may include time periods in which certain construction activities are not allowed. The Contractor shall avoid disturbing wetlands unless permitted to do so. The Contractor shall avoid disturbing threatened and endangered species, historic sites, and hazardous materials sites.

b. Construction Safety Plan (CSP). A CSP is included within the contract documents. The CSP specifies minimum requirements for operational safety during construction activities. The Contractor shall conduct operations according to the CSP and the provisions set forth within the current version of AC 150/5370-2, Operational Safety on Airports During Construction. No deviations or modifications may be made to the approved CSP unless approved in writing by the Engineer.

The Contractor shall implement all necessary CSP measures prior to commencement of any work activity. The Contractor shall conduct daily checks of its workers, equipment, and construction methods to assure compliance with the CSP measures. The Contractor shall document the checks in writing and sign them. Documented checks shall be available for inspection by the Engineer.

The Contractor is responsible for the conduct of all subcontractors and suppliers it employs on the project. The Contractor shall assure that all subcontractors and suppliers are made aware of the requirements of the CSP, and that the subcontractors and suppliers implement and maintain all necessary safety measures.

The CSP will indicate areas within airport property boundaries that may be used for material stockpile, and will indicate the maximum height of stockpile allowed. The Contractor shall obtain prior approval from the Engineer before using other areas within airport property. The Engineer may limit stockpile heights or equipment heights in any area, either inside or outside of airport property, based on requirements in the ACs or other factors necessary to ensure the free and unobstructed operation of aircraft.

c. Security Plan. When required by the Contract, the Contractor shall control its operations and the operations of its subcontractors and all suppliers so as to provide for the security of the Airport. The Contractor’s operations shall be conducted according to the Security Plan and the provisions set forth.
within the current version of DOT/FAA/AR-00/52, *Recommended Security Guidelines for Airport Planning and Construction*. No deviations or modifications may be made to the approved Security Plan unless approved in writing by the Engineer.

d. **Notification.** When the work requires the Contractor to conduct its operations within an Air Operations Area of the airport, the work shall be coordinated with Airport Management, the FAA Flight Service Station, and the Engineer. The Contractor shall provide written notice to the Airport Management, FAA, and the Engineer, at least 45 days before working in the Air Operations Area. The Contractor shall copy to the Engineer all correspondence with Airport Management and FAA.

The Contractor shall prepare a NOTAMs on a form provided by the Department, and submit the form through the Engineer to the Airport Management at least 72 hours prior to: closure or change in the Air Operations Area; or startup, resumption, cessation of, or change in construction activity that affects aircraft operations.

The Contractor shall not close an Air Operations Area until a NOTAMs has been issued by Airport Management or by FAA, until the Engineer has authorized the Contractor to work there, and until the necessary temporary marking and associated lighting is in place as provided in Subsection 70-09.

For questions, the primary FAA contact is the FAA Systems Operations Control Center at (800) 478-2139. If the primary contact is unavailable, contact the Chairman of Long Term Outage Committee, Operations Engineering Section, FAA Airways Facilities Division at (907) 271-5552.

e. **Work Procedures and Communications within the Airport Operations Area.**

Vehicles, equipment and materials shall never be parked or left standing on runways, runways safety areas, and taxiways open to aircraft. In Air Operations Areas, all vehicles shall be equipped with a functional flashing amber hazard light and all obstructions except stakes or hazard markers shall be removed during non-working hours. The Contractor shall remove construction equipment from and otherwise clear the runway and the designated Runway Safety Areas for operation of regularly scheduled airline flights. The Contractor shall remain continuously informed regarding flight schedule times.

When the contract work requires the Contractor to work within an Air Operations Area of the airport on an intermittent basis (intermittent opening and closing of all or a portion of the Air Operations Area), the Contractor shall maintain constant communications as hereinafter specified, immediately obey all instructions to vacate the Air Operations Area, and immediately obey all instructions to resume work in such Air Operations Area. Failure to maintain the specified communications or to obey instructions shall be cause for suspension of the Contractor's operations in the Air Operations Area, with no damages available from the Department, until the satisfactory conditions are provided. The Contractor shall establish and maintain communication or monitor communications with the appropriate radio facility as prescribed in the following:

(1) **Airports With Control Towers:** At those airports with control towers, the Contractor shall comply with the instructions of the airport controller. The Contractor shall continuously monitor 2-way radio communication on the appropriate ground control frequency. The Contractor shall furnish a liaison radio operator and 2-way radio communication with each work party located within the Air Operations Area.

(2) **Airports Without Control Towers:**

(a) **With a Flight Service Station:** When the airport has an operating FSS, the Contractor shall comply with the instructions of a FSS Employee, a pilot, or a pilot's representative. The Contractor shall continuously monitor by 2-way radio the *Common Traffic Advisory Frequency* (CTAF) published in the current *Alaska Flight Information Supplement*. The Contractor shall furnish a liaison radio operator and 2-way radio communication with each work party located within the Air Operations Area.
(b) Without a Flight Service Station: At those airports without an operating FSS, the Contractor shall comply with the instructions of a FSS Employee, a pilot, or a pilot’s representative. The Contractor shall continuously monitor by 2-way radio the Common Traffic Advisory Frequency (CTAF) published in the current Alaska Flight Information Supplement. The Contractor shall furnish 2-way radio communication with each work party located within the Air Operations Area.

80-05 CHARACTER OF WORKERS, METHODS, AND EQUIPMENT. The Contractor shall employ sufficient labor and equipment to complete the work required under the Contract and to complete it on time.

The Contractor shall ensure that all workers on the project have the skills and experience necessary to properly perform their assigned work. Workers engaged in special work or skilled work shall have sufficient experience in that work and in the operation of the equipment required to properly perform that work.

The Contractor shall comply with any written order by the Engineer to remove workers, who, in the opinion of the Engineer, violate operational regulations, violate construction safety plan requirements, violate security plan requirements, perform the work in an unskilled manner, who are intemperate or disorderly, or who jeopardize the safety of the public, other workers or Engineer’s personnel. The Contractor shall allow removed workers to return to the project only with the Engineer’s written permission. The Engineer may suspend the work if the Contractor fails to furnish suitable and sufficient personnel necessary to perform the work, or fails to remove any worker at the Engineer’s order.

The Contractor shall not use prisoner labor on the project.

The Contractor shall use equipment of the appropriate size and mechanical condition to produce the specified quality and quantity of work by the means specified in the Contract, if any, and shall ensure that the equipment does not damage roadways or property.

The Contractor shall ensure all equipment, materials, and articles incorporated into the work are new and of the specified quality, unless the Contract specifically permits otherwise.

The Contractor shall provide the Engineer with a list of all powered equipment that will be used on the project, showing the make, model, year, capacity, horsepower, and related information. The Contractor shall update this list when equipment is added or removed from the work site, but need not update more frequently than weekly.

When the methods and equipment to be used by the Contractor are not prescribed by the contract, the Contractor is free to use any method, means or equipment that is satisfactory to produce the specified work in conformity with the Contract, except as provided above. At the request of the Engineer, the Contractor shall demonstrate that the method, means and equipment chosen will produce the work specified in the Contract in the time allowed under the Contract. The Contractor shall bear all costs and impacts associated with any means, methods and equipment chosen by the Contractor. No suggestion, statement or observation from the Engineer or other Department representatives shall alter this responsibility.

If the Contract specifies a particular method, means or type of equipment for performance of the work, the Contractor must use that method, means or equipment unless the Contractor first requests, in writing, permission to alter the Contract requirement and receives prior written approval from the Engineer. The written request shall include a full description of the methods and equipment proposed and of the reasons for desiring to make the change. If approval is given, it will be on the condition that the Contractor will be fully responsible for producing work in conformity with contract requirements. If, after trial use of the substituted methods or equipment, the Engineer determines that the work produced does not meet contract requirements, the Contractor shall discontinue the use of the substitute method or equipment and shall complete the remaining work with the specified methods and equipment. The Contractor shall remove any deficient work and replace it with work of specified quality, or take such other corrective action as the Engineer may direct. No change will be made in basis of payment for the contract items involved, nor in
contract time, as a result of authorizing a change in methods or equipment under this subsection, except as specifically provided under Subsection 40-08.

80-06 CONTRACT TIME, EXTENSION OF CONTRACT TIME AND SUSPENSION OF WORK. Contract time will be specified in Calendar Days or by specific Completion Date.

a. Calendar Days. When the contract time is specified on a calendar days basis, all work under the Contract shall be completed within the number of calendar days specified. If no starting day is specified in the Contract, the count of Contract time begins on the day following receipt of the Notice to Proceed by the Contractor.

Calendar days shall continue to be counted against Contract time until and including the date of project completion. Calendar days shall not be counted during the period from November 1 through April 30, except for days that the Contractor is working on the project site.

b. Completion Date. When the contract time is specified on a completion date basis, all work under the Contract shall be completed by the specified completion date.

c. Reasons for Suspension of Work and Extension of Contract Time. The Department may order a suspension of work for any reason listed in Items c.(1) through c.(16).

The Department shall not pay additional compensation, but may extend Contract time only, if there are delays in the completion of controlling items of work from unforeseeable causes that are beyond the Contractor's control and are not the result of the Contractor's fault or negligence, including:

(1) Acts of God;
(2) Acts of the public enemy;
(3) Fires;
(4) Floods;
(5) Epidemics;
(6) Quarantine restrictions;
(7) Strikes;
(8) Freight embargoes;
(9) Unusually severe weather;
(10) According to Subsection 50-06.d.(4), delays by utility owners beyond completion dates specified in the Special Provisions for relocating or adjusting utilities and related facilities; or
(11) Delays of subcontractors, suppliers and fabricators from unforeseeable causes beyond the control of the subcontractors, suppliers or fabricators and that are not the fault of the subcontractors, suppliers or fabricators, including those causes listed in this Subparagraph c, Items (1) through (10).

No additional Contract time or additional compensation will be allowed due to delays caused by or suspensions ordered due to:

(12) Failure to correct unsafe conditions for the workers or the public;
(13) Adverse weather that is not unusually severe;

(14) Failure to carry out Contract provisions;

(15) Failure to carry out orders given by the Engineer; or

(16) Failure to timely obtain materials, equipment, or services.

The Contractor shall notify the Engineer as soon as the Contractor becomes aware of any act or occurrence that may form the basis of a request for a time extension under this section. The Contractor shall submit a request for a time extension to the Engineer within 10 days of the act or occurrence, and if an agreement is not reached, the Contractor may submit a Claim under Subsection 50-17.

The time allowed in the Contract, as awarded, is based on performing the original estimated quantities of work set out in the bid schedule. An assertion that insufficient time was originally specified shall not constitute a valid reason for extension of contract time. If satisfactory fulfillment of the Contract requires extra work, the Department may extend Contract time on a basis commensurate with the amount and difficulty of the extra work, provided that the extra work is for a controlling item.

d. Suspension of Work. The Engineer will suspend work on the project, in whole or in part, for such periods and for such reasons as the Engineer determines to be reasonable, necessary, in the public interest, or for the convenience of the Department.

(1) The Engineer will issue a written order to suspend, delay, or interrupt all or any part of the work. The Contractor shall not be compensated for the suspension, delay, or interruption if it is imposed for a reasonable time under the circumstances.

(2) Unless another Contract section specifically provides otherwise, the Contractor will be compensated by equitable adjustment for a suspension, delay, or interruption of the work only if:

(a) The period of suspension, delay, or interruption is for an unreasonable time under the circumstances and another Contract section allows compensation in the event of a suspension, delay, or interruption of the work under the circumstances that actually caused the suspension, delay, or interruption; or

(b) The delay, suspension, or interruption results from the Department's failure to fulfill a contractual obligation to the Contractor within the time period specified in the Contract or, if no time period is specified, within a reasonable time.

(3) No equitable adjustment will be made under this subsection for any suspension, delay, or interruption of the work if the Contractor's performance would have been suspended, delayed, or interrupted by any other cause for which:

(a) The Department is not responsible under the Contract, including the Contractor's fault or negligence; or

(b) An equitable adjustment is either provided for or excluded under any other section of this Contract.

(4) Claims for equitable adjustments under this section shall be filed under Subsection 50-17 except that:

(a) The Contractor must give written notice of intent to claim no later than 20 days after the event giving rise to the delay, suspension, or interruption; and
(b) The claim may not include any costs incurred more than 20 days before the Contractor files the Contractor's written notice of intent to claim.

80-07 FAILURE TO COMPLETE ON TIME. For each calendar day that the work is not substantially complete after the expiration of the Contract time or the completion date has passed, the Engineer shall deduct the full daily charge corresponding to the original Contract amount shown in Table 80-1 from progress payments.

For each calendar day that the work is substantially complete but the project is not complete, after the expiration of the Contract time or the completion date has passed, the Engineer shall deduct 20 percent of the daily charge corresponding to the original Contract amount shown in Table 80-1 from progress payments.

If no money is due the Contractor, the Department may recover these sums from the Contractor, from the Surety, or from both. These are liquidated damages and not penalties. These charges shall reimburse the Department for its additional administrative expenses incurred due to the Contractor's failure to complete the work within the time specified.

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<thead>
<tr>
<th>TABLE 80-1 DAILY CHARGE FOR LIQUIDATED DAMAGES FOR EACH CALENDAR DAY OF DELAY</th>
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<tbody>
<tr>
<td><strong>Original Contract Amount</strong></td>
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Permitting the Contractor to continue work after the Contract time has elapsed or the completion date has passed does not waive the Department's rights to collect liquidated damages under this section.

80-08 DEFAULT OF CONTRACT. The Contracting Officer will give a written Notice of Default to the Contractor and the Surety if the Contractor:

a. Fails to begin work under the Contract within the time specified;

b. Fails to perform the work with sufficient workers, equipment, or materials to ensure the prompt completion of the work;

c. Performs the work unsuitably or neglects or refuses to remove materials or to replace rejected work;

d. Discontinues the prosecution of the work;

e. Fails to resume work that has been discontinued within a reasonable time after notice to do so;

f. Becomes insolvent except that if the Contractor declares bankruptcy, termination shall be according to the Federal Bankruptcy Code. In the event that the Contractor declares bankruptcy, the Contractor agrees that the Contract will be assumed by the Surety in a timely manner so as to complete the Contract by the date specified in the Contract;

g. Allows any final judgment to stand against the Contractor unsatisfied for a period of 60 days;
h. Makes an assignment for the benefit of creditors, without the consent of the Engineer;

i. Fails to comply with applicable minimum wage or civil rights requirements;

j. Is a party to fraud, deceit, misrepresentation, or malfeasance in connection with the Contract; or

k. Fails to perform the work in an acceptable manner for any other cause whatsoever.

The written Notice of Default will include a notice to cure and will establish a date by which the cure must be completed. The Contracting Officer may allow more time to cure than originally stated in the Notice to Default if the Contracting Officer deems it to be in the best interests of the Department. Failure to cure the delay, neglect, or default within the time specified in the Contracting Officer’s Notice of Default authorizes the Department to terminate the contract. The Department will provide the Contractor and the Contractor's Surety with a written Notice of Termination.

After the Notice of Termination is issued, the Department may take over the work without further notice; may complete it by itself, by contract or otherwise; and may take possession of and use materials, appliances, equipment, or plant on the work site necessary for completing the work.

The Department may transfer the obligation to perform the work from the Contractor to the Surety. In that event, the Surety shall submit its plan for completion of the work, including any contracts or agreements with third parties for completion, to the Department for approval before beginning work. The Surety must follow the Contract requirements for approval of subcontracts, except that the limitation on percent of work subcontracted will not apply. On receipt of the transfer notice, the Surety shall take possession of all materials, tools, equipment, and appliances at the work site, employ an appropriate work force, and complete the Contract work as specified. The Contract specifications and requirements shall remain in effect, except that the Department will make subsequent Contract payments directly to the Surety. The Contractor forfeits any right to claim for the work and is not entitled to receive any further balance of the amount to be paid under the Contract.

The Contractor and the Contractor's Surety are jointly and severally liable for any damage to the Department resulting from the Contractor's delay, neglect, or default, whether or not the Department terminates the Contractor's right to prosecute the work. The Department's damages include any increased costs incurred by the Department in completing the work or paying for the work to be completed. The Department's rights and remedies are in addition to any other rights and remedies provided by law or under the Contract.

If, after notice of termination of the Contractor's right to proceed under this clause, it is determined that the Contractor was not in default, or that the default was excusable, the rights and obligations of the parties will be determined under Subsection 80-09, Termination for Convenience.

80-09 TERMINATION FOR CONVENIENCE.

a. Notice. The Contracting Officer may terminate the Contract in whole or in part due to:

(1) Executive Orders of the President of the United States or the Governor of the State of Alaska with respect to the prosecution of war or the interest of national defense, or any disaster declaration.

(2) Restraining orders or injunctions by a court of competent jurisdiction affecting prosecution of the work based on acts or omissions of persons or agencies other than the Contractor.

(3) Any reason determined by the Contracting Officer to be in the best interest of the Department.

The Contracting Officer will issue a written Notice of Termination to the Contractor. The Notice of Termination shall state the extent to which performance of work under the Contract is terminated, the
effective date of the termination, and for which of the above-listed reasons the Contract is
terminated.

b. **Required Actions.** Unless otherwise directed by the Contracting Officer, upon receipt of a Notice of Termination the Contractor shall immediately:

1. Stop work as directed in the Notice.
2. Place no further orders or subcontracts for materials, services, or facilities except as approved to complete work not terminated.
3. Terminate all orders and subcontracts for the terminated work.
4. Accomplish either (a) or (b) below as directed by the Contracting Officer:
   a. Assign to the Department all right, title and interest in any terminated orders or subcontracts. The Contracting Officer will settle all claims on the terminated orders or subcontracts.
   b. Settle any outstanding liabilities and claims arising from termination of orders and subcontracts. Settlements must be limited to costs allowed under this Section.
5. Submit to the Contracting Officer a list, certified as to quantity and quality, of all materials acquired or produced for incorporation into the project and that are properly allocable to the terminated portion of the project, exclusive of items disposed of under Subsection 80-09.b.(6), below.
6. Dispose of materials in the Contractor’s possession or control that were acquired or produced but not incorporated into the project as of the termination date as directed by the Contracting Officer under either (a) or (b) below:
   a. Transfer title and deliver the materials to the Department. The Department will pay for the materials at the actual cost delivered to the project or storage site, including transportation charges, to which cost 15% will be added.
   b. Sell the materials. Credit will not have to be extended to prospective purchasers.

   The Contractor may acquire the materials if the Contracting Officer approves the sale price and the Contractor meets any other conditions prescribed by the Contracting Officer.

   At the sole discretion of the Contracting Officer, the proceeds of any sale, transfer, or disposition of materials may be:
   a. Applied to reduce any payments to be made by the Department under the Contract;
      b. Credited to the cost of the work; or
      c. Paid in any other manner as directed.
7. Deliver to the Department completed or partially completed plans, drawings, information, and other property required to be furnished under the Contract.
8. Take all necessary actions and comply with all directives to protect contract-related property in which the Department has or may acquire an interest.
9. Complete work not terminated.

The Contractor shall proceed immediately with performance of the above obligations notwithstanding any delay in determining or adjusting the amount of any item or reimbursable cost under this clause.
c. **Claim.** The Contractor shall submit any termination claim to the Contracting Officer within 90 days after the effective date of termination, unless the date for submitting a claim is extended in writing by the Contracting Officer.

(1) Without duplication of any amount paid for under Subsection 80-09.b., the claim may be for the total of:

(a) Costs incurred in performing the terminated work from the date of Contract award to the effective date of the termination subject to the provisions of 80-09.c.(2) regarding reimbursement of equipment costs and 80-09.c.(3) regarding unallowable items.

(b) Payments approved by the Contracting Officer under 80-09.b.(4)(b) to settle the termination claims of suppliers and subcontractors to the extent not covered under 80-09.c.(1)(a).

(c) Reasonably incurred costs for:
   
   1. Accounting, legal, clerical, and other costs reasonably necessary for preparation of the termination claim and settlement negotiations, excluding costs incurred after the date an appeal is filed with the Appeals Officer under 80-09.h.
   
   2. Settling subcontractor and supplier claims, excluding the amounts of those settlements paid under 80-09.c.(1)(b).

(d) Reasonable profit on the costs included in Subsection 80-09.c.(1)(a) based on the Contractor's bid rate for profit or as determined under any other reasonable accounting method. However, if it appears that the Contractor would have sustained a loss on the entire Contract had it been completed, the Contracting Officer will allow no profit and will reduce the settlement to reflect the indicated rate of loss under Subsection 80-09.d. The Department will not pay profit on costs included in Subsections 80-09.c.(1)(b) and 80-09.c.(1)(c).

(2) Equipment claims will be reimbursed as follows:

(a) Contractor-owned equipment usage, based on the Contractor’s ownership and operating costs for each piece of equipment as determined from the Contractor’s accounting records. Do not base equipment claims on published rental rates.

(b) Idle time for Contractor-owned equipment, based on the Contractor’s internal ownership and depreciation costs. Idle equipment time is limited to the actual period of time equipment is idle as a direct result of the termination, not to exceed 30 days. Operating expenses will not be included for payment of idle equipment time.

(c) Rented equipment, based on reasonable, actual rental costs. Equipment leased under "capital leases" as defined in Financial Accounting Standard No. 13 will be considered Contractor-owned equipment. Equipment leased from an affiliate, division, subsidiary or other organization under common control with the Contractor will be considered Contractor-owned equipment, unless the affiliate, division, subsidiary or other organization has an established practice of leasing to unaffiliated lessees.

(3) The following costs are not payable under a termination settlement agreement or Contracting Officer’s determination of the termination claim, or on appeal:

(a) Loss of anticipated profits or consequential or compensatory damages.

(b) Unabsorbed home office overhead (also termed “General & Administrative Expense”) related to ongoing business operations.
(c) Bidding and project investigative costs.

(d) Direct costs of repairing equipment to render it operable for use on the terminated work.

d. Adjustment for Loss. If the Contractor would have sustained a loss on the entire Contract had it been completed, the Department will not pay the Contractor more than the total of:

(1) The amount due for termination claim costs under Subsection 80-09.c.(1)(c); plus

(2) The remainder of the total allowable claim amount due reduced by multiplying the remainder by the ratio of (a) the total contract price to (b) the remainder plus the estimated cost to complete the entire Contract; minus

(3) All disposal and other credits, all advance and progress payments and all other amounts previously paid under the Contract.

e. Deductions. In arriving at the amount due under this Subsection, the Department will deduct:

(1) All previous payments made before termination;

(2) Any claim which the Department may have against the Contractor;

(3) The proceeds of the sale or transfer of any materials, supplies, or other items acquired for the terminated work and not otherwise recovered by or credited to the Department;

(4) All partial payments made under this Section; and

(5) Any adjustment for loss determined under Subsection 80-09.d.

f. Agreed Settlement. The Contractor shall make every effort to arrive at a claim settlement with the Contracting Officer that is fair to both parties, that reflects the reasonable and allocable incurred costs allowable under Subsection 80-09.c, that includes a profit under Subsection 80-09.c.(1)(d) or, where appropriate, a loss adjustment under Subsection 80-09.d., and that takes into account the Contractor’s reasonable business judgment in performing the work.

The total settlement, whether determined under this Subsection 80-09.f. or under Subsection 80-09.g., exclusive of the costs listed in Subsection 80-09.c.(1)(c), may not exceed the total contract price as reduced by previous payments made and the contract price of work not terminated.

If an agreement is reached in whole or in part, the Department will amend the contract and will pay the agreed amount.

g. Determined Settlement. If the Contractor fails to submit a termination claim within the time allowed, or if an agreement is not reached on the amount due, the Contracting Officer may determine in a Contracting Officer’s Decision, the amount due under Subsection 80-09 on the basis of information available to the Department.

h. Right of Appeal. The Contractor may appeal a Contracting Officer’s Decision within the time and in the manner specified in Subsection 50-17.

i. Partial Payments. In the sole discretion of the Contracting Officer, the Department may make partial payments against costs incurred by the Contractor in connection with the terminated portion of the Contract. The sum of these partial payments will not exceed the Contracting Officer’s estimate of the total amount that will be due as a result of the termination. The estimate will be based on available
information. The Contracting Officer may adjust the estimate as additional information becomes available. If the Contracting Officer orders an audit of the Contractor’s financial or project records, the Contracting Officer may decline to make partial payments until the audit is completed.

j. **No Waiver of Rights.** The termination of work by the Department does not affect or extinguish any of the rights of the Department against the Contractor or the Contractor’s Surety then existing or which may thereafter accrue. Any retention or payment of monies by the Department due under the terms of the Contract will not release the Contractor or the Contractor’s Surety from the contractual obligations or warranties made under Subsection 70-19 or elsewhere in the Contract.

k. **Retaining Records.** The Contractor shall unless otherwise provided for in the Contract or by applicable statute, keep all books, records, documents, and other evidence bearing on the Contractor’s cost and expenses under the Contract and relating to the work terminated for a period of 3 years after final settlement under this Contract. Records must be made available to the Department at the Contractor’s office and at all reasonable times.

l. **Definitions.** In this Subsection 80-09, the term “cost” and the term “expense” mean a monetary amount in U.S. Dollars actually incurred by the Contractor, actually reflected in the Contractor’s contemporaneously maintained accounting or other financial records and supported by original source documentation.

m. **Cost Principles.** The Department may use the federal cost principles at 48 CFR §§ 31.201-1 to 31.205-52 (or succeeding cost principles for fixed price contracts) as guidelines in determining allowable costs under this Subsection to the extent they are applicable to airport construction contracts and consistent with the specifications of this Contract. The provisions of this contract control where they are more restrictive than, or inconsistent with, these federal cost principles.
SECTION 90
MEASUREMENT AND PAYMENT

90-01 GENERAL. Wherever the Contract provides that certain work is subsidiary or it is without extra compensation, the payment for that work is included in the payment for other items of work, and no further or additional payment shall be made for that work.

When more than one type of material or work is specified for a pay item, letter or numeric suffixes included within parentheses following the pay item number are used to differentiate the types.

Lump sum items will not be measured for payment. The Contractor shall accept the bid amount for a lump sum item as complete payment for all work necessary to complete that item. Quantities shown for lump sum items are approximate. No adjustment in the lump sum price will be made if the quantity furnished is more or less than the estimated quantity unless the Contract specifically states otherwise.

90-02 MEASUREMENT OF QUANTITIES. All work completed under the Contract will be measured using the U.S. Customary system of measure. The Engineer may agree for purposes of making progress payments to use a method of measurement other than the methods described below. However, all final payments for quantities will be calculated using one or more of the methods of measurement described below and in the applicable pay item section. Unless otherwise specified, work will be measured as follows:

a. **Acre (43,560 ft²).** Horizontally, unless specified on the ground surface. No deductions will be made for individual fixtures with an area of 500 ft² or less.

b. **Contingent Sum.** Measured as specified in the Contract or Directive authorizing the work. The method of payment may include: (1) a lump sum basis, (2) a price multiplied by the units of work performed, (3) a pay adjustment based on the quality of work, or (4) a deduction from the contract amount.

c. **Cubic Yard (yd³).** At the location specified using one of the following methods:

   (1) **Average End Area.** End area is the calculated area between original ground cross section and either the design cross section or at the Engineer’s discretion the final cross section. Volume of material is calculated using the average of end areas multiplied by the distance along centerline between end areas. In extreme cases where most of the earthwork lies along a single horizontal curve the Engineer may compute volume using the average of end areas multiplied by the distance along centroid of cross section between end areas.

   (2) **Three-Dimensional.** Where it is impractical to measure material by cross sectioning due to erratic location of isolated deposits, acceptable methods involving three-dimensional measurements may be used.

   (3) **Neat Line.** Structures will be measured according to neat lines shown on the Plans or as altered to fit field conditions.

   (4) **Nominal.** Volume calculated as nominal width times nominal thickness times the average length of each piece.

   (5) **Weight.** With the Engineer’s written approval, material that is specified to be measured by volume may be weighed and converted to volume for payment purposes. The Engineer will determine the appropriate conversion factors. When liquid asphalt is a pay item, ASTM D 4311 will be used to convert from weight to volume at 60 °F.

d. **Cubic Yard Vehicle Measure (CYVM).** Material measured by volume in the hauling vehicle will be measured at the point of delivery. Vehicles may be of any acceptable size or type provided that the
volume of the actual contents may be readily and accurately determined. Vehicles shall be loaded to
the measured vehicle volume. If vehicles are not loaded to the measured vehicle volume, the
Engineer at their discretion, may apply a percentage of full factor to the measured volume. Loads
shall be leveled when directed. No payment will be made for loads that exceed the legal capacity of
the vehicle.

e. Linear Foot (LF). From end to end, in place, parallel to the centerline of the item or ground surface
on which the items are placed.

f. Thousand Feet Board Measure (MBM). Nominal volume based on nominal widths and thickness
times actual extreme length of each piece. One board foot = 1 ft² X 1 inch thick.

g. Thousand Gallon (MGal). By one of the following methods:

   (1) Measured or calibrated volume tank;

   (2) Metered volume, using a certified calibrated meter; or

   (3) Weighed under this subsection and converted to volume, using a specified or approved
       conversion factor.

h. Mile. From end to end, measured horizontally along centerline.

i. Pound. Using a certified scale or the net weight of packaged material as labeled by the
   manufacturer. The Engineer will accept nominal weights for standard manufactured items, unless
   otherwise specified. The Engineer will accept industry-established manufacturing tolerances, unless
   otherwise specified.

j. Square Foot (ft²). Parallel to the surface being measured. No deductions will be made for individual
   fixtures with an area of 1 ft² or less. Transverse measurement for area computations will be the neat
   dimensions shown on the Plans or as directed by the Engineer.

k. Square Yard (yd²). Parallel to the surface being measured. No deductions will be made for
   individual fixtures with an area of 1 yd² or less. Transverse measurement for area computations will
   be the neat dimensions shown on the Plans or as directed by the Engineer.

l. Station (100 feet). Horizontally, parallel to centerline.

m. Ton (2,000 pounds). By one of the following methods:

   (1) Commercial Weighing System. Permanently installed and certified commercial scale that
       meets the requirements for the project weighing system.

   (2) Project weighing system. As specified under Subsection G-130.

   (3) Invoices. If bulk material is shipped by truck or rail and is not passed through a mixing plant,
       furnish a supplier’s invoice with net weight or volume converted to weight. Periodic check
       weighing may be required.

Trucks used to haul material being paid for by weight shall be weighed empty at least once daily and
at such times as directed. Each truck shall bear a plainly legible identification mark.

Due to possible variations in the specific gravity of the aggregates, the measured weight may vary
from the weight used to estimate bid quantity, and no adjustment in contract unit price will be made
because of such variation.
If material is shipped by rail, the certified car weight may be accepted provided that only the actual weight of material is paid for. Car weights will not be acceptable for material to be passed through mixing plants.

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

When materials are shipped by truck or transport, net certified weights or volume, subject to correction for loss or foaming, may be used for computing quantities, in the Engineer's discretion.

(4) Barge Displacement Method. When the barge displacement method is proposed the Contractor shall furnish water loading charts, certified by a Professional Engineer for all barges utilized in the hauling of the material. If barge hauled material is stockpiled, loss shall be estimated by the Engineer and shall be deducted from the total weight measured to allow for stockpile loss. Any material wasted or lost between the barge and the point where it is placed in final position shall be estimated and the loss deducted by the Engineer.

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

90-03 SCOPE OF PAYMENT. The Department will make payment at the Contract price or prices for each item shown on the bid schedule or as modified by change order with specified price adjustments. The Contractor shall accept the Contract prices as full and complete payment for (a) furnishing all equipment, materials, tools, and labor necessary to complete the work in a complete and acceptable manner, and for (b) all of the Contractor's risk, loss, damage, or expense of whatever character arising from or relating to the work and performance of the work.

90-04 COMPENSATION FOR ALTERED QUANTITIES. Payment to the Contractor for unit price items shall be made only for the actual quantities of work performed and accepted or materials furnished, in conformance with the Contract. When the accepted quantities of work or materials vary from the quantities stated in the bid schedule, the Contractor shall accept payment at the original Contract unit prices for the quantities of work and materials furnished, completed and accepted as payment in full. Payment at the Contract unit price shall compensate the Contractor for all costs, expenses, and profit that the Contractor is entitled to receive for the altered quantities, except as provided below:

a. When the final quantity of a Major Contract Item varies more than 25 percent above or below the bid quantity, either party to the Contract may receive an equitable adjustment in the Contract unit price of that item. If the final quantity of work is:

(1) Greater than 125 percent of the bid quantity, the equitable adjustment will be made only for those units that are in excess of 125 percent of the bid quantity.

(2) Less than 75 percent of the bid quantity, the equitable adjustment will be made for those units of work done and accepted, except that the total payment for the item shall not exceed 75 percent of the total amount bid for the item.

Except as provided above and in Subsection 40-02, no allowance shall be made for any increased expenses, loss of expected reimbursement, or loss of anticipated profits suffered or claimed, either directly from alterations in quantities or indirectly from unbalanced allocations among the contract items on the part of the bidder and subsequent loss of expected reimbursements, or any other causes.

90-05 COMPENSATION FOR EXTRA WORK ON TIME AND MATERIALS BASIS. When the Engineer orders extra work to be performed on a time and materials basis, compensation will be computed as follows:
a. Labor. Based on the sum of (1) through (6):

(1) **Total hours worked times the straight time rate of pay.** The rates of pay are those indicated on the certified payroll for all labor and foremen in direct charge of the specific operations. Rates shall not exceed those for comparable labor currently employed on the project, and shall not include general superintendence.

(2) **Overtime hours worked times the difference between the overtime rate and the straight time rate.** No markup is allowed.

(3) **Fringe benefit rate times the total hours worked.** Fringe benefits include Health and Welfare, Pension Fund, etc., when such amounts are required by collective bargaining agreement or other employment contracts generally applicable to the classes of labor employed on the project.

(4) **Workers’ Compensation Insurance at 8 percent of (1).** The actual net rate may be used if it exceeds 10 percent and if proof of rates is furnished within 30 days of the completion of the extra work.

(5) **Either subsistence and travel allowances or prorated camp costs.** If an employee is due and receives subsistence or camp privileges on their days off, divide that cost by the number of days worked that week and add to their daily subsistence entitlement. If the employee did not work an entire day on time and materials work, prorate the entitlement for the hours worked on time and materials.

(6) **Markup at 35 percent of the sum of (1), (3), (4), and (5).** This includes and shall fully compensate the Contractor for all overhead and profit, including general superintendence, additional bond, property damage liability insurance, unemployment insurance contributions, social security and other taxes, administrative overhead costs, and profit.

b. Materials. Actual invoiced material and delivery costs plus 15 percent markup. The material must be approved and incorporated into the work. The Contractor shall furnish to the Engineer proof of payment for materials used in the work plus applicable transportation charges. For Contractor-produced materials, certify in writing the Contractor’s actual direct costs, the quantities used, and attach cost spreadsheets and production documentation to verify the costs.

c. Equipment. Includes machinery and special equipment (other than small tools) necessary for the work and authorized by the Engineer. No additional compensation will be made for overhead, profit, maintenance, service, repairs, fuels, lubricants, or replacement parts.

(1) **Hourly Rental Rate.** Based on rental rates in the current edition and appropriate volume of the *Rental Rate Blue Book for Construction Equipment*, published by PRIMEDIA Information, Inc., 1735 Technology Drive, Suite 410, San Jose, CA 95110-1313.

The regular hourly rental rate is equal to the equipment rate plus the estimated hourly operating cost. These rates apply for equipment used during the Contractor’s regular shift of 10 hours per day. No markup is allowed.

The equipment rate is equal to the age adjusted monthly rate for the basic equipment plus the age adjusted monthly rate for applicable attachments, both divided by 176, and multiplied by the regional adjustment factor. The equipment rate is per hour.

The age adjusted monthly rate is that resulting from application of the age adjustment formula, to eliminate replacement cost allowances in machine depreciation and contingency cost allowances.
Only the attachments required for the time and materials work will be included.

(2) **Hourly Overtime Rate.** Half of the equipment rate plus the full estimated hourly operating cost. The overtime rate will apply to hours the equipment is used in excess of 10 hours per day, either on the Contractor's normal work or on time and materials, and either on single or multiple shifts. No markup is allowed.

(3) **Hourly Stand-by Rate.** Half of the equipment rate, for equipment ordered on stand-by during the Contractor's normal work shift, not to exceed eight hours per day. No operating costs or markup is allowed.

(4) **Unlisted Equipment.** For equipment not listed in The Blue Book, the Contractor and the Engineer may agree to a rate before extra work is begun. If agreement is not reached, the Engineer has authority to establish a rate based on similar equipment in the Blue Book or prevailing commercial rates. No markup is allowed.

(5) **Leased or Rented Equipment.** Equipment that must be rented or leased specifically for work required under this section and authorized in writing by the Engineer shall be paid at invoice price plus 15 percent markup.

   Equipment rented or leased for other work under the Contract and used for work under this section shall be paid based on c.(1), (2), and (3). (above) with no markup, except that the adjusted monthly rate is the monthly rate determined directly from the submitted rental or lease agreement.

(6) **Transportation of Equipment.** The actual cost of moving equipment to and from the work site. To receive reimbursement for transportation of equipment, the Contractor shall obtain the equipment from the nearest approved source and use the equipment exclusively for time and materials work. Payment for move-out will not exceed the amount of the move-in. No markup is allowed, except on operator's wages.

   Basis of payment:

   (a) If by common carrier: paid freight bill or invoice.

   (b) If hauled with the Contractor's own resources: hourly rental rate for hauling unit plus operator wages.

   (c) If equipment must be moved under its own power: half of the normal hourly rental rate plus operator's wages.

d. **Work by a Subcontractor or Owner-Operator.** For time and materials work performed by an approved subcontractor or owner-operator under items a. through c. above, the Contractor will receive a 5 percent markup for administrative costs. No percentage will be paid on work covered under bid items in the original Contract. No percentage over the amount covered above will be paid for work done by a lower tier subcontractor.

e. **Work by a Specialty Subcontractor.** The Contractor shall obtain the Engineer's advance agreement that the specialty item needed is beyond the Contractor's ability or expertise or that of the Contractor's other subcontractors. For work on a specialty item performed by an approved specialty subcontractor, the Contractor will receive the approved invoice cost of work or service plus a 15 percent markup for administrative costs.
f. Records. The Engineer will maintain a daily record of labor, equipment and materials utilized in the extra work. The Engineer will present this record to the Contractor at the end of each day's work for verification and signature.

g. Compensation. Payment for time and materials work will be made in the progress estimate following receipt of the verified daily records and all required supporting information from the Contractor. If, at any time, a unit price or lump sum basis of compensation is agreed to for work being performed under this subsection, that compensation will be set forth in writing as a Change Order.

90-06 PROGRESS PAYMENTS. The Department will make monthly progress payments to the Contractor based on estimates of the value of work performed and materials on hand under Subsection 90-07. At the Departments discretion, a progress payment may be made twice monthly if the value of the estimate exceeds $10,000.

Contractor’s failure to pay subcontractors, or subcontractor’s failure to pay lower tier subcontractors, according to prompt payment provisions required under Subsection 80-01 is considered unsatisfactory performance.

The Department will not withhold payment as retainage but may withhold payment for unsatisfactory performance. If satisfactory progress is being made and subcontractors are paid according to Subsection 80-01 and AS 36.90.210, the Engineer will authorize 100 percent payment for the estimated value of work accomplished, less any authorized deductions.

If the Engineer finds that satisfactory progress is not being made or payment for satisfactory work by a subcontractor or lower tier subcontractor is not paid according to Subsection 80-01, the Engineer may withhold up to 100 percent of the total amount earned from subsequent progress payments. The Engineer may withhold up to 200 percent of the estimated cost to complete final punch list items for unsatisfactory performance until those items are complete. The Engineer will notify the Contractor in writing within eight (8) working days of a request for a progress payment of the reasons why part or all of the payment is being withheld for unsatisfactory performance and what actions may be taken by the Contractor to receive full payment.

Payments of withheld amounts will be made in accordance with AS 36.90.200. No interest will be paid to the Contractor for amounts withheld for unsatisfactory performance except if the Department fails to pay the amount withheld within twenty one (21) calendar days after the Contractor satisfactorily completes the remedial actions identified by the Engineer, as provided in AS 36.90.200(e).

The Contractor shall pay interest on retainage withheld from subcontractors, and at an interest rate according to AS 36.90.250 and AS 45.45.010(a).

90-07 PAYMENT FOR MATERIAL ON HAND.

a. Partial Payment. The Engineer will make partial payment for materials designated for incorporation into the work. The material shall:

(1) Meet Contract requirements;

(2) Be delivered and stockpiled at the project or other approved location;

(3) Be supported by invoices, freight bills, and other required information; and

(4) Not be living or perishable.

b. Payment Requests. The Contractor shall make each payment request in writing and:

(1) List stockpiled items, quantities of each, and stockpile location(s);
(2) Certify that materials meet the applicable Contract specifications;

(3) For purchased materials, attach copies of invoices, freight bills, and manufacturer’s published storage recommendations;

(4) For Contractor-produced materials, attach production statements showing quantities and dates produced and copies of process quality control test results; and

(5) Include other information requested by the Engineer.

c. **Storage Conditions.** The Contractor shall protect material from damage or loss while in storage. The Contractor shall:

(1) Physically separate stockpiled materials from other materials at the storage location;

(2) Clearly label materials with the project name and number; and

(3) Store materials per the manufacturer’s recommendations.

If storage conditions become unsatisfactory, liens are filed on any materials, or the storage location is changed without approval, the Engineer will deduct any previous payments made for such materials.

d. **Method of Payment.** The Engineer will include payments for acceptably stockpiled materials in the progress estimate following receipt of the Contractor’s written request and all required documentation. The Engineer will:

(1) Pay for materials purchased by the Contractor at the delivered cost but not to exceed 85% of the Contract amount for those items.

(2) Pay for materials produced by the Contractor at up to 50% of the Contract amount for those items.

(3) Deduct the Department’s cost to inspect materials stored off the limits of the project.

(4) Deduct partial payment quantities as they are incorporated into the project.

The Contractor shall release and discharge the Department from any liability for damages or delays related to the storage or transport of, and to the payment for, material on hand.

The Department’s payment for material on hand will not constitute final acceptance by the Department.

**90-08 FINAL PAYMENT.** When the project has been completed as provided in Subsection 50-15, the Engineer will prepare the final estimate of the quantities of the various classes of work performed. All prior progress estimates and payments shall be subject to correction in the final estimate and payment. The final estimate will not be processed until the Alaska Department of Labor and Workforce Development has verified that final payment can be released. The Department will not process the final estimate until the Contractor completes Items a through d in the first paragraph of Subsection 50-16.

If the Contractor approves the final estimate, or does not file a claim within 90 days of receiving the final estimate, the estimate shall be processed for final payment. Final payment shall consist of the entire sum found to be due after deducting all previous payments and all amounts to be retained or deducted under the provisions of the Contract. Failure to file a claim within 90 days of receiving the final estimate is a waiver of any and all claims relating to or arising from the final estimate.
When the Contractor approves the final estimate and executes the Contractor’s Release form, final payment will be processed.

The Contractor may reserve any unresolved claims that were timely filed according to Subsection 50-17 by listing those claims as exceptions on the Contractor’s Release. Any claims listed as exceptions that were not filed before the Contractor executes the final estimate will be considered null and void. Any claims filed in a timely manner but not listed on the Contractor’s Release are waived and deemed released.

If the Contractor fails or declines to approve the final estimate within 90 days but does not file any claims, the Department will consider the estimate approved and process the estimate for final payment. Any subsequently raised claims will be considered null and void.

**90-09 ELIMINATED ITEMS.** When the Contractor is notified of the elimination of a minor Contract item, the Contractor will be reimbursed for actual work performed and all direct costs incurred before notification. In no case will any payment be made for loss of anticipated profits or overhead.

Should it become necessary to eliminate a major Contract item, an equitable adjustment will be made and the Contract modified in writing accordingly.
SECTION 100
CONTRACTOR QUALITY CONTROL PROGRAM

100-01 GENERAL. The Contractor shall assure that all materials and completed construction conform to contract Plans, technical specifications and other requirements, whether manufactured by the Contractor, or procured from subcontractors or vendors. When required, the Contractor shall establish, provide, and maintain an effective Quality Control Program that details the methods and procedures that will be used. Although guidelines are established and certain minimum requirements are specified herein and elsewhere in the contract technical specifications, the Contractor shall assume full responsibility for accomplishing the stated purpose.

The intent of this section is to enable the Contractor to establish a necessary level of control that will:

a. Adequately provide for the production of acceptable quality materials.

b. Provide sufficient information to assure both the Contractor and the Engineer that the specification requirements can be met.

c. Allow the Contractor as much latitude as possible to develop their own standard of control.

The Contractor shall be prepared to discuss and present, at the preconstruction conference, their understanding of the quality control requirements. The Contractor shall not begin any construction or production of materials to be incorporated into the completed work until the Quality Control Program has been reviewed by the Engineer. No partial payment will be made for materials subject to specific quality control requirements until the Quality Control Program has been reviewed.

The quality control requirements contained in this section and elsewhere in the contract technical specifications are in addition to and separate from the acceptance testing requirements. Acceptance testing requirements are the responsibility of the Engineer.

100-02 DESCRIPTION OF PROGRAM.

a. General Description. The Contractor shall establish a Quality Control Program to perform inspection and testing of each item of work for which it is required by the technical specifications, including those performed by subcontractors. This Quality Control Program shall ensure conformance to applicable specifications and Plans with respect to materials, workmanship, construction, finish, and functional performance. The Quality Control Program shall be effective for control of all construction work performed under this Contract and shall specifically include surveillance and tests required by the technical specifications, in addition to other requirements of this section and any other activities deemed necessary by the Contractor to establish an effective level of quality control.

b. Quality Control Program. The Contractor shall describe the Quality Control Program in a written document which shall be reviewed by the Engineer prior to the start of any production, construction, or off-site fabrication. The written Quality Control Program shall be submitted to the Engineer for review at least 5 calendar days before the preconstruction conference.

The Quality Control Program shall be organized to address, as a minimum, the following items:

a. Quality control organization;

b. Project progress schedule;

c. Submittals schedule;
d. Inspection requirements;
e. Quality control testing plan;
f. Documentation of quality control activities; and

g. Requirements for corrective action when quality control and/or acceptance criteria are not met.

The Contractor is encouraged to add any additional elements to the Quality Control Program that he/she deems necessary to adequately control all production and/or construction processes required by this contract.

100-03 QUALITY CONTROL ORGANIZATION. The Contractor's Quality Control Program shall be implemented by the establishment of a separate quality control organization. An organizational chart shall be developed to show all quality control personnel and how these personnel integrate with other management/production and construction functions and personnel.

The organizational chart shall identify all quality control staff by name and function, and shall indicate the total staff required to implement all elements of the Quality Control Program, including inspection and testing for each item of work. If necessary, different technicians can be utilized for specific inspection and testing functions for different items of work. If an outside organization or independent testing laboratory is used for implementation of all or part of the Quality Control Program, the personnel assigned shall be subject to the qualification requirements of Subsection 100-03a and 100-03b. The organizational chart shall indicate which personnel are Contractor employees and which are provided by an outside organization.

The quality control organization shall consist of the following minimum personnel:

a. Program Administrator. The Program Administrator shall be a full-time employee of the Contractor, or a consultant engaged by the Contractor. The Program Administrator shall have a minimum of 5 years of experience in airport and/or highway construction and shall have had prior quality control experience on a project of comparable size and scope as the contract.

Additional qualifications for the Program Administrator shall include at least one of the following requirements:

(1) Professional engineer with 1 year of airport paving experience acceptable to the Engineer.

(2) Engineer-in-training with 2 years of airport paving experience acceptable to the Engineer.

(3) An individual with 3 years of highway and/or airport paving experience acceptable to the Engineer, with a Bachelor of Science Degree in Civil Engineering, Civil Engineering Technology or Construction.

(4) Construction materials technician certified at Level III by the National Institute for Certification in Engineering Technologies (NICET).

(5) Highway materials technician certified at Level III by NICET.

(6) Highway construction technician certified at Level III by NICET.

(7) A NICET certified engineering technician in Civil Engineering Technology with 5 years of highway and/or airport paving experience acceptable to the Engineer.

The Program Administrator shall have full authority to institute any and all actions necessary for the successful implementation of the Quality Control Program to ensure compliance with the contract Plans and technical specifications. The Program Administrator shall report directly to a responsible officer of
the construction firm. The Program Administrator may supervise the Quality Control Program on more than one project provided that person can be at the job site within 2 hours after being notified of a problem.

b. Quality Control Technicians. A sufficient number of quality control technicians necessary to adequately implement the Quality Control Program shall be provided. These personnel shall be either engineers, engineering technicians, or experienced craftsman with qualifications in the appropriate field equivalent to NICET Level II or higher construction materials technician or highway construction technician and shall have a minimum of 2 years of experience in their area of expertise.

The quality control technicians shall report directly to the Program Administrator and shall perform the following functions:

(1) Inspection of all materials, construction, plant, and equipment for conformance to the technical specifications, and as required by Section 100-05.

(2) Performance of all quality control tests as required by the technical specifications and Section 100-06.

Certification at an equivalent level, by a state or nationally recognized organization will be acceptable in lieu of NICET certification.

c. Staffing Levels. The Contractor shall provide sufficient qualified quality control personnel to monitor each work activity at all times. Where material is being produced in a plant for incorporation into the work, separate plant and field technicians shall be provided at each plant and field placement location. The scheduling and coordinating of all inspection and testing must match the type and pace of work activity. The Quality Control Program shall state where different technicians will be required for different work elements.

100-04 SUBMITTALS SCHEDULE. The Contractor shall submit a detailed listing of all submittals (e.g., mix designs, material certifications) and shop drawings required by the technical specifications. The listing can be developed in a spreadsheet format and shall include:

a. Specification item number;

b. Item description;

c. Description of submittal;

d. Specification Subsection requiring submittal; and

e. Scheduled date of submittal.

100-05 INSPECTION REQUIREMENTS. Quality control inspection functions shall be organized to provide inspections for all definable features of work, as detailed below. All inspections shall be documented by the Contractor as specified by Section 100-07.

Inspections shall be performed daily to ensure continuing compliance with contract requirements until completion of the particular feature of work. These shall include the following minimum requirements:

During plant operation for material production, quality control test results and periodic inspections shall be utilized to ensure the quality of aggregates and other mix components, and to adjust and control mix proportioning to meet the approved mix design and other requirements of the technical specifications. All equipment utilized in proportioning and mixing shall be inspected to ensure its proper operating condition. The Quality Control Program shall detail how these and other quality control functions will be accomplished and utilized.
During field operations, quality control test results and periodic inspections shall be utilized to ensure the quality of all materials and workmanship. All equipment utilized in placing, finishing, and compacting shall be inspected to ensure its proper operating condition and to ensure that all such operations are in conformance to the technical specifications and are within the plan dimensions, lines, grades, and tolerances specified. The Program shall document how these and other quality control functions will be accomplished and utilized.

100-06 QUALITY CONTROL TESTING PLAN. As a part of the overall Quality Control Program, the Contractor shall implement a quality control testing plan, as required by the technical specifications. The testing plan shall include the minimum tests and test frequencies required by the technical specification Item, as well as any additional quality control tests that the Contractor deems necessary to adequately control production and/or construction processes.

The testing plan can be developed in a spreadsheet fashion and shall, as a minimum, include the following:

   a. Specification item number (e.g., P-401);
   b. Item description (e.g., Plant Mix Bituminous Pavements);
   c. Test type (e.g., gradation, grade, asphalt content);
   d. Test standard (e.g., ASTM or AASHTO test number, as applicable);
   e. Test frequency (e.g., as required by technical specifications or minimum frequency when requirements are not stated);
   f. Responsibility (e.g., plant technician); and
   g. Control requirements (e.g., target, permissible deviations).

The testing plan shall contain a statistically-based procedure of random sampling for acquiring test samples according to ASTM D 3665. The Engineer shall be provided the opportunity to witness quality control sampling and testing.

All quality control test results shall be documented by the Contractor as required by Section 100-07.

100-07 DOCUMENTATION. The Contractor shall maintain current quality control records of all inspections and tests performed. These records shall include factual evidence that the required inspections or tests have been performed, including type and number of inspections or tests involved; results of inspections or tests; nature of defects, deviations, causes for rejection, etc.; proposed remedial action; and corrective actions taken.

These records must cover both conforming and defective or deficient features, and must include a statement that all supplies and materials incorporated in the work are in full compliance with the terms of the contract. Legible copies of these records shall be furnished to the Engineer daily. The records shall cover all work placed subsequent to the previously furnished records and shall be verified and signed by the Contractor's Program Administrator.

Specific Contractor quality control records required for the contract shall include, but are not necessarily limited to, the following records:

   a. **Daily Inspection Reports.** Each Contractor quality control technician shall maintain a daily log of all inspections performed for both Contractor and subcontractor operations on a form acceptable to the Engineer. These technician's daily reports shall provide factual evidence that continuous quality control inspections have been performed and shall, as a minimum, include the following:
(1) Technical specification item number and description;
(2) Compliance with approved submittals;
(3) Proper storage of materials and equipment;
(4) Proper operation of all equipment;
(5) Adherence to Plans and technical specifications;
(6) Review of quality control tests; and
(7) Safety inspection.

The daily inspection reports shall identify inspections conducted, results of inspections, location and nature of defects found, causes for rejection, and remedial or corrective actions taken or proposed.

The daily inspection reports shall be signed by the responsible quality control technician and the Program Administrator. The Engineer shall be provided at least one copy of each daily inspection report on the work day following the day of record.

b. **Daily Test Reports.** The Contractor shall be responsible for establishing a system which will record all quality control test results. Daily test reports shall document the following information:

(1) Technical specification item number and description;
(2) Test designation;
(3) Location;
(4) Date of test;
(5) Control requirements;
(6) Test results;
(7) Causes for rejection;
(8) Recommended remedial actions; and
(9) Retests.

Test results from each day's work period shall be submitted to the Engineer prior to the start of the next day's work period. When required by the technical specifications, the Contractor shall maintain statistical quality control charts. The daily test reports shall be signed by the responsible quality control technician and the Program Administrator.

**100-08 CORRECTIVE ACTION REQUIREMENTS.** The Quality Control Program shall indicate the appropriate action to be taken when a process is deemed, or believed, to be out of control (out of tolerance) and detail what action will be taken to bring the process into control. The requirements for corrective action shall include both general requirements for operation of the Quality Control Program as a whole, and for individual items of work contained in the technical specifications.

The Quality Control Program shall detail how the results of quality control inspections and tests will be used for determining the need for corrective action and shall contain clear sets of rules to gauge when a process is out of control and the type of correction to be taken to regain process control.
When applicable or required by the technical specifications, the Contractor shall establish and utilize statistical quality control charts for individual quality control tests. The requirements for corrective action shall be linked to the control charts.

100-09 INSPECTION BY THE ENGINEER. All items of material and equipment shall be subject to inspection by the Engineer at the point of production, manufacture or shipment to determine if the Contractor, producer, manufacturer or shipper maintains an adequate quality control system in conformance with the requirements detailed herein and the applicable technical specifications and Plans. In addition, all items of materials, equipment and work in place shall be subject to inspection by the Engineer at the site for the same purpose.

Inspection by the Engineer does not relieve the Contractor of performing quality control inspections of either on-site or off-site Contractor’s or subcontractor’s work.

100-10 NONCOMPLIANCE.

a. The Engineer will notify the Contractor of any noncompliance with any of the foregoing requirements. The Contractor shall, after receipt of such notice, immediately take corrective action. Any notice, when delivered by the Engineer or their authorized representative to the Contractor or their authorized representative at the site of the work, shall be considered sufficient notice.

b. In cases where quality control activities do not comply with either the Contractor’s Quality Control Program or the contract provisions, or where the Contractor fails to properly operate and maintain an effective Quality Control Program, as determined by the Engineer, the Engineer may:

(1) Order the Contractor to replace ineffective or unqualified quality control personnel or subcontractors.

(2) Order the Contractor to stop operations until appropriate corrective action is taken.
SECTION 110

METHOD OF ESTIMATING PERCENTAGE OF
MATERIAL WITHIN SPECIFICATION LIMITS (PWL)

110-01 GENERAL. When the Specifications provide for acceptance of material based on the method of estimating percentage of material within specification limits (PWL), the PWL will be determined according to this section. All test results for a lot will be analyzed statistically to determine the total estimated percent of the lot that is within specification limits. The PWL is computed using the sample average (X) and sample standard deviation (Sn) of the specified number (n) of sublots for the lot and the specification tolerance limits, L for lower and U for upper, for the particular acceptance parameter. From these values, the respective Quality index(s), QL for Lower Quality Index and/or QU for Upper Quality Index, is computed and the PWL for the lot for the specified n is determined from Table 1. Analysis of test results will be based on an Acceptable Quality Level (AQL) of 95.0% and a contractor's risk of 5.0% unless otherwise specified. AQL may be viewed as the lowest percent within the specification limits of a material that is acceptable as a process average and receive 100% pay. The Contractor's risk is the probability that when the Contractor is producing material at exactly the AQL, the materials will receive less than 1.00 pay factor.

There is some degree of uncertainty (risk) in the measurement for acceptance because only a small fraction of production material (the population) is sampled and tested. This uncertainty exists because all portions of the production material have the same probability to be randomly sampled. The Contractor's risk is the probability that material produced at the acceptable quality level is rejected or subjected to a pay adjustment. The Department's risk is the probability that material produced at the rejectable quality level is accepted.

IT IS THE INTENT OF THIS SECTION TO INFORM THE CONTRACTOR THAT, IN ORDER TO CONSISTENTLY OFFSET THE CONTRACTOR'S RISK FOR MATERIAL EVALUATED, PRODUCTION QUALITY (USING POPULATION AVERAGE AND POPULATION STANDARD DEVIATION) MUST BE MAINTAINED AT THE ACCEPTABLE QUALITY SPECIFIED OR HIGHER. IN ALL CASES, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PRODUCE AT QUALITY LEVELS THAT WILL MEET THE SPECIFIED ACCEPTANCE CRITERIA WHEN SAMPLED AND TESTED AT THE FREQUENCIES SPECIFIED.

110-02 METHOD FOR COMPUTING PWL. The computational sequence for computing PWL is as follows:

a. Divide the lot into n sublots according to the acceptance requirements of the specification.

b. Locate the random sampling position within the sublot according to the requirements of the specification. Make a measurement at each location, or take a test portion and make the measurement on the test portion according to the testing requirements of the specification.

c. Discard outliers as determined by ATM SP-7.

d. Find the sample average (X) for all remaining sublot values within the lot by using the following formula:

\[ X = \frac{(x_1 + x_2 + x_3 + \ldots + x_n)}{n} \]

Where:
- X = Sample average of all sublot values within a lot
- \( x_1, x_2 \) = Individual sublot values
- n = Number of sublots
e. Find the sample standard deviation ($S_n$) by use of the following formula:

$$S_n = \sqrt{\frac{(d_1^2 + d_2^2 + d_3^2 + \ldots + d_n^2)/(n-1)}{}}$$

Where:
- $S_n$ = Sample standard deviation of the number of sublot values in the set
- $d_1, d_2, \ldots =$ Deviations of the individual sublot values $x_1, x_2, \ldots$ from the average value $X$
  that is: $d_1 = (x_1 - X), d_2 = (x_2 - X) \ldots d_n = (x_n - X)$
- $n$ = Number of sublots

If the computed sample standard deviation ($Sn$) is <0.001, then use $Sn = 0.20$ for density and all sieves except the No. 200 sieve. Use $Sn = 0.020$ for asphalt cement content and the No. 200 sieve.

f. For single sided specification limits (i.e., $L$ only), compute the Lower Quality Index $Q_L$ by use of the following formula:

$$Q_L = \frac{(X - L)}{Sn}$$

Where:
- $L$ = specification lower tolerance limit
- $Q_L$ = Lower Quality Index

Estimate the percentage of material within limits (PWL) by entering Table 1 with $Q_L$, using the column appropriate to the total number ($n$) of measurements. $Q_L$ is rounded to the nearest hundredth.

g. For double sided specification limits (i.e. $L$ and $U$), compute the Quality Indexes $Q_L$ and $Q_U$ by use of the following formulas:

$$Q_L = \frac{(X - L)}{S_n} \quad \text{and} \quad Q_U = \frac{(U - X)}{S_n}$$

Where:
- $L$ and $U$ = specification lower and upper tolerance limits
- $Q_L$ = Lower Quality Index
- $Q_U$ = Upper Quality Index

$QL$ and $QU$ are rounded to the nearest hundredth.

Estimate the percentage of material between the lower ($L$) and upper ($U$) tolerance limits (PWL) by entering Table 1 separately with $Q_L$ and $Q_U$, using the column appropriate to the total number ($n$) of measurements, and determining the percent of material above $P_L$ and percent of material below $P_U$ for each tolerance limit. Determine the PWL by use of the following formula:

$$PWL = (P_U + P_L) - 100$$

Where:
- $P_L$ = percent within lower specification limit
- $P_U$ = percent within upper specification limit

EXAMPLE OF PWL CALCULATION
(This is an example PWL determination of five random samples from Lot 1. Cores for mat density are used for this example. Follow the same basic procedure for all acceptance criteria requiring a PWL calculation.)

**Project:** Example Project  
**Test Item:** Item 401a, Lot 1

1. Densities of five random core samples from Lot 1 (n = 5).
   - $x_1$ (D-1) = 93
   - $x_2$ (D-2) = 94
   - $x_3$ (D-3) = 92
   - $x_4$ (D-4) = 95
   - $x_5$ (D-5) = 95

2. Calculate average density ($X$) for Lot 1.
   
   \[
   X = \frac{(x_1 + x_2 + x_3 + x_4 + x_5)}{n} \\
   X = \frac{(93 + 94 + 92 + 95 + 95)}{5} \\
   X = 93.8 \text{ percent density}
   \]

3. Calculate the standard deviation ($S_n$) for Lot 1.
   
   \[
   S_n = \left[ \frac{\left( (x_1-X)^2 + (x_2-X)^2 + (x_3-X)^2 + (x_4-X)^2 + (x_5-X)^2 \right)}{n-1} \right]^{1/2} \\
   S_5 = \left[ \frac{\left( (93-93.8)^2 + (94-93.8)^2 + (92-93.8)^2 + (95-93.8)^2 + (95-93.8)^2 \right)}{5-1} \right]^{1/2} \\
   S_5 = \left[ \frac{0.64+0.04+3.24+1.44+1.44}{4} \right]^{1/2} \\
   S_5 = 1.30
   \]

4. Calculate the lower Quality Index ($Q_L$) for Lot 1. (L = Lower specification limit.)
   
   \[
   Q_L = \frac{(X - L)}{S_n} \\
   Q_L = \frac{(93.8-92)}{1.30} \\
   Q_L = 1.38
   \]

5. Calculate the upper Quality Index ($Q_U$) for Lot 1. (U = Upper specification limit.)
   
   \[
   Q_U = \frac{(U - X)}{S_n} \\
   Q_U = \frac{(98-93.8)}{1.30} \\
   Q_U = 3.23
   \]

6. Determine the percent within lower specification limits ($P_L$) from Table 1.  
   For $n = 5$ and $Q_L = 1.38$, $P_L = 94$

7. Determine the percent within upper specification limits ($P_U$) from Table 1.  
   For $n = 5$ and $Q_U = 3.23$, $P_U = 100$

8. Calculate mat density PWL for LOT 1.
   
   \[
   PWL = (P_L + P_U) - 100 \\
   PWL = (94 + 100) - 100 \\
   PWL = 94
   \]

**TABLE 1. Table for Estimating Percent of Lot Within Limits (PWL)**

For negative values of $Q_U$ or $Q_L$, use absolute values of $Q_U$ or $Q_L$ and determine $P_U$ or $P_L$ from the table. The $P_U$ or $P_L$ associated with the negative $Q_U$ or $Q_L$ value is equal to 100 minus the table value of $P_U$ or $P_L$.

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<th>$P_U$ or $P_L$</th>
<th>n = 3</th>
<th>n = 4</th>
<th>n = 5</th>
<th>n = 6</th>
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