

# **GASTINEAU ELEMENTARY SCHOOL PLAYGROUND UPGRADES**

**DEED NO. DR 10-101**

**Contract No. E13-214**

File No. 1680



ENGINEERING DEPARTMENT

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**END OF SECTION**

## SECTION 00030 - NOTICE INVITING BIDS

**OBTAINING CONTRACT DOCUMENTS.** The Contract Documents are entitled:

**Gastineau Elementary School Playground Upgrades  
CBJ Contract No. E13-214**

The Contract Documents may be obtained at the City & Borough of Juneau (CBJ) Engineering Department, 3rd Floor Marine View Center, upon payment of \$50.00 (non-refundable) for each set of Contract Documents (including Technical Specifications and Drawings) or may be downloaded for free at the CBJ Engineering Department webpage at: [www.juneau.org/engineering](http://www.juneau.org/engineering)

**PRE-BID CONFERENCE.** Prospective Bidders are encouraged to attend a Pre-Bid conference of the proposed WORK, which will be conducted by the OWNER and ARCHITECT, at 10:00 a.m. on April 9, 2013, in the City and Borough of Juneau Engineering Conference Room, 3<sup>rd</sup> Floor, Marine View Center. The object of the conference is to acquaint Bidders with the bid documents and site conditions.

**DESCRIPTION OF WORK.** The WORK includes Base Bid and 3 Additive Alternates:

BASE BID. Demolition of existing playground equipment, demolition of asphalt paving, demolition of a portion of the bin retaining wall, modifications to existing storm drain system including addition of new catch basins and cleaning of existing catch basins and piping; installation of new Owner furnished playground equipment, alteration to site grades to facilitate new grades and depressed areas for fall protection, underdrains at play equipment fall zones, Owner furnished shredded rubber fall protection material, base course for asphalt paving and concrete work, new curbs at perimeter of shredded rubber fall protection, a new asphalt paving, reconfiguration of hillside grades for outdoor classroom, new Owner furnished benches at outdoor classroom area, new concrete retaining wall at outdoor classroom area, new ornamental and chain link fencing, top soil at planting bed area, and new game line painting on new asphalt and existing concrete surfaces.

ADDITIVE ALTERNATE NO. 1 – UPPER STAFF PARKING AREA. The intent of this Additive Alternate is to construct six additional parking spaces to upper staff parking area. The scope of work of this alternate includes but is not limited to earthwork, drainage, concrete retaining walls and curbs, asphalt paving and striping, and related grading and re-vegetation of disturbed soils to integrate the new parking area into the existing lot as shown on the construction drawings.

ADDITIVE ALTERNATE NO. 2 – ASPHALT AND DRAINAGE EAST OF CLIMBING WALL. The intent of this Additive Alternate is to improve asphalt surface and canopy drainage along the aluminum canopy and at the asphalt pavement area east of the climbing wall. The scope of work of this alternate includes but is not limited to asphalt demolition, underground storm drain piping between eight (8) canopy downspouts and an underground storm drain system, new base course and asphalt paving in the area east of the climbing wall, and adjustments to rim elevations at existing catch basins as shown on the construction drawings.

ADDITIVE ALTERNATE NO. 3 – PICNIC TABLES. The intent of this Additive Alternate is to install four (4) picnic tables beside the planter as shown on drawings. The scope of work of this alternate includes but is not limited to excavation, concrete foundations, and installation of four (4) Owner furnished picnic tables as shown on the construction drawings.

**SECTION 00030 - NOTICE INVITING BIDS**

**COMPLETION OF WORK.** WORK may not begin until May 29, 2013, with substantial completion on August 6, 2013. All work must be completed by August 13, 2013.

**DEADLINE FOR BIDS:** Sealed bids must be received by the Purchasing Division **prior to 2:00 p.m., Alaska Time on April 19, 2013**, or such later time as may be announced by addendum at any time prior to the deadline. Bids will be time and date stamped by the Purchasing Division, which will establish the official time of receipt of bids. Bids will be opened immediately thereafter in the Assembly Chambers of the Municipal Building, 155 S. Seward Street, unless otherwise specified.

Bid documents delivered in person or by courier service must be delivered to:

**PHYSICAL LOCATION:**

City and Borough of Juneau, Purchasing Division  
105 Municipal Way, Room 300  
Juneau, AK 99801

Bid documents delivered by the U.S. Postal Service must be mailed to:

**MAILING ADDRESS:**

City and Borough of Juneau, Purchasing Division  
155 South Seward Street  
Juneau, AK 99801

**Please affix the label below to outer envelope in the lower left hand corner.**

<b>IMPORTANT NOTICE TO BIDDER</b>		
<b>To submit your Bid:</b>		
1. Print your company name and address on the upper left corner of your envelope.		
2. <b>Complete this label and place it on the lower left corner of your envelope.</b>		
<b>S</b>	<b>BID NUMBER:</b>	
<b>E</b>	<b>E13-214</b>	<b>B</b>
<b>A</b>		<b>I</b>
<b>L</b>	<b>SUBJECT:</b>	<b>D</b>
<b>E</b>	<b>Gastineau Elementary School</b>	
<b>D</b>	<b>Playground Upgrades</b>	
	<b>DEADLINE DATE:</b>	
	_____	
	<b>PRIOR TO 2:00PM ALASKA</b>	
	<b>TIME</b>	

**Mailing/delivery times to Alaska may take longer than other areas of the U.S.** Late bids will not be accepted and will be returned.

**SITE OF WORK.** The site of the WORK is Gastineau Elementary School Playground, 1507 3rd Street, Douglas, AK 99824

**SECTION 00030 - NOTICE INVITING BIDS**

**BIDDING, CONTRACT, or TECHNICAL QUESTIONS.** All communications relative to this WORK, prior to opening Bids, shall be directed to the following:

Jennifer Mannix, Contract Administrator  
CBJ Engineering Department, 3<sup>rd</sup> Floor, Marine View Center  
jennifer\_mannix@ci.juneau.ak.us  
Telephone: (907) 586-0873  
Fax: (907) 586-4530

**BID SECURITY.** Each Bid shall be accompanied by a certified or cashier's check or Bid Bond, in the amount of 5% percent of the Bid, payable to the City and Borough of Juneau, Alaska, as a guarantee that the Bidder, if its Bid is accepted, will promptly execute the Agreement. A Bid shall not be considered unless one of the forms of Bidder's security is enclosed with it.

**CONTRACTOR'S LICENSE.** All contractors are required to have a current Alaska Contractor's License, prior to submitting a Bid, and a current Alaska Business License prior to award.

**BID TO REMAIN OPEN.** The Bidder shall guarantee the Bid for a period of 60 Days from the date of Bid opening. Any component of the Bid including Additive and/or Deductive Alternates may be awarded anytime during the 60 Days.

**OWNER'S RIGHTS RESERVED.** The OWNER reserves the right to reject any or all Bids, to waive any informality in a Bid, and to make award to the lowest responsive, responsible Bidder as it may best serve the interests of the OWNER.

**OWNER: City and Borough of Juneau**

By:   
Jennifer Mannix, Contract Administrator

March 28, 2013  
Date

**END OF SECTION**

## SECTION 00100 - INSTRUCTIONS TO BIDDERS

**1.0 DEFINED TERMS.** Terms used in these Instructions to Bidders and the Notice Inviting Bids, which are defined in the General Conditions, have the meanings assigned to them in the General Conditions. The term "Bidder" means one who submits a Bid directly to the OWNER, as distinct from a sub-bidder, who submits a Bid to a Bidder.

### **2.0 INTERPRETATIONS AND ADDENDA.**

- A. **INTERPRETATIONS.** All questions about the meaning or intent of the Contract Documents are to be directed to the Engineering Contracts Administrator. Interpretations or clarifications considered necessary by the Engineering Contracts Administrator in response to such questions will be issued by Addendum, mailed, faxed, or delivered to all parties recorded by the Engineering Contracts Administrator, or OWNER, as having received the Contract Documents. Questions received less than seven Days prior to the Deadline for Bids may not be answered. Only questions answered by formal written Addendum will be binding. Oral and other interpretations or clarifications will be without legal effect.
- B. **ADDENDA.** Addenda may be issued to modify the Contract Documents as deemed advisable by the OWNER. Addenda may be faxed or, if addendum format warrants, addenda may be posted to the CBJ Engineering Department website. In any event, notification of addendum issuance will be faxed to planholders. Hard copies are available upon request. The OWNER will make all reasonable attempts to ensure that all planholders receive notification of Addenda, however, it is strongly recommended by the OWNER that bidders independently confirm the contents, number, and dates of each Addendum prior to submitting a Bid.

**3.0 FAIR COMPETITION.** More than one Bid from an individual, firm, partnership, corporation, or association under the same or different names will not be considered. If the OWNER believes that any Bidder is interested in more than one Bid for the WORK contemplated, all Bids in which such Bidder is interested will be rejected. If the OWNER believes that collusion exists among the Bidders, all Bids will be rejected.

**4.0 RESPONSIBILITY OF BIDDERS.** Only responsive Bids from responsible Bidders will be considered. A Bid submitted by a Bidder determined to be not responsible may be rejected. The OWNER may find a bidder to be not responsible 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. Record of integrity;
- D. More than one bid for the same work from an individual, firm, or corporation under the same or different name;
- E. Unsatisfactory performance on previous or current contracts;
- F. Failure to pay, or satisfactorily settle, all bills due for labor and material on previous contracts;

## SECTION 00100 - INSTRUCTIONS TO BIDDERS

- G. Uncompleted work that, in the judgment of the OWNER, might hinder or prevent the bidder's prompt completion of additional work, if awarded;
- H. Failure to reimburse the OWNER for monies owed on any previous contracts;
- I. Default under previous contracts;
- J. Failure to comply with any qualification requirements of the OWNER; special standards for responsibility, if applicable, will be specified. These special standards establish minimum standards or experience required for a responsible Bidder on a specific contract;
- K. Engaging in any activity that constitutes a cause for debarment or suspension under the CBJ Procurement Code 53.50 or submitting a bid during a period of debarment;
- L. Lack of skill, ability, financial resources, or equipment required to perform the contract; or
- M. Lack of legal capacity to contract.
- N. Bidders must be registered as required by law and in good standing for all amounts owned to the OWNER per Paragraph 21.0 of this Section.
- O. Failure to submit a complete Subcontractor Report as required in section Section 00360 – Subcontractor Report.

Nothing contained in this section deprives the OWNER of its discretion in determining the lowest responsible bidder. Before a Bid is considered for award, a Bidder may be requested to submit information documenting its ability and competency to perform the WORK, according to general standards of responsibility and any special standards which may apply. It is Bidder's responsibility to submit sufficient, relevant, and adequate information. OWNER will make its determination of responsibility and has no obligation to request clarification or supplementary information.

**5.0 NON-RESPONSIVE BIDS.** Only responsive Bids will be considered. Bids may be considered non-responsive and may be rejected. Some of the reasons a Bid may be rejected for being non-responsive are:

- A. If a Bid is received by the CBJ Purchasing Division after the Deadline for Bids.
- B. If the Bid is on a form other than that furnished by the OWNER, or legible copies thereof; or if the form is altered or any part thereof is detached; or if the Bid is improperly signed.
- C. If there are unauthorized additions, conditional or alternate Bids, or irregularities of any kind which may tend to make the bid incomplete, indefinite, ambiguous as to its meaning, or in conflict with the OWNER's Bid document.
- D. If the Bidder adds any unauthorized conditions, limitations, or provisions reserving the right to accept or reject any award, or to enter into a contract pursuant to an award. This does not exclude a Bid limiting the maximum gross amount of awards acceptable to any one Bidder at any one Bid opening, provided that any selection of awards will be made by the OWNER.



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- E. If the Bid does not contain a Unit Price for each pay item listed, except in the case of authorized alternate pay items.
- F. If the Bidder has not acknowledged receipt of each Addendum.
- G. If the Bidder fails to furnish an acceptable Bid guaranty with the Bid.
- H. If any of the Unit Prices Bid are excessively unbalanced (either above or below the amount of a reasonable Bid) to the potential detriment of the OWNER.
- I. If a Bid modification does not conform to Article 15.0 of this Section.

**6.0 BIDDER'S EXAMINATION OF CONTRACT DOCUMENTS AND SITE.** It is the responsibility of each Bidder before submitting a Bid:

- A. To examine thoroughly the Contract Documents, and other related data identified in the Bidding documents (including "technical data" referred to below):
  - 1. To visit the site to become familiar with and to satisfy the Bidder as to the general and local conditions that may affect cost, progress, or performance, of the WORK,
  - 2. To consider federal, state and local laws and regulations that may affect cost, progress, or performance of the WORK,
  - 3. To study and carefully correlate the Bidder's observations with the Contract Documents, and other related data; and
  - 4. To notify the ARCHITECT of all conflicts, errors, or discrepancies in or between the Contract Documents and such other related data.

**7.0 REFERENCE IS MADE TO THE SUPPLEMENTARY GENERAL CONDITIONS FOR IDENTIFICATION OF:**

- A. Those reports of explorations and tests of subsurface conditions at the site which have been utilized by the Architect of Record in the preparation of the Contract Documents. The Bidder may rely upon the accuracy of the technical data contained in such reports, however, the interpretation of such technical data, including any interpolation or extrapolation thereof, together with non-technical data, interpretations, and opinions contained therein or the completeness thereof is the responsibility of the Bidder.
- B. Those Drawings of physical conditions in or relating to existing surface and subsurface conditions (except underground utilities) which are at or contiguous to the site have been utilized by the Architect of Record in the preparation of the Contract Documents. The Bidder may rely upon the accuracy of the technical data contained in such Drawings, however, the interpretation of such technical data, including any interpolation or extrapolation thereof, together with nontechnical data, interpretations, and opinions contained in such Drawings or the completeness thereof is the responsibility of the Bidder.
- C. Copies of such reports and Drawings will be made available by the OWNER to any Bidder on request if said reports and Drawings are not bound herein. Those reports and Drawings are not part of the Contract Documents, but the technical data contained therein upon which the Bidder is entitled to rely, as provided in Paragraph SGC-4.2 of the Supplementary General Conditions, are incorporated herein by reference.

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- D. Information and data reflected in the Contract Documents with respect to underground utilities at or contiguous to the site is based upon information and data furnished to the OWNER and the Architect of Record by the owners of such underground utilities or others, and the OWNER does not assume responsibility for the accuracy or completeness thereof unless it is expressly provided otherwise in the Supplementary General Conditions, or in Section 01530 - Protection and Restoration of Existing Facilities of the General Requirements.
- E. Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders on subsurface conditions, underground utilities and other physical conditions, and possible changes in the Contract Documents due to differing conditions appear in Paragraphs 4.2, 4.3, and 4.4 of the General Conditions.
- F. Before submitting a Bid, each Bidder will, at Bidder's own expense, make or obtain any additional examinations, investigations, explorations, tests, and studies and obtain any additional information and data which pertain to the physical conditions (surface, subsurface, and underground utilities) at or contiguous to the site or otherwise which may affect cost, progress, or performance of the WORK and which the Bidder deems necessary to determine its Bid for performing the WORK in accordance with the time, price, and other terms and conditions of the Contract Documents.
- G. On request in advance, the OWNER will provide each Bidder access to the site to conduct such explorations and tests as each Bidder deems necessary for submission of a Bid. Bidder shall fill all holes and shall clean up and restore the site to its former condition upon completion of such explorations.
- H. The lands upon which the WORK is to be performed, rights-of-way and easements for access thereto and other lands designated for use by the CONTRACTOR in performing the WORK are identified in the Contract Documents. All additional lands and access thereto required for temporary construction facilities or storage of materials and equipment are to be provided by the CONTRACTOR. Easements for permanent structures or permanent changes in existing structures are to be obtained and paid for by the OWNER unless otherwise provided in the Contract Documents.
- I. The submission of a Bid will constitute an incontrovertible representation by the Bidder that the Bidder has complied with every requirement of Article 6.0, "Bidder's Examination of Contract Documents and Site" herein, that without exception the Bid is premised upon performing the WORK required by the Contract Documents and such means, methods, techniques, sequences, or procedures of construction as may be indicated in or required by the Contract Documents, and that the Contract Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance of the WORK.

### 8.0 BID FORM.

- A. The Bid shall be made on the Bid Schedule(s) bound herein, or on the yellow Bid packet provided, or on legible and complete copies thereof, and shall contain the following: Sections 00300, 00310, the required Bid Security, and any other documents required in Section 00300 – Bid.

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- B. All blanks on the Bid Form and Bid Schedule must be completed in ink or typed.
- C. Bids by corporations must be executed in the corporate name by the president, a vice-president (or other corporate officer). The corporate address and state of incorporation must appear below the signature.
- D. Bids by partnerships must be executed in the partnership name and be signed by a managing partner, and the official address of the partnership must appear below the signature.
- E. The Bidder's Bid must be signed. All names must be printed or typed below the signature.
- F. The Bid shall contain an acknowledgment of receipt of all Addenda, the numbers of which shall be filled in on the Bid form. Failure to acknowledge Addenda may render Bid non-responsive and may cause its rejection.
- G. The address to which communications regarding the Bid are to be directed must be shown.

**9.0 QUANTITIES OF WORK.** The quantities of WORK, or material, stated in Unit Price items of the Bid are supplied only to give an indication of the general scope of the WORK; the OWNER does not expressly or by implication agree that the actual amount of WORK, or material, will correspond therewith, and reserves the right after award to increase or decrease the amount of any Unit Price item of the WORK by an amount up to and including 25 percent of any Bid item, without a change in the Unit Price, and shall include the right to delete any Bid item in its entirety, or to add additional Bid items up to and including an aggregate total amount not to exceed 25 percent of the Contract Price (see Section 00700 - General Conditions, Article 10 Changes In the WORK).

**10.0 SUBSTITUTE OR "OR-EQUAL" ITEMS.** The procedure for the submittal of substitute or "or-equal" products is specified in Section 01600 – Materials and Equipment.

**11.0 SUBMISSION OF BIDS.** The Bid shall be delivered by the time and to the place stipulated in Section 00030 - Notice Inviting Bids. It is the Bidder's sole responsibility to see that its Bid is received in proper time. Oral, telegraphic, emailed, or faxed Bids will not be considered. The envelope enclosing the sealed Bids shall be plainly marked in the upper left-hand corner with the name and address of the Bidder and shall also include the label included in Section 00030 – Notice Inviting Bids. The Bid Security shall be enclosed in the same envelope with the Bid

**12.0 BID SECURITY, BONDS, AND INSURANCE.** Each Bid shall be accompanied by a certified, or cashier's check, or approved Bid Bond in an amount of at least 5 percent of the total Bid price. The "total Bid price" is the amount of the Base Bid, plus the amount of alternate Bids, if any, which total to the maximum amount for which the CONTRACT could be awarded. Said check or Bond shall be made payable to the OWNER and shall be given as a guarantee that the Bidder, if offered the WORK, will enter into an Agreement with the OWNER, and will furnish the necessary insurance certificates, Payment Bond, and Performance Bond; each of said Bonds, if required, and insurance amounts shall be as stated in the Supplementary General Conditions. In case of refusal or failure to enter into said Agreement, the check or Bid Bond, as the case may be, may be forfeited to the OWNER. If the Bidder elects to furnish a Bid Bond as its Bid security, the Bidder shall use the Bid Bond form bound herein, or one conforming substantially to it in form. Bid Bonds must be accompanied by a legible Power of Attorney.

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**13.0 RETURN OF BID SECURITY.** The OWNER will return all Bid security checks (certified or cashier's) accompanying such of the Bids as are not considered in making the award. All other Bid securities will be held until the Agreement has been executed. Following execution of the Agreement, all other Bid security checks will be returned to the respective Bidders whose Bids they accompanied and Bid security bonds will be appropriately discarded.

**14.0 DISCREPANCIES IN BIDS.** In the event there is more than one Pay Item in a Bid Schedule, the Bidder shall furnish a price for all Pay Items in the schedule, and failure to do so may render the Bid non-responsive and cause its rejection. In the event there are Unit Price Pay Items in a Bid Schedule and the "amount" indicated for a Unit Price Bid Item does not equal the product of the Unit Price and quantity, the Unit Price shall govern and the amount will be corrected accordingly, and the Bidder shall be bound by said correction. In the event there is more than one Pay Item in a Bid Schedule and the total indicated for the schedule does not agree with the sum of the prices Bid on the individual items, the prices Bid on the individual items shall govern and the total for the schedule will be corrected accordingly, and the Bidder shall be bound by said correction.

### **15.0 BID MODIFICATIONS AND UNAUTHORIZED ALTERNATIVE BIDS.**

- A. Any bidder may deliver a modification to a bid in person, by mail or fax (907-586-4561), provided that such modification is received by the Purchasing Division no later than the deadline for bids. Modifications will be time and date stamped by the Purchasing Division, which will establish the official time of receipt of the modification. The modification must not reveal the bid price but should be in the form of an addition or subtraction or other modification so that the final prices will not be known until the sealed bid is opened.

The Bid modifications shall be provided on the **Bid Modification Form** located at the end of this Section. Submittal of any other form by the vendor may deem the modification unacceptable by the OWNER. **A mail or fax modification should not reveal the Bid price but should provide the addition or subtraction or other modification so that the final prices will not be known by the City and Borough until the sealed Bid is opened.** Submitted Modification forms shall include the modification to the unit price or lump sum amount of each pay item modified.

**FAX DISCLAIMER:** It is the responsibility of the bidder to submit modifications in a timely manner. Bidders' use of a fax machine to modify their bid shall be at bidders' sole risk. The Purchasing Division will attempt to keep the fax machine in good working order but will not be responsible for bid modifications that are late due to mechanical failure, a busy fax machine, or any other cause arising from bidder's use of a fax machine, even if bidder submits a transmission report or provides other confirmation indicating that the bidder transmitted a bid modification prior to the deadline. The City will not be responsible for its failure to receive the modification whether such failure is caused by equipment or human error, or otherwise. Bidders are therefore strongly encouraged to confirm receipt of their bid modification with the Purchasing Division (907-586-5258) prior to deadline.

- B. Conditioned bids, limitations, or provisos attached to the Bid or bid modification will render it unauthorized and cause its rejection as being non-responsive. The completed Bid forms shall be without interlineations, alterations, or erasures in the printed text. All

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changes shall be initialed by the person signing the Bid. Alternative Bids will not be considered unless called for.

**16.0 WITHDRAWAL OF BID.** Prior to the Deadline for Bids, the Bid may be withdrawn by the Bidder by means of a written request, signed by the Bidder or its properly authorized representative. Such written request must be delivered to the place stipulated in the Notice Inviting Bids for receipt of Bids.

### **17.0 AWARD OF CONTRACT.**

- A. Award of a contract, if it is awarded, will be on the basis of materials and equipment described in the Drawings or specified in the Technical Specifications and will be made to the lowest responsive, responsible Bidder whose Bid complies with all the requirements prescribed. Unless otherwise specified, any such award will be made within the period stated in the Notice Inviting Bids that the Bids are to remain open. Unless otherwise indicated, a single award will be made for all the Bid items in an individual Bid Schedule.
- B. If the OWNER has elected to advertise this Project with a Base Bid and Alternates, the OWNER may elect to award the contract for the Base Bid, or the Base Bid in combination with one or more Alternates selected by the OWNER. In either case, award shall be made to the responsive, responsible bidder offering the lowest total Bid for the WORK to be awarded.
- C. Low Bidder will be determined on the basis of the lowest total of the Base Bid plus combinations of Alternates if funding allows, as selected by the Selection Committee through the process described below.
  - 1 Prior to the Deadline for Bids, a Selection Committee will be appointed by the Owner.
  - 2 The Selection Committee will be sequestered in a conference room apart from the bid opening room at the time of bid opening.
  - 3 The CBJ Purchasing staff will open bids. A bid summary sheet will be compiled without bidder identification, so that the Selection Committee will have no knowledge of which bids were made by which bidders.
  - 4 The bid summary sheet will be delivered to the Selection Committee by the Engineering Contract Administrator.
  - 5 The Selection Committee will choose the low bid comprised of the Base Bid and those Alternates deemed to be in the best interest of the project and within the approved construction budget. For award purposes, the CBJ will add any Alternate to the Total Base Bid Amount in Section 00310 – Bid Schedule.
  - 6 The Selection Committee will identify in order from low to high the bids received for the project and the results will be posted.

### **18.0 EXECUTION OF AGREEMENT.**

- A. All Bids of value greater than \$1,000,000 must be approved by the CBJ Assembly. After the CBJ Assembly has approved the award and after the Bid protest period, the OWNER will issue a Notice of Intent to Award to the approved Bidder. The Bidder to whom award is made shall execute a written Agreement with the OWNER on the Agreement form, Section 00500, collect insurance, and shall furnish all certificates and Bonds required by

## SECTION 00100 - INSTRUCTIONS TO BIDDERS

the Contract Documents within 10 Days (calendar) from the date of the Notice of Intent to Award letter.

- B. Failure or refusal to enter into the Agreement as herein provided or to conform to any of the stipulated requirements in connection therewith shall be just cause for annulment of the award and forfeiture of the Bid security. If the lowest responsive, responsible Bidder refuses or fails to execute the Agreement, the OWNER may award the contract to the second lowest responsive, responsible Bidder. If the second lowest responsive, responsible Bidder refuses or fails to execute the Agreement, the OWNER may award the contract to the third lowest responsive, responsible Bidder. On the failure or refusal of such second or third lowest Bidder to execute the Agreement, each such Bidder's Bid securities shall be likewise forfeited to the OWNER.

**19.0 LIQUIDATED DAMAGES.** Provisions for liquidated damages if any, are set forth in Section 00500 - Agreement.

### **20.0 FILING A PROTEST.**

- A. A Bidder may protest the proposed award of a competitive sealed Bid by the City and Borough of Juneau. The protest shall be executed in accordance with CBJ Ordinance 53.50.062 PROTESTS and CBJ Ordinance 53.50.080 ADMINISTRATION OF PROTEST. The entire text of the CBJ Purchasing Ordinance can be accessed at the CBJ website, <http://www.juneau.org/law/code/code.php>, or call the CBJ Purchasing Division at (907) 586-5258 for a copy of the ordinance.
- B. Late protests shall not be considered by the CBJ Purchasing Officer.
- C. This project is funded with Alaska Department of Education and Early Development funds; per 4 AAC 31.080 (c), the written Bid protest shall be filed within 10 Calendar Days after the Notice of Intended Award of the contract has been issued. The written protest shall, at a minimum, contain the following:
- the name, address and telephone number of the interested party filing the protest;
  - the signature of the interested party;
  - identification of the proposed award at issue;
  - statement of legal or factual ground for protest;
  - copies of all relevant documents;
  - protest fee.

### **21.0 CONTRACTOR'S GOOD STANDING WITH CBJ FINANCE DEPARTMENT:**

Contractors must be in good standing with the CBJ prior to award, and prior to any contract renewals, and in any event no later than *seven business days* following notification by the CBJ of intent to award. **Good standing** means: all amounts owed to the CBJ are current and the Contractor is not delinquent with respect to any taxes, fees, assessment, or other monies due and owed the CBJ, or a Confession of Judgment has been executed and the Contractor is in compliance with the terms of any stipulation associated with the Confession of Judgment, including being current as to any installment payments due; and Contractor is current in all CBJ reporting obligations (such as sales tax registration and reporting and business personal property declarations). Failure to meet these requirements may be cause for rejection of your bid. To determine if your business is in good standing, or for further information, contact the CBJ Finance Department's Sales Tax Division at (907) 586-5265 for sales tax issues, Assessor's

## **SECTION 00100 - INSTRUCTIONS TO BIDDERS**

Office at (907)586-0930 for business personal property issues, or Collections Division at (907) 586-5268 for all other accounts.

- 22.0 PERMITS AND LICENSES.** The CONTRACTOR is responsible for all WORK associated with meeting any local, state, and/or federal permit and licensing requirements.

**SECTION 00100 - INSTRUCTIONS TO BIDDERS**

CITY AND BOROUGH OF JUNEAU  
PURCHASING DIVISION  
FAX NO. 907-586-4561

**BID MODIFICATION FORM**

Modification Number: \_\_\_\_\_

Note: All modifications shall be made to the original bid amount(s). If more than one Modification form is submitted by any one bidder, changes from all Modification forms submitted will be combined and applied to the original bid. Changes to the modified Bid amounts will be calculated by the OWNER.

<b>PAY ITEM NO.</b>	<b>PAY ITEM DESCRIPTION</b>	<b>MODIFICATIONS TO UNIT PRICE OR LUMP SUM (indicate +/-)</b>

**Total Increase or Decrease: \$** \_\_\_\_\_

\_\_\_\_\_  
**Name of Bidding Firm**

\_\_\_\_\_  
**Responsible Party Signature**

\_\_\_\_\_  
**Printed Name (must be an authorized signatory for Bidding Firm)**

**END OF SECTION**



**SECTION 00300 - BID**

**BID TO: THE CITY AND BOROUGH OF JUNEAU**

1. The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with the OWNER in the form included in the Contract Documents (as defined in Article 7 of Section 00500 - Agreement) to perform the WORK as specified or indicated in said Contract Documents entitled  

**Gastineau Elementary School Playground Upgrades  
CBJ Contract No. E13-214**
2. Bidder accepts all of the terms and conditions of the Contract Documents, including without limitation those in the "Notice Inviting Bids" and "Instructions to Bidders," dealing with the disposition of the Bid Security.
3. This Bid will remain open for the period of time stated in the "Notice Inviting Bids" unless otherwise required by law. Bidder will enter into an Agreement within the time and in the manner required in the "Notice Inviting Bids" and the "Instructions to Bidders," and will furnish insurance certificates, Payment Bond, Performance Bond, and any other documents as may be required by the Contract Documents.
4. Bidder has familiarized itself with the nature and extent of the Contract Documents, WORK, site, locality where the WORK is to be performed, the legal requirements (federal, state and local laws, ordinances, rules, and regulations), and the conditions affecting cost, progress or performance of the WORK and has made such independent investigations as Bidder deems necessary.
5. This Bid is genuine and not made in the interest of or on behalf of any undisclosed person, firm or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation; Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid; Bidder has not solicited or induced any person, firm or corporation to refrain from bidding; and Bidder has not sought by collusion to obtain for itself any advantage over any other Bidder or over OWNER.
6. To all the foregoing, and including all Bid Schedule and information required of Bidder contained in this Bid Form, said Bidder further agrees to complete the WORK required under the Contract Documents within the Contract Time stipulated in said Contract Documents, and to accept in full payment therefore the Contract Price based on the total bid price(s) named in the aforementioned Bid Schedule.
7. Bidder has examined copies of all the Contract Documents including the following Addenda (receipt of all of which is hereby acknowledged by the Undersigned):

Addenda No.	Date Issued	Addenda No.	Date Issued

**Give number and date of each addenda above. Failure to acknowledge receipt of all Addenda may cause the Bid to be non-responsive and may cause its rejection.**

**SECTION 00300 - BID**

8. The Bidder has read this Bid and agrees to the conditions as stated herein by signing his/her signature in the space provided below.

Dated: _____	Bidder: _____ (Company Name)
Alaska CONTRACTOR's Business License No: _____	By: _____ (Signature)
Alaska CONTRACTOR's License No: _____	Printed Name: _____ Title: _____
Telephone No: _____	Address: _____ (Street or P.O. Box)
Fax No: _____	_____ (City, State, Zip)
Email: _____	

9. TO BE CONSIDERED, ALL BIDDERS MUST COMPLETE AND INCLUDE THE FOLLOWING AT THE TIME OF THE BID OPENING:

- Bid, Section 00300 (includes addenda receipt statement)
- Completed Bid Schedule, Section 00310
- Bid Security (Bid Bond, Section 00320, or by a certified or cashier's check as stipulated in the Notice Inviting Bids, Section 00030)

10. The apparent low Bidder is required to complete and submit the following documents by 4:30 p.m. on the fifth business day following the date of the Posting Notice.

- Subcontractor Report, Section 00360

The apparent low Bidder who fails to submit a completed Subcontractor Report within the time specified in Section 00360 – Subcontractor Report will be found to be not a responsible Bidder and may be required to forfeit the Bid security. The OWNER will then consider the next lowest Bidder for award of the contract.

11. The successful Bidder will be required to submit, within ten Days (calendar) after the date of the “Notice of Intent to Award” letter, the following executed documents:

- Agreement Forms, Section 00500
- Performance Bond, Section 00610
- Payment Bond, Section 00620
- Certificates of Insurance, (CONTRACTOR) Section 00700 and Section 00800

**END OF SECTION**

**SECTION 00310 - BID SCHEDULE**

Bid Schedule for construction of **E13-214, named Gastineau Elementary School Playground Upgrades**, in accordance with the Contract Documents.

---

**BASE BID** - Furnish all labor, equipment and materials for Demolition of existing playground equipment, demolition of asphalt paving, demolition of a portion of the bin retaining wall, modifications to existing storm drain system including addition of new catch basins and cleaning of existing catch basins and piping, installation of new Owner furnished playground equipment, alteration to site grades to facilitate new grades and depressed areas for fall protection, install of underdrains at play equipment fall zones, install of new Owner furnished shredded rubber fall protection material, install of base course for asphalt paving and concrete work, install of new curbs at perimeter of shredded rubber fall protection, installation of new asphalt paving, reconfiguration of hillside grades for outdoor classroom, install of new Owner furnished benches at outdoor classroom area, installation of a new concrete retaining wall at outdoor classroom area, installation of new ornamental and chain link fencing, install of top soil at planting bed area, and new game line painting on new asphalt and existing concrete surfaces, and perform all WORK as described in these Contract Documents.

**TOTAL BASE BID** \$ \_\_\_\_\_  
**(Price in Figures)**

---

**ADDITIVE ALTERNATE NO. 1 – UPPER STAFF PARKING AREA** - Furnish all labor, equipment and materials and perform all WORK to construct six additional parking spaces to upper staff parking area. The scope of work of this alternate includes but is not limited to earthwork, drainage, concrete retaining walls & curbs, asphalt paving & striping, and related grading and re-vegetation of disturbed soils to integrate the new parking space into the existing lot as shown on the construction drawings.

**TOTAL ADDITIVE ALTERNATE NO. 1** \$ \_\_\_\_\_  
**(Price in Figures)**

---

**ADDITIVE ALTERNATE NO. 2 – ASPHALT AND DRAINAGE EAST OF CLIMBING WALL** - Furnish all labor, equipment and materials and perform all WORK to improve asphalt surface and canopy drainage along aluminum canopy and at asphalt pavement area east of the climbing wall. The scope of work of this alternate includes but is not limited to asphalt demolition, underground storm drain piping between eight (8) canopy downspouts and underground storm drain system, new base course and asphalt paving in area east of the climbing wall, and adjustments to rim elevations at existing catch basins as shown on the construction drawings.

**TOTAL ADDITIVE ALTERNATE NO. 2** \$ \_\_\_\_\_  
**(Price in Figures)**

**Bidder:** \_\_\_\_\_  
**(Company Name)**

**SECTION 00310 - BID SCHEDULE**

**ADDITIVE ALTERNATE NO. 3 – PICNIC TABLES** - Furnish all labor, equipment and materials and perform all WORK to install four (4) picnic tables beside planter as shown on drawings. The scope of work of this alternate includes but is not limited to excavation, concrete foundations, and install of four (4) Owner furnished picnic tables as shown on the construction drawings.

**TOTAL ADDITIVE ALTERNATE NO. 3**      \$ \_\_\_\_\_  
**(Price in Figures)**

---

**Date:** \_\_\_\_\_      **Bidder:** \_\_\_\_\_  
**(Company Name)**

**END OF SECTION**

**SECTION 00320 - BID BOND**

KNOW ALL PERSONS BY THESE PRESENTS, that \_\_\_\_\_  
\_\_\_\_\_ as Principal, and \_\_\_\_\_  
as Surety, are held and firmly bound unto **THE CITY AND BOROUGH OF JUNEAU** hereinafter called  
"OWNER," in the sum of \_\_\_\_\_  
\_\_\_\_\_ dollars, (not less than five percent of the total amount of the Bid) for  
the payment of which sum, well and truly to be made, we bind ourselves, our heirs, executors, administrators,  
successors, and assigns, jointly and severally, firmly by these presents.

WHEREAS, said Principal has submitted a Bid to said OWNER to perform the WORK required under  
the Bid Schedule of the OWNER's Contract Documents entitled

**GASTINEAU ELEMENTARY SCHOOL PLAYGROUND UPGRADES**

**CBJ Contract No. E13-214**

NOW THEREFORE, if said Principal is awarded a contract by said OWNER and, within the time and  
in the manner required in the "Notice Inviting Bids" and the "Instructions to Bidders" enters into a written  
Agreement on the form of Agreement bound with said Contract Documents, furnishes the required certificates  
of insurance, and furnishes the required Performance Bond and Payment Bond, then this obligation shall be  
null and void, otherwise it shall remain in full force and effect. In the event suit is brought upon this bond by  
said OWNER and OWNER prevails, said Surety shall pay all costs incurred by said OWNER in such suit,  
including a reasonable attorney's fee to be fixed by the court.

SIGNED AND SEALED, this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

(SEAL) \_\_\_\_\_  
(Principal)

(SEAL) \_\_\_\_\_  
(Surety)

By: \_\_\_\_\_  
(Signature)

By: \_\_\_\_\_  
(Signature)

**END OF SECTION**

**SECTION 00360 - SUBCONTRACTOR REPORT**

**LIST OF SUBCONTRACTORS (AS 36.30.115)**

The apparent low Bidder must submit a list of Subcontractors that the Bidder proposes to use in the performance of this contract *on the fifth business day* following the Posting Notice of Bids. If the fifth day falls on a weekend or holiday, the report is due by close of business on the next business Day following the weekend or holiday. The Subcontractor Report list must include each Subcontractor's name, address, location, evidence of valid Alaska Business License, and valid Alaska Contractor's Registration under AS 08.18. *If no Subcontractors are to be utilized in the performance of the WORK, write in ink or type "NONE" on line (1) below*

<u>SUBCONTRACTOR</u>	<sup>1</sup> AK Contractor License No.	<sup>1</sup> Contact Name	<u>Type of</u>	<u>Contract</u>	✓ if
<u>ADDRESS</u>	<sup>2</sup> AK Business License No.	<sup>2</sup> Phone No.	<u>Work</u>	<u>Amount</u>	<u>DBE</u>
1. _____ _____ _____	1 _____ 2 _____	_____ _____	_____ _____	\$ _____	<input type="checkbox"/>
2. _____ _____ _____	1 _____ 2 _____	_____ _____	_____ _____	\$ _____	<input type="checkbox"/>
3. _____ _____ _____	1 _____ 2 _____	_____ _____	_____ _____	\$ _____	<input type="checkbox"/>
4. _____ _____ _____	1 _____ 2 _____	_____ _____	_____ _____	\$ _____	<input type="checkbox"/>

I certify that the above listed Alaska Business License(s) and CONTRACTOR Registration(s), if applicable, were valid at the time Bids were opened for this Project.

\_\_\_\_\_  
CONTRACTOR, Authorized Signature

\_\_\_\_\_  
CONTRACTOR, Printed Name

\_\_\_\_\_  
COMPANY

## SECTION 00360 - SUBCONTRACTOR REPORT

- A. A Bidder may replace a listed Subcontractor if the Subcontractor:
1. fails to comply with AS 08.18;
  2. files for bankruptcy or becomes insolvent;
  3. fails to execute a contract with the Bidder involving performance of the WORK for which the Subcontractor was listed and the Bidder acted in good faith;
  4. fails to obtain bonding;
  5. fails to obtain insurance acceptable to the OWNER;
  6. fails to perform the contract with the Bidder involving work for which the Subcontractor was listed;
  7. must be substituted in order for the CONTRACTOR to satisfy required state and federal affirmative action requirements;
  8. refuses to agree or abide with the Bidder's labor agreement; or
  9. is determined by the OWNER not to be responsible.
  10. is not in "Good Standing" with the OWNER as required in Article 21.0 in Section 00100 – Instructions to Bidders.
- B. If a Bidder fails to list a Subcontractor or lists more than one Subcontractor for the same portion of WORK, the Bidder shall be considered to have agreed to perform that portion of WORK without the use of a Subcontractor and to have represented the Bidder to be qualified to perform that WORK.
- C. A Bidder who attempts to circumvent the requirements of this section by listing as a Subcontractor another contractor who, in turn, sublets the majority of the WORK required under the contract violates this section.
- D. If a contract is awarded to a Bidder who violates this section, the OWNER may:
1. cancel the contract; or
  2. after notice and a hearing, assess a penalty on the Bidder in an amount that does not exceed 10 percent of the value of the subcontract at issue.
- E. On the Subcontractor Report, the apparent low Bidder must list any Subcontractors anticipated to perform WORK with a value of greater than one-half of one percent of the intended award amount, or \$2,000, whichever is less.
- F. An apparent low Bidder who fails to submit a completed Subcontractor Report within the time specified in this section may be found to be not a responsible Bidder and may be required to forfeit the Bid security. The OWNER will then consider the next lowest Bidder for award of the contract.

**END OF SECTION**

## SECTION 00500 - AGREEMENT

THIS AGREEMENT is between THE CITY AND BOROUGH OF JUNEAU (hereinafter called OWNER) and \_\_\_\_\_ (hereinafter called CONTRACTOR) OWNER and CONTRACTOR, in consideration of the mutual covenants hereinafter set forth, agree as follows:

### ARTICLE 1. WORK.

CONTRACTOR shall complete the WORK as specified or as indicated under the Bid Schedule of the OWNERS Contract Documents **Contract E13-214, named Gastineau Elementary School Playground Upgrades.**

The WORK includes Base Bid and 3 Additive Alternates:

**BASE BID.** Demolition of existing playground equipment, demolition of asphalt paving, demolition of a portion of the bin retaining wall, modifications to existing storm drain system including addition of new catch basins and cleaning of existing catch basins and piping; installation of new Owner furnished playground equipment, alteration to site grades to facilitate new grades and depressed areas for fall protection, underdrains at play equipment fall zones, Owner furnished shredded rubber fall protection material, base course for asphalt paving and concrete work, new curbs at perimeter of shredded rubber fall protection, a new asphalt paving, reconfiguration of hillside grades for outdoor classroom, new Owner furnished benches at outdoor classroom area, new concrete retaining wall at outdoor classroom area, new ornamental and chain link fencing, top soil at planting bed area, and new game line painting on new asphalt and existing concrete surfaces.

**ADDITIVE ALTERNATE NO. 1 – UPPER STAFF PARKING AREA.** The intent of this Additive Alternate is to construct six additional parking spaces to upper staff parking area. The scope of work of this alternate includes but is not limited to earthwork, drainage, concrete retaining walls and curbs, asphalt paving and striping, and related grading and re-vegetation of disturbed soils to integrate the new parking area into the existing lot as shown on the construction drawings.

**ADDITIVE ALTERNATE NO. 2 – ASPHALT AND DRAINAGE EAST OF CLIMBING WALL.** The intent of this Additive Alternate is to improve asphalt surface and canopy drainage along the aluminum canopy and at the asphalt pavement area east of the climbing wall. The scope of work of this alternate includes but is not limited to asphalt demolition, underground storm drain piping between eight (8) canopy downspouts and an underground storm drain system, new base course and asphalt paving in the area east of the climbing wall, and adjustments to rim elevations at existing catch basins as shown on the construction drawings.

**ADDITIVE ALTERNATE NO. 3 – PICNIC TABLES.** The intent of this Additive Alternate is to install four (4) picnic tables beside the planter as shown on drawings. The scope of work of this alternate includes but is not limited to excavation, concrete foundations, and installation of four (4) Owner furnished picnic tables as shown on the construction drawings.

The WORK to be paid under this contract shall include the following: Base Bid and Additive Alternate Nos. \_\_\_ as shown in Section 00310 - Bid Schedule.

### ARTICLE 2. CONTRACT COMPLETION TIME.

WORK may not begin until May 29, 2013, with substantial completion on August 6, 2013. All work must be completed by August 13, 2013.



## SECTION 00500 - AGREEMENT

### ARTICLE 3. DATE OF AGREEMENT

The date of this agreement will be the date of the last signature on page four of this section.

### ARTICLE 4. LIQUIDATED DAMAGES.

OWNER and the CONTRACTOR recognize that time is of the essence of this Agreement and that the OWNER will suffer financial loss if the WORK is not completed within the time specified in Article 2 herein, plus any extensions thereof allowed in accordance with Article 12 of the General Conditions. They also recognize the delays, expense, and difficulties involved in proving in a legal proceeding the actual damages suffered by the OWNER if the WORK is not completed on time. Accordingly, instead of requiring any such proof, the OWNER and the CONTRACTOR agree that as liquidated damages for delay (but not as a penalty) the CONTRACTOR shall pay the OWNER **\$1,500.00** for each Day that expires after the completion time(s) specified in Article 2 herein. The amount of liquidated damages specified above is agreed to be a reasonable estimate based on all facts known as of the date of this Agreement.

### ARTICLE 5. CONTRACT PRICE.

OWNER shall pay CONTRACTOR for completion of the WORK in accordance with the Contract Documents in current funds the amount set forth in the Bid Schedule. The CONTRACTOR agrees to accept as full and complete payment for all WORK to be done in this contract for: **CBJ Contract E13-214, named Gastineau Elementary School Playground Upgrades**, those Lump Sum amounts as set forth in the Bid Schedule in the Contract Documents for this Project.

The total amount of this contract shall be \_\_\_\_\_ (\$ \_\_\_\_\_), except as adjusted in accordance with the provisions of the Contract Documents.

### ARTICLE 6. PAYMENT PROCEDURES.

CONTRACTOR shall submit Applications for Payment in accordance with Article 14 of the General Conditions. Applications for Payment will be processed by the ARCHITECT as provided in the General Conditions.

Progress payments will be paid in full in accordance with Article 14 of the General Conditions until ninety (90) percent of the Contract Price has been paid. The remaining ten (10) percent of the Contract Price may be retained, in accordance with applicable Alaska State Statutes, until final inspection, completion, and acceptance of the Project by the OWNER.

### ARTICLE 7. CONTRACT DOCUMENTS.

The Contract Documents which comprise the entire Agreement between OWNER and CONTRACTOR concerning the WORK consist of this Agreement (pages 00500-1 to 00500-6, inclusive) and the following sections of the Contract Documents:

- Table of Contents (pages 00030-1 to 00030-2, inclusive).
- Notice Inviting Bids (pages 00030-1 to 00030-2, inclusive).
- Instructions to Bidders (pages 00100-1 to 00100-8, inclusive).
- Bid (pages 00300-1 to 00300-2, inclusive).
- Bid Schedule (pages 00310-1, inclusive).
- Bid Bond (page 00320-1, inclusive) or Bid Security.

## SECTION 00500 - AGREEMENT

- Subcontractor Report (pages 00360-1 to 00360-2, inclusive).
- Performance Bond (pages 00610-1 to 00610-2, inclusive).
- Payment Bond (pages 00620-1 to 00620-2, inclusive).
- Insurance Certificate(s).
- General Conditions (pages 00700-1 to 00700-44, inclusive).
- Supplementary General Conditions (pages 00800-1 to 00800-5, inclusive).
- Alaska Labor Standards, Reporting, and Prevailing Wage Determination (page 00830-1).
- Technical Specifications as listed in the Table of Contents.
- Drawings consisting of 23 sheets, as listed in the Table of Contents.
- Addenda numbers \_\_\_\_\_ to \_\_\_\_\_, inclusive.
- Change Orders which may be delivered or issued after the Date of the Agreement and which are not attached hereto.

There are no Contract Documents other than those listed in this Article 7. The Contract Documents may only be amended by Change Order as provided in Paragraph 3.3 of the General Conditions.

### ARTICLE 8. MISCELLANEOUS.

Terms used in this Agreement which are defined in Article 1 of the General Conditions will have the meanings indicated in the General Conditions.

No assignment by a party hereto of any rights under or interests in the Contract Documents will be binding on another party hereto without the written consent of the party sought to be bound; and specifically but without limitation monies that may become due and monies that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

OWNER and CONTRACTOR each binds itself, its partners, successors, assigns and legal representatives to the other party hereto, its partners, successors, assigns and legal representatives in respect of all covenants, agreements and obligations contained in the Contract Documents. This Agreement shall be governed by the laws of the State of Alaska. Jurisdiction shall be in the State of Alaska, First Judicial District.

**SECTION 00500 - AGREEMENT**

IN WITNESS WHEREOF, OWNER and CONTRACTOR have caused this Agreement to be executed on the date listed below signed by OWNER.

**OWNER:**

**CONTRACTOR:**

\_\_\_\_\_  
City and Borough of Juneau

\_\_\_\_\_  
(Company Name)

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Signature)

By: Kimberly A. Kiefer, City & Borough Manager  
(Printed Name)

By: \_\_\_\_\_  
(Printed Name, Authority or Title)

Date: \_\_\_\_\_

Date: \_\_\_\_\_  
(CONTRACTOR Signature Date)

OWNER's address for giving notices:

CONTRACTOR's address for giving notices:

\_\_\_\_\_  
155 South Seward Street

\_\_\_\_\_

\_\_\_\_\_  
Juneau, Alaska 99801

\_\_\_\_\_

\_\_\_\_\_  
907-586-0873      907-586-4530  
(Telephone)      (Fax)

\_\_\_\_\_  
(Telephone)      (Fax)

\_\_\_\_\_  
(E-mail address)

CONTRACTOR License No. \_\_\_\_\_

**SECTION 00500 - AGREEMENT**

**CERTIFICATE  
(if Corporation)**

STATE OF )  
 ) SS:  
COUNTY OF )

I HEREBY CERTIFY that a meeting of the Board of Directors of the  
\_\_\_\_\_ a corporation existing under the laws of  
the State of \_\_\_\_\_, held on \_\_\_\_\_, 20\_\_\_\_, the following resolution  
was duly passed and adopted:

“RESOLVED, that \_\_\_\_\_, as \_\_\_\_\_ President  
of the Corporation, be and is hereby authorized to **execute the Agreement** with the CITY AND  
BOROUGH OF JUNEAU and this corporation and that the execution thereof, attested by the  
Secretary of the Corporation, and with the Corporate Seal affixed, shall be the official act and deed  
of this Corporation.”

I further certify that said resolution is now in full force and effect.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the official seal of the  
corporation this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

Secretary

(SEAL)

SECTION 00500 - AGREEMENT

CERTIFICATE  
(if Partnership)

STATE OF )  
 ) SS:  
COUNTY OF )

I HEREBY CERTIFY that a meeting of the Partners of the \_\_\_\_\_ a partnership existing under the laws of the State of \_\_\_\_\_, held on \_\_\_\_\_, 20\_\_\_\_, the following resolution was duly passed and adopted:

"RESOLVED, that \_\_\_\_\_, as \_\_\_\_\_ of the Partnership, be and is hereby authorized to **execute the Agreement** with the CITY AND BOROUGH OF JUNEAU and this partnership and that the execution thereof, attested by the \_\_\_\_\_ shall be the official act and deed of this Partnership."

I further certify that said resolution is now in full force and effect.

IN WITNESS WHEREOF, I have hereunto set my hand this \_\_\_\_\_, day of \_\_\_\_\_, 20\_\_\_\_\_.

Secretary

(SEAL)

**SECTION 00500 - AGREEMENT**

**CERTIFICATE  
(if Joint Venture)**

STATE OF            )  
                          ) SS:  
COUNTY OF        )

I HEREBY CERTIFY that a meeting of the Principals of the  
\_\_\_\_\_ a joint venture existing under the laws of the  
State of \_\_\_\_\_, held on \_\_\_\_\_, 20\_\_\_\_, the following resolution was duly passed and  
adopted:

"RESOLVED, that \_\_\_\_\_, as \_\_\_\_\_ of the  
Joint Venture, be and is hereby authorized to **execute the Agreement** with the CITY AND  
BOROUGH OF JUNEAU and this joint venture and that the execution thereof, attested by the  
\_\_\_\_\_ shall be the official act and deed of this Joint Venture."

I further certify that said resolution is now in full force and effect.

IN WITNESS WHEREOF, I have hereunto set my hand this \_\_\_\_\_, day of  
\_\_\_\_\_, 20\_\_\_\_.

Secretary

(SEAL)

**END OF SECTION**

**SECTION 00610 - PERFORMANCE BOND**

KNOW ALL PERSONS BY THESE PRESENTS: That we \_\_\_\_\_  
(Name of CONTRACTOR)

a \_\_\_\_\_  
(Corporation, Partnership, Individual)

hereinafter called "Principal" and \_\_\_\_\_  
(Surety)

of \_\_\_\_\_, State of \_\_\_\_\_ hereinafter called the "Surety", are held and firmly bound to the CITY AND BOROUGH of JUNEAU, ALASKA hereinafter called "OWNER", for the penal sum  
(Owner) (City and State)

of \_\_\_\_\_ dollars (\$ \_\_\_\_\_) in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the CONTRACTOR has entered into a certain contract with the OWNER, the effective date of which is (CBJ Contracts Office to fill in effective date) \_\_\_\_\_, a copy of which is hereto attached and made a part hereof for the construction of:

**Gastineau Elementary School Playground Upgrades  
CBJ Contract No. E13-214**

NOW, THEREFORE, if the Principal shall truly and faithfully perform its duties, all the undertakings, covenants, terms, conditions, and agreements of said contract during the original term thereof, and any extensions thereof, which may be granted by the OWNER, with or without notice to the Surety, and if it shall satisfy all claims and demands incurred under such contract, and shall fully indemnify and save harmless the OWNER from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the OWNER all outlay and expense which the OWNER may incur in making good any default, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said Surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to the WORK to be performed thereunder or the specifications accompanying the same shall in any wise affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the WORK or to the Specifications.

PROVIDED, FURTHER, that no final settlement between the OWNER and the Principal shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

**SECTION 00610 - PERFORMANCE BOND**

**Gastineau Elementary School Playground Upgrades  
CBJ Contract No. E13-214**

IN WITNESS WHEREOF, this instrument is issued in two (2) identical counterparts, each one of which shall be deemed an original.

**CONTRACTOR:**

By: \_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Company Name)

\_\_\_\_\_  
(Street or P.O. Box)

\_\_\_\_\_  
(City, State, Zip Code)

**SURETY:**

By: \_\_\_\_\_  
(Signature of Attorney-in-Fact)

Date Issued: \_\_\_\_\_

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Company Name)

\_\_\_\_\_  
(Street or P.O. Box)

\_\_\_\_\_  
(City, State, Zip Code)

**(Affix SURETY'S SEAL)**

**NOTE: If CONTRACTOR is Partnership, all Partners must execute bond.**



**SECTION 00620 - PAYMENT BOND**

KNOW ALL PERSONS BY THESE PRESENTS: That we \_\_\_\_\_  
(Name of CONTRACTOR)

\_\_\_\_\_ a \_\_\_\_\_  
(Corporation, Partnership, Individual)

hereinafter called "Principal" and \_\_\_\_\_  
(Surety)

of \_\_\_\_\_, State of \_\_\_\_\_ hereinafter called the "Surety," are held and  
firmly bound to the CITY AND BOROUGH of JUNEAU, ALASKA hereinafter called "OWNER," for the  
(Owner) (City and State)

penal sum of \_\_\_\_\_ Dollars  
(\$ \_\_\_\_\_) in lawful money of the United States, for the payment of which sum well  
and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and  
severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that Whereas, the CONTRACTOR has entered  
into a certain contract with the OWNER, the effective date of which is (CBJ Contracts Office to fill in effective  
date) \_\_\_\_\_, a copy of which is hereto attached and made a part hereof for the  
construction of:

**Gastineau Elementary School Playground Upgrades  
CBJ Contract No. E13-214**

NOW, THEREFORE, if the Principal shall promptly make payment to all persons, firms,  
Subcontractors, and corporations furnishing materials for, or performing labor in the prosecution of the WORK  
provided for in such contract, and any authorized extension or modification thereof, including all amounts due  
for materials, lubricants, oil, gasoline, coal and coke, repairs on machinery, equipment and tools, consumed or  
used in connection with the construction of such WORK, and all insurance premiums on said work, and for all  
labor performed in such WORK, whether by Subcontractor or otherwise, then this obligation shall be void;  
otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said Surety, for value received hereby stipulates and agrees that no  
change, extension of time, alteration or addition to the terms of the contract or to the WORK to be performed  
thereunder or the specifications accompanying the same shall in any wise affect its obligation on this bond, and  
it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the  
contract or to the WORK or to the Specifications.

PROVIDED, FURTHER, that no final settlement between the OWNER and the Principal shall abridge  
the right of any beneficiary hereunder, whose claim may be unsatisfied.

**SECTION 00620 - PAYMENT BOND**

**Gastineau Elementary School Playground Upgrades  
CBJ Contract No. E13-214**

IN WITNESS WHEREOF, this instrument is issued in two (2) identical counterparts, each one of which shall be deemed an original.

**CONTRACTOR:**

By: \_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Company Name)

\_\_\_\_\_  
(Street or P.O. Box)

\_\_\_\_\_  
(City, State, Zip Code)

**SURETY:**

By: \_\_\_\_\_  
(Signature of Attorney-in-Fact)

Date Issued: \_\_\_\_\_

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Company Name)

\_\_\_\_\_  
(Street or P.O. Box)

\_\_\_\_\_  
(City, State, Zip Code)

**(Affix SURETY'S SEAL)**

**NOTE: If CONTRACTOR is Partnership, all Partners must execute bond.**

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## SECTION 00700 - GENERAL CONDITIONS

### ARTICLE 1 DEFINITIONS

Wherever used in these General Conditions or in the Contract Documents the following terms have the meanings indicated which are applicable to both the singular and plural thereof. Where a word is capitalized in the definitions and is found not capitalized in the Contract Documents it has the ordinary dictionary definition.

Addenda - Written or graphic instruments issued prior to the opening of Bids which make additions, deletions, or revisions to the Contract Documents.

Agreement - The written contract between the OWNER and the CONTRACTOR covering the WORK to be performed; other documents are attached to the Agreement and made a part thereof as provided therein.

Application for Payment - The form furnished by the ARCHITECT which is to be used by the CONTRACTOR to request progress or final payment and which is to be accompanied by such supporting documentation as is required by the Contract Documents.

ARCHITECT - The ARCHITECT is the firm or person(s) selected by the City and Borough of Juneau (CBJ) to perform the duties of project inspection and management. CBJ will inform the CONTRACTOR of the identity of the ARCHITECT at or before the Notice to Proceed.

Architect of Record – The individual, partnership, corporation, joint-venture or other legal entity legally responsible for preparation of Design and Construction Documents for the project.

Asbestos - Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.

Bid - The offer or proposal of the Bidder submitted on the prescribed form setting forth the price or prices for the WORK.

Bonds - Bid, Performance, and Payment Bonds and other instruments which protect against loss due to inability or refusal of the CONTRACTOR to perform its contract.

CBJ - City and Borough of Juneau

CBJ Project Manager - The authorized representative of the City and Borough of Juneau Engineering Department, as OWNER, who is responsible for administration of the contract.

Change Order - A document recommended by the ARCHITECT, which is signed by the CONTRACTOR and the OWNER and authorizes an addition, deletion, or revision in the WORK, or an adjustment in the Contract Price or the Contract Time, issued on or after the Effective Date of the Agreement.

Contract Documents - The Table of Contents, Notice Inviting Bids, Instructions to Bidders, Bid Forms (including the Bid, Bid Schedule(s), Information Required of Bidder, Bid Bond, and all required certificates and affidavits), Agreement, Performance Bond, Payment Bond, General Conditions, Supplementary General Conditions, Technical Specifications, Drawings, Permits, and all Addenda, Field Orders and Change Orders executed pursuant to the provisions of the Contract Documents.

## SECTION 00700 - GENERAL CONDITIONS

Contract Price - The total monies payable by the OWNER to the CONTRACTOR under the terms and conditions of the Contract Documents.

Contract Time - The number of successive calendar Days or the specific date stated in the Contract Documents for the completion of the WORK.

CONTRACTOR - The individual, partnership, corporation, joint-venture or other legal entity with whom the OWNER has executed the Agreement.

Day - A calendar day of 24 hours measured from midnight to the next midnight.

Defective WORK - WORK that is unsatisfactory, faulty, or deficient; or that does not conform to the Contract Documents; or that does not meet the requirements of any inspection, reference standard, test, or approval referred to in the Contract Documents; or WORK that has been damaged prior to the ARCHITECT's recommendation of final payment.

Drawings - The drawings, plans, maps, profiles, diagrams, and other graphic representations which indicate the character, location, nature, extent, and scope of the WORK and which have been prepared by the Architect of Record and are referred to in the Contract Documents. Shop Drawings are not within the meaning of this paragraph.

Effective Date of the Agreement - The date indicated in the Agreement on which it becomes effective, but if no such date is indicated it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.

Field Order - A written order issued by the ARCHITECT which may or may not involve a change in the WORK.

General Requirements - Division 1 of the Technical Specifications.

Hazardous Waste - The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 9603) as amended from time to time.

Holidays - The CBJ legal holidays occur on:

- A. New Year's Day - January 1
- B. Martin Luther King's Birthday - Third Monday in January
- C. President's Day - Third Monday in February
- D. Seward's Day - Last Monday in March
- E. Memorial Day - Last Monday in May
- F. Independence Day - July 4
- G. Labor Day - First Monday in September
- H. Alaska Day - October 18
- I. Veteran's Day - November 11
- J. Thanksgiving Day - Fourth Thursday and the following Friday in November
- K. Christmas Day - December 25.



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If any holiday listed above falls on a Saturday, Saturday and the preceding Friday are both legal holidays. If the holiday should fall on a Sunday, Sunday and the following Monday are both legal holidays.

Inspector - The authorized representative of the ARCHITECT assigned to make detailed inspections for conformance to the Contract Documents. Any reference to the Resident Project Representative in this document shall mean the Inspector.

Laws and Regulations; Laws or Regulations - Any and all applicable laws, rules, regulations, ordinances, codes, and/or orders of any and all governmental bodies, agencies, authorities and courts having jurisdiction.

Mechanic's Lien - A form of security, an interest in real property, which is held to secure the payment of an obligation. When referred to in these Contract Documents, "Mechanic's Lien" or "lien" means "Stop Notice".

Milestone - A principal event specified in the Contract Documents relating to an intermediate completion date of a portion of the work, or a period of time within which the portion of the work should be performed prior to Substantial Completion of all the WORK.

Notice of Intent to Award - The written notice by the OWNER to the apparent successful bidder stating that upon compliance by the apparent successful bidder with the requirements listed therein, within the time specified, the OWNER will enter into an Agreement.

Notice of Award - The written notice by the OWNER to the apparent successful bidder stating that the apparent successful bidder has complied with all conditions for award of the contract.

Notice of Completion - A form signed by the ARCHITECT and the CONTRACTOR recommending to the OWNER that the WORK is Substantially Complete and fixing the date of Substantial Completion. After acceptance of the WORK by the OWNER's governing body, the form is signed by the OWNER. This filing starts the 30 day lien filing period on the WORK.

Notice to Proceed - The written notice issued by the OWNER to the CONTRACTOR authorizing the CONTRACTOR to proceed with the WORK and establishing the date of commencement of the Contract Time.

OWNER - The City and Borough of Juneau (CBJ), acting through its legally designated officials, officers, or employees.

Partial Utilization - Use by the OWNER of a substantially completed part of the WORK for the purpose for which it is intended prior to Substantial Completion of all the WORK.

PCB's - Polychlorinated biphenyls.

Petroleum - Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Wastes and crude oils.

Project - The total construction of which the WORK to be provided under the Contract Documents may be the whole, or a part as indicated elsewhere in the Contract Documents.

## SECTION 00700 - GENERAL CONDITIONS

Radioactive Material - Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.

Shop Drawings - All drawings, diagrams, illustrations, schedules and other data which are specifically prepared by or for the CONTRACTOR and submitted by the CONTRACTOR, to the ARCHITECT, to illustrate some portion of the WORK.

Specifications - Same definition as for "Technical Specifications" hereinafter.

Stop Notice - A legal remedy for subcontractors and suppliers who contribute to public works, but who are not paid for their work, which secures payment from construction funds possessed by the OWNER. For public property, the Stop Notice remedy is designed to substitute for mechanic's lien rights.

Sub-Consultant - The individual, partnership, corporation, joint-venture or other legal entity having a direct contract with Architect of Record, or with any of its Consultants to furnish services with respect to the Project.

Subcontractor - An individual, partnership, corporation, joint-venture or other legal entity having a direct contract with the CONTRACTOR, or with any of its Subcontractors, for the performance of a part of the WORK at the site.

Substantial Completion - Refers to when the WORK has progressed to the point where, in the opinion of the ARCHITECT as evidenced by Notice of Completion as applicable, it is sufficiently complete, in accordance with the Contract Documents, so that the WORK can be utilized for the purposes for which it is intended; or if no such notice is issued, when final payment is due in accordance with Paragraph 14.8. The terms "substantially complete" and "substantially completed" as applied to any WORK refer to Substantial Completion thereof.

Supplementary General Conditions - The part of the Contract Documents which make additions, deletions, or revisions to these General Conditions.

Supplier - A manufacturer, fabricator, supplier, distributor, material man, or vendor.

Technical Specifications - Divisions 1 through 16 of the Contract Documents consisting of the General Requirements and written technical descriptions of products and execution of the WORK.

Underground Utilities - All pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities which have been installed underground to furnish any of the following services or materials: water, sewage and drainage removal, electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, traffic, or other control systems.

WORK, Work - The entire completed construction or the various separately identifiable parts thereof required to be furnished under the Contract Documents. WORK is the result of performing, or furnishing labor and furnishing and incorporating materials and equipment into the construction, and performing or furnishing services and furnishing documents, all as required by the Contract Documents.

## SECTION 00700 - GENERAL CONDITIONS

### ARTICLE 2 PRELIMINARY MATTERS

- 2.1 DELIVERY OF BONDS/INSURANCE CERTIFICATES. When the CONTRACTOR delivers the signed Agreements to the OWNER, the CONTRACTOR shall also deliver to the OWNER such Bonds and Insurance Policies and Certificates as the CONTRACTOR may be required to furnish in accordance with the Contract Documents.
- 2.2 COPIES OF DOCUMENTS. The OWNER shall furnish to the CONTRACTOR the required number of copies of the Contract Documents specified in the Supplementary General Conditions.
- 2.3 COMMENCEMENT OF CONTRACT TIME; NOTICE TO PROCEED. The Contract Time will start to run on the commencement date stated in the Notice to Proceed. If no date is stated, Contract Time shall commence upon the date of the Notice to Proceed is issued.
- 2.4 STARTING THE WORK
- A. The CONTRACTOR shall begin to perform the WORK within 10 days after the commencement date stated in the Notice to Proceed, but no WORK shall be done at the site prior to said commencement date.
  - B. Before undertaking each part of the WORK, the CONTRACTOR shall carefully study and compare the Contract Documents and check and verify pertinent figures shown thereon and all applicable field measurements. The CONTRACTOR shall promptly report in writing to the ARCHITECT any conflict, error, or discrepancy which the CONTRACTOR may discover and shall obtain a written interpretation or clarification from the ARCHITECT before proceeding with any WORK affected thereby.
  - C. The CONTRACTOR shall submit to the ARCHITECT for review those documents called for under Section 01300 - CONTRACTOR Submittals in the General Requirements.
- 2.5 PRE-CONSTRUCTION CONFERENCE. The CONTRACTOR is required to attend a Pre-Construction Conference. This conference will be attended by the ARCHITECT and others as appropriate in order to discuss the WORK in accordance with the applicable procedures specified in the General Requirements, Section 01010 - Summary of Work.
- 2.6 FINALIZING CONTRACTOR SUBMITTALS. At least 7 days before submittal of the first Application for Payment a conference attended by the CONTRACTOR, the ARCHITECT and others as appropriate will be held to finalize the initial CONTRACTOR submittals in accordance with the General Requirements. As a minimum the CONTRACTOR's representatives should include it's project manager and schedule expert. The CONTRACTOR should plan on this meeting taking no less than 8 hours. If the submittals are not finalized at the end of the meeting, additional meetings will be held so that the submittals can be finalized prior to the submittal of the first Application for Payment. No Application for Payment will be processed until CONTRACTOR submittals are finalized.

## SECTION 00700 - GENERAL CONDITIONS

### ARTICLE 3 CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

#### 3.1 INTENT

- A. The Contract Documents comprise the entire agreement between the OWNER and the CONTRACTOR concerning the WORK. The Contract Documents shall be construed as a whole in accordance with Alaska Law.
- B. It is the intent of the Contract Documents to describe the WORK, functionally complete, to be constructed in accordance with the Contract Documents. Any WORK, materials, or equipment that may reasonably be inferred from the Contract Documents as being required to produce the intended result shall be supplied whether or not specifically called for. When words or phrases which have a well-known technical or construction industry or trade meaning are used to describe WORK, materials, or equipment such words or phrases shall be interpreted in accordance with that meaning, unless a definition has been provided in Article 1 of the General Conditions. Reference to standard specifications, manuals, or codes of any technical society, organization, or association, or to the Laws or Regulations of any governmental authority, whether such reference be specific or by implication, shall mean the latest standard specification, manual, code, or Laws or Regulations in effect at the time of opening of Bids, except as may be otherwise specifically stated. However, no provision of any referenced standard specification, manual, or code (whether or not specifically incorporated by reference in the Contract Documents) shall be effective to change the duties and responsibilities of the ARCHITECT, OWNER, the CONTRACTOR, or the Architect of Record or any of their consultants, agents, or employees from those set forth in the Contract Documents.
- C. If, during the performance of the WORK, CONTRACTOR discovers any conflict, error, ambiguity or discrepancy within the Contract Documents or between the Contract Documents and any provision of any such Law or Regulation applicable to the performance of the WORK or of any such standard, specification, manual or code or of any instruction of any Supplier referred to in paragraph 6.5, the CONTRACTOR shall report it to the ARCHITECT in writing at once, and the CONTRACTOR shall not proceed with the WORK affected thereby (except in an emergency as authorized by the ARCHITECT) until a clarification Field Order, or Change Order to the Contract Documents has been issued.

#### 3.2 ORDER OF PRECEDENCE OF CONTRACT DOCUMENTS

- A. In resolving conflicts resulting from, errors, or discrepancies in any of the Contract Documents, the order of precedence shall be as follows:
  - 1. Permits from other agencies as may be required by law, excepting the definition of "Permittee" in these permits.
  - 2. Field Orders
  - 3. Change Orders
  - 4. ARCHITECT's written interpretations and clarifications.
  - 5. Agreement
  - 6. Addenda
  - 7. CONTRACTOR's Bid (Bid Form)
  - 8. Supplementary General Conditions
  - 9. Notice Inviting Bids
  - 10. Instructions to Bidders

## SECTION 00700 - GENERAL CONDITIONS

11. General Conditions
12. Technical Specifications
13. Drawings

B. With reference to the Drawings the order of precedence is as follows:

1. Figures govern over scaled dimensions
2. Detail drawings govern over general drawings
3. Addenda/Change Order drawings govern over contract Drawings
4. Contract Drawings govern over standard details

3.3 AMENDING AND SUPPLEMENTING CONTRACT DOCUMENTS. The Contract Documents may be amended to provide for additions, deletions, and revisions in the WORK or to modify the terms and conditions thereof by a Change Order (pursuant to Article 10 CHANGES IN THE WORK).

3.4 REUSE OF DOCUMENTS. Neither the CONTRACTOR, nor any Subcontractor or Supplier, nor any other person or organization performing any of the WORK under a contract with the OWNER shall have or acquire any title to or ownership rights in any of the Drawings, Technical Specifications, or other documents used on the WORK, and they shall not reuse any of them on the extensions of the Project or any other project without written consent of the OWNER.

### ARTICLE 4 AVAILABILITY OF LANDS; PHYSICAL CONDITIONS; REFERENCE POINTS

4.1 AVAILABILITY OF LANDS. The OWNER shall furnish, as indicated in the Contract Documents, the lands upon which the WORK is to be performed, rights-of-way and easements for access thereto, and such other lands which are designated for the use of the CONTRACTOR. Easements for permanent structures or permanent changes in existing facilities will be obtained and paid for by the OWNER, unless otherwise provided in the Contract Documents. Nothing contained in the Contract Documents shall be interpreted as giving the CONTRACTOR exclusive occupancy of the lands or rights-of-way provided. The CONTRACTOR shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment; provided, that the CONTRACTOR shall not enter upon nor use any property not under the control of the OWNER until a written temporary construction easement, lease or other appropriate agreement has been executed by the CONTRACTOR and the property owner, and a copy of said agreement furnished to the ARCHITECT prior to said use; and, neither the OWNER nor the ARCHITECT shall be liable for any claims or damages resulting from the CONTRACTOR's unauthorized trespass or use of any such properties.

#### 4.2 PHYSICAL CONDITIONS - SUBSURFACE AND EXISTING STRUCTURES

A. Explorations and Reports. Reference is made to SGC 4.2 Physical Conditions of the Supplementary General Conditions for identification of those reports of explorations and tests of sub-surface conditions at the site that have been utilized by the Architect of Record in the preparation of the Contract Documents. The CONTRACTOR may rely upon the accuracy of the technical data contained in such reports, however, reports are not to be considered complete or comprehensive and nontechnical data, interpretations, and opinions contained in such reports are not to be relied on by the CONTRACTOR. The CONTRACTOR is responsible for any further explorations or tests that may be

## SECTION 00700 - GENERAL CONDITIONS

necessary and any interpretation, interpolation, or extrapolation that it makes of any information shown in such reports.

- B. Existing Structures. Reference is made to SGC 4.2 Physical Conditions of the Supplementary General Conditions for identification of those drawings of physical conditions in or relating to existing surface and subsurface structures (except Underground Utilities referred to in Paragraph 4.4 herein) which are at or contiguous to the site that have been utilized by the Architect of Record in the preparation of the Contract Documents. The CONTRACTOR may rely upon the accuracy of the technical data contained in such drawings, however, nontechnical data, interpretations, and opinions contained in such drawings are not to be relied on by the CONTRACTOR. The CONTRACTOR is also responsible for any interpretation, interpolation, or extrapolation that it makes of any information shown in such drawings.

### 4.3 DIFFERING SITE CONDITIONS

- A. The CONTRACTOR shall promptly upon discovery (but in no event later than 14 days thereafter) and before the following conditions are disturbed, notify the ARCHITECT, in writing of any:
  - 1. Material that the CONTRACTOR believes may be material that is hazardous waste, as defined in Article 1 of these General Conditions, or asbestos, PCB's, petroleum or any other substance or material posing a threat to human or to the environment.
  - 2. Subsurface or latent physical conditions at the site differing from those indicated.
  - 3. Unknown physical conditions at the site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in WORK of the character provided for in the contract.
- B. The ARCHITECT shall promptly investigate the conditions, and if it finds that the conditions do materially so differ, or do involve hazardous waste, and cause a decrease or increase in the CONTRACTOR's cost of, or the time required for, performance of any part of the WORK shall issue a Change Order under the procedures described in the contract.
- C. In the event that a dispute arises between the ARCHITECT and the CONTRACTOR whether the conditions materially differ, or involved hazardous waste or other materials listed above, or cause a decrease or increase in the CONTRACTOR's cost of, or time required for, performance of any part of the WORK, the CONTRACTOR shall not be excused from any scheduled completion date provided for by the contract, but shall proceed with all WORK to be performed under the contract. The CONTRACTOR shall retain any and all rights provided either by contract or by Law which pertain to the resolution of disputes and protests between the contracting parties.

### 4.4 PHYSICAL CONDITIONS - UNDERGROUND UTILITIES

- A. Indicated. The information and data indicated in the Contract Documents with respect to existing Underground Utilities at or contiguous to the site are based on information and data furnished to the OWNER or the Architect of Record by the owners of such Underground Utilities or by others. Unless it is expressly provided in the Supplementary General Conditions and/or Section 01530 - Protection and Restoration of Existing Facilities, the OWNER and the Architect of Record shall not be responsible for the accuracy or completeness of any such information or data, and the CONTRACTOR shall have full responsibility for reviewing and checking all such information and data, for locating all Underground Utilities indicated in the Contract Documents, for coordination of

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the WORK with the owners of such Underground Utilities during construction, for the safety and protection thereof and repairing any damage thereto resulting from the WORK, the cost of which will be considered as having been included in the Contract Price.

- B. Not Indicated. If an Underground Utility is uncovered or revealed at or contiguous to the site which was not indicated in the Contract Documents and which the CONTRACTOR could not reasonably have been expected to be aware of, the CONTRACTOR shall identify the owner of such Underground Utility and give written notice thereof to that owner and shall notify the ARCHITECT in accordance with the requirements of the Supplementary General Conditions and Section 01530 - Protection and Restoration of Existing Facilities of the General Requirements.

### 4.5 REFERENCE POINTS

- A. The ARCHITECT will provide one bench mark, near or on the site of the WORK, and will provide two points near or on the site to establish a base line for use by the CONTRACTOR for alignment control. Unless otherwise specified in the General Requirements, the CONTRACTOR shall furnish all other lines, grades, and bench marks required for proper execution of the WORK.
- B. The CONTRACTOR shall preserve all bench marks, stakes, and other survey marks, and in case of their removal or destruction by its own employees or by its subcontractor's employees, the CONTRACTOR shall be responsible for the accurate replacement of such reference points by personnel qualified under the Alaska Statute governing the licensing of architects, engineers, and land surveyors.

### 4.6 USE OF THE CBJ/STATE LEMON CREEK GRAVEL PIT

- A. On City and Borough of Juneau (CBJ) construction projects, the CBJ may make unclassified material available to CONTRACTORS, from the CBJ/State Lemon Creek gravel pit, at a rate less than charged other customers. CONTRACTORS are not required to use material from the CBJ/State pit and the CBJ makes no guarantee as to the quantity or quality of the available material. For this Project, the price shall be \$1.90 per ton.
- B. CONTRACTORS proposing to use gravel from the CBJ/State pit are required to be in good standing for all amounts owed to the CBJ, for previous gravel operations, prior to submitting a mining plan for approval. CONTRACTORS using the pit must comply with Allowable Use Permit USE 98-00047. Failure to meet these requirements, if so subject, shall be sufficient reason to deny use of the CBJ/State pit as a gravel source. To determine if your company is subject to these requirements, contact the CBJ Engineering Department, Gravel Pit Management, at (907) 586-0883.
- C. CONTRACTORS deciding to use material from the CBJ/State pit shall provide an Individual Mining Plan prepared by a professional engineer registered in the State of Alaska. The Individual Mining Plan must be reviewed and approved by the CBJ, prior to commencing operations within the pit. CONTRACTORS shall also secure a Performance Bond to ensure compliance with contract provisions, including any Individual Mining Plan stipulations. The bond shall remain in full force and effect until a release is obtained from the CBJ.
- D. If CONTRACTOR operations for a Project do not exceed 500 tons of material, the CONTRACTOR will not be required to provide an Individual Mining Plan prepared by an engineer, however, the CONTRACTOR must submit an Individual Mining Plan that is in compliance with Allowable Use

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Permit USE 98-00047 for gravel extraction within the CBJ/State pit. The CONTRACTOR must contact the CBJ Engineering Department for conditions for the extraction.

- E. CONTRACTORS using the CBJ material may do primary dry separation (screening) of materials within the pit. Crushing and washing of material will not be allowed. CONTRACTORS shall account for placement of materials removed from the pit. The CBJ may require CONTRACTORS to cross-check weight tickets, submit to an audit, or participate in other measures required by the CBJ to ensure accountability. Unprocessed overburden removed from the pit will not be weighed. All other material mined will be weighed at the CBJ scale. CONTRACTORS will be responsible for loading and/or screening their own material. If asphalt pavement is removed as part of the WORK, CONTRACTORS shall dispose of the material at a to-be-specified location within the pit area, as directed by the CBJ Gravel Pit Manager, (907) 586-0883.
- F. The gravel pit overhead charge shall be paid to the CBJ by the CONTRACTOR within 60 days after removal of all materials from the pit and prior to requesting and/or receiving final payment. Upon completion of each excavation CONTRACTORS shall notify the CBJ, in writing, in sufficient time to perform a field-compliance examination prior to vacating the pit. Any significant deviation from the stipulations of the Individual Mining Plan identified during the field inspection shall be corrected by the CONTRACTOR prior to release of the bond. A signed release from CBJ will be required prior to releasing the CONTRACTOR's bond.
- G. If asphalt pavement is removed as part of this WORK, the CONTRACTOR shall dispose of the material at the location designated as the Asphalt Storage Facility, or as directed by the ARCHITECT.
- H. The CBJ/State Pit is a seasonal operation. The hours of operation are from 7:00 a.m. to 6:00 p.m., Monday through Friday, from April 1 through October 15 of the year. CONTRACTORS may obtain gravel on weekends, or during the off-season, by applying for a separate agreement with the City and Borough of Juneau Engineering Department. The CONTRACTOR will be responsible for any additional costs incurred during weekend or off-season operations at the gravel pit.
- I. All CONTRACTORS/equipment operators using the CBJ/State Pit shall be in compliance with Federal Mine Safety and Health Administration regulations for quarry and gravel operations.

## ARTICLE 5 BONDS AND INSURANCE

### 5.1 PERFORMANCE, PAYMENT, AND OTHER BONDS

- A. The CONTRACTOR shall furnish Performance and Payment Bonds, each in the amount set forth in the Supplementary General Conditions as security for the faithful performance and payment of all the CONTRACTOR's obligations under the Contract Documents. These bonds shall remain in effect at least until one year after the date of Substantial Completion except as otherwise provided by Law or Regulation or by the Contract Documents. The CONTRACTOR shall also furnish such other Bonds as are required by the Supplementary General Conditions. All Bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Audit Staff, Bureau of Government Financial Operations, U.S. Treasury Department. All Bonds signed by an agent must be accompanied by a certified copy of such agent's authority to act.



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- B. If the surety on any Bond furnished by the CONTRACTOR is declared bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the WORK is located, the CONTRACTOR shall within 7 days thereafter substitute another Bond and Surety, which must be acceptable to the OWNER.
- C. All Bonds required by the Contract Documents to be purchased and maintained by CONTRACTOR shall be obtained from surety companies that are duly licensed or authorized in the State of Alaska to issue Bonds for the limits so required. Such surety companies shall also meet such additional requirements and qualifications as may be provided in the Supplementary General Conditions.

### 5.2 INSURANCE

- A. The CONTRACTOR shall purchase and maintain the insurance required under this paragraph. Such insurance shall include the specific coverages set out herein and be written for not less than the limits of liability and coverages provided in the Supplementary General Conditions, or required by law, whichever are greater. All insurance shall be maintained continuously during the life of the Agreement up to the date of Final Completion and at all times thereafter when the CONTRACTOR may be correcting, removing, or replacing Defective WORK in accordance with Paragraph 13.6, but the CONTRACTOR's liabilities under this Agreement shall not be deemed limited in any way to the insurance coverage required.
- B. All insurance required by the Contract Documents to be purchased and maintained by the CONTRACTOR shall be obtained from insurance companies that are duly licensed or authorized in the State of Alaska to issue insurance policies for the limits and coverages so required. Such insurance companies shall have a current Best's Rating of at least an "A" (Excellent) general policy holder's rating and a Class VII financial size category and shall also meet such additional requirements and qualifications as may be provided in the Supplementary General Conditions.
- C. The CONTRACTOR shall furnish the OWNER with certificates showing the type, amount, class of operations covered, effective dates and dates of expiration of policies. All of the policies of insurance so required to be purchased and maintained (or the certificates or other evidence thereof) shall contain a provision or endorsement that the coverage afforded will not be cancelled, reduced in coverage, or renewal refused until at least 30 days' prior written notice has been given to the OWNER by certified mail. All such insurance required herein (except for Workers' Compensation and Employer's Liability) shall name the OWNER, its Consultants and subconsultants and their officers, directors, agents, and employees as "additional insureds" under the policies. The CONTRACTOR shall purchase and maintain the following insurance:
  - 1. Workers' Compensation and Employer's Liability. This insurance shall protect the CONTRACTOR against all claims under applicable state workers' compensation laws. The CONTRACTOR shall also be protected against claims for injury, disease, or death of employees which, for any reason, may not fall within the provisions of a Workers' Compensation law. This policy shall include an "all states" endorsement. The CONTRACTOR shall require each Subcontractor similarly to provide Workers' Compensation Insurance for all of the latter's employees to be engaged in such work unless such employees are covered by the protection afforded by the CONTRACTOR's Workers' Compensation Insurance. In case any class of employees is not protected, under the Workers' Compensation Statute, the

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- CONTRACTOR shall provide and shall cause each subcontractor to provide adequate employer's liability insurance for the protection of such of its employees as are not otherwise protected.
2. Commercial General Liability. This insurance shall be written in comprehensive form and shall protect the CONTRACTOR against all claims arising from injuries to persons other than its employees or damage to property of the OWNER or others arising out of any act or omission of the CONTRACTOR or its agents, employees, or Subcontractors. The policy shall contain no exclusions for any operations within the scope of this contract.
  3. Comprehensive Automobile Liability. This insurance shall be written in comprehensive form and shall protect the CONTRACTOR against all claims for injuries to members of the public and damage to property of others arising from the use of motor vehicles, and shall cover operation on or off the site of all motor vehicles licensed for highway use, whether they are owned, non-owned, or hired. Coverage for hired motor vehicles should include endorsement covering liability assumed under this contract.
  4. Subcontractor's Public Liability and Property Damage Insurance and Vehicle Liability Insurance. The CONTRACTOR shall either require each of its Subcontractors to procure and to maintain Subcontractor's Commercial General Liability and Property Damage Insurance and Vehicle Liability Insurance of the type and in the amounts specified in the Supplementary General Conditions or insure the activities of its subcontractors in the CONTRACTOR's own policy, in like amount.
  5. Builder's Risk. This insurance shall be of the "all risks" type, shall be written in completed value form, and shall protect the CONTRACTOR, the OWNER, and the ARCHITECT, against risks of damage to buildings, structures, and materials and equipment. The amount of such insurance shall be not less than the insurable value of the WORK at completion. Builder's risk insurance shall provide for losses to be payable to the CONTRACTOR and the OWNER, as their interests may appear. The policy shall contain a provision that in the event of payment for any loss under the coverage provided, the insurance company shall have no rights of recovery against the CONTRACTOR, the OWNER, and the ARCHITECT. The Builder's Risk policy shall insure against all risks of direct physical loss or damage to property from any external cause including flood and earthquake. Allowable exclusions, if any, shall be as specified in the Supplementary General Conditions.

### ARTICLE 6 CONTRACTOR'S RESPONSIBILITIES

#### 6.1 SUPERVISION AND SUPERINTENDENCE

- A. The CONTRACTOR shall supervise, inspect, and direct the WORK competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the WORK in accordance with the Contract Documents. The CONTRACTOR shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction and safety precautions and programs incidental thereto. The CONTRACTOR shall be responsible to see that the completed WORK complies accurately with the Contract Documents.
- B. The CONTRACTOR shall designate in writing and keep on the work site at all times during its progress a technically qualified, English-speaking superintendent, who is an employee of the CONTRACTOR and who shall not be replaced without written notice to the OWNER and the ARCHITECT. The superintendent will be the CONTRACTOR's representative at the site and shall

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have authority to act on behalf of the CONTRACTOR. All communications given to the superintendent shall be as binding as if given to the CONTRACTOR. The CONTRACTOR shall issue all its communications to the OWNER through the ARCHITECT and the ARCHITECT only.

- C. The CONTRACTOR's superintendent shall be present at the site of the WORK at all times while WORK is in progress. Failure to observe this requirement shall be considered suspension of the WORK by the CONTRACTOR until such time as such superintendent is again present at the site.

### 6.2 LABOR, MATERIALS, AND EQUIPMENT

- A. The CONTRACTOR shall provide competent, suitably qualified personnel to survey and lay out the WORK and perform construction as required by the Contract Documents. The CONTRACTOR shall furnish, erect, maintain, and remove the construction plant and any temporary works as may be required. The CONTRACTOR shall at all times maintain good discipline and order at the site. Except in connection with the safety or protection of persons or the WORK or property at the site or adjacent thereto, and except as otherwise indicated in the Contract Documents, all WORK at the site shall be performed during regular working hours, and the CONTRACTOR will not permit overtime WORK or the performance of WORK on Saturday, Sunday, or any legal holiday without the OWNER's written consent. The CONTRACTOR shall apply for this consent through the ARCHITECT.
- B. Except as otherwise provided in this Paragraph, the CONTRACTOR shall receive no additional compensation for overtime WORK, i.e., work in excess of 8 hours in any one calendar day or 40 hours in any one calendar week, even though such overtime WORK may be required under emergency conditions and may be ordered by the ARCHITECT in writing. Additional compensation will be paid the CONTRACTOR for overtime WORK only in the event extra WORK is ordered by the ARCHITECT and the Change Order specifically authorizes the use of overtime WORK and then only to such extent as overtime wages are regularly being paid by the CONTRACTOR for overtime WORK of a similar nature in the same locality.
- C. All costs of inspection and testing performed during overtime WORK by the CONTRACTOR which is allowed solely for the convenience of the CONTRACTOR shall be borne by the CONTRACTOR. The ARCHITECT shall have the authority to deduct the cost of all such inspection and testing from any partial payments otherwise due to the CONTRACTOR.
- D. Unless otherwise specified in the Contract Documents, the CONTRACTOR shall furnish and assume full responsibility for all materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, and all other facilities and incidentals necessary for the furnishing, performance, testing, start-up, and completion of the WORK.
- E. All materials and equipment to be incorporated into the WORK shall be of good quality and new, except as otherwise provided in the Contract Documents. All warranties and guarantees specifically called for by the Specifications shall expressly run to the benefit of the OWNER. If required by the ARCHITECT, the CONTRACTOR shall furnish satisfactory evidence (including reports of required tests) as to the kind and quality of materials and equipment. All materials and equipment shall be applied, installed, connected, erected, used, cleaned, and conditioned in accordance with the instructions of the applicable Supplier except as otherwise provided in the Contract Documents; but no provisions of any such instructions will be effective to assign to the ARCHITECT, or any of the Architect's of Record consultants, agents, or employees, any duty or authority to supervise or direct the

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furnishing or performance of the WORK or any duty or authority to undertake responsibility contrary to the provisions of Paragraphs 9.9C and 9.9D.

- F. The CONTRACTOR shall at all times employ sufficient labor and equipment for prosecuting the several classes of WORK to full completion in the manner and time set forth in and required by these specifications. All workers shall have sufficient skill and experience to properly perform the WORK assigned to them. Workers engaged in special WORK, or skilled WORK, shall have sufficient experience in such WORK and in the operation of the equipment required to perform all WORK, properly and satisfactorily.
  - G. Any person employed by the CONTRACTOR or by any SUBCONTRACTOR who, in the opinion of the ARCHITECT, does not perform the WORK in a proper and skillful manner, or is intemperate or disorderly shall, at the written request of the ARCHITECT, be removed forthwith by the CONTRACTOR or Subcontractor employing such person, and shall not be employed again in any portion of the WORK without the approval of the ARCHITECT. Should the CONTRACTOR fail to remove such person or persons as required above, or fail to furnish suitable and sufficient personnel for the proper prosecution of the WORK, the ARCHITECT may suspend the WORK by written notice until such orders are complied with.
- 6.3 ADJUSTING PROGRESS SCHEDULE. The CONTRACTOR shall submit monthly updates of the progress schedule to the ARCHITECT for acceptance in accordance with the provisions in Section 01300 - CONTRACTOR Submittals in the General Requirements.
- 6.4 SUBSTITUTES OR "OR-EQUAL" ITEMS. The CONTRACTOR shall submit proposed substitutes or "or-equal" items in accordance with the provisions in Section 01300 - CONTRACTOR Submittals in the General Requirements.
- 6.5 CONCERNING SUBCONTRACTORS, SUPPLIERS, AND OTHERS. The CONTRACTOR shall be responsible to the OWNER and the ARCHITECT of Record for the acts and omissions of its subcontractors and their employees to the same extent as CONTRACTOR is responsible for the acts and omissions of its own employees. Nothing contained in this Paragraph shall create any contractual relationship between any subcontractor and the OWNER or the ARCHITECT nor relieve the CONTRACTOR of any liability or obligation under the contract.
- 6.6 PERMITS
- A. Unless otherwise provided in the Supplementary General Conditions, the CONTRACTOR shall obtain and pay for all construction permits and licenses from the agencies having jurisdiction, including the furnishing of insurance and Bonds if required by such agencies. The enforcement of such requirements under this contract shall not be made the basis for claims for additional compensation. The OWNER shall assist the CONTRACTOR, when necessary, in obtaining such permits and licenses. The CONTRACTOR shall pay all governmental charges and inspection fees necessary for the prosecution of the WORK, which are applicable at the time of opening of Bids. The CONTRACTOR shall pay all charges of utility owners for connections to the WORK.
  - B. These Contract Documents may require that the WORK be performed within the conditions and/or requirements of local, state and/or federal permits. These permits may be bound within the Contract Documents, included within the Contract Documents by reference, or included as part of the WORK, as designated in this Section. The CONTRACTOR is responsible for completing the WORK required

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for compliance with all permit requirements; this WORK is incidental to other items in the Contract Documents. Any reference to the PERMITTEE in the permits shall mean the CONTRACTOR. If any permits were acquired by the OWNER, this action was done to expedite the start of construction. If the CONTRACTOR does not complete the WORK within the specified permit window, the CONTRACTOR shall be responsible for the permit extension, and for completing any additional requirements placed upon the permit.

- 6.7 PATENT FEES AND ROYALTIES. The CONTRACTOR shall pay all license fees and royalties and assume all costs incident to the use in the performance of the WORK or the incorporation in the WORK of any invention, design, process, product, software or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the WORK and if to the actual knowledge of the OWNER or the Architect of Record its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by the OWNER in the Contract Documents. The CONTRACTOR shall indemnify, defend and hold harmless the OWNER and the Architect of Record and anyone directly or indirectly employed by either of them from and against all claims, damages, losses, and expenses (including attorneys' fees and court costs) arising out of any infringement of patent rights or copyrights incident to the use in the performance of the WORK or resulting from the incorporation in the WORK of any invention, design, process, product, or device not specified in the Contract Documents, and shall defend all such claims in connection with any alleged infringement of such rights.
- 6.8 LAWS AND REGULATIONS. The CONTRACTOR shall observe and comply with all federal, state, and local laws, ordinances, codes, orders, and regulations which in any manner affect those engaged or employed on the WORK, the materials used in the WORK, or the conduct of the WORK. If any discrepancy or inconsistency should be discovered in this contract in relation to any such law, ordinance, code, order, or regulation, the CONTRACTOR shall report the same in writing to the ARCHITECT. The CONTRACTOR shall indemnify, defend, and hold harmless the OWNER, the Architect of Record, and their officers, agents, and employees against all claims or liability arising from violation of any such law, ordinance, code, order, or regulation, whether by CONTRACTOR or by its employees, Subcontractors, or third parties. Any particular law or regulation specified or referred to elsewhere in the Contract Documents shall not in any way limit the obligation of the CONTRACTOR to comply with all other provisions of federal, state, and local laws and regulations.
- 6.9 TAXES. The CONTRACTOR shall pay all sales, consumer, use, and other similar taxes required to be paid by the CONTRACTOR in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the WORK.
- 6.10 USE OF PREMISES. The CONTRACTOR shall confine construction equipment, the storage of materials and equipment, and the operations of workers to (1) the Project site, (2) the land and areas identified in and permitted by the Contract Documents, and (3) the other land and areas permitted by Laws and Regulations, rights-of-way, permits, leases and easements. The CONTRACTOR shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof or of any land or areas contiguous thereto, resulting from the performance of the WORK. Should any claim be made against the OWNER or the Architect of Record by any such owner or occupant because of the performance of the WORK, the CONTRACTOR shall promptly attempt to settle with such other party by agreement or otherwise resolve the claim through litigation. The CONTRACTOR shall, to the fullest extent permitted by Laws and Regulations, indemnify, defend, and hold the OWNER and the Architect of Record harmless from and against all claims, damages, losses, and

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expenses (including, but not limited to, fees of Architect's of Records attorneys, and other professionals and court costs) arising directly, indirectly, or consequentially out of any action, legal or equitable, brought by any such owner or occupant against the OWNER, the Architect of Record, their consultants, sub-consultants, and the officers, directors, employees and agents of each and any of them to the extent caused by or based upon the CONTRACTOR's performance of the WORK.

### 6.11 SAFETY AND PROTECTION

- A. The CONTRACTOR shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the WORK. The CONTRACTOR shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:
  1. all employees on the WORK and other persons and organizations who may be affected thereby;
  2. all the WORK and materials and equipment to be incorporated therein, whether in storage on or off the site; and
  3. other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, and utilities not designated for removal, relocation, or replacement in the course of construction.
- B. The CONTRACTOR shall comply with all applicable Laws and Regulations whether referred to herein or not) of any public body having jurisdiction for the safety of persons or property or to protect them from damage, injury, or loss and shall erect and maintain all necessary safeguards for such safety and protection. The CONTRACTOR shall notify owners of adjacent property and utilities when prosecution of the WORK may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property.
- C. The CONTRACTOR shall designate a qualified and experienced safety representative at the site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and program.
- D. Materials that contain hazardous substances or mixtures may be required on the WORK. A Material Safety Data Sheet (MSDS) shall be requested by the CONTRACTOR from the manufacturer of any hazardous product used.
- E. Material usage shall be accomplished with strict adherence to all safety requirements and all manufacturer's warnings and application instructions listed on the Material Safety Data Sheet and on the product container label.
- F. The CONTRACTOR shall be responsible for coordinating communications on any exchange of Material Safety Data Sheets or other hazardous material information that is required to be made available to, or exchanged between, or among, employers at the site in accordance with Laws or Regulations.
- G. The CONTRACTOR shall notify the ARCHITECT if it considers a specified product or its intended usage to be unsafe. This notification must be given to the ARCHITECT prior to the product being ordered, or if provided by some other party, prior to the product being incorporated in the WORK.

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### 6.12 SHOP DRAWINGS AND SAMPLES

- A. After checking and verifying all field measurements and after complying with applicable procedures specified in the General Requirements, the CONTRACTOR shall submit to the ARCHITECT for review, all Shop Drawings in accordance with Section 01300 - CONTRACTOR Submittals in the General Requirements.
- B. The CONTRACTOR shall also submit to the ARCHITECT for review all samples in accordance with Section 01300 - CONTRACTOR Submittals in the General Requirements.
- C. Before submittal of each Shop Drawing or sample, the CONTRACTOR shall have determined and verified all quantities, dimensions, specified performance criteria, installation requirements, materials, catalog numbers, and similar data with respect thereto and reviewed or coordinated each Shop Drawing or sample with other Shop Drawings and samples and with the requirements of the WORK and the Contract Documents.

6.13 CONTINUING THE WORK. The CONTRACTOR shall carry on the WORK and adhere to the progress schedule during all disputes or disagreements with the OWNER. No WORK shall be delayed or postponed pending resolution of any disputes or disagreements, except as the CONTRACTOR and the OWNER may otherwise agree in writing.

### 6.14 INDEMNIFICATION

- A. To the fullest extent permitted by Laws and Regulations, the CONTRACTOR shall indemnify, defend, and hold harmless the OWNER, the Architect of Record, their consultants, sub-consultants and the officers, directors, employees, and agents of each and any of them, against and from all claims and liability arising under, by reason of or incidentally to the contract or any performance of the WORK, but not from the sole negligence or willful misconduct of the OWNER, and the Architect of Record. Such indemnification by the CONTRACTOR shall include but not be limited to the following:
  - 1. Liability or claims resulting directly or indirectly from the negligence or carelessness of the CONTRACTOR, its employees, or agents in the performance of the WORK, or in guarding or maintaining the same, or from any improper materials, implements, or appliances used in its construction, or by or on account of any act or omission of the CONTRACTOR, its employees, agents, or third parties;
  - 2. Liability or claims arising directly or indirectly from bodily injury, occupational sickness or disease, or death of the CONTRACTOR's or Subcontractor's own employees engaged in the WORK resulting in actions brought by or on behalf of such employees against the OWNER, or the Architect of Record;
  - 3. Liability or claims arising directly or indirectly from or based on the violation of any law, ordinance, regulation, order, or decree, whether by the CONTRACTOR, its employees, or agents;
  - 4. Liability or claims arising directly or indirectly from the use or manufacture by the CONTRACTOR, its employees, or agents in the performance of this contract of any copyrighted or non-copyrighted composition, secret process, patented or non-patented invention, computer software, article, or appliance, unless otherwise specifically stipulated in this contract.

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5. Liability or claims arising directly or indirectly from the breach of any warranties, whether express or implied, made to the ARCHITECT, OWNER or any other parties by the CONTRACTOR, its employees, or agents;
  6. Liabilities or claims arising directly or indirectly from the willful or criminal misconduct of the CONTRACTOR, its employees, or agents; and,
  7. Liabilities or claims arising directly or indirectly from any breach of the obligations assumed herein by the CONTRACTOR.
- B. The CONTRACTOR shall reimburse the OWNER and the Architect of Record for all costs and expenses, (including but not limited to fees and charges of Architects of Record, attorneys, and other professionals and court costs including all costs of appeals) incurred by the OWNER, and the Architect of Record in enforcing the provisions of this Paragraph 6.14.
- C. The indemnification obligation under this Paragraph 6.14 shall not be limited in any way by any limitation of the amount or type of damages, compensation, or benefits payable by or for the CONTRACTOR or any such Subcontractor or other person or organization under workers' compensation acts, disability benefit acts, or other employee benefit acts.
- 6.15 CONTRACTOR'S DAILY REPORTS. The CONTRACTOR shall complete a daily report indicating total manpower for each construction trade, major equipment on site, each Subcontractor's manpower, weather conditions, etc., involved in the performance of the WORK. The daily report shall be completed on forms provided by the ARCHITECT and shall be submitted to the ARCHITECT at the conclusion of each WORK day. The report should comment on the daily progress and status of the WORK within each major component of the WORK. These components will be decided by the ARCHITECT. The CONTRACTOR shall record the name, affiliation, time of arrival and departure, and reason for visit for all visitors to the location of the WORK.
- 6.16 ASSIGNMENT OF CONTRACT. The CONTRACTOR shall not assign, sublet, sell, transfer, or otherwise dispose of the contract or any portion thereof, or its right, title, or interest therein, or obligations thereunder, without the written consent of the OWNER except as imposed by law. If the CONTRACTOR violates this provision, the contract may be terminated at the option of the OWNER. In such event, the OWNER shall be relieved of all liability and obligations to the CONTRACTOR and to its assignee or transferee, growing out of such termination.
- 6.17 CONTRACTOR'S RESPONSIBILITY FOR UTILITY PROPERTY AND SERVICES. It is understood that any turn-on, or turn-off line locates and any other WORK or assistance necessary by the CBJ Water Utilities Division, will be at the CONTRACTOR's expense unless otherwise stated in the bid documents. All cost must be agreed to prior to any related actions, and will be considered incidental to the Project cost. Billing to the CONTRACTOR will be direct from the CBJ Water Utilities Division.
- 6.18 OPERATING WATER SYSTEM VALVES
- A. The CONTRACTOR shall submit a written request, to the ARCHITECT, for approval to operate any valve on any in-service section of the CBJ water system. The request must be submitted at least 24-hours prior to operating any valves. The CBJ Water Utilities Division reserves the right to approve or deny the request. The request shall specifically identify each valve to be operated, the time of operation, and the operation to be performed. The CONTRACTOR shall obtain the written approval of the ARCHITECT for any scheduled operation before operating any valve.



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- B. The CONTRACTOR shall be responsible for all damages, both direct and consequential, to the OWNER or any other party, caused by unauthorized operation of any valve of the CBJ water system.
- 6.19 CONTRACTOR'S WORK SCHEDULE LIMITATIONS. Construction of Buildings and Projects. It is unlawful to operate any pile driver, power shovel, pneumatic hammer, derrick, power hoist, or similar heavy construction equipment before 7:00 a.m. or after 10:00 p.m., Monday through Friday, or before 9:00 a.m. or after 10:00 p.m., Saturday and Sunday, unless a permit shall first be obtained from the City and Borough Building Official. Such permit shall be issued by the Building Official only upon a determination that such operation during hours not otherwise permitted hereunder is necessary and will not result in unreasonable disturbance to surrounding residents.

### ARTICLE 7 OTHER WORK

#### 7.1 RELATED WORK AT SITE

- A. The OWNER may perform other work related to the Project at the site by the OWNER's own forces, have other work performed by utility owners, or let other direct contracts therefor which may contain General Conditions similar to these. If the fact that such other work is to be performed was not noted in the Contract Documents, written notice thereof will be given to the CONTRACTOR prior to starting any such other work.
- B. The CONTRACTOR shall afford each other contractor who is a party to such a direct contract and each utility owner (or the OWNER, if the OWNER is performing the additional work with the OWNER's employees) proper and safe access to the site and a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such work, and shall properly connect and coordinate with their WORK. The CONTRACTOR shall do all cutting, fitting, and patching of the WORK that may be required to make its several parts come together properly and integrate with such other work. The CONTRACTOR shall not endanger any work of others by cutting, excavating, or otherwise altering their work and will only cut or alter their work with the written consent of the ARCHITECT and the others whose work will be affected.
- C. If the proper execution or results of any part of the CONTRACTOR's WORK depends upon the work of any such other contractor or utility owner (or OWNER), the CONTRACTOR shall inspect and report to the ARCHITECT in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for such proper execution and results. The CONTRACTOR's failure to report such delays, defects, or deficiencies will constitute an acceptance of the other work as fit and proper for integration with the CONTRACTOR's WORK except for latent or nonapparent defects and deficiencies in the other work.

- 7.2 COORDINATION. If the OWNER contracts with others for the performance of other work on the Project at the site, the person or organization who will have authority and responsibility for coordination of the activities among the various prime contractors will be identified in the Supplementary General Conditions, and the specific matters to be covered by such authority and responsibility will be itemized and the extent of such authority and responsibilities will be provided in the Supplementary General Conditions.

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### ARTICLE 8 OWNER'S RESPONSIBILITIES

#### 8.1 COMMUNICATIONS

- A. The OWNER shall issue all its communications to the CONTRACTOR through the ARCHITECT.
- B. The CONTRACTOR shall issue all its communications to the OWNER through the ARCHITECT.

8.2 PAYMENTS. The OWNER shall make payments to the CONTRACTOR as provided in Paragraphs 14.5, 14.8, 14.9 and 14.10.

8.3 LANDS, EASEMENTS, AND SURVEYS. The OWNER's duties in respect of providing lands and easements and providing surveys to establish reference points are set forth in Paragraphs 4.1 and 4.5.

8.4 CHANGE ORDERS. The OWNER shall execute Change Orders as indicated in Paragraph 10.1F.

8.5 INSPECTIONS AND TESTS. The OWNER's responsibility in respect of inspections, tests, and approvals is set forth in Paragraph 13.3.

8.6 SUSPENSION OF WORK. In connection with the OWNER's right to stop WORK or suspend WORK, see Paragraphs 13.4 and 15.1.

8.7 TERMINATION OF AGREEMENT. Paragraphs 15.2 and 15.3 deal with the OWNER's right to terminate services of the CONTRACTOR.

### ARTICLE 9 ARCHITECT'S STATUS DURING CONSTRUCTION

9.1 OWNER'S REPRESENTATIVE. The ARCHITECT will be the OWNER's representative during the construction period. The duties and responsibilities and the limitations of authority of the ARCHITECT as the OWNER's representative during construction are set forth in the Contract Documents.

9.2 VISITS TO SITE. The ARCHITECT will make visits to the site during construction to observe the progress and quality of the WORK and to determine, in general, if the WORK is proceeding in accordance with the Contract Documents. Exhaustive or continuous on-site inspections to check the quality or quantity of the WORK will not be required of the ARCHITECT. The ARCHITECT will not, during such visits, or as a result of such observations of the CONTRACTOR's WORK in progress, supervise, direct, or have control over the CONTRACTOR's WORK.

9.3 PROJECT REPRESENTATION. The ARCHITECT may furnish an Inspector to assist in observing the performance of the WORK. The duties, responsibilities, and limitations of authority of any such Inspector and assistants will be as provided in the Supplementary General Conditions.

9.4 CLARIFICATIONS AND INTERPRETATIONS. The ARCHITECT will issue with reasonable promptness such written clarifications or interpretations of the requirements of the Contract Documents (in the form of Drawings or otherwise) as the ARCHITECT may determine necessary, which shall be consistent with or reasonably inferable from the overall intent of the Contract Documents.

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- 9.5 AUTHORIZED VARIATIONS IN WORK. The ARCHITECT may authorize variations in the WORK from the requirements of the Contract Documents. These may be accomplished by a Field Order and will require the CONTRACTOR to perform the WORK involved in a manner that minimizes the impact to the WORK and the contract completion date. If the CONTRACTOR believes that a Field Order justifies an increase in the Contract Price or an extension of the Contract Time, the CONTRACTOR may make a claim therefor as provided in Article 11 or 12.
- 9.6 REJECTING OR ACCEPTING DEFECTIVE WORK. The ARCHITECT will have authority to reject or accept WORK which the ARCHITECT believes to be defective and will also have authority to require special inspection or testing of the WORK as provided in Paragraph 13.3G, whether or not the WORK is fabricated, installed, or completed.
- 9.7 CONTRACTOR SUBMITTALS, CHANGE ORDERS, AND PAYMENTS
- A. In accordance with the procedures set forth in the General Requirements, the ARCHITECT will review all CONTRACTOR submittals, including Shop Drawings, samples, substitutes, or "or equal" items, etc., in order to determine if the items covered by the submittals will, after installation or incorporation in the WORK, conform to the requirements of the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. The ARCHITECT's review will not extend to means, methods, techniques, sequences or procedures of construction or to safety precautions or programs incident thereto.
  - B. In connection with the ARCHITECT's responsibilities as to Change Orders, see Articles 10, 11, and 12.
  - C. In connection with the ARCHITECT's responsibilities in respect of Applications for Payment, see Article 14.
- 9.8 DECISIONS ON DISPUTES
- A. The ARCHITECT will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the WORK thereunder. Claims, disputes, and other matters relating to the acceptability of the WORK; the interpretation of the requirements of the Contract Documents pertaining to the performance of the WORK; and those claims under Articles 11 and 12 in respect to changes in the Contract Price or Contract Time will be referred initially to the ARCHITECT in writing with a request for formal decision in accordance with this paragraph, which the ARCHITECT will render in writing within 30 days of receipt of the request. Written notice of each such claim, dispute, and other matter will be delivered by the CONTRACTOR to the ARCHITECT promptly (but in no event later than 30 days) after the occurrence of the event giving rise thereto. Written supporting data will be submitted to the ARCHITECT within 60 days after such occurrence unless the ARCHITECT allows an additional period of time to ascertain more accurate data in support of the claim.
  - B. The rendering of a decision by the ARCHITECT with respect to any such claim, dispute, or other matter (except any which have been waived by the making or acceptance of final payment as provided in Paragraph 14.12) will be a condition precedent to any exercise by the OWNER or the CONTRACTOR of such rights or remedies as either may otherwise have under the Contract Documents or by Law or Regulations in respect of any such claim, dispute, or other matter.

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### 9.9 LIMITATION ON ARCHITECT'S RESPONSIBILITIES

- A. Neither the ARCHITECT's authority to act under this Article or other provisions of the Contract Documents nor any decision made by the ARCHITECT in good faith either to exercise or not exercise such authority shall give rise to any duty or responsibility of the ARCHITECT to the CONTRACTOR, any Subcontractor, any Supplier, any surety for any of them, or any other person or organization performing any of the WORK.
- B. Whenever in the Contract Documents the terms "as ordered," "as directed," "as required," "as allowed," "as reviewed," "as approved," or terms of like effect or import are used, or the adjectives "reasonable," "suitable," "acceptable," "proper," or "satisfactory" or adjectives of like effect or import are used to describe a requirement, direction, review, or judgment of the ARCHITECT as to the WORK, it is intended that such requirement, direction, review, or judgment will be solely to evaluate the WORK for compliance with the requirements of the Contract Documents, and conformance with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents, unless there is a specific statement indicating otherwise. The use of any such term or adjective shall not be effective to assign to the ARCHITECT any duty or authority to supervise or direct the performance of the WORK or any duty or authority to undertake responsibility contrary to the provisions of Paragraph 9.9C or 9.9D.
- C. The ARCHITECT will not supervise, direct, control, or have authority over or be responsible for the CONTRACTOR's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of the CONTRACTOR to comply with Laws and Regulations, applicable to the performance of the WORK. The ARCHITECT will not be responsible for the CONTRACTOR's failure to perform the WORK in accordance with the Contract Documents.
- D. The ARCHITECT will not be responsible for the acts or omissions of the CONTRACTOR nor of any Subcontractor, Supplier, or any other person or organization performing any of the WORK.

### ARTICLE 10 CHANGES IN THE WORK

#### 10.1 GENERAL

- A. Without invalidating the Agreement and without notice to any surety, the OWNER may at any time or from time to time, order additions, deletions, or revisions in the WORK; these will be authorized by a written Field Order and/or a Change Order issued by the ARCHITECT.
- B. If the CONTRACTOR believes that it is entitled to an increase or decrease in the Contract Price, or an extension or shortening in the Contract Time as the result of a Field Order, a claim may be made as provided in Articles 11 and 12.
- C. If the OWNER and CONTRACTOR agree on the value of any WORK, or the amount of Contract Time that should be allowed as a result of a Field Order, upon receiving written notice from the ARCHITECT, the CONTRACTOR shall proceed so as to minimize the impact on and delays to the WORK pending the issuance of a Change Order.
- D. If the OWNER and the CONTRACTOR are unable to agree as to the extent, if any, of an increase or decrease in the Contract Price or an extension or shortening of the Contract Time that should be

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allowed as a result of a Field Order, the ARCHITECT can direct the CONTRACTOR to proceed on the basis of Time and Materials so as to minimize the impact on and delays to the WORK, and a claim may be made therefor as provided in Articles 11 and 12.

- E. The CONTRACTOR shall not be entitled to an increase in the Contract Price nor an extension of the Contract Time with respect to any WORK performed that is not required by the Contract Documents as amended, modified, supplemented by Change Order, except in the case of an emergency and except in the case of uncovering WORK as provided in Paragraph 13.3G.
- F. The OWNER and the CONTRACTOR shall execute appropriate Change Orders covering:
  - 1. changes in the WORK which are ordered by the OWNER pursuant to Paragraph 10.1A;
  - 2. changes required because of acceptance of Defective WORK under Paragraph 13.7;
  - 3. changes in the Contract Price or Contract Time which are agreed to by the parties; or
  - 4. changes in the Contract Price or Contract Time which embody the substance of any written decision rendered by the ARCHITECT pursuant to Paragraph 9.8.
- G. If notice of any change is required by the provisions of any Bond to be given to a surety, the giving of any such notice will be the CONTRACTOR's responsibility, and the amount of each applicable Bond shall be adjusted accordingly.

### 10.2 ALLOWABLE QUANTITY VARIATIONS

- A. In the event of an increase or decrease in bid item quantity of a unit price contract, the total amount of WORK actually done or materials or equipment furnished shall be paid for according to the unit price established for such WORK under the Contract Documents, wherever such unit price has been established; provided, that an adjustment in the Contract Price may be made for changes which result in an increase or decrease in excess of 25% of the estimated quantity of any major item of the WORK. Major Item is defined as any bid item amount that is ten percent (10%) or more of the total contract amount.
- B. In the event a part of the WORK is to be entirely eliminated and no lump sum or unit price is named in the Contract Documents to cover such eliminated WORK, the price of the eliminated WORK shall be agreed upon in writing by the OWNER and the CONTRACTOR. If the OWNER and the CONTRACTOR fail to agree upon the price of the eliminated WORK, said price shall be determined in accordance with the provisions of Article 11.

## ARTICLE 11 CHANGE OF CONTRACT PRICE

### 11.1 GENERAL

- A. The Contract Price constitutes the total compensation payable to the CONTRACTOR for performing the WORK. All duties, responsibilities, and obligations assigned to or undertaken by the CONTRACTOR to complete the WORK shall be at its expense without change in the Contract Price.
- B. The Contract Price may only be changed by a Change Order. Any claim for an increase in the Contract Price shall be based on written notice delivered by the CONTRACTOR to the ARCHITECT promptly (but in no event later than 30 days) after the start of the occurrence or the event giving rise to the claim

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and stating the general nature of the claim. Notice of the amount of the claim with supporting data shall be delivered within 60 days after such occurrence (unless the ARCHITECT allows an additional period of time to ascertain more accurate data in support of the claim) and shall be accompanied by the CONTRACTOR's written statement that the amount claimed covers all known amounts (direct, indirect, and consequential) to which the CONTRACTOR is entitled as a result of said occurrence or event. All claims for adjustment in the Contract Price shall be determined by the ARCHITECT in accordance with Paragraph 9.8A if the OWNER and the CONTRACTOR cannot otherwise agree on the amount involved. No claim for an adjustment in the Contract Price will be valid if not submitted in accordance with this Paragraph 11.1B.

- C. The value of any WORK covered by a Change Order or of any claim for an increase or decrease in the Contract Price shall be determined in one of the following ways:
1. Where the WORK involved is covered by unit prices contained in the Contract Documents, by application of unit prices to the quantities of the items involved.
  2. By mutual acceptance of a lump sum, which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 11.4.
  3. On the basis of the "Cost of WORK" (determined as provided in Paragraphs 11.3) plus a CONTRACTOR's fee for overhead and profit (determined as provided in Paragraph 11.4).

11.2 COSTS RELATING TO WEATHER. The CONTRACTOR shall have no claims against the OWNER for damages for any injury to WORK, materials, or equipment, resulting from the action of the elements. If, however, in the opinion of the ARCHITECT, the CONTRACTOR has made all reasonable efforts to protect the materials, equipment and WORK, the CONTRACTOR may be granted a reasonable extension of Contract Time to make proper repairs, renewals, and replacements of the WORK, materials, or equipment.

### 11.3 COST OF WORK (BASED ON TIME AND MATERIALS)

- A. General. The term "Cost of WORK" means the sum of all costs necessarily incurred and paid by the CONTRACTOR for labor, materials, and equipment in the proper performance of extra WORK. Except as otherwise may be agreed to in writing by the OWNER, such costs shall be in amounts no higher than those prevailing in the locality of the Project; shall include only the following items, and shall not include any of the costs itemized in Paragraph 11.5 EXCLUDED COSTS.
- B. Labor. The costs of labor will be the actual cost for wages prevailing for each craft or type of workers performing the extra WORK at the time the extra WORK is done, plus employer payments of payroll taxes, worker's compensation insurance, liability insurance, health and welfare, pension, vacation, apprenticeship funds, and other direct costs resulting from Federal, State or local laws, as well as assessments or benefits required by lawful collective bargaining agreements. Labor costs for equipment operators and helpers shall be paid only when such costs are not included in the invoice for equipment rental. The labor costs for forepersons shall be proportioned to all of their assigned WORK and only that applicable to extra WORK shall be paid. Non-direct labor costs including superintendence shall be considered part of the mark-up set out in paragraph 11.4.
- C. Materials. The cost of materials reported shall be at invoice or lowest current price at which materials are locally available and delivered to the job in the quantities involved, plus the cost of freight, delivery and storage, subject to the following:

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1. Trade discounts available to the purchaser shall be credited to the OWNER notwithstanding the fact that such discounts may not have been taken by the CONTRACTOR.
  2. For materials secured by other than a direct purchase and direct billing to the purchaser, the cost shall be deemed to be the price paid to the actual supplier as determined by the ARCHITECT. Mark-up except for actual costs incurred in the handling of such materials will not be allowed.
  3. Payment for materials from sources owned wholly or in part by the purchaser shall not exceed the price paid by the purchaser for similar materials from said sources on extra WORK items or the current wholesale price for such materials delivered to the WORK site, whichever price is lower.
  4. If in the opinion of the ARCHITECT the cost of material is excessive, or the CONTRACTOR does not furnish satisfactory evidence of the cost of such material, then the cost shall be deemed to be the lowest current wholesale price for the quantity concerned delivered to the WORK site less trade discount. The OWNER reserves the right to furnish materials for the extra WORK and no claim shall be allowed by the CONTRACTOR for costs and profit on such materials.
- D. Equipment. The CONTRACTOR will be paid for the use of equipment at the rental rate listed for such equipment specified in the Supplementary General Conditions. Such rental rate will be used to compute payments for equipment whether the equipment is under the CONTRACTOR's control through direct ownership, leasing, renting, or another method of acquisition. The rental rate to be applied for use of each item of equipment shall be the rate resulting in the least total cost to the OWNER for the total period of use. If it is deemed necessary by the CONTRACTOR to use equipment not listed in the publication specified in the Supplementary General Conditions, an equitable rental rate for the equipment will be established by the ARCHITECT. The CONTRACTOR may furnish cost data which might assist the ARCHITECT in the establishment of the rental rate.
1. All equipment shall, in the opinion of the ARCHITECT, be in good working condition and suitable for the purpose for which the equipment is to be used.
  2. Before construction equipment is used on the extra WORK, the CONTRACTOR shall plainly stencil or stamp an identifying number thereon at a conspicuous location, and shall furnish to the ARCHITECT, in duplicate, a description of the equipment and its identifying number.
  3. Unless otherwise specified, manufacturer's ratings and manufacturer approved modifications shall be used to classify equipment for the determination of applicable rental rates. Equipment which has no direct power unit shall be powered by a unit of at least the minimum rating recommended by the manufacturer.
  4. Individual pieces of equipment or tools having a replacement value of \$200 or less, whether or not consumed by use, shall be considered to be small tools and no payment will be made therefor.
  5. Rental time will not be allowed while equipment is inoperative due to breakdowns.
  6. Equipment. Unless otherwise agreed to in writing, the CONTRACTOR will be paid for the use of equipment at the rental rate listed for such equipment specified in the current edition of the following reference publication: "Rental Rate Blue Book" available on-line at <http://www.equipmentwatch.com/rbb.htm> or contact Equipment Watch at (800) 669-3282.
- E. Equipment on the WORK Site. The rental time to be paid for equipment on the WORK site shall be the time the equipment is in productive operation on the extra WORK being performed and, in addition, shall include the time required to move the equipment to the location of the extra WORK and return it to the original location or to another location requiring no more time than that required to return it to its original location; except, that moving time will not be paid if the equipment is used on other than the extra WORK, even though located at the site of the extra WORK. Loading and

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transporting costs will be allowed, in lieu of moving time, when the equipment is moved by means other than its own power, except that no payment will be made for loading and transporting costs when the equipment is used at the site of the extra WORK on other than the extra WORK. The following shall be used in computing the rental time of equipment on the WORK site.

1. When hourly rates are listed, any part of an hour less than 30 minutes of operation shall be considered to be 1/2-hour of operation, and any part of an hour in excess of 30 minutes will be considered one hour of operation.
  2. When daily rates are listed, any part of a day less than 4 hours operation shall be considered to be 1/2-day of operation. When owner-operated equipment is used to perform extra WORK to be paid for on a time and materials basis, the CONTRACTOR will be paid for the equipment and operator, as set forth in Paragraphs (3), (4), and (5), following.
  3. Payment for the equipment will be made in accordance with the provisions in Paragraph 11.3D, herein.
  4. Payment for the cost of labor and subsistence or travel allowance will be made at the rates paid by the CONTRACTOR to other workers operating similar equipment already on the WORK site, or in the absence of such labor, established by collective bargaining agreements for the type of worker and location of the extra WORK, whether or not the operator is actually covered by such an agreement. A labor surcharge will be added to the cost of labor described herein in accordance with the provisions of Paragraph 11.3B, herein, which surcharge shall constitute full compensation for payments imposed by state and federal laws and all other payments made to or on behalf of workers other than actual wages.
  5. To the direct cost of equipment rental and labor, computed as provided herein, will be added the allowances for equipment rental and labor as provided in Paragraph 11.4, herein.
- F. Specialty WORK. Specialty WORK is defined as that WORK characterized by extraordinary complexity, sophistication, or innovation or a combination of the foregoing attributes which are unique to the construction industry. The following shall apply in making estimates for payment for specialty WORK:
1. Any bid item of WORK to be classified as Specialty WORK shall be listed as such in the Supplementary General Conditions. Specialty WORK shall be performed by an entity especially skilled in the work to be performed. After validation of invoices and determination of market values by the ARCHITECT, invoices for Specialty WORK based upon the current fair market value thereof may be accepted without complete itemization of labor, material, and equipment rental costs.
  2. When the CONTRACTOR is required to perform WORK necessitating special fabrication or machining process in a fabrication or a machine shop facility away from the job site, the charges for that portion of the WORK performed at the off-site facility may, by agreement, be accepted as Specialty WORK and accordingly, the invoices for the WORK may be accepted without detailed itemization.
  3. All invoices for specialty WORK will be adjusted by deducting all trade discounts offered or available, whether the discounts were taken or not. In lieu of the allowances for overhead and profit specified in Paragraph 11.4, herein, an allowance of 5 percent will be added to invoices for specialty WORK.
- G. Sureties. All WORK performed hereunder shall be subject to all of the provisions of the Contract Documents and the CONTRACTOR's sureties shall be bound with reference thereto as under the



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original Agreement. Copies of all amendments to surety Bonds or supplemental surety Bonds shall be submitted to the OWNER for review prior to the performance of any WORK hereunder.

**11.4 CONTRACTOR'S FEE**

- A. Extra WORK ordered on the basis of time and materials will be paid for at the actual necessary cost as determined by the ARCHITECT, plus allowances for overhead and profit. The allowance for overhead and profit shall include full compensation for superintendence, Bond and insurance premiums, taxes, field office expense, extended overhead, home office overhead, and all other items of expense or cost not included in the cost of labor, materials, or equipment provided for under Paragraph 11.3. The allowance for overhead and profit will be made in accordance with the following schedule:

Actual Overhead and Profit Allowance

Labor .....	15 percent
Materials.....	10 percent
Equipment .....	10 percent

To the sum of the costs and mark-ups provided for in this Article, one (1) percent shall be added as compensation for Bonds.

- B. It is understood that labor, materials, and equipment may be furnished by the CONTRACTOR or by the Subcontractor on behalf of the CONTRACTOR. When all or any part of the extra WORK is performed by a Subcontractor, the allowance specified herein shall be applied to the labor, materials, and equipment costs of the Subcontractor, to which the CONTRACTOR may add five (5) percent of the Subcontractor's total cost for the extra WORK. Regardless of the number of hierarchical tiers of Subcontractors, the five (5) percent increase above the Subcontractor's total cost which includes the allowances for overhead and profit specified herein may be applied one time only.

**11.5 EXCLUDED COSTS.**

- A. The term "Cost of the WORK" shall not include any of the following:
  1. Payroll costs and other compensation of CONTRACTOR's officers, executives, principals (of partnership and sole proprietorships), general managers, architects, estimators, attorneys' auditors, accountants, purchasing and contracting agents, expenditures, timekeepers, clerks and other personnel employed by CONTRACTOR whether at the site or in CONTRACTOR's principal or a branch office for general administration of the WORK, or not specifically covered by paragraph 11.3, all of which are to be considered administrative costs covered by the CONTRACTOR's fee.
  2. Expenses of CONTRACTOR's principal and branch offices other than CONTRACTOR's office at the site.
  3. Any part of CONTRACTOR's capital expenses, including interest on CONTRACTOR's capital employed for the WORK and charges against CONTRACTOR for delinquent payments.
  4. Cost of premiums for all Bonds and for all insurance whether or not CONTRACTOR is required by the Contract Documents to purchase and maintain the same (except for the cost of premiums covered by paragraph 11.4 above).
  5. Costs due to the negligence of CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but

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not limited to, the correction of Defective WORK, disposal of materials or equipment wrongly supplied and making good any damage to property.

6. Other overhead or general expense costs of any kind and the cost of any item not specifically and expressly included in paragraph 11.4.

### ARTICLE 12 CHANGE OF CONTRACT TIME

#### 12.1 GENERAL

- A. The Contract Time may only be changed by a Change Order. Any claim for an extension of the Contract Time (or Milestones) shall be based on written notice delivered by the CONTRACTOR to the ARCHITECT promptly (but in no event later than 30 days) after the occurrence of the event giving rise to the claim and stating the general nature of the claim. Notice of the extent of the claim with supporting data shall be delivered within 60 days after such occurrence (unless the ARCHITECT allows an additional period of time to ascertain more accurate data in support of the claim) and shall be accompanied by the CONTRACTOR's written statement that the adjustment claimed is the entire adjustment to which the CONTRACTOR has reason to believe it is entitled as a result of the occurrence of said event. All claims for adjustment in the Contract Time shall be determined by the ARCHITECT in accordance with Paragraph 9.8 if the OWNER and the CONTRACTOR cannot otherwise agree. No claim for an adjustment in the Contract Time will be valid if not submitted in accordance with the requirements of this paragraph. An increase in Contract Time does not mean that the CONTRACTOR is due an increase in Contract Price. Only Compensable time extensions will result in an increase in Contract Price.
- B. All time limits stated in the Contract Documents are of the essence of the Agreement.
- C. Where CONTRACTOR is prevented from completing any part of the WORK within the Contract Times (or Milestones) due to delay beyond the control of CONTRACTOR, the Contract Times (or Milestones) will be extended in an amount equal to the time lost on the critical path of the Project due to such delay if a claim is made therefor as provided in paragraph 12.1. Delays beyond the control of CONTRACTOR shall include, but not be limited to, acts or neglect by OWNER, acts or neglect of utility owners or other contractors performing other work as contemplated by Article 7, fires, floods, epidemics, unprecedented weather conditions or acts of God. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of CONTRACTOR.
- D. Where CONTRACTOR is prevented from completing any part of the WORK within the Contract Times (or Milestones) due to delay beyond the control of both OWNER and CONTRACTOR, an extension of the Contract Times (or Milestones) in an amount equal to the time lost on the critical path of the Project due to such delay shall be CONTRACTOR's sole and exclusive remedy for such delay. In no event shall the OWNER be liable to CONTRACTOR, any Subcontractor, any Supplier, or any other person or organization, or to any surety for or employee or agent of any of them, for damages arising out of or resulting from (i) delays caused by or within the control of CONTRACTOR, or (ii) delays beyond the control of both parties including but not limited to fires, floods, epidemics abnormal weather conditions, acts of God or acts or neglect by utility owners or other contractors performing other work as contemplated by Article 7.

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- 12.2 EXTENSIONS OF TIME FOR DELAY DUE TO WEATHER. Contract time may be extended by the ARCHITECT because of delays in completion of the WORK due to unusually severe weather, provided that the CONTRACTOR shall, within 10 days of the beginning of any such delay, notify the ARCHITECT in writing of the cause of delay and request an extension of contract time. The ARCHITECT will ascertain the facts and the extent of the delay and extend the time for completing the WORK when, in the ARCHITECT's judgment, the findings of fact justify such an extension. Unprecedented, abnormal, or unusually severe weather will be defined as an event, or events, with a greater than 50-year recurrence interval, as determined by the National Weather Service, or equivalent state or federal agency.

### ARTICLE 13 WARRANTY AND GUARANTEE; TESTS AND INSPECTIONS; CORRECTION, REMOVAL, OR ACCEPTANCE OF DEFECTIVE WORK

- 13.1 WARRANTY AND GUARANTEE. The CONTRACTOR warrants and guarantees to the OWNER and the ARCHITECT that all WORK will be in accordance with the Contract Documents and will not be defective. Prompt notice of defects known to the OWNER or ARCHITECT shall be given to the CONTRACTOR. All Defective WORK, whether or not in place, may be rejected, corrected, or accepted as provided in this Article 13.
- 13.2 ACCESS TO WORK. The OWNER, ARCHITECT, Architect of Record, their consultants, sub-consultants, other representatives and personnel of OWNER, independent testing laboratories and governmental agencies with jurisdictional interests will have access to the WORK at reasonable times for their observation, inspecting and testing. CONTRACTOR shall provide them proper and safe conditions for such access and advise them of CONTRACTOR's site safety procedures and programs so that they may comply therewith as applicable.
- 13.3 INSPECTIONS AND TESTS
- A. The CONTRACTOR shall give the ARCHITECT timely notice of readiness of the WORK for all required inspections, tests, or approvals, and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.
  - B. If Laws or Regulations of any public body having jurisdiction other than the OWNER require any WORK to specifically be inspected, tested, or approved, the CONTRACTOR shall pay all costs in connection therewith. The CONTRACTOR shall also be responsible for and shall pay all costs in connection with any inspection or testing required in connection with the OWNER's or the ARCHITECT's acceptance of a Supplier of materials or equipment proposed as a substitution or (or-equal) to be incorporated in the WORK, or of materials or equipment submitted for review prior to the CONTRACTOR's purchase thereof for incorporation in the WORK. The cost of all inspections, tests, and approvals in addition to the above which are required by the Contract Documents shall be paid by the OWNER (unless otherwise specified).
  - C. The ARCHITECT will make, or have made, such inspections and tests as the ARCHITECT deems necessary to see that the WORK is being accomplished in accordance with the requirements of the Contract Documents. Unless otherwise specified in the Supplementary General Conditions, the cost of such inspection and testing will be borne by the OWNER. In the event such inspections or tests reveal non-compliance with the requirements of the Contract Documents, the CONTRACTOR shall bear the cost of corrective measures deemed necessary by the ARCHITECT, as well as the cost of subsequent re-inspection and retesting. Neither observations by the ARCHITECT nor inspections, tests, or

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approvals by others shall relieve the CONTRACTOR from the CONTRACTOR's obligation to perform the WORK in accordance with the Contract Documents.

- D. All inspections, tests, or approvals other than those required by Laws or Regulations of any public body having jurisdiction shall be performed by organizations acceptable to the ARCHITECT and the CONTRACTOR.
  - E. If any WORK (including the work of others anticipated under paragraph 7.1) that is to be inspected, tested, or approved is covered without written concurrence of the ARCHITECT, it must, if requested by the ARCHITECT, be uncovered for observation. Such uncovering shall be at the CONTRACTOR's expense unless the CONTRACTOR has given the ARCHITECT timely notice of the CONTRACTOR's intention to perform such test or to cover the same and the ARCHITECT has not acted with reasonable promptness in response to such notice.
  - F. If any WORK is covered contrary to the written request of the ARCHITECT, it must, if requested by the ARCHITECT, be uncovered for the ARCHITECT's observation and recovered at the CONTRACTOR's expense.
  - G. If the ARCHITECT considers it necessary or advisable that covered WORK be observed by the ARCHITECT or inspected or tested by others, the CONTRACTOR, at the ARCHITECT's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as the ARCHITECT may require, that portion of the WORK in question, furnishing all necessary labor, material, and equipment. If it is found that such WORK is defective, the CONTRACTOR shall bear all direct, indirect, and consequential costs and damages of such uncovering, exposure, observation, inspection, and testing and of satisfactory reconstruction, including but not limited to fees and charges of Architects of Record, attorneys, and other professionals. However, if such WORK is not found to be defective, the CONTRACTOR shall be allowed an increase in the Contract Price or an extension of the Contract Time, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, and reconstruction; and, if the parties are unable to agree as to the amount or extent thereof, the CONTRACTOR may make a claim therefor as provided in Articles 11 and 12.
- 13.4 OWNER MAY STOP THE WORK. If the WORK is defective, or the CONTRACTOR fails to perform WORK in such a way that the completed WORK will conform to the Contract Documents, the OWNER may order the CONTRACTOR to stop the WORK, or any portion thereof, until the cause for such order has been eliminated; however, this right of the OWNER to stop the WORK shall not give rise to any duty on the part of the OWNER to exercise this right for the benefit of the CONTRACTOR or any other party.
- 13.5 CORRECTION OR REMOVAL OF DEFECTIVE WORK. If required by the ARCHITECT, the CONTRACTOR shall promptly, either correct all Defective WORK, whether or not fabricated, installed, or completed, or, if the WORK has been rejected by the ARCHITECT, remove it from the site and replace it with non-defective WORK. The CONTRACTOR shall bear all direct, indirect and consequential costs and damages of such correction or removal, including but not limited to fees and charges of Architects of Record, attorneys, and other professionals made necessary thereby.
- 13.6 ONE YEAR CORRECTION PERIOD
- A. If within one year after the date of Substantial Completion or such longer period of time as may be prescribed by Laws or Regulations or by the terms of any applicable special guarantee required by the

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Contract Documents or by any specific provision of the Contract Documents, any WORK is found to be defective, the CONTRACTOR shall promptly, without cost to the OWNER and in accordance with OWNER's written notification, (i) correct such Defective WORK, or, if it has been rejected by the OWNER, remove it from the site and replace it with non-defective WORK, and (ii) satisfactorily correct or remove and replace any damage to other work of others resulting therefrom. If the CONTRACTOR does not promptly comply with such notification, or in an emergency where delay would cause serious risk of loss or damage, the OWNER may have the Defective WORK corrected or the rejected WORK removed and replaced, and all direct, indirect, and consequential costs and damages of such removal and replacement including but not limited to fees and charges of Architects of Record, attorneys and other professionals will be paid by the CONTRACTOR.

- B. Where Defective WORK (and damage to other WORK resulting therefrom) has been corrected, removed or replaced under this paragraph 13.6, the correction period hereunder with respect to such WORK will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

- 13.7 ACCEPTANCE OF DEFECTIVE WORK. If, instead of requiring correction or removal and replacement of Defective WORK, the OWNER prefers to accept the WORK, the OWNER may do so. The CONTRACTOR shall bear all direct, indirect, and consequential costs attributable to the OWNER's evaluation of and determination to accept such Defective WORK. If any such acceptance occurs prior to final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the WORK, and the OWNER shall be entitled to an appropriate decrease in the Contract Price.

### ARTICLE 14 PAYMENTS TO CONTRACTOR AND COMPLETION

- 14.1 SCHEDULE OF VALUES (LUMP SUM PRICE BREAKDOWN). The Schedule of Values or lump sum price breakdown established as provided in the General Requirements shall serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to the ARCHITECT.

- 14.2 UNIT PRICE BID SCHEDULE. Progress payments on account of Unit Price WORK will be based on the number of units completed.

#### 14.3 APPLICATION FOR PROGRESS PAYMENT

- A. Unless otherwise prescribed by law, on the 25th of each month, the CONTRACTOR shall submit to the ARCHITECT for review, an Application for Payment filled out and signed by the CONTRACTOR covering the WORK completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents.
- B. The Application for Payment shall identify, as a sub-total, the amount of the CONTRACTOR's Total Earnings to Date, plus the Value of Materials Stored at the Site which have not yet been incorporated in the WORK, and less a deductive adjustment for materials installed which were not previously incorporated in the WORK, but for which payment was allowed under the provisions for payment for Materials Stored at the Site, but not yet incorporated in the WORK.
- C. The Net Payment Due the CONTRACTOR shall be the above-mentioned subtotal from which shall be deducted the total amount of all previous payments made to the CONTRACTOR. Progress payments

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will be paid in full in accordance with Article 14 of the General Conditions until 90% of the contract amount has been paid. The remaining 10% of the contract amount shall be retained until:

1. final inspection has been made;
  2. completion of the project;
  3. acceptance of the project by the OWNER and;
  4. the OWNER has received notification from the Alaska Department of Labor that the CONTRACTOR has no outstanding wage/hour violations.
- D. The Value of Materials Stored at the Site shall be an amount equal to the specified percent of the value of such materials as set forth in the Supplementary General Conditions. Said amount shall be based upon the value of all acceptable materials and equipment not incorporated in the WORK but delivered and suitably stored at the Project site or at another location agreed to in writing; provided, each such individual item has a value of more than \$5000 and will become a permanent part of the WORK. The Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that the CONTRACTOR has received the materials and equipment free and clear of all liens, charges, security interests, and encumbrances (which are hereinafter in these General Conditions referred to as "Liens") and evidence that the materials and equipment are covered by appropriate property insurance and other arrangements to protect the OWNER's interest therein, all of which will be satisfactory to the OWNER.
- 14.4 CONTRACTOR'S WARRANTY OF TITLE. The CONTRACTOR warrants and guarantees that title to all WORK, materials, and equipment covered by an Application for Payment, whether incorporated in the WORK or not, will pass to the OWNER no later than the time of payment free and clear of all liens.
- 14.5 REVIEW OF APPLICATIONS FOR PROGRESS PAYMENT
- A. The ARCHITECT will, within seven (7) days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to the OWNER, or return the Application to the CONTRACTOR indicating in writing the ARCHITECT's reasons for refusing to recommend payment. In the later case, the CONTRACTOR may make the necessary corrections and resubmit the Application. If the ARCHITECT still disagrees with a portion of the Application, it will submit the Application recommending the undisputed portion of the Application to the OWNER for review and provide reasons for recommending non-payment of the disputed amount. Thirty days after presentation of the Application for Payment with the ARCHITECT's recommendation, the amount recommended will (subject to the provisions of Paragraph 14.5B) become due and when due will be paid by the OWNER to the CONTRACTOR.
- B. The OWNER may refuse to make payment of the full amount recommended by the ARCHITECT because claims have been made against the OWNER on account of the CONTRACTOR's performance of the WORK or Liens have been filed in connection with the WORK or there are other items entitling the OWNER to a credit against the amount recommended, but the OWNER must give the CONTRACTOR written notice within seven (7) days (with a copy to the ARCHITECT) stating the reasons for such action.

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### 14.6 PARTIAL UTILIZATION

- A. The OWNER shall have the right to utilize or place into service any item of equipment or other usable portion of the WORK prior to completion of the WORK. Whenever the OWNER plans to exercise said right, the CONTRACTOR will be notified in writing by the OWNER, identifying the specific portion or portions of the WORK to be so utilized or otherwise placed into service.
- B. It shall be understood by the CONTRACTOR that until such written notification is issued, all responsibility for care and maintenance of all of the WORK shall be borne by the CONTRACTOR. Upon issuance of said written notice of partial utilization, the OWNER will accept responsibility for the protection and maintenance of all such items or portions of the WORK described in the written notice.
- C. The CONTRACTOR shall retain full responsibility for satisfactory completion of the WORK, regardless of whether a portion thereof has been partially utilized by the OWNER and the CONTRACTOR's one year correction period shall commence only after the date of Substantial Completion for the WORK.

14.7 SUBSTANTIAL COMPLETION. When the CONTRACTOR considers the WORK ready for its intended use the CONTRACTOR shall notify the OWNER and the ARCHITECT in writing that the WORK is substantially complete. The CONTRACTOR will attach to this request a list of all WORK items that remain to be completed and a request that the ARCHITECT prepare a Notice of Completion. Within a reasonable time thereafter, the OWNER, the CONTRACTOR, and the ARCHITECT shall make an inspection of the WORK to determine the status of completion. If the ARCHITECT does not consider the WORK substantially complete, or the list of remaining WORK items to be comprehensive, the ARCHITECT will notify the CONTRACTOR in writing giving the reasons thereof. If the ARCHITECT considers the WORK substantially complete, the ARCHITECT will prepare and deliver to the OWNER, for its execution and recording, the Notice of Completion signed by the ARCHITECT and CONTRACTOR, which shall fix the date of Substantial Completion.

14.8 FINAL APPLICATION FOR PAYMENT. After the CONTRACTOR has completed all of the remaining WORK items referred to in Paragraph 14.7 and delivered all maintenance and operating instructions, schedules, guarantees, Bonds, certificates of inspection, record as-built documents (as provided in the General Requirements) and other documents, all as required by the Contract Documents, and after the ARCHITECT has indicated that the WORK is acceptable, the CONTRACTOR may make application for final payment following the procedure for progress payments. The final Application for Payment shall be accompanied by all documentation called for in the Contract Documents, together with complete and legally effective releases or waivers (satisfactory to the OWNER) of all liens arising out of or filed in connection with the WORK.

### 14.9 FINAL PAYMENT AND ACCEPTANCE

- A. If, on the basis of the ARCHITECT's observation of the WORK during construction and final inspection, and the ARCHITECT's review of the final Application for Payment and accompanying documentation, all as required by the Contract Documents, the ARCHITECT is satisfied that the WORK has been completed and the CONTRACTOR's other obligations under the Contract Documents have been fulfilled, the ARCHITECT will, within 14 days after receipt of the final Application for Payment, indicate in writing the ARCHITECT's recommendation of payment and present the Application to the OWNER for payment.

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- B. After acceptance of the WORK by the OWNER's governing body, the OWNER will make final payment to the CONTRACTOR of the amount remaining after deducting all prior payments and all amounts to be kept or retained under the provisions of the Contract Documents, including the following items:
1. Liquidated damages, as applicable.
  2. Two times the value of outstanding items of correction WORK or punch list items yet uncompleted or uncorrected, as applicable. All such WORK shall be completed or corrected to the satisfaction of the OWNER within the time stated on the Notice of Completion, otherwise the CONTRACTOR does hereby waive any and all claims to all monies withheld by the OWNER to cover the value of all such uncompleted or uncorrected items.

### 14.10 RELEASE OF RETAINAGE AND OTHER DEDUCTIONS

- A. After executing the necessary documents to initiate the lien period, and not more than 45 days thereafter (based on a 30-day lien filing period and 15-day processing time), the OWNER will release to the CONTRACTOR the retainage funds withheld pursuant to the Agreement, less any deductions to cover pending claims against the OWNER pursuant to Paragraph 14.5B.
- B. After filing of the necessary documents to initiate the lien period, the CONTRACTOR shall have 30 days to complete any outstanding items of correction WORK remaining to be completed or corrected as listed on a final punch list made a part of the Notice of Completion. Upon expiration of the 45 days, referred to in Paragraph 14.10A, the amounts withheld pursuant to the provisions of Paragraph 14.9B herein, for all remaining WORK items will be returned to the CONTRACTOR; provided, that said WORK has been completed or corrected to the satisfaction of the OWNER within said 30 days. Otherwise, the CONTRACTOR does hereby waive any and all claims for all monies withheld by the OWNER under the contract to cover 2 times the value of such remaining uncompleted or uncorrected items.

14.11 CONTRACTOR'S CONTINUING OBLIGATION. The CONTRACTOR's obligation to perform and complete the WORK in accordance with the Contract Documents shall be absolute. Neither recommendation of any progress or final payment by the ARCHITECT, nor the issuance of a Notice of Completion, nor any payment by the OWNER to the CONTRACTOR under the Contract Documents, nor any use or occupancy of the WORK or any part thereof by the OWNER, nor any act of acceptance by the OWNER nor any failure to do so, nor any review of a Shop Drawing or sample submittal, will constitute an acceptance of WORK not in accordance with the Contract Documents or a release of the CONTRACTOR's obligation to perform the WORK in accordance with the Contract Documents.

14.12 FINAL PAYMENT TERMINATES LIABILITY OF OWNER. Final payment is defined as the last progress payment made to the CONTRACTOR for earned funds, less monies withheld as applicable, pursuant to Paragraph 14.10A. The acceptance by the CONTRACTOR of the final payment referred to in Paragraph 14.9 herein, shall be a release of the OWNER and its agents from all claims of liability to the CONTRACTOR for anything done or furnished for, or relating to, the WORK or for any act of neglect of the OWNER or of any person relating to or affecting the WORK, except demands against the OWNER for the remainder, if any, of the amounts kept or retained under the provisions of Paragraph 14.9 herein; and excepting pending, unresolved claims filed prior to the date of the Notice of Completion.



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### ARTICLE 15 SUSPENSION OF WORK AND TERMINATION

- 15.1 SUSPENSION OF WORK BY OWNER. The OWNER, acting through the ARCHITECT, may, at any time and without cause, suspend the WORK or any portion thereof for a period of not more than 90 days by notice in writing to the CONTRACTOR. The CONTRACTOR shall resume the WORK on receipt from the ARCHITECT of a notice of resumption of WORK. The CONTRACTOR shall be allowed an increase in the Contract Price or an extension of the Contract Time, or both, directly attributable to any suspension if the CONTRACTOR makes an approved claim therefor as provided in Articles 11 and 12.
- 15.2 TERMINATION OF AGREEMENT BY OWNER (CONTRACTOR DEFAULT)
- A. In the event of default by the CONTRACTOR, the OWNER may give 10 days written notice to the CONTRACTOR of OWNER's intent to terminate the Agreement and provide the CONTRACTOR an opportunity to remedy the conditions constituting the default. It shall be considered a default by the CONTRACTOR whenever CONTRACTOR shall: (1) declare bankruptcy, become insolvent, or assign its assets for the benefit of its creditors; (2) fail to provide materials or quality of WORK meeting the requirements of the Contract Documents; (3) disregard or violate provisions of the Contract Documents or ARCHITECT's instructions; (4) fail to prosecute the WORK according to the approved progress schedule; or, (5) fail to provide a qualified superintendent, competent workers, or materials or equipment meeting the requirements of the Contract Documents. If the CONTRACTOR fails to remedy the conditions constituting default within the time allowed, the OWNER may then issue the Notice of Termination.
- B. In the event the Agreement is terminated in accordance with Paragraph 15.2A, herein, the OWNER may take possession of the WORK and may complete the WORK by whatever method or means the OWNER may select. The cost of completing the WORK shall be deducted from the balance which would have been due the CONTRACTOR had the Agreement not been terminated and the WORK completed in accordance with the Contract Documents. If such cost exceeds the balance which would have been due, the CONTRACTOR shall pay the excess amount to the OWNER. If such cost is less than the balance which would have been due, the CONTRACTOR shall not have claim to the difference.
- 15.3 TERMINATION OF AGREEMENT BY OWNER (FOR CONVENIENCE). The OWNER may terminate the Agreement at any time if it is found that reasons beyond the control of either the OWNER or CONTRACTOR make it impossible or against the OWNER's interests to complete the WORK. In such a case, the CONTRACTOR shall have no claims against the OWNER except: (1) for the value of WORK performed up to the date the Agreement is terminated; and, (2) for the cost of materials and equipment on hand, in transit, or on definite commitment, as of the date the Agreement is terminated, which would be needed in the WORK and which meet the requirements of the Contract Documents. The value of WORK performed and the cost of materials and equipment delivered to the site, as mentioned above, shall be determined by the ARCHITECT in accordance with the procedure prescribed for the making of the final Application for Payment and payment under Paragraphs 14.8 and 14.9.
- 15.4 TERMINATION OF AGREEMENT BY CONTRACTOR. The CONTRACTOR may terminate the Agreement upon 10 days written notice to the OWNER, whenever: 1) the WORK has been suspended under the provisions of Paragraph 15.1, herein, for more than 90 consecutive days through no fault or

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negligence of the CONTRACTOR, and notice to resume WORK or to terminate the Agreement has not been received from the OWNER within this time period; or, 2) the OWNER should fail to pay the CONTRACTOR any monies due to the CONTRACTOR in accordance with the terms of the Contract Documents and within 60 days after presentation to the OWNER by the CONTRACTOR of a request therefor, unless within said 10-day period the OWNER shall have remedied the condition upon which the payment delay was based. In the event of such termination, the CONTRACTOR shall have no claims against the OWNER except for those claims specifically enumerated in Paragraph 15.3, herein, and as determined in accordance with the requirements of said paragraph.

### ARTICLE 16 MISCELLANEOUS

- 16.1 GIVING NOTICE. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or if delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.
- 16.2 RIGHTS IN AND USE OF MATERIALS FOUND ON THE WORK
- A. The CONTRACTOR may use on the Project, with ARCHITECT's approval, such stone, gravel, sand, or other material determined suitable by the ARCHITECT, as may be found in the excavation. The CONTRACTOR will be paid for the excavation of such material at the corresponding contract unit price. No additional payment will be made for utilizing the material from excavation as borrow, or select borrow.
  - B. The CONTRACTOR shall replace, at its own expense, with other acceptable material, all of that portion of the excavated material so removed and used which was needed for use on the Project. No charge for the materials so used will be made against the CONTRACTOR except that the CONTRACTOR shall be responsible for payment of any royalties required.
  - C. The CONTRACTOR shall not excavate or remove any material from within the Project location which is not within the grading limits, as indicated by the slope and grade lines, without written authorization from the ARCHITECT.
  - D. In the event the CONTRACTOR has processed materials from OWNER-furnished sources in excess of the quantities required for performance of this contract, including any waste material produced as a by-product, the CBJ may retain possession of such materials without obligation to reimburse the CONTRACTOR for the cost of their production. When such materials are in a stockpile, the ARCHITECT may require: that it remain in stockpile; the CONTRACTOR level such stockpile(s); or that the CONTRACTOR remove such materials and restore the premises to a satisfactory condition at the CONTRACTOR's expense. This provision shall not preclude the CBJ from arranging with the CONTRACTOR to produce material over and above the contract needs, payment for which shall be by written agreement between the CBJ and the CONTRACTOR.
  - E. Unless otherwise provided, the material from any existing old structure may be used temporarily by the CONTRACTOR in the erection of the new structure. Such material shall not be cut or otherwise damaged except with the approval of the ARCHITECT.

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- 16.3 **RIGHT TO AUDIT.** If the CONTRACTOR submits a claim to the OWNER for additional compensation, the OWNER shall have the right, as a condition to considering the claim, and as a basis for evaluation of the claim, and until the claim has been settled, to audit the CONTRACTOR's books to the extent they are relevant. This right shall include the right to examine books, records, documents, and other evidence and accounting procedures and practices, sufficient to discover and verify all direct and indirect costs of whatever nature claimed to have been incurred or anticipated to be incurred and for which the claim has been submitted. The right to audit shall include the right to inspect the CONTRACTOR's plants, or such parts thereof, as may be or have been engaged in the performance of the WORK. The CONTRACTOR further agrees that the right to audit encompasses all subcontracts and is binding upon Subcontractors. The rights to examine and inspect herein provided for shall be exercisable through such representatives as the OWNER deems desirable during the CONTRACTOR's normal business hours at the office of the CONTRACTOR. The CONTRACTOR shall make available to the OWNER for auditing, all relevant accounting records and documents, and other financial data, and upon request, shall submit true copies of requested records to the OWNER.
- 16.4 **ARCHAEOLOGICAL OR HISTORICAL DISCOVERIES.** When the CONTRACTOR's operation encounters prehistoric artifacts, burials, remains of dwelling sites, paleontological remains, such as shell heaps, land or sea mammal bones or tusks, or other items of historical significance, the CONTRACTOR shall cease operations immediately and notify the ARCHITECT. No artifacts or specimens shall be further disturbed or removed from the ground and no further operations shall be performed at the site until so directed. Should the ARCHITECT order suspension of the CONTRACTOR's operations in order to protect an archaeological or historical finding, or order the CONTRACTOR to perform extra WORK, such order(s) shall be covered by an appropriate contract change document.
- 16.5 **CONSTRUCTION OVER OR ADJACENT TO NAVIGABLE WATERS.** All WORK over, on, or adjacent to navigable waters shall be so conducted that free navigation of the waterways will not be interfered with and the existing navigable depths will not be impaired, except as allowed by permit issued by the U.S. Coast Guard and/or the U.S. Army Corps of Engineers, as applicable.
- 16.6 **GRATUITY AND CONFLICT OF INTEREST.** The CONTRACTOR agrees to not extend any loan, gratuity or gift of money of any form whatsoever to any employee or elected official of the OWNER, nor will the CONTRACTOR rent or purchase any equipment or materials from any employee or elected official of the OWNER, or to the best of the CONTRACTOR's knowledge, from any agent of any employee or elected official of the OWNER. Before final payment, the CONTRACTOR shall execute and furnish the OWNER an affidavit certifying that the CONTRACTOR has complied with the above provisions of the contract.
- 16.7 **SUITS OF LAW CONCERNING THE WORK**
- A. Should a suit of law be entered into, either by the CONTRACTOR (or the CONTRACTOR's surety) against the OWNER, or by the OWNER against the CONTRACTOR (or the CONTRACTOR's surety), the suit of law shall be tried in the First Judicial District of Alaska.
  - B. If one of the questions at issue is the satisfactory performance of the WORK by the CONTRACTOR and should the appropriate court of law judge the WORK of the CONTRACTOR to be unsatisfactory, then the CONTRACTOR (or the CONTRACTOR's surety) shall reimburse the OWNER for all legal and all other expenses (as may be allowed and set by the court) incurred by the OWNER because of

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the suit of the law and, further, it is agreed that the OWNER may deduct such expense from any sum or sums then, or any that become due the CONTRACTOR under the contract.

### 16.8 CERTIFIED PAYROLLS

- A. All CONTRACTORS or Subcontractor who perform work on a public construction contract for the OWNER shall file a Certified Payroll with the Alaska Department of Labor every two weeks. Before the second Friday, each CONTRACTOR and Subcontractor must file Certified Payrolls with Statements of Compliance for the previous two weeks. (Section 14-2-4 ACLA 1949; am Section 4 ch 142 SLA 1972).
- B. In lieu of submitting the State payroll form, the CONTRACTOR's standard payroll form may be submitted, provided it contains the information required by AS 36.05.040 and a statement that the CONTRACTOR is complying with AS 36.10.010.
- C. Any CONTRACTOR or Subcontractor, who performs work on public construction in the State, as defined by AS 36.95.010(3), shall pay not less than the current prevailing rate of wages as issued by the Alaska Department of Labor before the end of the pay period. (AS 36.05.010).

### 16.9 PREVAILING WAGE RATES

- A. Wage rates for Laborers and Mechanics on Public Contracts, AS 36.05.070. The CONTRACTOR, or Subcontractors, shall pay all employees unconditionally and not less than once a week. Wages may not be less than those stated in Paragraph 16.8C, regardless of the contractual relationship between the CONTRACTOR or Subcontractors and laborers, mechanics, or field surveyors. The scale of wages to be paid shall be posted by the CONTRACTOR in a prominent, easily accessible place at the site of the WORK.
- B. Failure to Pay Agreed Wages, AS 36.05.080. If it is found that a laborer, mechanic, or field surveyor employed by the CONTRACTOR or Subcontractor has been, or is being, paid a rate or wages less than the established rate, the OWNER may, by written notice, terminate the CONTRACTOR or Subcontractors right to proceed with the WORK. The OWNER may prosecute the WORK to completion by contract or otherwise, and the CONTRACTOR and sureties will be held liable to the OWNER for excess costs for completing the WORK. (Section 2 ch 52 SLA 1959).
- C. Listing CONTRACTORS Who Violate contracts, AS 36.05.090. In addition, a list giving the names of persons who have disregarded the rights of their employees shall be distributed to all departments of State government and all political subdivisions. No person appearing on this list, and no firm, corporation, partnership or association in which the person has an interest, may WORK as a CONTRACTOR or Subcontractor on a public construction contract for the State, or a political subdivision of the state, until three years after the date of publication of the list. (Section 3 ch 52 SLA 1959; am Section 9 ch 142 SLA).

- 16.10 EMPLOYMENT REFERENCE. Workers employed in the execution of the contract by the CONTRACTOR or by any Subcontractor under this contract shall not be required or permitted to labor more than 8 hours a day or 40 hours per week in violation of the provisions of the Alaska Wage and Hour Act, Section 23.10.060.

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### 16.11 COST REDUCTION INCENTIVE

- A. At any time within 45 days after the date of the Notice of Award, the CONTRACTOR may submit to the ARCHITECT in writing, proposals for modifying the plans, specifications, or other requirements of this contract for the sole purpose of reducing the total cost of construction. The cost reduction proposal shall not impair in any manner the essential functions or characteristics of the project, including but not limited to, service life, economy of operation, ease of maintenance, desired appearance or design and safety standards.
- B. The cost reduction proposal shall contain the following information:
  - 1. Description of both the existing contract requirements for performing the WORK and the proposed changes.
  - 2. An itemization of the contract requirements that must be changed if the proposal is adopted.
  - 3. A detailed estimate of the time required and the cost of performing the WORK under both the existing contract and the proposed change.
  - 4. A statement of the date by which the CONTRACTOR must receive the decision from the OWNER on the cost reduction proposal.
  - 5. The contract items of WORK effected by the proposed changes including any quantity variations.
  - 6. A description and estimate of costs the OWNER may incur in implementing the proposed changes, such as test and evaluation and operating and support costs.
  - 7. A prediction of any effects the proposed change would have on future operations and maintenance costs to the OWNER.
- C. The provisions of this section shall not be construed to require the OWNER to consider any cost reduction proposal which may be submitted; nor will the OWNER be liable to the CONTRACTOR for failure to accept or act upon any cost reduction proposal submitted, or for delays to the WORK attributable to the consideration or implementation of any such proposal.
- D. If a cost reduction proposal is similar to a change in the plans or Specifications for the Project under consideration by the OWNER at the time the proposal is submitted, the OWNER will not accept such proposal and reserves the right to make such changes without compensation to the CONTRACTOR under the provisions of this section.
- E. The CONTRACTOR shall continue to perform the WORK in accordance with the requirements of the contract until an executed Change Order incorporating the cost reduction proposal has been issued. If any executed Change Order has not been issued by the date upon which the CONTRACTOR's cost reduction proposal specifies that a decision should be made by the OWNER, in writing, the cost reduction proposal shall be considered rejected.
- F. The OWNER, shall be the sole judge of the acceptability of a cost reduction proposal and of the estimated net savings in Contract Time and construction costs resulting from the adoption of all or any part of such proposal. Should the CONTRACTOR disagree with OWNER's decision on the cost reduction proposal, there is no further consideration. The OWNER reserves the right to make final determination.
- G. If the CONTRACTOR's cost reduction proposal is accepted in whole or in part, such acceptance will be made by a Contract Change Order, which specifically states that the change is executed pursuant to

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this cost reduction proposal section. Such Change Order shall incorporate the changes in the plans and Specifications which are necessary to permit the cost reduction proposal or such part of it as has been accepted to be put into effect and shall include any conditions upon which the OWNER's approval is based, if such approval is conditional. The Change Order shall also describe the estimated net savings in the cost of performing the WORK attributable to the cost reduction proposal, and shall further provide that the contract cost be adjusted by crediting the OWNER with the estimated net savings amount.

- H. Acceptance of the cost reduction proposal and performance of the WORK does not extend the time of completion of the contract, unless specifically provided in the Change Order authorizing the use of the submitted proposal. Should the adoption of the cost reduction proposal result in a Contract Time savings, the total Contract Time shall be reduced by an amount equal to the time savings realized.
- I. The amount specified to the CONTRACTOR in the Change Order accepted in the cost reduction proposal shall constitute full compensation for the performance of WORK. No claims for additional costs as a result of the changes specified in the cost reduction proposal shall be allowed.
- J. The OWNER reserves the right to adopt and utilize any approved cost reduction proposal for general use on any contract administered when it is determined suitable for such application. Cost reduction proposals identical, similar, or previously submitted will not be accepted for consideration if acceptance and compensation has previously been approved. The OWNER reserves the right to use all or part of any cost reduction proposal without obligation or compensation of any kind to the CONTRACTOR.
- K. The CONTRACTOR shall bear the costs, if any, to revise all Bonds and insurance requirements for the Project, to include the cost reduction WORK.

**END OF SECTION**

## SECTION 00800 - SUPPLEMENTARY GENERAL CONDITIONS

**GENERAL.** These Supplementary General Conditions make additions, deletions, or revisions to the General Conditions as indicated herein. All provisions which are not so added, deleted, or revised remain in full force and effect. Terms used in these Supplementary General Conditions which are defined in the General Conditions have the meanings assigned to them in the General Conditions.

**SGC 2.2 COPIES OF DOCUMENTS.** *Add* the following:

The OWNER shall furnish to the CONTRACTOR up to ten (10) copies of the Contract Documents which may include bound reduced Drawings. The CBJ Contracts Office shall contact the CONTRACTOR after issuance of Notice of Intent to Award to determine how many copies are needed. Additional quantities of the Contract Documents will be furnished at reproduction cost.

**SGC 4.2 PHYSICAL CONDITIONS - SUBSURFACE AND EXISTING STRUCTURES.** *Add* the following:

- C. In the preparation of the Contract Documents, the Engineer of Record has relied upon field measurements and visual inspection of the existing structures and surface conditions.

*Add* the following SGC 4.6:

**SGC - 4.6 USE OF THE CBJ/STATE LEMON CREEK GRAVEL PIT.** *Add* the following.

**The CBJ/State Lemon Creek Gravel Pit is available for this Project**

**SGC - 4.6 USE OF THE CBJ/STATE LEMON CREEK GRAVEL PIT.** *Delete* paragraph C., and *replace* with the following paragraph C.

Wherever the land use permits are referenced, *delete* and *replace with* the permit number USE2008-00061.

- C. CONTRACTORS deciding to use material from the CBJ/State pit shall provide an Individual Mining Plan prepared by a professional engineer registered in the State of Alaska. The Individual Mining Plan must be reviewed and approved by the CBJ, prior to commencing operations within the pit. CONTRACTORS shall also secure a Performance Bond to ensure compliance with contract provisions, including any Individual Mining Plan stipulations. The bond shall remain in full force and effect until a release is obtained from the CBJ. A \$10,000 cash processing restoration bond is required prior to screening or primary crushing operations.

*Add* the following paragraph:

- J. Contractors choosing to mine material from CBJ material sources are also subject to the conditions contained in each site's Multi Sector General Permit for Stormwater Discharges associated with industrial activities (MSGP) and the Storm Water Pollution Prevention Plan (SWPPP).

**SGC 5.1 PERFORMANCE, PAYMENT, AND OTHER BONDS.** The Contractor shall furnish Performance and Payment Bonds in the amount of 100% of the Bid.

**SECTION 00800 - SUPPLEMENTARY GENERAL CONDITIONS**

**SGC 5.2 INSURANCE AMOUNTS.** The limits of liability for the insurance required by Paragraph 5.2 of the General Conditions shall provide coverage for not less than the following amounts or greater where required by Laws and Regulations. All certificates of insurance supplied to the OWNER shall state that the OWNER is named as **“Additional Insured for any and all work performed for the City & Borough of Juneau.”** The Additional Insured requirement does not apply to Workers Compensation insurance. NOTE: This requirement has changed. The OWNER no longer requires certificates of insurance referencing project names and contract numbers.

A. Workers’ Compensation: Under Paragraph 5.2C.1 of the General Conditions as in accordance with AS 23.30.045: (Additional Insured requirements not necessary for Workers’ Compensation coverage.)

- 1. State: Statutory
- 2. Applicable Federal (e.g., Longshore): Statutory

Note: If the WORK called for in the Contract Documents involves work in or on any navigable waters, the CONTRACTOR shall provide Workers' Compensation coverage which shall include coverage under the Longshore and Harbor Workers' Compensation Act, the Jones Act, and any other coverage required under Federal or State laws pertaining to workers in or on navigable waters.

3. Employer's Liability

Bodily Injury by Accident:	\$100,000.00	Each Accident
Bodily Injury by Disease:	\$100,000.00	Each Employee
Bodily Injury by Disease:	\$500,000.00	Policy Limit

- a. CONTRACTOR agrees to waive all rights of subrogation against the OWNER of Record for work performed under contract.
- b. If CONTRACTOR directly utilizes labor outside of the State of Alaska in the prosecution of the WORK, "Other States" endorsement shall be required as a condition of the contract.

B. Commercial General Liability: (under Paragraph 5.2C.2 of the General Conditions):

1. General Policy	\$1,000,000.00	Each Occurrence
	\$2,000,000.00	Annual Aggregate
2. Products/Completed Operations	\$1,000,000.00	Each Occurrence
	\$2,000,000.00	Annual Aggregate
3. Personal Injury	\$1,000,000.00	Each Occurrence

C. Comprehensive Automobile Liability: (under Paragraph 5.2C.3 of the General Conditions) including Owned, Hired, and Non-Owned Vehicles:

- 1. Combined Single Limit, Bodily Injury and Property Damage \$1,000,000.00

The CONTRACTOR shall require each Subcontractor similarly to provide Commercial Automobile Liability Insurance for all of the latter's employees to be engaged in such WORK unless such



## SECTION 00800 - SUPPLEMENTARY GENERAL CONDITIONS

employees are covered by the protection afforded by the CONTRACTOR's Commercial Automobile Liability Insurance.

- D. Builders risk does not apply to this Project.
- E. Policies shall also specify insurance provided by CONTRACTOR will be considered primary and not contributory to any other insurance available to the OWNER.
- F. Should any of the policies described above be cancelled before the expiration date thereof, notice will be delivered in accordance with the policy provisions.

### **SGC 6.1 SUPERVISION AND SUPERINTENDENCE.** *Add* the following:

- D. The CONTRACTOR's superintendent shall attend a weekly progress meeting at the site with the OWNER and/or the ARCHITECT at a time to be mutually agreed upon. The CONTRACTOR's superintendent shall have an operating cellular phone on hand at all times that WORK is performed.

### **SGC 6.5 CONCERNING SUBCONTRACTORS, SUPPLIERS, AND OTHERS.** *Add* the following:

The CONTRACTOR shall perform not less than 20% of the WORK with its own forces (i.e., without subcontracting). The 20% requirement shall be understood to mean that the CONTRACTOR shall perform, with its own organization, WORK amounting to at least 20% of the original contract amount. The 20% requirement will be calculated based upon the total of the subcontract amounts submitted for Contract Award, and any other information requested by the OWNER from the apparent low Bidder.

### **SGC 6.5 CONCERNING SUBCONTRACTORS, SUPPLIERS, AND OTHERS,** *Add* the following paragraph:

- C. CONTRACTOR must pay Subcontractors and/or Suppliers within 30 days of receiving payment from the OWNER, if that payment was made for Work performed by the Subcontractor and/or materials received. Failure to pay Subcontractors within 30 days of receiving payment from which Subcontractor and/or Supplier is to be paid may result in the OWNER initiating debarment proceedings as prescribed in the City and Borough of Juneau Purchasing Code.

### **SGC 6.6 PERMITS.** *Add* the following:

- C. The OWNER shall apply for, and obtain, the necessary building permit for this Project; however, the CONTRACTOR is responsible for scheduling and coordinating all necessary inspections. The CBJ Inspection number is 586-1703. All other provisions of this section remain in effect.
- D. Contractor is responsible for obtaining a Hot Works permit from the CBJ Permit Center, if performing work which requires such a permit. Work requiring a Hot Works Permit includes but is not limited to the following: cutting, welding, Thermit welding, brazing, soldering, grinding, thermal spraying, thawing pipe, installation of torch-applied roof systems or any other similar activity.

**SECTION 00800 - SUPPLEMENTARY GENERAL CONDITIONS**

**SGC 6.8 LAWS AND REGULATIONS.** *Add* the following:

The OWNER may, per AS 36.30, audit the CONTRACTOR's or Subcontractor(s) records that are related to the cost or pricing data for this contract, all related Change Orders, and/or contract modifications.

**SGC 6.15 CONTRACTOR'S DAILY REPORTS.** *Add* the following:

“Weekly summary reports may be completed in lieu of daily reports.”

*Add* the following SCG 6.19:

**SGC 6.19 CONTRACTOR'S WORK SCHEDULE LIMITATIONS.** Construction of Buildings and Projects. It is unlawful to operate any pile driver, power shovel, pneumatic hammer, derrick, power hoist, or similar heavy construction equipment before 7:00 a.m. or after 10:00 p.m., Monday through Friday, or before 9:00 a.m. or after 10:00 p.m., Saturday and Sunday, unless a permit shall first be obtained from the City and Borough Building Official. Such permit shall be issued by the Building Official only upon a determination that such operation during hours not otherwise permitted hereunder is necessary and will not result in unreasonable disturbance to surrounding residents.

**SGC 9.3 PROJECT REPRESENTATION.** *Add* the following:

**DUTIES, RESPONSIBILITIES AND LIMITATIONS OF AUTHORITY OF INSPECTOR**

General. The Inspector will act as directed by and under the supervision of the ARCHITECT and will confer with the ARCHITECT regarding its actions. The Inspector's dealings in matters pertaining to the on-site WORK shall, in general, be only with the ARCHITECT and the CONTRACTOR, and dealings with Subcontractors shall only be through or with the full knowledge of the CONTRACTOR. Written communication with the OWNER will be only through or as directed by the ARCHITECT. The ARCHITECT may further delegate the responsibilities and authorities associated with this Project, when such delegation is in writing and notice thereof is provided to the CONTRACTOR.

**SGC 11.1 GENERAL.** Paragraph B. In the second sentence change the number of days from 30 Days to 7 Days. In the third sentence change the number of days from 60 Days to 14 Days.

**SCG 14.3 APPLICATION FOR PROGRESS PAYMENT.** *Delete* Paragraph C and replace with the following:

- C. The Net Payment Due the CONTRACTOR shall be the above-mentioned subtotal from which shall be deducted the total amount of all previous payments made to the CONTRACTOR. Progress payments will be paid in full in accordance with Article 14 of the General Conditions until 90% of the Contract Price has been paid. The remaining 10% of the contract amount may be withheld until:
  - 1. final inspection has been made;
  - 2. completion of the Project; and
  - 3. acceptance of the Project by the OWNER.

**SCG 14.3 APPLICATION FOR PROGRESS PAYMENT.** Paragraph D.

- D. The Value of Materials Stored at the site shall be the amount of 85%.

## SECTION 00800 - SUPPLEMENTARY GENERAL CONDITIONS

**SGC 14.9 FINAL PAYMENT AND ACCEPTANCE.** *Add* the following paragraph:

- C. Prior to the final payment the CONTRACTOR shall contact the Alaska Department of Labor and Workforce Development (ADOL) and provide the OWNER with clearance from the ADOL for the CONTRACTOR and all Subcontractors that have worked on the Project. This clearance shall indicate that all Employment Security Taxes have been paid. The following page is a sample form for this purpose. The CONTRACTOR also shall submit a "NOTICE OF COMPLETION OF PUBLIC WORKS" signed by ADOL.
- D.

**SGC 16.8 CERTIFIED PAYROLLS.** *Change* paragraph A. to read:

- A. All CONTRACTORS or Subcontractors who perform work on a public construction contract for the OWNER shall file a certified payroll with Alaska Department of Labor. See Section 00830 - Alaska Labor Standards, Reporting, and Prevailing Wage Rate Determination.

*Add* the following SGC 16.12.

### **SGC 16.12 EQUAL EMPLOYMENT OPPORTUNITY (EEO)**

The CONTRACTOR may not discriminate against any employee or applicant for employment because of race, religion, color, national origin, age, disability, sex, marital status, changes in marital status, pregnancy or parenthood. The CONTRACTOR shall post a notice setting out the provisions of this paragraph in a conspicuous place available to employees and applicants for employment.

The CONTRACTOR and each Subcontractor shall state in all solicitations and advertisements for employees to work on this Project, that it is an Equal Opportunity Employer and that all qualified applicants will receive consideration for employment without regard to race, religion, color, national origin, age, disability, sex, marital status, changes in marital status, pregnancy or parenthood.

The CONTRACTOR shall include the provisions of this EEO article in every contract relating to this Project and shall require the inclusion of these provisions in every agreement entered into for this Project, so that those provisions will be binding upon the CONTRACTOR and each Subcontractor.

*Add* the following SGC 17:

**SGC 17 GENERAL INFORMATION.** This Project is currently funded by the City and Borough of Juneau, Alaska and a State of Alaska Department of Early Education Development Grant.

SECTION 00800 - SUPPLEMENTARY GENERAL CONDITIONS

Employment Security Tax Clearance

Date: \_\_\_\_\_

To: Alaska Department of Labor  
Juneau Field Tax Office  
907-465-2787  
FAX 907-465-2374

From: \_\_\_\_\_

**Subject: Gastineau Elementary School Playground Upgrades  
Contract No. E13-214**

Timeframe of Contract \_\_\_\_\_

Please advise whether or not clearance is granted for the following CONTRACTOR or Subcontractor:  
(List only one CONTRACTOR or Subcontractor list per page.)

Name	Address

Per AS 23.20.265 of the Alaska Employment Security Act, this request is for tax liability clearance and release to make final payment for WORK performed under the subject contract. Please send your response to:

Jennifer Mannix, Contract Administrator  
Engineering Department  
155 S. Seward Street  
Juneau, Alaska 99801  
FAX 907-586-4530

- ( ) Tax Clearance is granted.
- ( ) Tax Clearance is NOT granted.

Remarks: \_\_\_\_\_

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Title

**END OF SECTION**

**SECTION 00830 - ALASKA LABOR STANDARDS, REPORTING, AND  
PREVAILING WAGE RATE DETERMINATION**

State of Alaska, Department of Labor, Laborers' and Mechanics' Minimum Rates of Pay, AS 36.05.010 and AS 36.05.050, Wage and Hour Administration Pamphlet No. 600, the latest edition published by the State of Alaska, Department of Labor inclusive, are made a part of this contract by reference.

The CONTRACTOR is responsible for contacting the Alaska Department of Labor to determine compliance with current regulations.

Correspondence regarding Title 36 requirements may be submitted electronically or paper copies can be submitted by mail. To submit Title 36 documents electronically, go to <https://myalaska.state.ak.us/home/app>. If filing electronically, submit certified payrolls to ADOL at the website above and email a copy of all certified payrolls to Jennifer Mannix at the email address below. If Contractor elects to submit paper copies, they should be submitted to the physical addresses below.

**Within 10 Days of "Notice of Award/Notice to Proceed"** make a list of **all** Subcontractors. Include their name, address, phone, estimated subcontract amount, and estimated start and finish dates. Send this list to the Wage and Hour Section (contact information below).

**Certified Payrolls must be submitted every two weeks. Before the second Friday**, each CONTRACTOR and Subcontractor must file Certified Payrolls with Statements of Compliance for the previous two weeks. Indicate "**Start**" on your first payroll, and "**Final**" on your last payroll for this Project.

As part of the **final payment request package**, CONTRACTOR must submit a "NOTICE OF COMPLETION OF PUBLIC WORKS" form signed by ADOL personnel.

**Contact Information:**

*Wage and Hour Section*  
State of Alaska  
Department of Labor and Workforce Development  
Labor Standards and Safety Division      and  
Wage and Hour Administration  
P.O. Box 11149  
Juneau, AK 99811-1149  
907-465-4842  
<http://labor.state.ak.us/lss/home.htm>

*Jennifer Mannix, Contract Administrator*  
City and Borough of Juneau  
155 S. Seward Street  
Juneau, AK 99801  
(907) 586-0873  
[jennifer\\_mannix@ci.juneau.ak.us](mailto:jennifer_mannix@ci.juneau.ak.us)

**END OF SECTION**

## Section 01001 - SUMMARY

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. This Section includes the following:
  1. Work covered by Contract Documents.
  2. Type of the Contract.
  3. Work Season.
  4. Use of premises.
  5. OWNER's occupancy requirements.
  6. Work restrictions.
  7. Specification formats and conventions.
  8. Miscellaneous Provisions

#### 1.3 WORK COVERED BY CONTRACT DOCUMENTS

- A. Project Identification: Gastineau Elementary School Playground Upgrades.
  1. Project Location: 1507 3rd Street, Douglas, AK 99824
  2. OWNER: City and Borough of Juneau, Juneau School District
  3. Point of Contact for the OWNER: CBJ Project Manager

Nathan Coffee, Project Manager  
City & Borough of Juneau, Engineering Department  
155 S. Seward St.  
Juneau, AK 99801  
(907) 586-0895

- B. The Work includes, but is not limited to, the following:
  1. Civil/Landscape: Installation of new playground equipment, playground surfacing, fencing, retaining walls, asphalt paving, storm drainage, plantings, and earthwork.
  2. Architectural: Painting and miscellaneous improvements to canopy.

#### 1.4 TYPE OF CONTRACT

- A. Project will be constructed under a single prime contract.

#### 1.5 WORK SEASON

- A. The Work shall be conducted in one summer construction season.
- B. The site shall be available to for construction from May 29 to August 6, 2013.

## **Section 01001 - SUMMARY**

- C. CONTRACTOR shall substantially complete all work by August 6, 2013.
- D. All construction related debris, materials, equipment, etc., must be completely removed from the premises at the end of the construction season.

### 1.6 USE OF PREMISES

- A. General: CONTRACTOR shall have use of premises for construction operations, including use of Project site, during construction period. CONTRACTOR's use of premises is limited only by OWNER's right to perform work or to retain other CONTRACTORS on portions of Project.
- B. Use of Site: Limit use of premises to areas within the Contract limits generally described on the drawings. Do not disturb portions of Project site beyond areas in which the Work is indicated.
  - 1. Work staging area and access: Coordinate extent of use of parking areas around building for associated construction activity. Provide temporary security fencing around area to be used for construction staging and equipment storage areas. Provide temporary security fencing around playground work areas during installation of playground equipment.
  - 2. OWNER Occupancy: Allow for limited OWNER occupancy of Project site during construction. Owner will not use playground work areas or covered play structures during construction work season.
  - 3. Driveways and Entrances: Keep driveways and entrances serving premises clear and available to OWNER, OWNER's employees, and emergency vehicles at all times.
- C. Use of Existing Building: The existing school building is not available for CONTRACTOR use except for the provision of electrical and water service from exterior outlets and hose bibs.
- D. Site Security: CONTRACTOR shall be responsible for protecting the site from theft vandalism, and unauthorized entry during the course of construction.

### 1.7 OWNER'S OCCUPANCY REQUIREMENTS

- A. Partial OWNER Occupancy: OWNER may occupy the premises during entire construction period, with the exception of areas under construction. Cooperate with OWNER during construction operations to minimize conflicts and facilitate OWNER usage. Perform the Work so as not to interfere with OWNER's operations. Maintain existing exits, unless otherwise indicated.

### 1.8 WORK RESTRICTIONS

- A. On-Site Work Hours: Work shall be generally performed from 7:00 a.m. - 10:00 p.m., Monday through Friday, except as otherwise indicated.
  - 1. Weekend Hours: 7:00 a.m. - 7:00 p.m.
  - 2. Hours for Core Drilling, concrete demolition, and other heavy equipment use: 7:00 am - 7:00 pm weekdays, 9:00 a.m. -7:00 p.m. on weekends.
  - 3. Any work overlapping time with school in session shall be coordinated with the CBJ Project Manager, and shall generally be completed after school and on weekends.
- B. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by OWNER or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:

## **Section 01001 - SUMMARY**

1. Notify CBJ Project Manager not less than two days in advance of proposed utility interruptions.
2. Do not proceed with utility interruptions without CBJ Project Manager's written permission.

### 1.9 SPECIFICATION FORMATS AND CONVENTIONS

- A. Specification Format: The Specifications are organized into Divisions and Sections using the 16-division format and CSI/CSC's "MasterFormat" numbering system.
1. Section Identification: The Specifications use Section numbers and titles to help cross-referencing in the Contract Documents. Sections in the Project Manual are in numeric sequence; however, the sequence is incomplete because all available Section numbers are not used. Consult the table of contents at the beginning of the Project Manual to determine numbers and names of Sections in the Contract Documents.
  2. Division 1: Sections in Division 1 govern the execution of the Work of all Sections in the Specifications.
- B. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:
1. Abbreviated Language: Language used in the Specifications and other Contract Documents is abbreviated. Words and meanings shall be interpreted as appropriate. Words implied, but not stated, shall be inferred as the sense requires. Singular words shall be interpreted as plural, and plural words shall be interpreted as singular where applicable as the context of the Contract Documents indicates.
  2. Imperative mood and streamlined language are generally used in the Specifications. Requirements expressed in the imperative mood are to be performed by CONTRACTOR. Occasionally, the indicative or subjunctive mood may be used in the Section Text for clarity to describe responsibilities that must be fulfilled indirectly by CONTRACTOR or by others when so noted.
    - a. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.

### 1.10 MISCELLANEOUS PROVISIONS

- A. All references in specifications to ARCHITECT or ENGINEER shall mean CBJ Project Manager.
- B. All references in specification to OWNER shall mean CBJ Project Manager.

**PART 2 - PRODUCTS** (Not Used)

**PART 3 - EXECUTION** (Not Used)

**END OF SECTION**



## **Section 01005 - ADMINISTRATIVE PROVISIONS**

### **PART 1 - GENERAL**

#### **1.1 REQUIREMENTS INCLUDED**

- A. Work Covered by Contract Documents
- B. CONTRACTOR Use of Premises
- C. Owner Occupancy
- D. Additive Alternates
- E. Applications for Payment
- F. Inspection of Conditions
- G. Coordination
- H. Reference Standards

#### **1.2 WORK COVERED BY CONTRACT DOCUMENTS**

The Work consists of furnishing all labor, equipment, and materials, and performing all work required to construct the GASTINEAU ELEMENTARY SCHOOL PLAYGROUND UPGRADES, as described in the Construction Documents.

#### **1.3 CONTRACTOR USE OF PREMISES**

- A. The CONTRACTOR will coordinate with the OWNER as to the extent of access and use of the site; use of the existing building is not anticipated. The CONTRACTOR shall maintain all construction operations within the property lines as shown in the Construction Drawings.
- B. The CONTRACTOR shall take all necessary precautions for the protection of the Work and the safety of the public. All barricades and obstructions shall be illuminated at night, and all lights shall be kept burning from sunset until sunrise. All signs, signals, and barricades shall conform to the requirements of Subpart G, Part 1926, of the OSHA Safety and Health Standards for Construction.

#### **1.4 APPLICATIONS FOR PAYMENT**

- A. Submit one copy of each application under procedures of Section 01027 Application for Payment, form approved by the CBJ Project Manager.
- B. Content and Format: That specified for Schedule of Values in Section 01370.

## Section 01005 - ADMINISTRATIVE PROVISIONS

### 1.5 INSPECTION OF CONDITIONS

- A. Prior to bidding, verify and become familiar with all observable existing conditions by visiting the site. Include in bid all factors which may affect the execution of this work. Include all related costs in the bid.
- B. Coordinate exact requirements governed by actual job conditions. Check all information and report any discrepancies before fabrication work. Report changes in time to avoid unnecessary work. Make changes only as directed by the CBJ Project Manager.
- C. Examine related work and surfaces before submitting bid. Report to the CBJ Project Manager, in writing, conditions which prevent proper execution of the Work. Bidding work without reporting unsuitable conditions constitutes acceptance of conditions by CONTRACTOR.

### 1.6 COORDINATION

- A. Coordinate Work of the various sections of Specifications to ensure efficient and orderly sequence of installation of construction elements, with provisions for accommodating items installed later. Work of any trade or subcontractor may be required by any specification section. The specifications are not subdivided for the convenience of subcontractor bidding or labor agreements. It is the CONTRACTOR's responsibility to coordinate the work of all subcontractors and tradesmen to ensure all specification requirements are met and that change orders are not required because of coordination issues.
- B. Verify if characteristics of elements of interrelated operating equipment are compatible; coordinate Work of various sections having interdependent responsibilities for installing, connecting to, and placing in service, such equipment.

### 1.7 REFERENCE STANDARDS

- A. For products specified by association or trade standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.
- B. The date of the standard is that in effect as of the Project Advertisement date, or Effective Date of the Contract when there was no Advertisement, except when a specific date is specified.
- C. Obtain copies of standards when required by Contract Documents. Maintain copy at jobsite during progress of the specific Work.

## **PART 2 - PRODUCTS**

NOT USED

## **PART 3 - EXECUTION**

NOT USED

**END OF SECTION**

## **Section 01027 - APPLICATION FOR PAYMENT**

### **PART 1 - GENERAL**

#### **1.1 SECTION INCLUDES**

- A. Procedures for preparation and submittal of applications for payment.

#### **1.2 RELATED SECTIONS**

- A. Section 00310 - Bid Schedule
- B. Section 00700 - General Conditions
- C. Section 00800 - Supplementary General Conditions
- D. Section 01300 - Submittals
- E. Section 01370 - Schedule of Values
- F. Section 01770 - Contract Closeout

#### **1.3 FORMAT**

- A. Application for payment form in format acceptable by the OWNER.

#### **1.4 PREPARATION OF APPLICATIONS**

- A. Execute certification by original signature of authorized officer upon each copy of the Application for Payment.
- B. Submit names of individuals authorized to be responsible for information submitted on application for payment.
- C. Indicate breakdown of costs for each item of the Work on accepted schedule of values (SOV). Provide dollar value in each column for each line item for portion of Work performed and for stored products.
- D. List each authorized Change Order as an extension on continuation sheet, listing Change Order number and dollar amount as for an original item of Work.
- E. Prepare Application for Final Payment as specified in Section 01770 – Contract Closeout.

**Section 01027 - APPLICATION FOR PAYMENT**

1.5 SUBMITTAL PROCEDURES

- A. Submit one copy of each Application for Payment at any time determined by the CONTRACTOR.
- B. Submit under dated transmittal letter.
- C. Payment Request limited to not more than one Application for Payment in every thirty (30) calendar days.

1.6 SUBSTANTIATING DATA

- A. When OWNER requires substantiating information, submit data justifying line item amounts in question.
- C. Provide one copy of data with cover letter for each copy of Application. Show application number and date, and line item by number and description.

1.7 SUBMITTALS WITH APPLICATION FOR PAYMENT

- A. Submit the following with each Application for Payment.
  - 1. Updated Construction Progress Schedules as required by Section 01300-Submittals.
  - 2. Updated Project Record Documents as required by Section 01770-Contract Closeout.
  - 3. Updated Schedule of Values.
  - 4. Permit Inspection results.
  - 5. Certifications as required by Section 01400 – Quality Control.
  - 6. Provide invoices and receipts of payment from supplier in conjunction with payment requests for stored materials.
  - 7. Lien releases from subcontractors acknowledging payment for work performed and paid by prior pay requests.

**PART 2 - PRODUCTS**

NOT USED

**PART 3 - EXECUTION**

NOT USED

**END OF SECTION**

## Section 01028 – CHANGE ORDER PROCEDURES

### PART 1 - GENERAL

#### 1.1 REQUIREMENTS INCLUDED

- A. Procedures for processing Change Orders.

#### 1.2 RELATED REQUIREMENTS

- A. Section 00310 – Bid Schedule
- B. Section 00500 - Agreement
- C. Section 00700 - General Conditions
- D. Section 00800 - Supplementary General Conditions
- E. Section 01027 - Application for Payment
- F. Section 01300 - Submittals
- G. Section 01600 - Materials and Equipment
- H. Section 01770 - Contract Closeout

#### 1.3 SUBMITTALS

- A. Submit name of the individual authorized to accept changes, and to be responsible for informing others in CONTRACTOR's employ of changes in the Work.
- B. Change Order Forms: Use forms provided by the CBJ Project Manager or approved by the CBJ Project Manager.

#### 1.4 DOCUMENTATION OF CHANGE IN CONTRACT PRICE AND CONTRACT TIME

- A. Maintain detailed records of work done on a Cost of Work Plus a Fee Basis. Provide full information required for evaluation of proposed changes and to substantiate costs of changes in the Work.
- B. Document each quotation for a change in cost or time with sufficient data to allow evaluation of the quotation.
- C. On request, provide additional data to support computations:
  - 1. Quantities of products, labor, and equipment.
  - 2. Taxes, insurance and bonds.

## Section 01028 – CHANGE ORDER PROCEDURES

3. Overhead and profit.
  4. Justification for any change in Contract Time.
  5. Credit for deletions from Contract, similarly documented.
- D. Support each claim for additional costs, and for work done on a Cost of the Work plus a Fee Basis, with additional information:
1. Origin and date of claim.
  2. Dates and times work was performed, and by whom.
  3. Time records, wage rates paid and workman compensation rates.
  4. Invoices and receipts for materials, products, equipment, shipping, and subcontracts, similarly documented.

### 1.5 PRELIMINARY PROCEDURES

- A. The OWNER may submit a Proposal Request which includes: detailed description of change with supplementary or revised Drawings and Specifications, the projected time for executing the change, with a stipulation of any overtime work required, and the period of time during which the requested price will be considered valid.
- B. CONTRACTOR may initiate a change by submittal of a request to the OWNER describing the proposed change with a statement of the reason for the change, and the effect on Contract Price and Contract Time with full documentation. Document any requested substitutions in accordance with Section 01600 – Materials and Equipment.

### 1.6 CONSTRUCTION CHANGE AUTHORIZATION

- A. Shall be in accordance with Article 10 – Changes in the Work, Section 00700 - General Conditions.

### 1.7 LUMP SUM CHANGE ORDER

- A. Prior to completion of the change the CONTRACTOR shall submit in final form an account of all costs, with support data.
- B. CONTRACTOR's fees shall not exceed fees defined in Section 00700 - General Conditions, Article 11.4 Contractor's Fee.

### 1.8 COST OF THE WORK CHANGE ORDER

- A. After completion of the change and within a reasonable period of time, the CONTRACTOR shall submit in final form an itemized account, with support data, of all costs.

**Section 01028 – CHANGE ORDER PROCEDURES**

- B. The CBJ Project Manager will determine the change allowable in Contract Price and Contract Time as provided in provisions of the Contract Documents.

**1.9 EXECUTION OF CHANGE ORDERS**

- A. The OWNER will issue Change Orders for CONTRACTOR's signature. All change orders are executed when signed by the OWNER-authorized person. CONTRACTOR's signature indicates acceptance.

**1.10 CORRELATION OF CONTRACTOR SUBMITTALS**

- A. Promptly revise Schedule of Values and Application for Payment forms to record each authorized Change Order as a separate line item and adjust the Contract Price as shown on Change Order.
- B. Promptly revise progress schedules to reflect any change in Contract Time, Revise subschedules to adjust times for other items of Work affected by the change, and resubmit.

**PART 2 - PRODUCTS**

NOT USED

**PART 3 - EXECUTION**

NOT USED

**END OF SECTION**

## Section 01060 - REGULATORY REQUIREMENTS

### PART 1 - GENERAL

#### 1.1 REQUIREMENTS INCLUDED

- A. Applicability of referenced Regulatory Requirements.
- B. Provision of referenced Regulatory Requirements on Project.
- C. Listing of referenced Regulatory Requirements, together with the enforcement agency and its location.

#### 1.2 RELATED REQUIREMENTS

- A. Section 00700 - General Conditions
- B. Individual Specification Sections: Regulatory Requirements.

#### 1.3 QUALITY ASSURANCE

- A. Shall be governed by the Regulatory Requirements referenced within the Contract Documents and listed herein.
- B. The date of the Regulatory Requirement is that in effect as of the Project Advertisement date or Effective Date of the Contract when there was no Advertisement, except when a specific date is specified. Labor rates shall be kept current to the most recent published or effective rates, by the Department of Labor, throughout the contract.
- C. Compliance with the provisions of the Regulatory Requirements is mandatory. If conflicts or discrepancies between Requirements exist the most rigid Regulatory Requirement shall prevail. Interpretation or questions shall be resolved as per paragraph 2.2 of the General Conditions.
- D. When required or referenced within the Contract Documents the CONTRACTOR shall obtain and maintain a copy of the Regulatory Requirements on the Project, including both the office site and construction site if they are different, during both submittal and construction stages of the specific Work and until Final Completion.

#### 1.4 SCHEDULE OF REGULATORY REQUIREMENTS

##### A. PRIMARY APPLICABLE CODES.

- 1. Codes adopted by the City and Borough of Juneau (CBJ), inclusive of all current CBJ Amendments and Supplements.

*2009 International Building Code (IBC)* published by the International Conference of Building Officials and as amended by the State Supplement.



## Section 01060 - REGULATORY REQUIREMENTS

### UNIFORM MECHANICAL CODE

The latest edition of the *Uniform Mechanical Code (UMC)* and *Uniform Mechanical Code Standards* published by the International Conference of Building Officials.

### NATIONAL ELECTRIC CODE

The latest edition of the *National Electric Code (NEC)* published by the National Fire Protection Association (NFPA). Note that every six months amendments to the NEC are published. Revised codes are available every three years. All electrical components must be tested and labeled.

### UNIFORM FIRE CODE

The latest edition of the *Uniform Fire Code (UFC)* and *Uniform Fire Code Standards* published by the “International Conference of Building Officials and Western Fire Chiefs Association” and as amended by the State Supplement.

#### 2. Codes Adopted by the Department of Labor

### NATIONAL ELECTRIC CODE

(See NEC above)

### NATIONAL ELECTRICAL SAFETY CODE

*The National Electrical Safety Code, ANSI C-2-1987*

This Code covers overhead and buried electrical and communications services both for building services and for transmission facilities.

### UNIFORM PLUMBING CODE

The latest edition of the *Uniform Plumbing Code* published by the International Association of Plumbing and Mechanical Officials.

#### 3. Codes adopted by Department of Environmental Conservation

18 AAC 72 and 18 AAC 80 for waste water and sewer under authority of AS 46.03.720.

### B. OTHER REQUIREMENTS

1. In addition to those Chapters of the IBC and revisions to the IBC adopted by the State Fire Marshal, the City and Borough of Juneau adopts by policy portions which have been deleted by the Alaska State Fire Marshal. Application of local codes shall not dilute the requirements of the codes required in this Section. The CONTRACTOR must determine additional requirements applying to the Project by local jurisdictions.

**Section 01060 - REGULATORY REQUIREMENTS**

2. The City and Borough of Juneau requires that all City-owned buildings comply with the provisions outlined in the Americans with Disabilities Act (ADA), 1991 Federal Register of the U.S. Department of Justice.

**PART 2 PRODUCTS**

NOT USED

**PART 3 EXECUTION**

NOT USED

**END OF SECTION**

## Section 01073 - EXPLANATIONS: DRAWINGS AND SPECIFICATIONS

### PART 1 - GENERAL

#### 1.1 REQUIREMENTS INCLUDED

- A. Explanation of terminology used within the Drawings and Specifications.

#### 1.2 RELATED REQUIREMENTS

- A. Section 00700 - General Conditions

#### 1.3 SPECIFICATION FORMAT AND COMPOSITION

- A. Specifications are divided into Divisions and Sections for the convenience of writing and using. Titles are not intended to imply a particular meaning or to fully describe the Work of each Division or Section, and are not an integral part of the text that specifies the requirements. The OWNER is not bound to define the limits of any subcontract, and will not enter into disputes between the CONTRACTOR and his employees, including subcontractors. The OWNER has no obligation to define the Divisions and Sections for the convenience of subcontractor bidding or separation of labor agreements.
- B. Pages are numbered independently for each Section, and recorded in the Table of Contents. Section number is shown with the page number at the bottom of each page. It is CONTRACTOR's responsibility to verify that Contract Documents received for bidding and/or construction are complete in accordance with Table of Contents.
- C. These Specifications are of the abbreviated or "streamlined" type, and may include incomplete sentences.
- D. Omissions of the words or phrases such as "the CONTRACTOR shall," "in conformity therewith," "shall be," "as noted on the Drawings," "according to the Drawings," "a," "an," "the" and "all" are intentional.
- E. Omitted words or phrases shall be supplied by inference in the same manner as they are when a "note" occurs on the Drawings.

#### 1.4 DRAWINGS: CONTENT EXPLANATION

- A. Drawings, Dimensions and Measurements.
  - 1. Where on any of the Drawings a portion of the work is drawn out and the remainder is indicated in outline, the parts drawn out shall apply also to all other portions of the Work.
  - 2. Wherever a detail is referenced and developed for a specific condition, same or similar detail shall apply to identical or similar conditions elsewhere on Project even though not specifically referenced.

## **Section 01073 - EXPLANATIONS: DRAWINGS AND SPECIFICATIONS**

3. Where the word “similar” occurs on the Drawings, it shall be interpreted in its general sense and not as meaning identical, all details shall be worked out in relation to their locations and their connections with other parts of the work.
4. The figured dimensions on the Drawings or notes indicating dimensions shall be used instead of measurements of the Drawings by scale.
5. No scale measurements shall be used as a dimension to work with except on “full size” Drawings not dimensioned.

### **1.5 COMMON TERMINOLOGY**

- A. Certain items used generally throughout the Specifications (and Drawings) are used as follows:
1. **Indicated:** The term “indicated” is a cross reference to details, notes or schedules on the Drawings, other paragraphs or schedules in the Specifications, and similar means of recording requirements in the Contract Documents. Where terms such as “shown,” “noted”, “scheduled”, and “specified” are used in lieu of “indicate”, it is for the purpose of helping the reader accomplish the cross reference, and no limitation of location is intended except as specifically noted.
  2. **Installer:** The person or entity engaged by CONTRACTOR, his Subcontractor or sub-subcontractor for the performance of a particular unit of Work at the Project site, including installation, erection, application and similar required operations. It is a general requirement that installers be recognized experts in the work they are engaged to perform.
  3. **Furnish:** Except as otherwise defined in greater detail, the term “furnish” is used to mean “. . . supply and deliver to the Project site, ready for unpacking, assembly and installation . . .”.
  4. **Provide:** Except to the extent further defined, the term “provide” means to furnish and install, complete and ready for the intended use.
  5. **Guarantee and Warranty:** “Warranty” is generally used in conjunction with products manufactured or fabricated away from the Project site, and “guarantee” is generally used in conjunction with units of work which require both products and substantial amounts of labor at the Project site. The resulting difference is that warranties are frequently issued by manufacturers, and guarantees are generally issued by CONTRACTOR and frequently supported (partially) by product warranties from manufacturers.

### **1.6 CONFLICTS**

- A. Report any conflicts to CBJ Project Manager for clarification.

**Section 01073 - EXPLANATIONS: DRAWINGS AND SPECIFICATIONS**

**PART 2 - PRODUCTS**

NOT USED

**PART 3 - EXECUTION**

NOT USED

**END OF SECTION**

## Section 01200 - PROJECT MEETINGS

### PART 1 - GENERAL

#### 1.1 REQUIREMENTS INCLUDED

- A. CONTRACTOR participation in preconstruction conferences.
- B. CONTRACTOR administration of progress meetings and pre-installation conferences.

#### 1.2 RELATED REQUIREMENTS

- A. Section 00100 - Instructions to Bidders
- B. Section 01005 - Administrative Provisions
- C. Section 01300 - Submittals: Progress Schedules
- D. Section 01400 - Quality Control
- E. Section 01770 - Contract Closeout

#### 1.3 PRECONSTRUCTION CONFERENCES

- A. The CBJ Project Manager will administer one preconstruction & site mobilization conference which will be held at Gastineau Elementary. Reference Section 01001 – Summary, for school address and CBJ Project Manager contact information. Conference will be held for clarification of CONTRACTOR responsibilities in use of site, confirming extent of use of site, and for review of administrative procedures.

#### 1.4 PROGRESS MEETINGS

- A. Schedule and administer Project meetings throughout progress of Work at intervals as directed by the CBJ Project Manager, and called meetings, and as follows:
  - 1. Schedule weekly on-site progress meetings on a consistent day with the CBJ Project Manager.
  - 2. CONTRACTOR to provide updated construction schedule at weekly progress meetings.
- B. Attendance: Job superintendent, major Subcontractors and Suppliers; OWNER and Consultants as appropriate to agenda topics for each meeting.
- C. CBJ Project Manager will prepare agenda with copies for participants, preside at meetings, and distribute copies of meeting minutes to meeting participants.

**Section 01200 - PROJECT MEETINGS**

**1.5 PREINSTALLATION CONFERENCES**

- A. When required in individual Specification section, or directed by the CBJ Project Manager, convene a pre-installation conference prior to commencing Work of the section.
- B. Require attendance of entities directly affecting, or affected by, Work of the section.
- C. Review conditions of installation, preparation and installation procedures, and coordination with related Work.

**PART 2 - PRODUCTS**

NOT USED

**PART 3 - EXECUTION**

NOT USED

**END OF SECTION**

## SECTION 01230 - ALTERNATES

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for alternates.

#### 1.3 DEFINITIONS

- A. Additive Alternate: An amount proposed by bidders and stated on the Bid Form for certain work defined in the Bidding Requirements that may be added to the Base Bid amount if Owner decides to accept a corresponding change either in the amount of construction to be completed or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.
  - 1. The cost for each Additive Alternate is the net change from the Contract Sum for all labor, materials, equipment, and associated overhead costs to add the Additive Alternate to the Work. No other adjustments are made to the Contract Sum.

#### 1.4 DOCUMENTS

- A. The drawings and specifications illustrate all Work required for the Base Bid contract and all alternates. The Schedule of Additive Alternates included with this section defines the general work requirements for each Additive Alternate. It shall be the Contractor's responsibility to identify relevant specification and drawing materials for those Additive Alternates which are added to the Base Bid.

#### 1.5 PROCEDURES

- A. Coordination: Modify or adjust affected adjacent work as necessary to complete finishes and systems consistent with the remaining Work. Include the cost of such coordination in the proposed Additive Alternate amount stated on the Bid Form.
  - 1. Include as part of each Additive Alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation of the remaining Work, whether or not indicated as part of the Additive Alternate.
- B. Notification: Immediately following award of the Base Bid with Additive Alternates, notify each party involved, in writing, of the status of each Additive Alternate. Indicate if Additive Alternates have been accepted, rejected, or deferred for later consideration. Include a complete description of negotiated modifications to Additive Alternates.
- C. Review Meeting: After award of Base Bid with Additive Alternates, schedule a meeting with the Owner's Representative and major Subcontractors to review the scope of the Base Bid



## SECTION 01230 - ALTERNATES

with consideration of the WORK to be modified by the Additive Alternates, document requirements, and special coordination issues raised.

- D. Execute additional WORK associated with the Additive Alternates under the same conditions as other WORK of the Contract.
- E. Schedule: A Schedule of Additive Alternates is included at the end of this Section.

### PART 2 - PRODUCTS (Not Used)

### PART 3 - EXECUTION

#### 3.1 BASE BID

- A. The project Additive Alternates scheduled below affect the Base Bid in that WORK added to the overall scope may or may not result in minor additional WORK items associated with coordination and completion the Base Bid scope of WORK. Only the items listed are affected. Other portions of the project are not affected.

#### 3.2 SCHEDULE OF ADDITIVE ALTERNATES

- A. The following schedule is generalized. The Contractor will provide all miscellaneous items necessary to accomplish the described intent, whether identified specifically or not. WORK items will include aspects related to many portions of the Contract Documents. It will be the Contractor's responsibility to identify related design requirements for the goals described.

ADDITIVE ALTERNATE NO. 1 – UPPER STAFF PARKING AREA. The intent of this Additive Alternate is to construct six additional parking spaces of the upper staff parking area. The scope of work of this alternate includes but is not limited to earthwork, drainage, concrete retaining walls & curbs, asphalt paving & striping, and related grading and re-vegetation of disturbed soils to integrate the new parking spaces into the existing lot as shown on the construction drawings.

ADDITIVE ALTERNATE NO. 2 – ASPHALT AND DRAINAGE EAST OF CLIMBING WALL. The intent of this Additive Alternate is to improve asphalt surface and canopy drainage along the aluminum canopy and at the asphalt pavement area east of the climbing wall. The scope of work of this alternate includes but is not limited to asphalt demolition, underground storm drain piping between eight (8) canopy downspouts and underground storm drain system, new base course and asphalt paving in the area east of the climbing wall, and adjustments to rim elevations at existing catch basins as shown on the construction drawings.

ADDITIVE ALTERNATE NO. 3 – PICNIC TABLES. The intent of this Additive Alternate is to install four (4) picnic tables beside planter as shown on drawings. The scope of work of this alternate includes but is not limited to excavation, concrete foundations, and installation of four (4) Owner furnished picnic tables as shown on the construction drawings.

**END OF SECTION**

## Section 01300 – SUBMITTALS

### PART 1 - GENERAL

#### 1.1 REQUIREMENTS INCLUDED

- A. Procedures
- B. Construction Progress Schedules
- C. Shop Drawings
- D. Product Data
- E. Manufacturer's Instructions
- F. Samples
- G. Manufacturer's Certificates & Warranties
- H. Permits and Licenses

#### 1.2 RELATED REQUIREMENTS

- A. Section 01005 - Administrative Provisions
- C. Section 01400 - Quality Control
- D. Section 01600 - Materials and Equipment
- E. Section 01770 - Contract Closeout

#### 1.3 PROCEDURES

- A. Submittal Format: To the fullest extent practicable, all data shall be submitted at one time in neatly bound loose leaf three-ring binders. Binders to be tabulated in order of Construction Specifications with staggered tabs separating each section.
  - 1. The cover of each binder shall provide the project name, CBJ project number, and name and contact information of all contractors working on the project.
  - 2. The first section of each binder shall contain a complete copy of the CBJ Submittal Log that identifies the information provided for each specification section. If tabs between specification sections do not bear specification section number, then an index correlating the divider tabs with the specification sections shall be provided.
  - 3. Product data to be utilized shall be flagged and noted. All other data not relevant to the project shall be crossed out or otherwise flagged that it is not in the project.
  - 4. Electronic submittals for initial review are acceptable and preferable. CONTRACTOR still required to provide final printed copies of approved submittals.

## Section 01300 – SUBMITTALS

- B. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
1. No extension of the Contract Time will be authorized because of failure to transmit submittals sufficiently in advance of the Work to permit processing, including resubmittals.
  2. ARCHITECT will return submittals, without review, received from sources other than CONTRACTOR.
  3. ARCHITECT will return incomplete submittals without review.
  4. Identify deviations from the Contract Documents on Submittals.
  5. Unless otherwise noted, submit minimum of three copies of each submittal, plus additional copies required by the CONTRACTOR for its use. Unless otherwise noted, ARCHITECT shall retain three copies for its use.
- C. Place permanent label or title block on each submittal for identification Provide a 6-inch by 8-inch space on the label or beside the title block to record review and approval markings and action taken. Include the following information on the label:
1. Project Name
  2. Date.
  3. Name and address of CONTRACTOR.
  4. Name and address of subcontractor or supplier.
  5. Number and title of appropriate Specification Section.
- D. Submit initial progress schedules in duplicate in accordance with Section 00700 - General Conditions. After review by the CBJ Project Manager, revise and resubmit as required. Submit revised schedules with each Application for Payment, reflecting changes since previous submittal.
- D. Comply with progress schedule for submittals related to Work progress. Coordinate submittal of related items.
- E. After OWNER review of submittal, revise and resubmit as required, identifying changes made since previous submittal.
- F. It is considered reasonable that the CONTRACTOR shall make a complete and acceptable submittal to the ARCHITECT by the second submission of a submittal item. The OWNER reserves the right to withhold monies due the CONTRACTOR to cover additional costs of the ARCHITECT to review beyond the second submittal.
- G. Distribute copies of reviewed submittals to concerned persons. Instruct recipients to promptly report any inability to comply with provisions.

### 1.4 CONSTRUCTION PROGRESS SCHEDULES

- A. Submit a comprehensive, fully developed, horizontal Gant-chart-type schedule that identifies the first workday of each week within 15 days of Notice to Proceed. Include separate bar for each trade and major task with a minimum as defined by Schedule of Values, identifying first work day of each week.

## Section 01300 – SUBMITTALS

1. Show submittal dates required for Shop Drawings, inspections, and product purchase and delivery dates.
  2. Show Critical Path on the project schedule.
  3. No task on schedule can exceed 10 work days.
- B. Time Frame: Extend schedule from date of receipt of Notice to Proceed to date of Final Completion. Contract completion date shall not be changed by submission of a schedule that shows an early completion date, unless specifically authorized by Change Order.
- C. Distribute approved copies of schedule to OWNER, ARCHITECT, Subcontractors, testing and inspection agencies, and parties identified by CONTRACTOR with a need-to-know schedule responsibility.
- D. Updating: At weekly intervals, update schedule to reflect actual construction progress and activities. Issue schedule two days before each regularly scheduled progress meeting.
1. As work progresses, indicate actual completion percentage for each activity. If actual completion is slower than original schedule, identify specific ways to maintain project on schedule at no additional cost to OWNER.

### 1.5 SHOP DRAWINGS

- A. Submit the number of opaque reproductions which CONTRACTOR requires, plus three copies which will be retained by the CBJ Project Manager, unless a greater number is indicated in individual Specification Sections.

### 1.6 PRODUCT DATA

- A. Mark each copy to identify applicable products, models, options, and other data; supplement manufacturers' standard data to provide information unique to the Work.
- B. Submit the number of copies that CONTRACTOR requires, plus three copies that will be retained by the CBJ Project Manager, unless a greater number is indicated in individual Specification Sections.
- C. Where products are specified in metric units, product submittals shall be made in metric units, metric specified products submitted in English units shall be considered a substitution and shall be submitted in accordance with Section 01600, paragraph 1.08.

### 1.7 MANUFACTURER'S INSTRUCTIONS

- A. When required in individual Specification Section, submit manufacturer's printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing, in quantities specified for product data.

### 1.8 SAMPLES

- A. Submit full range of manufacturer's standard colors, textures, and patterns for OWNER selection.

**Section 01300 – SUBMITTALS**

- B. Submit samples to illustrate functional characteristics of the product, with integral parts and attachment devices. Coordinate submittal of different categories for interfacing Work.
- C. Include identification on each sample, giving full information.
- D. Submit two sets of samples unless otherwise noted.

**1.9 MANUFACTURER’S CERTIFICATES & WARRANTIES**

- A. When required in individual Specification Section, submit manufacturer’s printed Certificates and Warranties for the specified items and products.

**1.10 PERMITS & LICENSES**

- A. Submit all CONTRACTOR provided permits and licenses. Submit supporting documentation demonstrating CONTRACTOR and applicable Subcontractors are licensed and authorized to install the Work.

**PART 2 - PRODUCTS**

NOT USED

**PART 3 - EXECUTION**

NOT USED

**END OF SECTION**

## Section 01370 - SCHEDULE OF VALUES

### PART 1 - GENERAL

#### 1.1 REQUIREMENTS INCLUDED

- A. Procedures for preparation and submittal of Schedule of Values.

#### 1.2 RELATED REQUIREMENTS

- A. Section 00700 - General Conditions
- B. Section 01027 - Application for Payment

#### 1.3 FORMAT

- A. On form provided or approved by the CBJ Project Manager.
- B. CONTRACTOR's standard form or media-driven printout will be considered upon request.
- C. Follow Table of Contents of Project Manual for listing component parts. Identify each line item by number and title of major Specification section.

#### 1.4 CONTENT

- A. List installed value of each major item of work and each subcontracted item or work as a separate line item to serve as a basis for computing values for Progress Payments. Round off values to nearest dollar. A minimum of one separate line item will be provided for each specification section from Division 2 or higher.
- B. For each major subcontract, list products and operations of that subcontract as separate line items.
- C. Coordinate listings with Progress Schedule.
- D. Component listings shall each include a directly proportional amount of CONTRACTOR's overhead and profit.
- E. For items on which payment will be requested for stored products, list sub-values for cost of stored products.
  - 1. Provide receipts, invoices, and lien release showing proof of payment.
- F. Specific line item values as indicated below shall be minimum acceptable amount and must be included on all approved Schedules of Values and Application for Payment.
  - 1. Section 01770 - Contract Closeout. Value of all required Substantial Completion Submittals and Closeout Submittals shall be not less than one half of one percent of the total Contract Price.

**Section 01370 - SCHEDULE OF VALUES**

G. The sum of values listed shall equal total Contract Price.

1.5 SUBMITTAL

- A. Submit one (1) copy of Schedule of Values fifteen (15) days after Notice to Proceed. Form and content shall be reviewed and approved by the CBJ Project Manager. Subsequent updated Schedule of Values shall be presented for review ten (10) days prior to each Application for Payment.
- B. Transmit under CBJ Project Manager accepted form transmittal letter. Identify Project by Title and State project number.

1.6 SUBSTANTIATING DATA

- A. When CBJ Project Manager requires substantiating information, submit data justifying line item amounts in question.
- B. Provide one copy of data with cover letter for each copy of Application. Show Application number and date, and line item by number and description.

**PART 2 - PRODUCTS**

NOT USED

**PART 3 - EXECUTION**

NOT USED

**END OF SECTION**

## Section 01400 - QUALITY CONTROL

### PART 1 - GENERAL

#### 1.1 REQUIREMENTS INCLUDED

- A. General Quality Control
- B. Workmanship
- C. Manufacturer's Instructions
- D. Testing Laboratory Services
- E. OWNER Inspection Services

#### 1.2 RELATED REQUIREMENTS

- A. Section 00700 - General Conditions
- B. Section 01005 - Administrative Provisions
- C. Section 01300 - Submittals

#### 1.3 GENERAL QUALITY CONTROL

- A. Maintain quality control over Suppliers, manufacturers, products, services, site conditions, and workmanship, to produce Work of specified quality.

#### 1.4 WORKMANSHIP

- A. Comply with industry standards except when more restrictive tolerances or specified requirements indicate more rigid standards or more precise workmanship.
- B. Perform Work by persons qualified to produce workmanship of specified quality.
- C. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, and racking.

#### 1.5 MANUFACTURER'S INSTRUCTIONS

- A. Comply with instructions in full detail, including each step in sequence. Should instructions conflict with Contract Documents, request clarification from the CBJ Project Manager before proceeding.

#### 1.6 TESTING LABORATORY SERVICES

- A. CONTRACTOR shall employ and pay for services of an independent testing laboratory to perform inspections, tests, and other services required by individual Specification sections.



**Section 01400 - QUALITY CONTROL**

- B. Services will be performed in accordance with requirements of governing authorities and with specified standards.
- C. Reports will be submitted to the CBJ Project Manager in duplicate giving observations and results of tests, indicating compliance or non-compliance with specified standards and with Contract Documents.
- D. CONTRACTOR shall cooperate with testing laboratory personnel; furnish tools, samples of materials, design mix, equipment, storage and assistance as requested.
  - 1. Notify the CBJ Project Manager and testing laboratory 24 hours prior to expected time for operations requiring testing services.
  - 2. Make arrangements with testing laboratory and pay for additional samples and tests for CONTRACTOR's convenience.

**1.7 OWNER INSPECTION SERVICES**

- A. When required within the Contract Documents, the CONTRACTOR shall submit a written request for inspection services to be performed by the OWNER.
- B. Said request shall be received by the CBJ Project Manager a minimum of four (4) working days prior to the requested time of inspection.
- C. Request shall identify the Project, its location, the CONTRACTOR and a contact person, and describe the nature of the desired inspection.
- D. If request is for a re-inspection of previous Work, include OWNER's prior report, listing deficiencies, and remedies provided since prior inspection. CONTRACTOR is responsible for all re-inspection costs.

**1.8 PERMIT INSPECTIONS**

- A. CONTRACTOR is responsible for scheduling all required City and Borough of Juneau building permit inspections of the Work.
- B. CONTRACTOR to notify CBJ Project Manager a minimum of four (4) working days prior to the requested time of inspection.
- C. CONTRACTOR to provide inspection documentation to CBJ Project Manager.
- D. CONTRACTOR shall be responsible for obtaining Certificate of Occupancy at the end of construction.

**PART 2 – PRODUCTS** NOT USED

**PART 3 – EXECUTION** NOT USED

**END OF SECTION**

## Section 01500 - CONSTRUCTION FACILITIES / TEMPORARY CONTROLS

### PART 1 - GENERAL

#### 1.1 REQUIREMENTS INCLUDED

- A. Electricity, Lighting.
- B. Heat, Ventilation.
- C. Telephone Service.
- D. Water.
- E. Sanitary Facilities.
- F. Barriers.
- G. Protections of Installed Work and Existing Surfaces.
- H. Security.
- I. Cleaning During Construction.
- J. Removal.

#### 1.2 RELATED REQUIREMENTS

- A. Section 01005 - Administrative Provisions
- B. Section 01770 - Contract Closeout

#### 1.3 ELECTRICITY, LIGHTING

- A. Provide tie-in to existing facility power as required for construction operations, extended to work areas to allow service and lighting by means of appropriately sized power cords.
- B. Provide lighting as required for construction operations. Use of OWNER power allowed.

#### 1.4 HEAT, VENTILATION

- A. CONTRACTOR responsible for providing temporary heat as required to execute the WORK.

#### 1.5 TELEPHONE SERVICE

- A. CONTRACTOR to provide phone service on site. Cell phone service is acceptable.

**Section 01500 - CONSTRUCTION FACILITIES / TEMPORARY CONTROLS**

1.6 WATER

- A. CONTRACTOR use of existing facility water service as required for construction operations is permitted. Existing facility water is available to CONTRACTOR at exterior wall hydrants.
- B. CONTRACTOR is responsible for repairing any damage to OWNER's water systems and equipment that the CONTRACTOR's use or activities may incur.

1.7 SANITARY FACILITIES

- A. For the duration of the project, provide and maintain required facilities and enclosures. Use of the OWNER's toilet facilities is not permitted.

1.8 BARRIERS

- A. Provide temporary fencing as required to maintain security of stored materials and CONTRACTOR's equipment.
- B. Provide temporary fencing as required to separate public and work areas of the site, and to protect existing facilities and adjacent properties from damage from construction operations.

1.9 PROTECTION OF INSTALLED WORK AND EXISTING SURFACES

- A. Provide temporary protection as required for installed products. Control traffic in immediate area to minimize damage. Protect new and existing surfaces from damage and contamination.

1.10 SECURITY

- A. CONTRACTOR responsible for protection of work area from unauthorized entry, vandalism, and theft.

1.11 CLEANING DURING CONSTRUCTION

- A. Control accumulation of waste materials and rubbish; periodically dispose of off-site. Burning of debris not permitted.

1.12 REMOVAL

- A. Remove temporary materials, equipment, services, and construction prior to Substantial Completion inspection.
- B. Upon removal, clean and repair damage caused by installation or use of temporary facilities.

**PART 2 – PRODUCTS** NOT USED

**PART 3 – EXECUTION** NOT USED

**END OF SECTION**

## Section 01600 - MATERIALS AND EQUIPMENT

### PART 1 - GENERAL

#### 1.1 REQUIREMENTS INCLUDED

- A. Products.
- B. Transportation and Handling.
- C. Storage and Protection.
- D. Product Options.
- E. Products List.
- F. Substitutions.
- G. Systems Demonstration.

#### 1.2 RELATED REQUIREMENTS

- A. Section 01005 - Administrative Provisions.
- B. Section 01400 - Quality Control.
- C. Section 01770 - Contract Closeout.

#### 1.3 PRODUCTS

- A. Products include material, equipment, and systems.
- B. Comply with Specifications and referenced standards as minimum requirements.
- C. Components required to be supplied in quantity within a Specification section shall be the same, and shall be interchangeable.

#### 1.4 TRANSPORTATION AND HANDLING

- A. Transport products by methods to avoid product damage; deliver in undamaged condition in manufacturer's unopened containers or packaging, dry.
- B. Provide equipment and personnel to handle products by methods to prevent soiling or damage.
- C. Promptly inspect shipments to ensure that products comply with requirements, quantities are correct, and products are undamaged.

## Section 01600 - MATERIALS AND EQUIPMENT

### 1.5 STORAGE AND PROTECTION

- A. Store products in accordance with manufacturer's instructions, with seals and labels intact and legible. Store sensitive products in weather-tight enclosures; maintain within temperature and humidity gauges required by manufacturer's instructions.
- B. For exterior storage of fabricated products, place on sloped supports above ground. Cover products subject to deterioration with impervious sheet covering; provide ventilation to avoid condensation.
- C. Store loose granular materials on solid surfaces in a well-drained area; prevent mixing with foreign matter.
- D. Arrange storage to provide access for inspection. Periodically inspect to assure products undamaged, and are maintained under required conditions.

### 1.6 PRODUCT OPTIONS

- A. Products Specified by Reference Standards or by Description Only: Use any product meeting those standards.
- B. Products Specified by Naming One or More Manufacturers: Submit a request for substitution for any manufacturer not specifically named.
- C. Products Specified by Naming One or More Manufacturer's followed by the term "No Substitutions": Use only specified manufacturers, no substitutions allowed.

### 1.7 PRODUCTS LIST

- A. Within 15 days after date established in Notice to Proceed, submit complete list of major products proposed for use, with name of manufacturer, trade name, and model number of each product.

### 1.8 SUBSTITUTIONS

- A. Only within 21 days after date established in Notice to Proceed will the OWNER consider requests from CONTRACTOR for substitutions. Subsequently, substitutions will be considered only when a product becomes unavailable due to no fault of CONTRACTOR, or if the substitution is advantageous to the OWNER.
- B. Document each request with complete data substantiating compliance of proposed substitution with Contract Documents. Submit each request on a form furnished by OWNER.
- C. Request constitutes a representation that CONTRACTOR:
  - 1. Has investigated proposed product and determined that it meets or exceeds, in all respects, specified product.
  - 2. Will provide the same warranty for substitution as for specified product.

**Section 01600 - MATERIALS AND EQUIPMENT**

- 3. Will coordinate installation and make other changes which may be required for Work to be complete in all respects.
- 4. Waives claims for additional costs which may subsequently become apparent.
  
- D. Substitutions will not be considered when they are indicated or implied on Shop Drawings or product data submittals without separate written request, or when acceptance will require substantial revision of Contract Documents.
- E. The OWNER will determine acceptability of proposed substitution, and will notify CONTRACTOR of acceptance or rejection in writing within a reasonable time.
- F. Only one request for substitution will be considered for each product. When substitution is not accepted, provide specified product.

**1.9 SYSTEMS DEMONSTRATION**

- A. Prior to final inspection, demonstrate operation of each system to OWNER's personnel.
- B. Instruct OWNER's personnel in operation, adjustment, and maintenance of equipment and systems, using the operation and maintenance data as the basis of instruction.

**PART 2 - PRODUCTS**

NOT USED

**PART 3 - EXECUTION**

NOT USED

**END OF SECTION**

## Section 01732 - SELECTIVE DEMOLITION

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including Section 00700 – General Conditions and Section 00800 Supplementary General Conditions and other Division 1 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. This Section includes the following:
  - 1. Demolition and removal of selected portions of building or structure.
  - 2. Demolition and removal of selected site elements.
  - 3. Salvage of existing items to be reused or recycled.
  - 4. Patching.
- B. Related Sections include the following:
  - 1. Section 01001 - Summary
  - 2. Section 01500 - Construction Facilities/Temporary Controls

#### 1.3 DEFINITIONS

- A. Remove: Detach items from existing construction and legally dispose of them off-site, unless indicated to be removed and salvaged or removed and reinstalled.
- B. Remove and Salvage: Detach items from existing construction and deliver them to OWNER ready for reuse.
- C. Reinstall: Prepare Remove and Salvage items for reuse, and reinstall them where indicated.
- D. Existing to Remain: Existing items of construction that are not to be removed and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.

#### 1.4 QUALITY ASSURANCE

- A. Demolition Qualifications: An experienced firm that has specialized in demolition work similar in material and extent to that indicated for this Project.
- B. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.

## **Section 01732 - SELECTIVE DEMOLITION**

### **1.5 PROJECT CONDITIONS**

- A. Conduct selective demolition so OWNER's operations will not be disrupted or materials damaged.
- B. Conditions existing at time of inspection for bidding purpose will be maintained by OWNER as far as practical.
- C. Notify CBJ Project Manager of discrepancies between existing conditions and Drawings before proceeding with selective demolition.
- D. Hazardous Materials: Hazardous materials are not known to be present in construction to be selectively demolished.
  - 1. If materials suspected of containing hazardous materials are encountered, do not disturb; immediately notify the OWNER.
- E. Storage or sale of removed items or materials on-site is not permitted. Salvaged items identified for reinstallation may be stored on the site until which time they are reinstalled. Locations to be coordinated with the OWNER.
- F. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.

## **PART 2 - PRODUCTS**

(Not Used)

## **PART 3 - EXECUTION**

### **3.1 EXAMINATION**

- A. Verify that affected utilities have been disconnected and capped.
- B. Review existing conditions and correlate with requirements indicated to determine extent of selective demolition required. Record existing conditions by use of preconstruction photographs.
- C. Inventory and record the condition of items to be removed and reinstalled and items to be removed and salvaged.
- D. When unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate and measure the nature and extent of conflict. Promptly submit a written report to CBJ Project Manager.

### **3.2 UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS**

- A. Existing Services/Systems: Maintain services/systems indicated to remain and protect them against damage during selective demolition operations.



## **Section 01732 - SELECTIVE DEMOLITION**

1. Comply with requirements for existing services/systems interruptions specified in Section 01001 - Summary.

### **3.3 PREPARATION**

- A. **Site Access and Temporary Controls:** Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.

### **3.4 SELECTIVE DEMOLITION, GENERAL**

- A. **General:** Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:

1. Proceed with selective demolition systematically, from higher to lower level.
2. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping, to minimize disturbance of adjacent surfaces. Temporarily cover openings to remain.
3. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
4. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain fire watch and portable fire-suppression devices during flame-cutting operations.
5. Remove decayed, vermin-infested, or otherwise dangerous or unsuitable materials and promptly dispose of off-site.
6. Remove structural framing members and lower to ground by method suitable to avoid free fall and to prevent ground impact or dust generation.
7. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
8. Dispose of demolished items and materials promptly.

- B. **Removed and Salvaged Items:**

1. Clean salvaged items.
2. Pack or crate items after cleaning. Identify contents of containers.
3. Store items in a secure area until delivery to OWNER.
4. Transport items to OWNER's storage area off-site, designated by OWNER.
5. Protect items from damage during transport and storage.

- C. **Removed, Salvaged and Reinstalled Items:**

1. Clean and repair items to functional condition adequate for intended reuse. Paint equipment to match new equipment.
2. Pack or crate items after cleaning and repairing. Identify contents of containers.
3. Protect items from damage during transport and storage.

## **Section 01732 - SELECTIVE DEMOLITION**

4. Reinstall items in locations indicated. Comply with installation requirements for new materials and equipment. Provide connections, supports, adjustments, and miscellaneous materials necessary to make item functional for use indicated.

D. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by OWNER, items may be removed to a suitable, protected storage location during selective demolition and cleaned and reinstalled in their original locations after selective demolition operations are complete.

### **3.5 SELECTIVE DEMOLITION PROCEDURES FOR SPECIFIC MATERIALS**

A. Asphalt Concrete Pavement: Saw-cut perimeter of area to be demolished, then break up and remove.

### **3.6 DISPOSAL OF DEMOLISHED MATERIALS**

A. General: Except for items or materials indicated to be recycled, reused, salvaged, reinstalled, or otherwise indicated to remain OWNER's property, remove demolished materials from Project site and legally dispose of them in an EPA-approved landfill, or as approved by the CBJ Project Manager.

1. Do not allow demolished materials to accumulate on-site.
2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.

B. Burning: Do not burn demolished materials.

C. Disposal: Transport demolished materials off OWNER's property and legally dispose of them.

### **3.7 CLEANING**

A. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

### **3.8 PATCHING**

A. Where items are removed and not replaced with new items or construction, patch all unused penetrations and surface marks with materials to match surrounding. Patching to preserve integrity of wall, floor ceiling and roofing assemblies as applicable.

**END OF SECTION**

## Section 01770 - CONTRACT CLOSEOUT

### PART 1 - GENERAL

#### 1.1 REQUIREMENTS INCLUDED

- A. Closeout Timetable
- B. Substantial Completion
- C. Inspection Procedures
- D. Final Acceptance
- E. Closeout Procedures
- F. Final Cleaning.
- G. Operation and Maintenance Data.
- H. Warranties and Bonds.
- I. Spare Parts and Maintenance Materials.
- J. Final Payment

#### 1.2 RELATED REQUIREMENTS.

- A. Section 00700 - General Conditions
- B. Section 00800 – Supplementary General Conditions
- C. Section 01005 - Administrative Provisions
- D. Section 01500 - Construction Facilities/ Temporary Controls

#### 1.3 CLOSEOUT TIMETABLE

- A. The CONTRACTOR shall establish dates for equipment testing, acceptance periods, and on-site instructional periods (as required under the contract). Such dates shall be established not less than one week prior to beginning any of the foregoing items, to allow the OWNER, the OWNER, and their authorized representatives sufficient time to schedule attendance at such activities.

#### 1.4 SUBSTANTIAL COMPLETION

- A. Before requesting inspection for certification of Substantial Completion, complete the following:
  - 1. In the Application for Payment that coincides with the date Substantial Completion is claimed, show 100 percent completion for the portion of the WORK claimed substantially complete.
  - 2. Submit specific warranties, workmanship bonds, maintenance agreements, final certifications and similar documents.
  - 3. Submit maintenance manuals, damage or settlement survey, property survey, and similar record information.
  - 4. Complete start-up testing of systems, and instruction of CBJ Maintenance personnel. Remove temporary facilities from the site, along with construction tools, mock-ups, and similar elements.
  - 5. Complete final clean-up. Touch-up and repair and restore marred exposed finishes.
  - 6. Submit a list of known incomplete work items.

## Section 01770 - CONTRACT CLOSEOUT

### 1.5 INSPECTION PROCEDURES

- A. Upon receipt of a request for inspection for Substantial Completion, the OWNER will proceed and advise the CONTRACTOR of unfilled requirements. The OWNER will prepare the Certificate of Substantial Completion following inspection, or advise the CONTRACTOR of construction that must be completed or corrected before the certificate will be issued.
- B. The OWNER will reinspect the WORK upon receipt of notice by the CONTRACTOR that the WORK has been completed, except items whose completion has been delayed because of circumstances acceptable to the OWNER. If reinspection is requested and the CONTRACTOR has not completed all punch list items, the cost of that inspection will be paid by the CONTRACTOR. Upon completion of reinspection, the OWNER will prepare a certificate of final acceptance, or advise the CONTRACTOR of WORK that is incomplete or of obligations that have not been fulfilled but are required for final acceptance. If necessary, reinspection will be repeated.
- C. The OWNER will repeat inspection when requested and assured by the CONTRACTOR that the WORK has been substantially completed.
- D. Results of the completed inspection will form the basis of requirements for final acceptance.

### 1.6 FINAL ACCEPTANCE

- A. Before requesting inspection for certification of final acceptance and final payment, complete and submit the following:
  - 1. Submit final payment request.
  - 2. Submit a final Change Order request.
  - 3. Submit a copy of the final inspection list stating that each item has been completed or otherwise resolved for acceptance.
  - 4. Submit final meter readings for utilities, a record of stored fuel, and similar data as of Substantial Completion where required.
  - 5. Submit consent of surety to final payment.
  - 6. Submit evidence of continuing insurance coverage complying with insurance requirements.
  - 7. Written guarantees, where required.
  - 8. Maintenance stock items; spare parts; special tools, where required.
  - 9. Certificates of inspection and acceptance by local governing agencies having jurisdiction.
  - 10. Releases from all parties who are entitled to claims against the subject Project, property, or improvement pursuant to the provisions of law.
  - 11. Completed Certificate of Compliance and Release for the CONTRACTOR involved in the WORK included as part of this section, form attached with this section.
  - 12. Before final payment can be made, the CONTRACTOR shall supply a copy of the "Notice of Completion of Public Works" form approved by Wage and Hour Administration of the Labor Standards and Safety Division of the Alaska Department of Labor and Workforce Development.
  - 13. Alaska Department of Labor Employment Security Tax Clearance letter for the Prime CONTRACTOR and all Subcontractors, a copy of which is located at the end of Section 00800 – Supplementary General Conditions.

## Section 01770 - CONTRACT CLOSEOUT

14. Submit Items 11 through 13 to Jennifer Mannix, Contract Administrator, CBJ-Engineering.

### 1.7 CLOSEOUT PROCEDURES

- A. Comply with procedures stated in General Conditions of the Contract for issuance of Certificate of Substantial Completion.
- B. The OWNER will occupy Project for the purpose of conducting business under provisions stated in certificate of Substantial Completion.
- C. When CONTRACTOR considers Work has reached Final Completion, submit written certification that Contract Documents have been reviewed, Work has been inspected, and the Work is complete in accordance with Contract Documents and requesting OWNER inspection. Provide itemized sign-off of all substantial completion punch list work items.
- D. In addition to submittals required by the Contract, provide submittals required by governing authorities, and submit a final statement of accounting giving total adjusted Contract Price, previous payments, and sum remaining due.
- E. If necessary to reflect final adjusted cost of the Work, the OWNER will issue a summary Change Order containing final adjustments to Contract Price not previously made by Change Order.
- F. The final progress payment will include the remaining balance for Schedule of Values, Mobilization and Demobilization. The final payment will be made upon completion of all close-out submittals and the removal of all of the CONTRACTOR's equipment from property.

### 1.8 FINAL CLEANING

- A. Execute prior to substantial completion inspection.
- B. Clean interior and exterior surfaces exposed to view; remove temporary labels, stains and foreign substances. Clean equipment and fixtures to a sanitary condition.
- C. Clean site; sweep paved areas, rake clean other surfaces.

### 1.9 OPERATION AND MAINTENANCE DATA

- A. Provide operations and maintenance data as defined in specification submittal requirements.
- B. Submit two sets prior to final inspection, bound in letter size, 8½" x 11", three-ring side binders with durable plastic covers, and one electronic copy on CD-Rom.
- C. Part 1: Directory listing names, addresses, and telephone numbers of OWNER, and CONTRACTOR.
- D. Part 2: Operation and maintenance instructions, arranged by Specification for each Specification Division, give names, addresses, and telephone numbers of subcontractors and Suppliers. List:

## Section 01770 - CONTRACT CLOSEOUT

1. Appropriate design criteria.
2. List of equipment.
3. Parts list.
4. Operating instructions.
5. Maintenance instructions, equipment.
6. Shop drawings and product data.
7. Warranties.

### 1.10 WARRANTIES AND BONDS

- A. Provide duplicate, notarized copies. Execute CONTRACTOR's submittals and assemble documents executed by Subcontractors and Suppliers. Provide table of contents and assemble in binder with durable plastic cover. Provide one electronic copy on CD-Rom.
- B. Submit material prior to final Application for Payment. For equipment put into use with the OWNER's permission during construction, submit within ten days after first operation. For items of Work delayed materially beyond date of Substantial Completion, provide updated submittal within ten days after acceptance, listing date of acceptance as start of warranty period.

### 1.11 SPARE PARTS AND MAINTENANCE MATERIALS

- A. Provide products, spare parts, and maintenance materials in quantities specified in each Section, in addition to that used for construction of Work. Coordinate delivery of materials with the OWNER. Obtain receipt prior to final payment.

### 1.12 FINAL PAYMENT

- A. Prior to requesting Final Payment, CONTRACTOR is to provide:
  1. Consent of surety to final payment and insurance certificates.
  2. Alaska Department of Labor Employment Security Tax clearance. A sample form is attached to the end of Section 00800 – Supplementary General Conditions.
  3. Signed Alaska Department of Labor Prevailing Wage Notice of Completion of Public Works form.
  4. Final Building Permit Approval.
  5. Signed City and Borough of Juneau Compliance Certificate and Release form.

## PART 2 - PRODUCTS

### 2.1 MATERIALS

- A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

## Section 01770 - CONTRACT CLOSEOUT

### PART 3 - EXECUTION

#### 3.1 FINAL CLEANING

- A. General: Provide final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.
- B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.
  - 1. Complete the following cleaning operations in the area of the WORK before requesting inspection for certification of Substantial Completion for entire Project or for a portion of Project:
    - a. Clean Project site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
    - b. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
    - c. Rake grounds that are neither planted nor paved to a smooth, even-textured surface.
    - d. Remove tools, construction equipment, machinery, and surplus material from Project site.
    - e. Touch up and otherwise repair and restore existing finishes marred by construction activities. Replace finishes and surfaces that cannot be satisfactorily repaired or restored or that already show evidence of repair or restoration.
      - 1. Do not paint over "UL" and similar labels, including mechanical and electrical nameplates.
    - f. Wipe surfaces of mechanical and electrical and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
    - g. Leave Project clean and ready for occupancy.
- C. Comply with safety standards for cleaning. Do not burn waste materials. Do not bury debris or excess materials on Owner's property. Do not discharge volatile, harmful, or dangerous materials into drainage systems. Remove waste materials from Project site and dispose of lawfully.

**Section 01770 - CONTRACT CLOSEOUT**

**COMPLIANCE CERTIFICATE AND RELEASE FORM**

**PROJECT: Gastineau Elementary School Playground Upgrades**  
**CONTRACT NO: E13-214**

The CONTRACTOR must complete and submit this to the Contract Administrator. The CONTRACTOR shall complete this form with respect to the entire contract.

Completed forms must be submitted upon completion of the Project. All requirements and submittals must be met before final payment will be made to the CONTRACTOR.

*I certify that the following and any referenced attachments are true:*

- All WORK has been performed, materials supplied, and requirements met in accordance with the applicable plans, specifications, and Contract Documents.
- All suppliers and Subcontractors have been paid in full with no claims for labor, materials, or other services outstanding. If all Subcontractors and suppliers are not paid in full, please explain on a separate sheet.
- All employees have been paid not less than the current prevailing wage rates set by the State of Alaska (or U.S. Department of Labor, as applicable).
- All equal employment opportunity, certified payroll and other reports have been filed in accordance with the prime contract.
- The Contract Administrator was advised and approved of all Subcontractors before WORK was performed and has approved any substitutions, additions or deletions of Subcontractors.
- All DBE firms listed as a precondition of the prime contract award must have performed a commercially useful function in order for the work to count to a DBE goal. All DBE firms performed the WORK stated and have received at least the amount claimed for credit in the Contract Documents.
- All DBE Subcontractors must attach a signed statement of the payment amount received, the nature of WORK performed, whether any balance is outstanding, and indicate that no rebates are involved.
- If the amount paid is less than the amount originally claimed for DBE credit, the CONTRACTOR has attached approval from the Contract Administrator for underutilization.

I understand it is unlawful to misrepresent information in order to receive a payment which would otherwise be withheld if these conditions were not met. I am an authorized agent of this firm and sign this freely and voluntarily. The foregoing statements are true and apply to the following project contractor.

\_\_\_\_\_ Capacity: CONTRACTOR  
 Firm Name

\_\_\_\_\_  
 Signed Printed Name and Title Date

*Return completed form to: Jennifer Mannix, Engineering Department, City and Borough of Juneau, 155 South Seward Street, Juneau, AK 99801. Call (907) 586-0873 if we can be of further assistance or if you have any questions.*

**END OF SECTION**



**SECTION 02202 – EXCAVATION AND EMBANKMENT**

**PART 1 – GENERAL**

1.1 DESCRIPTION

- A. The WORK under this Section includes providing all labor, materials, tools and equipment necessary for excavation and embankment construction to the lines, grades and cross sections indicated in the Drawings or as directed by the ENGINEER.

**PART 2 – PRODUCTS**

2.1 EXCAVATION

- A. All excavation shall be unclassified excavation, and shall consist of excavation and disposal of all materials, of whatever character, encountered in the WORK.

2.2 EMBANKMENT

- A. Material for embankment construction shall consist of non-frost-susceptible earth, sand, gravel, fractured rock or combination thereof containing no muck, peat, frozen materials, roots, sod or other deleterious materials, and shall be compactable to the density required by the Specifications.

2.3 SELECTED EMBANKMENT

- A. Selected Embankment shall meet all the requirements for Embankment Material, and in addition, shall have a plasticity index not greater than 6 as determined by AASHTO T 90 and shall contain no more than 6% by weight of material passing the 200 mesh sieve. The percentage of material passing the 200 mesh sieve shall be determined using only the material which passes a 3 inch sieve.

2.4 SUBBASE, GRADING A

- A. Subbase, Grading A shall conform to the following gradation:

<b>SIEVE DESIGNATION</b>	<b>PERCENT PASSING BY WEIGHT</b>
4-Inch	100
2-Inch	85 - 100
No. 4	30-70
No. 200*	6 Max.

*\*Gradation shall be determined on that portion passing the 3-inch screen*

- B. The amount of No. 200 material shall have no more than 3% by weight less than the 0.02 mm size.

## SECTION 02202 – EXCAVATION AND EMBANKMENT

- C. Subbase, Grading A, shall contain no muck, frozen material, roots, sod or other deleterious matter. It shall have a liquid limit not greater than 25 and plasticity index not greater than 6 as determined by AASHTO T 89 and T 90.
- D. Subbase, Grading A, shall meet the quality requirements of AASHTO M 147 except that ATM T-1 and T-7 will be substituted for AASHTO T 11, T 27, and T 88.

### 2.5 BORROW

- A. Borrow shall meet the requirements for Embankment above.

### 2.6 SELECTED BORROW

- A. Selected Borrow shall meet the requirements for Selected Embankment above.

## PART 3 – EXECUTION

### 3.1 EXCAVATION

- A. Clear pea gravel and drain rock surfacing in excavation areas prior to beginning excavation operations. The CONTRACTOR shall conduct all operations to prevent contaminating useable pea gravel and drain rock.
- B. Excavations shall be reasonably smooth and uniform to the lines, grades and cross sections shown in the Drawings or as directed by the ENGINEER. Excavations shall be conducted to ensure that material outside of excavation limits remains undisturbed.
- C. Excavations shall be protected from erosion and maintained to drain freely at all times.
- D. When excavation to the limits indicated on the Drawings encounters unsuitable underlying material, the ENGINEER may require the CONTRACTOR to remove the unsuitable material and backfill with approved material. The CONTRACTOR shall take the necessary cross section measurements before backfill is placed in order to measure the amount of unsuitable material removed.
- E. Excavated soils that do not meet the requirements for embankment material and surplus suitable excavation shall be disposed of by the CONTRACTOR at a location and in a manner approved by the ENGINEER. No material may be wasted without the prior approval of the ENGINEER.
- F. The CONTRACTOR is responsible for securing a waste disposal site if none is indicated on the Drawings. The CONTRACTOR shall obtain the written permission of the landowner for use of all disposal sites, and shall either obtain any required permits or assure that they have been obtained by others. If required by the ENGINEER, the CONTRACTOR shall furnish the permit numbers of all required permits for the disposal sites. The costs of securing such sites shall be borne by the CONTRACTOR.
- G. Excavated areas for play structure fall zone areas shall have a minimum 1% slope toward underdrain.

## **SECTION 02202 – EXCAVATION AND EMBANKMENT**

- H. All excavated soils that meet the requirements for embankment material shall be reused as backfill. Additional materials not used for backfill shall be disposed of by the CONTRACTOR.
- I. Temporary storage of useable or suitable excavation is the responsibility of the CONTRACTOR, and no additional payment will be made.
- J. The CONTRACTOR shall conduct all operations to prevent contaminating useable excavation with unsuitable material.
- K. The CONTRACTOR shall provide added care when excavating adjacent to existing fences and structures. Damage caused to existing fences and structures by the CONTRACTOR shall be repaired at the CONTRACTOR's expense.
- L. After excavation to the subcut limit is complete and prior to placing separation and reinforcement fabric, if required, and backfilling with Borrow or Selected Borrow the bottom of the subcut shall be compacted with an excavator or backhoe-mounted vibrating compactor until a firm base for the backfill material is obtained.

**END OF SECTION**

**Section 02203 - TRENCHING**

**PART 1 - GENERAL**

1.01 DESCRIPTION

- A. The WORK under this Section includes providing all labor, materials, tools and equipment necessary for the excavation and backfill required for installation of pipelines and other appurtenances; and for ground surface restoration, including pavement.

**PART 2 - MATERIALS**

2.01 TRENCH EXCAVATION

- A. Trench excavation shall consist of all material, of whatever nature, excepting liquids, excavated from trenches within the limits of the WORK.

2.02 BEDDING

- A. Bedding, Class A, shall be aggregate conforming to the following gradation:

<b>Sieve Designation</b>	<b>Percent Passing by Weight</b>
1-1/2"	100
No. 4	0-35
No. 200	0-8

- B. Bedding material for pipe placement shall be non-frost susceptible material.

2.03 BACKFILL

- A. Backfill is defined as material placed above the level of bedding material. Backfill material consists of native material excavated from the trench that is determined by the OWNER to be suitable as backfill. Backfill material used under asphalt or concrete pavement, as shown on the Drawings, shall be non-frost-susceptible, granular material that is free of rocks larger than six inches, much, frozen material, lumps, organic material, trash, lumber, or other debris. All backfill material available from trench excavation shall be utilized prior to the use of the imported backfill.

2.04 IMPORTED BACKFILL

- A. Imported backfill shall be granular material, free draining, free of much, frozen material, lumps, or organic material and shall conform to the following gradation:

<b>Sieve Designation</b>	<b>Percent Passing by Weight</b>
3"	100
No. 4 *	20-70
No. 200 *	0-6

\*Gradation shall be determined on that portion passing the three inch screen.

## Section 02203 - TRENCHING

### 2.05 AGGREGATE BASE

- A. Aggregate base shall conform to Grading D-1 of Section 02204 - Base Course.

## PART 3 - EXECUTION

### 3.01 EXCAVATION

- A. Prior to excavating trenches, all necessary clearing of pea gravel surfacing shall be completed to prevent mixing of pea gravel surfacing with excavated materials.
- B. Excavation for trenches shall conform to the lines and grades shown. The CONTRACTOR shall also do any WORK necessary to prevent surface water from entering the trench.
- C. Excavation of any and all material more than six inches below the invert of the pipe as shown on the Drawings shall be done only when ordered in writing by the OWNER. The material so excavated will be handled in the manner described below:
  - 1. All excavated material suitable for use as backfill shall be piled in an orderly manner separately from unsuitable material, at a sufficient distance from the edge of the trench to prevent material from sloughing or sliding back into the trench. When the trench is in a traveled roadway the OWNER may require removal and temporary storage of excavated material elsewhere.
  - 2. Materials unsuitable for use as backfill shall be hauled to a CONTRACTOR furnished disposal site off of the Project, unless otherwise directed in writing by the OWNER. The CONTRACTOR is responsible for securing waste disposal sites if none is indicated on the Drawings. The CONTRACTOR shall obtain the written permission of the landowner for use of all disposal sites, and shall either obtain any required permits or assure that they have been obtained by others. If requested by the OWNER, the CONTRACTOR shall furnish the permit numbers of all required permits for the disposal sites. The cost of securing such sites shall be borne by the CONTRACTOR.
  - 3. If the CONTRACTOR fails to comply with the provisions of any city ordinance or permit pertaining to waste disposal or disposal sites, the OWNER shall have the right, after giving 30 days written notice, to bring the disposal sites into compliance and collect the cost of the WORK from the CONTRACTOR, either directly or by withholding monies otherwise due under the contract.
- D. No more than 150 feet of trench shall be open in advance of laying the pipe, and no more than ten feet of trench shall remain open at the end of each working period. When the trench is in a traveled way open for public use during the project, it shall be completely backfilled, in accordance with the Specifications, and opened to traffic at the end of each working period, unless otherwise approved by the OWNER.
- E. No explosives shall be used.
- F. The CONTRACTOR shall protect and preserve all existing pavement not designated for replacement, throughout the entire construction period. No tracked equipment may be operated on any pavement without first protecting the pavement with pavement pads approved by the OWNER. All pavement which is damaged in any manner by the

## Section 02203 - TRENCHING

CONTRACTOR's operations shall be restored to original or better condition at the CONTRACTOR's expense.

- G. Where required to prevent caving of the trench, or by any safety law or regulation such as OSHA, the CONTRACTOR shall furnish and install bracing and/or sheeting to protect the excavation. This bracing and/or sheeting shall be removed as trench backfill progresses.
- H. The CONTRACTOR shall remove and dispose of all water entering the excavation. Disposal of water shall be done in a manner to prevent damage or nuisance to adjacent property, and in accordance with all applicable laws and regulations. Pumps shall be adequate to maintain a dry trench during the bedding, pipe installation, and initial backfill to an elevation at least one foot above the top of pipe. No backfill may be placed in standing water under any circumstances.
- I. The CONTRACTOR shall provide temporary support of existing structures, as necessary, to protect the structures from settlement or other disturbances caused by construction activities. All structures disturbed by the CONTRACTOR's activities shall be returned to original condition, or better.
- J. Provide and maintain dewatering operations as necessary to ensure erosion control, stability of excavations and constructed slopes, that excavations do not flood and that damage to subgrades and permanent structures is prevented. Prevent surface water from entering the excavations by grading, dikes or other means. Accomplish dewatering without damaging existing buildings adjacent to the excavation. Remove dewatering system when no longer needed.
- K. Prior to excavating below ground-water level place dewatering system into operation and lower water to below the limits of excavation. Utilize wells, well points, sumps or similar methods complete with pumping equipment, standby power, valves, appurtenances, water disposal, and surface water controls. Dispose of water removed by dewatering in a manner that avoids endangering public health, damage to property, or damage to portions of the work under construction or completed work. Provide sumps, sediment basins, and other flow control devices as required by authorities having jurisdiction.

### 3.02 BEDDING

- A. Bedding shall be placed in conformance with the Drawings. Before placing any bedding material, the bottom of the trench shall be hand raked ahead of the pipe laying operation to remove stones and lumps which will interfere with smooth and complete bedding of the pipe. The specified bedding material shall then be placed in layer(s) the full width of the trench, each layer not exceeding eight inches in thickness loose measure, and compacted to 95% of maximum density as determined by AASHTO T 180 D, until the elevation of the plan grade for the pipe invert is attained. The pipe bed shall then be fine-graded by hand and compacted as above. Bell holes shall be hand dug at the location of joints and shall be of sufficient size to allow proper making of the joint and to prevent the collar or bell of the pipe from bearing on the bottom of the trench.
- B. After the pipe has been laid and approved for covering, the specified bedding material shall be placed evenly on both sides of the pipe for the full width of the trench. Approval

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for covering does not imply final acceptance of the pipe, or relieve the CONTRACTOR in any way of responsibility to complete the Project in conformance with the Drawings and Specifications. Bedding material shall be placed in layers. The thickness, loose measure, or the first layer shall be either one-half the outside diameter of the pipe plus two inches or eight inches, whichever is least. This layer shall be compacted as specified above to provide solid support to the underside of the pipe.

- C. The bedding material shall be placed and compacted in layers not more than eight inches in thickness, loose measure, up to a plane 12 inches above the top of the pipe.
- D. The initial density test at any location will be paid for by the OWNER. If the initial test shows that the material compaction is not as specified, the CONTRACTOR shall modify the compaction methods used, as approved by the OWNER, and have the material re-tested until the tests show that the compaction method meets with the Specification requirements. If the CONTRACTOR's compaction methods are not consistent and/or do not meet the requirements of these Specifications, the OWNER reserves the right to undertake additional compaction tests as necessary to determine the extent of substandard compaction, and to charge the CONTRACTOR for all such tests.

### 3.03 BACKFILL

- A. The trench shall be backfilled above the bedding material, as shown, with approved material saved from trench excavation. If there is not sufficient approved material from the excavation, the backfilling of the trench shall be completed utilizing imported backfill. The backfill and/or imported backfill shall be compacted to 95% of optimum density within the street and sidewalk limits, as shown on the Drawings, and 90% elsewhere, as determined by AASHTO T 180 D. Lifts shall not exceed 12 inches in depth for loose material. After backfilling of the trench is completed, any excess material from trench excavation shall be hauled to a CONTRACTOR furnished disposal site off of the Project.
- B. Where trenches cross traveled ways open to the public during the project backfilling shall be done immediately following excavation and laying of the pipe. All crossings shall be backfilled, compacted, and open to traffic at the end of each working period. Major road crossings shall be excavated and backfilled in half widths of the traveled way so that at least one-lane of the traveled way is open to controlled traffic at all times during the WORK. All WORK performed within a right-of-way shall be done in conformance with the appropriate permits issued by the respective agency having jurisdiction over the right-of-way.
- C. The initial density test at any location will be paid for by the OWNER. If the initial test shows that the material compaction is not as specified, the CONTRACTOR shall modify the compaction methods used, as approved by the OWNER, and have the material re-tested until the tests show that the compaction meets the Specification requirements. If the CONTRACTOR's compaction methods are not consistent and/or do not meet the requirements of these Specifications, the OWNER reserves the right to undertake additional compaction tests as necessary to determine the extent of substandard compaction, and to charge the CONTRACTOR for all such tests.

**END OF SECTION**

## SECTION 02204 - BASE COURSE

### PART 1 - GENERAL

#### 1.1 DESCRIPTION

- A. The WORK under this Section includes providing all labor, materials, tools and equipment necessary for furnishing and placing one or more layers of aggregate base or leveling course on a prepared surface to the lines and grades shown on the Drawings.

### PART 2 - PRODUCTS

#### 2.1 MATERIAL

- A. Aggregate base course shall consist of crushed gravel or crushed stone, conforming to the quality requirements of AASHTO M 147. The aggregate shall be free from lumps, balls of clay, or other objectionable matter, and shall be durable and sound.
1. Base course shall be sampled according to "WAQTC FOP for AASHTO T2 – Sampling Aggregates" as described in the *Alaska Test Methods Manual*, published by the Alaska Department of Transportation and Public Facilities.
  2. Coarse aggregate (that material retained on the No. 4 sieve) shall be crushed stone and shall consist of sound, tough, durable rock of uniform quality. Rock shall be free of schist that cleaves along preferred foliation planes. Rock shall be free of platy mineral grains. Metamorphosed rock shall be free of slaty cleavage. All material shall be free from clay balls, vegetable matter or other deleterious matters. Coarse aggregate shall not be coated with dirt or other finely divided mineral matter. All aggregates shall be free of roots and wood. In addition, coarse aggregate shall meet the following requirements:

Property	Value	Test Method
L.A. Wear, %	25 max.	AASHTO T 96
Degradation Value	45 min.	ATM 313
Fracture, %	70 min.	WAQTC FOP for AASHTO TP 61
Sodium Sulfate Loss, %	9 max.	AASHTO T 104

3. Aggregate shall not exceed eight (8) percent thin -elongated pieces as determined by ATM 306.
4. Fine Aggregate: Fine aggregate (passing the No. 4 sieve) shall meet the quality requirements of AASHTO M 29.



**SECTION 02204 - BASE COURSE**

- B. Base course material shall conform to one of the following gradations as specified:

**BASE COURSE GRADATIONS**

(Percent passing by weight)

<b>Sieve Design</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>C-1</b>	<b>D</b>	<b>D-1</b>	<b>E</b>	<b>E-1</b>
4	100							
2	85-100	100						
1-1/2				100				
1			100	70-100	100	100		
3/4				60-90	100	70-100	100	
3/8				45-75		50-80		100
No. 4	30-70	30-70	40-75	30-60	45-80	35-50		45-80
No. 8				22-52		20-35		32-80
No. 10			25-55		30-65			
No. 40				8-30		8-20		
No. 200	0-10	3-10	4-10	0-6	4-12	0-6	0-6	0-6

- C. For gradings C, D, and E, at least 50% by weight of the particles retained on the No. 4 sieve shall have at least one fractured face as determined by Alaska T-4.
- D. For gradings C-1, D-1, and E-1, at least 70% by weight of the particles retained on a No. 4 sieve shall have at least one fractured face as determined by Alaska T-4.

**PART 3 - EXECUTION**

3.1 GENERAL

- A. Prior to placement of the base course, the underlying surface shall be prepared by dressing, shaping, wetting or drying, and compacting of the underlying material to a minimum density of 95% as determined by AASHTO T 180-D. Surfaces shall be cleaned of all foreign substances and debris.
- B. Any ruts or soft yielding spots that may appear shall be corrected by loosening and removing unsatisfactory material and adding approved material as required, reshaping, and recompacting the affected areas to the lines and grades indicated on the Drawings. If required by the

## SECTION 02204 - BASE COURSE

ENGINEER, the CONTRACTOR shall proof load questionable areas with a loaded truck or other piece of equipment approved by the ENGINEER.

- C. Base course material shall be deposited and spread in a uniform layer to the required grades, and to such loose depth that when compacted to the density required, the thickness will be as indicated on the Drawings. Portions of the layer which become segregated shall be removed and replaced with a satisfactory mixture, or shall be remixed to the required gradation.
- D. The maximum compacted thickness of any one layer shall not exceed six inches, except the compacted depth of a single layer may be increased to eight inches if compaction equipment capable of delivering sufficient compactive energy, as determined by the ENGINEER, is used. If the ENGINEER requires the compacted depth to exceed six inches, and if compaction equipment capable of delivering sufficient compactive energy, as determined by the ENGINEER is not used, the base shall be constructed in two or more layers of approximately equal thickness. Each layer shall be shaped and compacted before the succeeding layer is placed.
- E. The base course shall be compacted to at least 95% of maximum density as determined by AASHTO T 180-D. In places not accessible to rolling equipment, the mixture shall be compacted with hand-tamping equipment.
- F. Blading, rolling, and tamping shall continue until the surface is smooth and free from waves and irregularities. If at any time the mixture is excessively moistened, it shall be serrated by means of blade graders, harrows, or other approved equipment, until the moisture content is such that the surface can be recompacted and finished as above.
- G. The surface of the base course, when testing using a ten foot straightedge shall not show any deviation in excess of 3/8 inch between two contact points. The finish surface shall not vary more than 1/2 inch from established grade.
- H. The initial density test at any location will be paid for by the OWNER. If the initial test shows that the material compaction is not as specified, the CONTRACTOR shall modify the compaction methods used, as approved by the ENGINEER, and have the material retested until the tests show that the compaction meets the Specification requirements. All tests, after the initial test at any given location, shall be paid for by the CONTRACTOR.

**END OF SECTION**

## Section 02630 - STORM UTILITY DRAINAGE PIPING

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section Includes:
  - 1. Pipe and fittings.
  - 2. Nonpressure transition couplings.
  - 3. Catch basins.
  - 4. Manholes
  - 5. Ornamental Grate

#### 1.3 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Shop Drawings:
  - 1. Catch basins. Include plans, elevations, sections, details, frames, covers, and grates.
  - 2. Manholes. Include plans, elevations, sections, details, frames, covers and grates
- C. Profile Drawings: Show system piping in elevation. Draw profiles at horizontal scale of not less than 1 inch equals 50 feet and vertical scale of not less than 1 inch equals 5 feet. Indicate manholes and piping. Show types, sizes, materials, and elevations of other utilities crossing system piping.
- D. Product Certificates: For each type of polyethylene pipe and fitting, from manufacturer.
- E. Field quality-control reports.

#### 1.4 DELIVERY, STORAGE, AND HANDLING

- A. Do not store plastic manholes, pipe, and fittings in direct sunlight.
- B. Protect pipe, pipe fittings, and seals from dirt and damage.
- C. Handle catch basins and stormwater inlets according to manufacturer's written rigging instructions.

## **Section 02630 - STORM UTILITY DRAINAGE PIPING**

### **1.5 PROJECT CONDITIONS**

- A. Interruption of Existing Storm Drainage Service: Do not interrupt service to facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary service according to requirements indicated:
1. Notify Owner no fewer than five days in advance of proposed interruption of service.
  2. Do not proceed with interruption of service without Owner's written permission.

### **PART 2 - PRODUCTS**

#### **2.1 PE PIPE AND FITTINGS**

- A. Corrugated PE Pipe and Fittings NPS 3 to NPS 10: AASHTO M 252M, Type S, with smooth waterway for coupling joints.
1. Soiltight Couplings: AASHTO M 252M, corrugated, matching pipe and fittings.

#### **2.2 NONPRESSURE TRANSITION COUPLINGS**

- A. Comply with ASTM C 1173, elastomeric, sleeve-type, reducing or transition coupling, for joining underground nonpressure piping. Include ends of same sizes as piping to be joined, and corrosion-resistant-metal tension band and tightening mechanism on each end.
- B. Sleeve Materials:
1. For Plastic Pipes: ASTM F 477, elastomeric seal or ASTM D 5926, PVC.
- C. Unshielded, Flexible Couplings:
1. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated on Drawings or comparable product by one of the following:
    - a. Dallas Specialty & Mfg. Co.
    - b. Fernco Inc.
    - c. Logan Clay Pipe.
    - d. Mission Rubber Company; a division of MCP Industries, Inc.
    - e. NDS Inc.
    - f. Plastic Oddities; a division of Diverse Corporate Technologies, Inc.
  2. Description: Elastomeric sleeve with stainless-steel shear ring and corrosion-resistant-metal tension band and tightening mechanism on each end.

#### **2.3 CONCRETE**

- A. General: Cast-in-place concrete according to ACI 318, ACI 350/350R, and the following:

## Section 02630 - STORM UTILITY DRAINAGE PIPING

1. Cement: ASTM C 150, Type II.
  2. Fine Aggregate: ASTM C 33, sand.
  3. Coarse Aggregate: ASTM C 33, crushed gravel.
  4. Water: Potable.
- B. Portland Cement Design Mix: 4000 psi minimum, with 0.45 maximum water/cementitious materials ratio.
1. Reinforcing Bars: ASTM A 615/A 615M, Grade 60 (420 MPa) deformed steel.

### 2.4 CATCH BASINS

- A. Standard Precast Concrete Catch Basins:
1. Description: ASTM C 478, precast, reinforced concrete, of depth indicated, with provision for sealant joints.
  2. Base Section: 6-inch minimum thickness for floor slab and 4-inch minimum thickness for walls and base riser section, and separate base slab or base section with integral floor.
  3. Riser Sections: 6-inch minimum thickness, 48-inch diameter, and lengths to provide depth indicated.
  4. Top Section: Eccentric-cone type unless concentric-cone or flat-slab-top type is indicated. Top of cone of size that matches grade rings.
  5. Joint Sealant: ASTM C 990, bitumen or butyl rubber.
  6. Grade Rings: Include two or three reinforced-concrete rings, of 6- to 9-inch total thickness, that match 24-inch- diameter frame and grate.
- B. Frames and Grates: ASTM A 536, Grade 60-40-18, ductile iron designed for HS-20, loading. Include flat grate with small square or short-slotted drainage openings.
1. Size: 17 by 20 inches minimum unless otherwise indicated.
  2. Grate Free Area: Must be of a type that will not create a hazard for bicycle traffic.
- C. Frames and Grates: ASTM A 536, Grade 60-40-18, ductile iron designed for HS-20, structural loading. Include 24-inch ID by 6-inch riser with 4-inch minimum width flange, and 26-inch-diameter flat grate with small square or short-slotted drainage openings.
1. Grate Free Area: Must be of a type that will not create a hazard for bicycle traffic.

### 2.5 MANHOLES

- A. Standard Precast Concrete Manholes:
1. Description: ASTM C 478, precast, reinforced concrete, of depth indicated, with provision for sealant joints.
  2. Diameter: 48 inches minimum unless otherwise indicated.
  3. Base Section: 6-inch minimum thickness for floor slab and 4-inch minimum thickness for walls and base riser section.
  4. Riser Sections: 4-inch minimum thickness, and lengths to provide depth indicated.

## **Section 02630 - STORM UTILITY DRAINAGE PIPING**

5. Top Section: Eccentric-cone type unless concentric-cone or flat-slab-top type is indicated, and top of cone of size that matches grade rings.
6. Joint Sealant: ASTM C 990, bitumen or butyl rubber.
7. Resilient Pipe Connectors: ASTM C 923, cast or fitted into manhole walls, for each pipe connection.
8. Steps: Individual FRP steps or FRP ladder, wide enough to allow worker to place both feet on one step and designed to prevent lateral slippage off step. Cast or anchor steps into sidewalls at 12-inch intervals.
9. Adjusting Rings: Interlocking HDPE rings with level or sloped edge in thickness and diameter matching manhole frame and cover, and of height required to adjust manhole frame and cover to indicated elevation and slope. Include sealant recommended by ring manufacturer.
10. Grade Rings: Reinforced-concrete rings to match diameter of manhole frame and cover, and height as required to adjust manhole frame and cover to indicated elevation and slope.

### **PART 3 - EXECUTION**

#### **3.1 EARTHWORK**

- A. Excavation, trenching, and backfilling are specified in 02300 Section "Earthwork."

#### **3.2 PIPING INSTALLATION**

- A. General Locations and Arrangements: Drawing plans and details indicate general location and arrangement of underground storm drainage piping. Location and arrangement of piping layout take into account design considerations. Install piping as indicated, to extent practical. Where specific installation is not indicated, follow piping manufacturer's written instructions.
- B. Install piping beginning at low point, true to grades and alignment indicated with unbroken continuity of invert. Place bell ends of piping facing upstream. Install gaskets, seals, sleeves, and couplings according to manufacturer's written instructions for use of lubricants, cements, and other installation requirements.
- C. Install manholes for changes in direction unless fittings are indicated. Use fittings for branch connections unless direct tap into existing sewer is indicated.
- D. Install proper size increasers, reducers, and couplings where different sizes or materials of pipes and fittings are connected. Reducing size of piping in direction of flow is prohibited.
- E. Install gravity-flow, nonpressure drainage piping according to the following:
  1. Install piping pitched down in direction of flow.
  2. Install PE corrugated piping according to ASTM D 2321.

## **Section 02630 - STORM UTILITY DRAINAGE PIPING**

### **3.3 PIPE JOINT CONSTRUCTION**

- A. Join gravity-flow, nonpressure drainage piping according to the following:
  - 1. Join corrugated PE piping according to ASTM D 3212 for push-on joints.

### **3.4 CATCH BASIN INSTALLATION**

- A. Construct catch basins to sizes and shapes indicated.
- B. Set frames and grates to elevations indicated.

### **3.5 IDENTIFICATION**

- A. Materials and their installation are specified in Division 31 Section "Earth Moving." Arrange for installation of green warning tape directly over piping and at outside edge of underground structures.
  - 1. Use detectable warning tape over nonferrous piping and over edges of underground structures.

### **3.6 FIELD QUALITY CONTROL**

- A. Inspect interior of piping to determine whether line displacement or other damage has occurred. Inspect after approximately 24 inches of backfill is in place, and again at completion of Project.
  - 1. Submit separate reports for each system inspection.
  - 2. Defects requiring correction include the following:
    - a. Alignment: Less than full diameter of inside of pipe is visible between structures.
    - b. Deflection: Flexible piping with deflection that prevents passage of ball or cylinder of size not less than 92.5 percent of piping diameter.
    - c. Damage: Crushed, broken, cracked, or otherwise damaged piping.
    - d. Infiltration: Water leakage into piping.
    - e. Exfiltration: Water leakage from or around piping.
  - 3. Replace defective piping using new materials, and repeat inspections until defects are within allowances specified.
  - 4. Re-inspect and repeat procedure until results are satisfactory.
- B. Test new piping systems, and parts of existing systems that have been altered, extended, or repaired, for leaks and defects.
  - 1. Do not enclose, cover, or put into service before inspection and approval.
  - 2. Test completed piping systems according to requirements of authorities having jurisdiction.

### **Section 02630 - STORM UTILITY DRAINAGE PIPING**

3. Schedule tests and inspections by authorities having jurisdiction with at least 24 hours' advance notice.
  4. Submit separate report for each test.
  5. Gravity-Flow Storm Drainage Piping: Test according to requirements of authorities having jurisdiction, UNI-B-6, and the following:
    - a. Exception: Piping with soil-tight joints unless required by authorities having jurisdiction.
    - b. Option: Test plastic piping according to ASTM F 1417.
- C. Leaks constitute defects that must be repaired.
- D. Replace leaking piping using new materials.
- 3.7 CLEANING
- A. Clean interior of piping of dirt and superfluous materials. Flush with water.

**END OF SECTION**



## SECTION 02706 - ORNAMENTAL FENCE

### PART 1 - GENERAL

#### 1.1 DESCRIPTION

- A. The WORK under this Section includes providing all labor, materials, tools and equipment necessary for furnishing and installing ornamental aluminum fencing, as shown on the Drawings.

#### 1.2 SUBMITTALS

- A. Product Cut Sheets.
- B. Shop Drawings.
- C. Warranty.

### PART 2- PRODUCTS

#### 2.1 MATERIALS

- A. The following ornamental fencing will be furnished and installed by the CONTRACTOR.
  - 1. Manufacturer: Ultra Aluminum Mfg. Inc, [www.fairweathersf.com](http://www.fairweathersf.com), 1-800-656-4420.
    - a. UAF-200 Fence Panels: 100" in length and 36" in height with stainless steel rail end mounting hardware.
    - b. Horizontal rails: 1-5/8" x 1-5/8" with .100" side walls and .070" top wall thickness.
    - c. Pickets: 1" square x .062" wall thickness spaced at 4" on center.
    - d. Posts: 3" square x .125" thickness with standard cap.
    - e. Gate: 48" wide by 36" tall UAF-200 Arched Gate with associated hardware.
    - f. Finish: Powercoat paint finish; Black.
    - g. Alloy: High-strength Ultrum™ 6005-T5 alloy, min. strength 35,000 PSI
- B. Configuration of fence and gate shall conform to the dimensions shown on the Drawings.

#### 2.2 ANCHORS, FASTENERS, AND HARDWARE

- A. Contractor shall furnish all necessary anchors, fasteners and hardware for fence and gate installation.
  - 1. Manufacturer's standard stainless steel hardware and fasteners as required for assembly, mounting, and secure attachment of fencing and gate.

## SECTION 02706 - ORNAMENTAL FENCE

### PART 3 - EXECUTION

#### 3.1 GENERAL

- A. All trees, brush, and other obstacles that would interfere with the construction of the fence shall be removed and disposed of as directed by the ENGINEER.
- B. Prior to installing the fence, the existing ground along the line of the fence location shall be graded to a smooth, uniform surface, to the extent that no abrupt changes in grade exist between adjacent fence posts.
- C. The CONTRACTOR shall stake all fences and gates. After staking is complete, the CONTRACTOR shall complete a walk-through with the OWNER and ENGINEER. The OWNER and ENGINEER shall make minor adjustments and changes at no additional cost to the OWNER.
- D. All posts shall be set in Portland cement concrete footings. The tops of the footings shall be level with the ground, shall be crowned to provide drainage, and shall be troweled smooth. Concrete footings shall be twelve inch diameter. The footings shall be allowed to cure for a period of at least seven days before any stress is applied.
- E. The posts shall be set vertical and shall be of uniform and equal height above the ground, with a maximum horizontal spacing of eight feet, center-to-center.
- F. Grading. The fence shall be constructed to follow a smooth profile. Nowhere throughout the fence length, shall the distance between the ground surface and the bottom rail be greater than three inches, nor less than one inch. Where excavation is necessary to meet this requirement, the ground will be graded level not less than one foot on either side of the fence. Grading for all specific conditions shall be such that water will not be allowed to pond in the immediate area of the fence.
- G. General Appearance. All runs of fence shall present the same general appearance. The product of one manufacturer only will be accepted, except for items which do not influence the appearance of the completed fence. The fence shall be the product of a manufacturer who has demonstrated by actual installations of a similar nature, that its product is the type required. No used, re-rolled, or open seam steel will be permitted in posts, gate frames, rails or braces. Top rail of fence shall run horizontal and shall be stepped to follow sloping grades.

**END OF SECTION**

## SECTION 02707 - CHAIN LINK FENCE

### PART 1 - GENERAL

#### 1.1 DESCRIPTION

- A. The WORK under this Section includes providing all labor, materials, tools and equipment necessary for furnishing and installing chain link fencing, as shown on the Drawings.

### PART 2- PRODUCTS

#### 2.1 MATERIALS

- A. Fencing materials shall conform to AASHTO M 181 including fittings and hardware. Sizes of fences, gates frames, rails, and braces shall conform to the dimensions shown on the Drawings.
- B. Post Tops. Post tops shall be loop caps at interior posts and pressed steel caps at end or gate posts. The post tops shall fit over the outside of the posts and shall exclude moisture from the tubular posts.
- C. Stretcher bars shall not be less than 1/4" by 3/4", and shall be of lengths one-inch less than the full height of the fabric with which they are to be used. The stretcher bars shall be arranged for attaching the fabric to all terminal posts by threading through the fabric, by bands, or by other positive mechanical means. One stretcher bar shall be provided for each gate, and end post and two for each corner and pull post.
- D. Ties or clips of adequate strength shall be provided in sufficient number for attaching the fabric and stretcher bars to all terminal posts at intervals not exceeding 15 inches.
- E. Posts. Interior posts shall be of the length required for a footing depth of three feet. End and gate posts shall be of the length required for a footing depth of four feet. All posts shall be tubular. Posts shall be of galvanized SS40 tubing, 3" outside diameter, and .160 inch wall thickness.
- F. Top Rails & Braces. Top rails shall be furnished at all fence sections. Top rails shall be secured to interior posts with a loop cap. Top rails shall be secured to end and gate posts with a rail end cap and beveled brace band. Top rails and braces shall be of galvanized SS40 tubing, 1-5/8" outside diameter, and .111 inch wall thickness.
- G. Tension Wires. Bottom galvanized tension wire shall be provided. The tension wires shall be of coiled spring wire not less than seven gauge plus, or minus 0.005-inch in diameter. Ties or clips shall be provided for attaching each wire to the fabric at intervals not exceeding two feet.
- H. Portland cement concrete shall conform to Section 03301 – Structural Concrete.
- I. Chain Link Fabric: Chain link fabric shall be 9 gauge galvanized fabric wire (0.148-inch wire thickness) and 2-inch mesh with knuckled ends each edge.

## SECTION 02707 - CHAIN LINK FENCE

### PART 3 - EXECUTION

#### 3.1 GENERAL

- A. All trees, brush, and other obstacles that would interfere with the construction of the fence shall be removed and disposed of as directed by the ENGINEER.
- B. Prior to installing the fence, the existing ground along the line of the fence location shall be graded to a smooth, uniform surface, to the extent that no abrupt changes in grade exist between adjacent fence posts.
- C. The CONTRACTOR shall stake all fences and gates. After staking is complete, the CONTRACTOR shall complete a walk-through with the OWNER and ENGINEER. The OWNER and ENGINEER shall make minor adjustments and changes at no additional cost to the OWNER.
- D. All posts shall be set in Portland cement concrete footings. The tops of the footings shall be level with the ground, shall be crowned to provide drainage, and shall be troweled smooth. Concrete footings shall be twelve inch diameter. The footings shall be allowed to cure for a period of at least seven days before any stress is applied.
- E. The posts shall be set vertical and shall be of uniform and equal height above the ground, with a maximum horizontal spacing of ten feet, center-to-center. The chain link fabric shall be fastened to the top rail, and the lower edge of the fabric shall be fastened to the bottom tension wire.
- F. Grading. The fence shall be constructed to follow a smooth profile. Nowhere, however, throughout the fence length shall be the distance between the ground surface and the bottom tension wire be greater than three inches, nor less than one inch. Where excavation is necessary to meet this requirement, the ground will be graded level not less than one foot on either side of the fence. Grading for all specific conditions shall be such that water will not be allowed to pond in the immediate area of the fence.
- G. General Appearance. All runs of fence shall present the same general appearance. The product of one manufacturer only will be accepted, except for items which do not influence the appearance of the completed fence. The fence shall be the product of a manufacturer who has demonstrated by actual installations of a similar nature, that its product is the type required. No used, re-rolled, or open seam steel will be permitted in posts, gate frames, rails or braces. Top rail of fence shall run horizontal and shall be stepped to follow sloping grades.

**END OF SECTION**

**SECTION 02714 - FILTER CLOTH**

**PART 1 - GENERAL**

1.1 DESCRIPTION

- A. The WORK under this Section includes providing all labor, material, tools, and equipment necessary for furnishing and installing filter cloth in accordance with the Drawings and Standard Details, or as directed by the ENGINEER.

1.2 SUBMITTALS

- A. Manufacturer's Product Data and Material Certification for proposed filter cloth.

**PART 2 - PRODUCTS**

2.1 CLOTH

- A. Filter cloth shall be composed of plastic yarn fabricated into a pervious sheet with distinct pores or openings.
- B. The plastic yarn shall consist of a long-chain synthetic polymer composed of at least 85% by weight of propylene, ethylene, or vinylidene-chloride and shall contain stabilizers and/or inhibitors added to the base plastic to make the filaments resistant to deterioration due to ultraviolet and heat exposure. The cloth shall be calendared or otherwise finished so that the yarns will retain their relative position with respect to each other. The edges of the cloth shall be selvaged or otherwise finished to prevent the outer yarn from pulling away from the cloth.
- C. Type A filter cloth, non-woven, shall meet the following requirements:

Grab Tensile Strength (ASTM D 1682)	90 lbs. min.
Bursting Strength (ASTM D 751)	100 psi min.
Equivalent Opening Size (EOS)	40 minimum, 100 maximum

2.2 SEAMS

- A. Seams, when required, shall be sewn with thread of material meeting the chemical requirements given above for plastic yarn. The sheets for filter cloth shall be sewn together at the factory or another approved location to form sections not less than two feet wide. Seams shall be tested in accordance with ASTM D 1682, using one inch square jaws and 12 inches per minute constant rate of traverse. The strengths shall be not less than 90 pounds in any principal direction.

2.3 ACCEPTANCE REQUIREMENTS

- A. All brands of plastic filter cloth and all seams to be used will be accepted on the basis of a certification. The CONTRACTOR shall furnish the ENGINEER a mill certificate or affidavit signed by a legally authorized official from the company manufacturing the cloth. The mill certificate or affidavit shall attest that the cloth meets the chemical, physical, and manufacturing requirements stated in this Section.

## SECTION 02714 - FILTER CLOTH

### 2.4 SHIPMENT AND STORAGE

- A. During all periods of shipment and storage, the cloth shall be protected from direct sunlight, ultraviolet rays, temperatures greater than 140° F, mud, dirt, dust, and debris. To the extent possible, the cloth shall be wrapped in a heavy-duty protective covering.

## PART 3 - EXECUTION

### 3.1 CONSTRUCTION

- A. Filter cloth shall be placed in the manner and at the locations shown on the Drawings or as directed by the ENGINEER. At the time of installation, cloth shall be rejected if it has defects, rips, holes, flaws, deterioration, or damage incurred during manufacture, transportation, or storage.
- B. The surface upon which the filter cloth is to be placed shall be free of projections or depressions, and rocks, roots, and other sharp objects which may cause the filter cloth to be punctured. The filter cloth shall be placed without stretching and shall lie smoothly in contact with the soil or wall surface. When overlapping of strips is necessary, the joints shall be overlapped a minimum of two feet. End overlaps shall be made in the direction of flow.
- C. The cloth shall be protected at all times during construction from contamination or from damage during its installation or during placement of subsequent covering; contaminated or damaged cloth shall be replaced at the CONTRACTOR's expense, or if the ENGINEER permits, torn fabric may be patched. The aggregate material shall be cleaned from the fabric, and the torn area shall be overlain with fabric with a minimum three foot overlap around the edges of the torn area. Care shall be taken that the patch remains in place when material is placed over the affected area.
- D. The WORK shall be scheduled so that not more than 30 Days elapse between the placement of the cloth and the time it is covered with specified material.
- E. Following placement of the fabric on the prepared surface, material of the type shown on the Drawings shall be placed and distributed over the previously spread fabric. At no time shall equipment operate on the unprotected fabric. The material shall be spread in the direction of the fabric overlap. Special care shall be taken to maintain a proper overlap and fabric continuity.

**END OF SECTION**

## Section 02715 - UNDERDRAIN

### PART 1- GENERAL

#### 1.01 DESCRIPTION

- A. The WORK under this Section includes providing all labor, materials, tools and equipment necessary for furnishing and installing underdrain as shown on the Drawings.

### PART 2 - PRODUCTS

#### 2.01 MATERIAL

- A. The type and size of underdrain pipe to furnished shall be as specified on the Drawings.
- B. Slotted or perforated and non-perforated corrugated polyethylene (CPP) plastic pipe shall conform to the requirements of AASHTO M 252.
- C. Slotted pipe shall have at least two rows of slots cut perpendicular to the axis of the pipe or at right angles to the pitch of corrugations and with the centerlines of the rows separated by one-third the circumference of the pipe. Slots shall have a width between one-sixteen inch and one-tenth inch and shall have a length, as measured along the inside circumference, of one inch to one and one-fourth- inch. Spacing of the slots shall be between three-fourth-inch and one and one-half-inch along the axis of the pipe. Slots shall be formed in such a way that inflow of water through the slots will not be impeded by excessive residual material from the slotting procedure.
- D. Fittings shall conform to AASHTO M 252. Fabricated fittings shall be welded on the interior and exterior at all junctions. All fittings shall connect to the pipe with a bell and spigot joint.
- E. Granular backfill material shall be placed to the dimensions as shown on the Drawings, and shall be uniformly graded material with stone size between 3/8-inch and 2 inch.
- F. Filter cloth for underdrain trenches shall be Type A, as specified under Section 02714 - Filter Cloth.

### PART 3 - EXECUTION

#### 3.01 CONSTRUCTION

- A. Trenches shall be excavated to the dimensions and grade shown on the Drawings or as directed by the ENGINEER. A nominal two inch layer of granular backfill material shall be placed and compacted in the bottom of the trench for its full width and length.
- B. Filter cloth, if called for on the Drawings, shall be placed as shown on the Drawings.
- C. Perforated pipe shall be placed with the perforations down. The pipe sections shall be joined securely with the appropriate coupling bands or fittings.
- D. After the pipe installation has been inspected and approved, granular backfill material shall be placed and compacted to a height of 6 inches above the top of pipe.

## **Section 02715 - UNDERDRAIN**

- E. Any remaining portion of trench above the granular backfill shall be filled with materials as shown on the drawings. Locations where native embankment material is specified shall be thoroughly compacted as specified in Section 02203 - Trenching.
- F. Installation of all pipes shall conform to the manufacturer's recommended procedures. These Specifications and the Drawings shall take precedence over the manufacturer's recommendations in the event of conflict, if more restrictive.
- G. Solid and perforated 6" diameter CPP shall be installed as shown on the Drawings, unless otherwise directed by the OWNER. All bends, couplings and other fittings as necessary to connect to existing pipes and complete storm drainage system shown on the Drawings shall be provided.
- H. All cut corrugations on CPP pipe shall be cleared of all water and completely grouted to prevent the accumulation of water.

**END OF SECTION**



## SECTION 02723 – PAINTED MARKINGS

### PART 1 - GENERAL

#### 1.1 DESCRIPTION

- A. The WORK under this Section includes providing all labor, materials, tools and equipment necessary for furnishing and placing painted markings on asphalt concrete pavement as shown on the Drawings.

#### 1.2 SUBMITTALS

- A. Submit painting shop drawings to ENGINEER for approval.
- B. Paint and glass spheres. Submit technical data including description, color, performance characteristics, and limitations.

### PART 2 - PRODUCTS

#### 2.1 MATERIALS

- A. Yellow marking paint shall be Sherwin Williams S-W Traffic Markings series B-2942, or approved equal.

### PART 3 - EXECUTION

#### 3.1 CONSTRUCTION

- A. The area to be marked shall be clean and free of loose particles. Paint shall not be applied to pavements or curbing which are dirty, damp, or cold. Paint shall not be applied when the pavement temperature is less than 40°F.
- B. Markings shall be two inches wide, unless otherwise shown.
- C. All markings shall present a clean cut, uniform and workmanlike appearance. All markings which fail to have a uniform, satisfactory appearance, either day or night, shall be corrected by the CONTRACTOR.
- D. The paint shall be thoroughly mixed prior to application, and shall be applied when the air temperature is above 40°F to a clean and dry surface.
- E. The painted area shall be protected until the paint is thoroughly dry.

**END OF SECTION**

## SECTION 02801 - ASPHALT CONCRETE PAVEMENT

### PART 1 - GENERAL

#### 1.1 DESCRIPTION

- A. This WORK consists of the furnishing and mixing of aggregate, asphalt cement, and additives at a mixing plant and the hauling, spreading, and compaction of the asphalt concrete mixture on a previously prepared surface, all as specified in the contract and in conformance with the lines, grades and thicknesses shown on the Plans.
- B. Asphaltic concrete mix for this project shall be Type IIA, Class B.

### PART 2 - PRODUCTS

#### 2.1 COMPOSITION OF ASPHALT CONCRETE MIXTURES - JOB MIX DESIGN

- A. Asphalt concrete mixtures shall be composed of aggregate, asphalt cement, and required additives combined within the limits for the type and class specified in the Contract.
- B. It is the CONTRACTOR's responsibility to insure that, in addition to the aggregate gradation requirements, the aggregate material meets all the requirements of this Section and asphalt concrete mixture meets the applicable design parameters, when tested according to ATM T17.
- C. At least 15 days prior to the production of asphalt concrete pavement the CONTRACTOR shall submit a current mix design. The mix design shall be performed within six (6) months of the construction season. The following related items shall be submitted with the mix design:
  - 1. Notification that aggregate proposed for the asphalt concrete mixture is available for sampling.
  - 2. A letter stating the proposed gradation for the Trial Job Mix Design, gradations for individual stockpiles, and blend ratio for each aggregate stockpile.
  - 3. A minimum of three 1-gallon samples of the asphalt cement proposed for use in the mixture, including name of product, manufacturer, test results as required, manufacturer's certificate of compliance, and a temperature viscosity curve for the asphalt cement.
  - 4. A 1/2 pint sample of the anti-strip additive proposed, including name of product, manufacturer, and manufacturer's data sheet, and current Materials Safety Data Sheet (MSDS).
  - 5. The CONTRACTOR shall accompany the ENGINEER during sampling, and shall furnish assistance to assure that the ENGINEER obtains representative samples.
- D. The ENGINEER will evaluate the gradation for the Trial Job Mix Design and suitability of the materials submitted. If the asphalt concrete mixture conforms to the design parameters specified in Table 02801-1 when tested according to ATM T-17, the ENGINEER will approve the Trial Job Mix Design and specify a target value for the asphalt cement content, mixing temperature and additives.
- E. If the Trial Job Mix Design does not conform to the design parameters specified in Table 02801-1, when tested by the ENGINEER, the CONTRACTOR shall submit in writing to the ENGINEER

**SECTION 02801 - ASPHALT CONCRETE PAVEMENT**

another proposed gradation for a second Trial Job Mix Design. Samples of aggregate and additional asphalt cement shall be obtained in the same manner as for the original Trial Job Mix Design. The ENGINEER shall evaluate and test the second Trial Job Mix Design and either approve or disapprove the design based on the Contract Requirements. The above procedure shall be repeated until the Trial Job Mix Design is approved.

- F. If the CONTRACTOR proposes a change in source of aggregate material, source of asphalt cement, or a change in the gradation target values after production has started, the CONTRACTOR shall submit in writing the proposed gradation target values to the ENGINEER and request a new Trial Job Mix Design be evaluated for approval. The CONTRACTOR shall accompany the ENGINEER during sampling and shall furnish all the assistance needed to assure that the ENGINEER obtains representative samples. Approval of the new Trial Job Mix Design and/or aggregate material will require testing and evaluation. Trial Job Mix Design test results will be available within 15 calendar days of submittal. If the asphalt concrete mixture conforms to the design parameters specified in Table 02801-1, when tested in accordance with ATM T-17, the ENGINEER will develop a new target value for the asphalt cement content, mixing temperature and additives. The new target values for gradation and asphalt cement content will only be in effect on asphalt concrete mixture produced after the CONTRACTOR submittal of the new gradation target values for the Trial Job Mix Design.
- G. The location and type of the mixing plant shall be included with the Trial Job Mix Design data. Asphalt concrete mixtures produced from different plants shall not be mixed.
- H. All trial job mix designs as required will be assessed and paid for by the CONTRACTOR.

**TABLE 02801-1**

ASPHALTIC CONCRETE MIX REQUIREMENTS		
DESIGN PARAMETERS	CLASS A	CLASS B
Stability, lbs.	1,800	1,800
Flow, 0.01 inch (0.25 mm)	8-14	8-16
Voids in total mix, percent	2-5	3-5
Compactions, number of blows ea side of test specimen	75	50
Dust-asphalt ratio (1)	0.6-1.2	0.6-1.2
Percent oil content	5.5-7	5.9-7
Voids in the mineral aggregate (VMA)		
Type I	13.0	12.0
Type II	14.0	13.0
Type III	15.0	14.0

(1) Dust-asphalt ratio is defined as the percent of material passing the U.S. No. 200 sieve divided by the percent of asphalt (calculated by weight of mix).

**2.2 ASPHALT AGGREGATES**

- A. Aggregate for Plant Mix Asphalt Pavement:

**SECTION 02801 - ASPHALT CONCRETE PAVEMENT**

1. Coarse Aggregate: Coarse aggregate (material retained on the No. 4 sieve) shall be crushed stone or crushed gravel and shall consist of sound, tough, durable rock of uniform quality. All material shall be free from clay balls, vegetative or other deleterious matters. Coarse aggregate shall not be coated with dirt or other finely divided mineral matter. Coarse aggregate shall also meet the following requirements:

Percent of Wear	AASHTO T-96	30 max.
Degradation Value	ATM T-13	30 min.
Percent Sodium Sulfate Loss	AASHTO T-104	9 max.
Percent Fracture	ATM T-4	80 min. single face/ 70 min. double face

2. Asphalt concrete aggregate shall not exceed 8 percent thin - elongated pieces as determined by ATM T-9.
3. Fine Aggregate: Fine aggregate (passing the No. 4 sieve) shall meet the quality requirements of AASHTO M-29.
4. The several aggregate fractions for the mixture shall be sized, graded, and combined in such proportions that the resulting composite blend conforms to the grading requirements of Table 02801-2. Aggregates gradations shall be determined by ATM T-7, except when the sample is obtained by extraction.
5. Asphalt aggregate may be a blend but shall be 80% mechanically crushed with no more than 20% natural sand.

**TABLE 02801-2**

<b>ASPHALT CONCRETE AGGREGATE</b>			
Percent Passing by Weight			
Sieve Design	Type I	Type II	Type III
1 inch	100	–	–
¾ inch	80-95	100	–
½ inch	60-88	80-95	100
3/8 inch	48-77	60-87	80-95
No. 4	28-63	36-72	44-81
No. 8	14-55	19-62	26-70
No. 16	9-46	10-52	16-59
No. 30	6-39	7-45	9-49
No. 50	5-29	5-34	6-36
No. 100	4-18	4-21	4-22
No. 200	3-5	3-5	3-5

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2.3 ASPHALT MATERIALS

A. The grade of asphalt cement material will be PG 58-22. The asphalt cement material shall conform to the applicable requirements of this Section and will be conditionally accepted at the source. If the material is to be conditionally accepted at the source, the CONTRACTOR shall provide a manufacturer's certificate of compliance in accordance with this section and test results of the applicable quality requirements of this section before the material is shipped. If there is a change in the source of the asphalt cement or if the kinematic viscosity (viscosity at 275 degrees Fahrenheit) of the asphalt supplied for the Trial Job Mix Design by a factor of 2 (doubles or halves) or more, then operations shall be suspended while a new Trial Job Mix Design proposal is submitted for approval.

B. ASPHALT CEMENT

1. Asphalt cement shall be designated PG58-22 and conform to the requirements below:

TEST FOR	SPECIFICATIONS	AASHTO METHOD	SPEC.
Penetration	(4°C [39.2°F], 200g, 60s), dmm RTFO Aged Residue <u>Note 1</u>	T-49	15+
Ductility	(7.2°C [45°F], 1 cm/min), cm RTFO Aged Residue	T-51	10+
Absolute Viscosity	60°C [140°F]), P Original Binders RTFO Aged Residue	T202 T202	1,100+ 1,500-6,000
Kinematic Viscosity	(135°C [275°F]), RTFO Viscosity/Orig. Viscosity	T-201	275+
Absolute Viscosity Ratio	(60°C [140°F]), RTFO Viscosity/Orig. Viscosity		4.0-
Flash Point, Cleveland Open Cup	C(F) Original Binder 232°+(450°+)	T-48f	232°+(450°+)
Solubility in Trichloroethylene	%, Original Binder	T-44	99.0+
Ductility	(25°C [77°F], 5 cm/min), cm RTFO Aged Residue	T-51	75+

Note 1 "RTFO Aged Residue" means the asphaltic residue obtained using the rolling thin film oven test (RTFO Test), AASHTO T-240.

C. CUT-BACK ASPHALTS

1. Cut-back asphalts shall conform to the requirements of AASHTO M-81 and M-82 except as follows:

a. In Table 1 of M-82, reduce the minimum absolute viscosity on residue from distillation at 60C to 100, in the MC-30 and MC-250 columns, and revise the maximum distillate percentage by volume of total distillate at 225°C for MC-30 to read: 35%.

**SECTION 02801 - ASPHALT CONCRETE PAVEMENT**

**D. EMULSIFIED ASPHALTS**

1. STE-1 cationic emulsified asphalts shall comply with the requirements listed below:

**TABLE 02801-3**

<b>TESTS ON EMULSION</b>	
Viscosity @ 77°F., SSF	30 max.
Storage Stability, 1 day, %	1 max.
Demulsibility 35 ml. 0.8% SDS, %	25 min.
Particle Charge	Positive*
Sieve, % retained	0.10 max.
Distillation Oil by Vol. of Emulsion, %	5 max.
Distillation Residue by Wt. of Emulsion, %	45 min.
<b>TESTS ON RESIDUE</b>	
Penetration @ 77°F.	100-200
Ductility @ 77°F., 5cm/min., cm	40 min.
Solubility in TCE, %	97.5 min.

\* If particle charge test is inconclusive, material having a max. Ph value of 6.7 will be acceptable.

2. CSS-1 Cationic Emulsified Asphalt shall conform to the requirements of AASHTO M208.

**E. STORAGE AND APPLICATION TEMPERATURES**

1. Asphalt materials required by the Specifications shall be stored and applied within the temperatures ranges indicated in Table 02801-4.

**TABLE 02801-4  
STORAGE AND APPLICATION TEMPERATURES**

Type and Grade of Material	Spray °F	Mix °F	Storage EF
MC-30	85+		140 Max
MC-250	165+	165-220	240 Max
RC-800	200+		200 Max
CRS-2	125-175		100-175
CMS-2	125-175	120-160*	100-175
CSS-1	90-120	90-160*	50-125
AC-2.5	270+	235-280**	325 Max
AC-5	280+	250-295**	325 Max
AC-10	280+	250-315**	325 Max
STE-1	70-140	70-150	50-125
PBA-2		350 Max	275-325 °F

\* Temperature of the emulsified asphalt in the pugmill mixture.

\*\* As required to achieve Kinematic viscosity of 150-300 centistokes.

## SECTION 02801 - ASPHALT CONCRETE PAVEMENT

### 2.4 ANTI-STRIP ADDITIVES

- A. Anti-strip agents shall be used in the proportions determined by ATM T-14 and shall be included in the approved Trial Job Mix Design. At least 70% of the aggregate shall remain coated when tested in accordance with ATM T-14.

### 2.5 PROCESS QUALITY CONTROL

- A. The ENGINEER has the exclusive right and responsibility for determining the acceptability of all materials incorporated into the Project. It is expressly understood, however, that the CONTRACTOR is solely responsible for the sampling and testing of material for process control of the asphalt concrete mixture including screening, crushing, blending, stockpiling of the aggregate, production of the asphalt concrete mixture and monitoring compaction of the asphalt concrete mixture.
- B. The results of the acceptance testing performed by the ENGINEER may not be available to the CONTRACTOR until a period of at least seven (7) working days has elapsed from the date of sampling.

## PART 3 - EXECUTION

### 3.1 WEATHER LIMITATIONS

- A. The asphalt concrete mixture shall not be placed on a surface with standing water, on an unstable roadbed when the base material is frozen, or when weather conditions prevent the proper handling or finishing of the mixture. No asphalt concrete, Type II mixture shall be placed unless the surface temperature is 40<sup>0</sup> F or warmer.

### 3.2 EQUIPMENT

- A. All equipment shall be in good working order and free of asphalt concrete mix buildup. All equipment shall be available for inspection and demonstration 72 hours prior to placement of asphalt concrete.
- B. Bituminous Mixing Plants:
  - 1. Mixing plants shall conform to AASHTO M-156.
  - 2. Proportioning (batch) scales shall not be used for weighing material for payment. Weigh scales used in conjunction with a storage silo may be used to weigh the final product for payment, provided the scales are certified.
- C. Hauling Equipment:
  - 1. Trucks used for hauling asphalt mixtures shall have tight, clean, smooth metal beds which have been thinly coated with a minimum amount of either paraffin oil, lime water solution, or

## SECTION 02801 - ASPHALT CONCRETE PAVEMENT

other manufactured material included approved by the ENGINEER. Diesel or fuel oil shall not be used.

2. Each truck shall have a watertight canvas cover of such size as to extend at least one foot over the sides and end of the truck bed and be adequately secured to protect the asphalt concrete mixture. The use of the canvas cover shall be at the ENGINEER's direction.

### D. Asphalt Pavers:

1. Asphalt pavers shall be self-propelled units, provided with a heated vibratory screed. Grade and cross slope shall be controlled through the use of automatic grade and slope control devices. The paver screed control system shall be automatically actuated by the use of a string line, or minimum 30-foot long ski. The length of the string line shall be adjusted to produce the required surface smoothness.
2. The paver shall be equipped with a receiving hopper having sufficient capacity for a uniform spreading operation. The hopper shall be equipped with a distribution system to place the mixture uniformly in front of the screed.
3. The screed assembly shall produce a finished surface of the required smoothness, thickness, and texture without tearing, shoving, or displacing the asphalt concrete mixture. Screed extensions used for paving a constant width shall be heated and vibrated. Auger extensions shall be the same length as the rigid screed extensions.
4. The use of a pickup machine to transfer the asphalt mixture from a windrow to the paver hopper will be permitted, provided the pickup machine is capable of collection of the windrowed material without damage to the underlying course. The ENGINEER will not allow the continued use of the pickup machine if segregation, excessive temperature loss, or any detrimental effects are observed.
5. Paver hopper wings shall either be left in the top or down position throughout the paving operation. If the CONTRACTOR wishes to dump the wings during paving, the material on the wings and in the hopper shall not be incorporated into the finish mat or included in the quantity for payment.
6. The screed assembly shall have a joint compaction device and a joint edge restrainer.

### E. Rollers:

1. The CONTRACTOR shall supply a sufficient number and weight of rollers to compact the mixture to the required density while maintaining the pace of the paving operations. Rollers shall be of the static steel wheel, vibratory steel wheel, and pneumatic tire type, self propelled and capable of reversing without backlash. They shall be specifically designated to compact hot asphalt concrete mixtures. The use of equipment, which results in crushing of the aggregate, will not be permitted. Pneumatic tire rollers shall be fully skirted; shall be at least 6 feet wide; and shall be configured such that the rear group of tires align to cover the spaces between the front group of tires. The roller shall have an operating weight per tire of at least 3,000 pounds. Tires shall be of equal size, a minimum of 20 inches in diameter, shall be inflated to at least 80 p.s.i. and maintained so that tire pressures do not vary more than 5 p.s.i. between any two tires.



## SECTION 02801 - ASPHALT CONCRETE PAVEMENT

### 3.3 PREPARATION OF EXISTING SURFACE

- A. The existing surface shall be prepared in conformance with the plans and Specifications. Existing paved surfaces shall be cleaned of loose material by sweeping with a power broom, supplemented by hand sweeping, if necessary.
- B. Contact surfaces of curbing, gutters, manholes, and other structures shall be coated with a thin, uniform coating of tack coat prior to the asphalt mixture being placed.
- C. Surfaces, which have received a prime coat, shall be allowed to cure such that the prime coat is not picked up by the haul vehicles. Surfaces, which have received an emulsion tack coat, shall be allowed to break prior to placement of asphalt concrete mixture.
- D. The grading, shaping, and strengthening where applicable, of the paved surface shall be as specified in Section 02204 – Base Course.
- E. A string line installed by the CONTRACTOR at the direction of the ENGINEER will be the edges of paving.
- F. Prior to paving over any existing pavement, the surface shall be thoroughly cleaned and an application of tack coat applied that will provide a strong bond between the two layers.

### 3.4 PREPARATION OF ASPHALT

- A. A continuous supply of the asphalt cement shall be supplied to the mixer at a uniform temperature, within 25 degrees F of the Job Mix Design mixing temperature.

### 3.5 PREPARATION OF AGGREGATES

- A. The aggregate for the asphalt concrete mixture shall be heated and dried to a temperature compatible with the mix requirements specified. Flames used for drying and heating shall be properly adjusted to avoid damage to the aggregate and to avoid the presence of unburned fuel on the aggregate. Any asphalt concrete mixture in which soot or fuel is present shall be wasted and no payment made.
- B. Drying operations shall reduce the aggregate moisture content to the extent that the moisture content of the asphalt concrete mixture, sampled at the point of acceptance for asphalt cement content, shall be no more than 0.5% (by total weight of mix), as determined by ATM T-25.

### 3.6 MIXING

- A. The aggregate, asphalt cement additives shall be combined in the mixer in the amounts required by the Job Mix Design.
- B. The materials shall be mixed such that a complete and uniform coating of the aggregate is obtained. For batch plants, dry aggregate shall be placed in motion immediately prior to the addition of asphalt cement. Wet mixing time shall be adequate to obtain 98% coated particles when tested in accordance with AASHTO T-195.

## SECTION 02801 - ASPHALT CONCRETE PAVEMENT

- C. The temperature of the asphalt concrete mixture at the time of the mixing shall be as determined by the Job Mix Design.

### 3.7 TEMPORARY STORAGE OF ASPHALT CONCRETE MIXTURE

- A. Temporary storing or holding of hot asphalt concrete mixture in silo type storage bins will be permitted.
- B. All the asphalt concrete mixture drawn from the silo type storage bins shall conform to all of the requirements for asphalt concrete mixtures as if loaded directly into hauling equipment from the mixing plant. Signs of visible segregation, heat loss, changes from the Job Mix Design, change in the characteristics of asphalt cement, lumpiness or stiffness of the mixture will be cause for rejection.
- C. Unsuitable asphalt concrete mixture shall be disposed of by the CONTRACTOR at no cost to the OWNER.

### 3.8 SPREADING AND PLACING

- A. The CONTRACTOR shall submit a Paving Plan for the ENGINEER's review a minimum of five working days prior to initiating the paving operation. The Paving Plan shall consist of, but not be limited to, the following:
  - 1. Paving schedule to include sequence of operations.
  - 2. Paving schedule distributed to Residents within the project boundary.
  - 3. Operational details to include:
    - a. Plant operating capacity and target production rate.
    - b. Number and capacity of trucks, cycle time, and delivery rate.
    - c. The manufacturer and model of the paver and pickup machine, to include information on grade followers, sensors, operating speed and production rate of the pavers.
    - d. Number, type, weight, and operating speed of rollers.
    - e. Location of longitudinal joints and method of constructing transverse joints.
    - f. Construction plan for paving intersections and driveways.
    - g. The manufacturers, model number, and the last certified calibration date for the CONTRACTOR's nuclear densometer gauge.
- B. The asphalt concrete mixture shall be laid upon a surface approved by the ENGINEER, spread and struck off to the required compacted thickness. Asphalt pavers shall be used to distribute the asphalt concrete mixture in lanes of such widths as to hold to a practical minimum the number of longitudinal joints required, subject to the requirements of this Section.
- C. When laying asphalt concrete mixtures, the paver shall be operated at uniform forward speeds consistent with the delivery of asphalt concrete mix to avoid unnecessary stopping and starting of the paver.

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- D. On areas where irregularities or unavoidable obstacles make the use of mechanical spreading and finishing equipment impracticable, the asphalt concrete mixture shall be spread, raked and luted by hand tools. For such areas the asphalt concrete mixture shall be placed to the required compacted thickness.
- E. Any asphalt concrete mixture, which is observed to be contaminated or segregated, will be rejected.
- F. Edge of asphalt concrete mixture shall be of uniform, smooth and consistent finish. Variations, undulations, and irregularities in edge profile are not acceptable.

### 3.9 COMPACTION

- A. Immediately after the asphalt mixture has been spread, struck-off and surface irregularities adjusted, it shall be thoroughly and uniformly compacted by rolling.
- B. The target value for density will be 95% of the maximum specific gravity (MSG) as determined in accordance with AASHTO T-209 for the first sample from each lot of asphalt concrete mixture, as defined in this Section. Acceptance testing for field density will be determined in accordance with ATM T-18 or ASTM D-2950, as directed in writing by the ENGINEER.
- C. The asphalt concrete mixture, including the leveling course, shall have a minimum of 3 complete passes with a pneumatic-tired roller prior to cooling to 175 degrees F. A pass is defined as once over each point on the pavement surface.
- D. Areas not accessible to the rollers shall be graded with rakes and lutes and compacted with mechanical tampers. For depressed areas a trench roller may be used to achieve the required compaction.
- E. Any asphalt concrete mixture that becomes loose and broken, segregated, mixed with dirt, or is any other way defective shall be removed and replaced with fresh hot asphalt concrete mixture, which shall be compacted to conform with the surrounding area. Any area showing an excess or deficiency of asphalt cement shall be removed and replaced.
- F. Rollers or other vehicles shall not be parked or left standing on pavement that has not cooled sufficiently to prevent indentation by wheels.

### 3.10 JOINTS

- A. Joints shall be made to ensure a continuous bond between old and new sections of the course. All joints shall present the same texture and smoothness as other sections of the course.
- B. When joining old existing pavement and new pavement, the old pavement shall be cut in a neat line, with a power driven saw.
- C. Improperly formed joints resulting in surface irregularities shall be removed, full road width, replaced with new material, and thoroughly compacted. Rolling of joints after the material has cooled below 160 degrees F shall not be allowed. All pavement removal shall be pre-cut to a neat line using a power driven saw.

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- D. A thin tack coat of asphalt cement or asphalt emulsion shall be applied on all cold joints prior to placing any fresh asphalt concrete mixture against the joint. This WORK shall be completed by the CONTRACTOR just prior to paving.
- E. Transverse joints shall be formed by cutting back on the previous run to expose the full depth of the course or by using a removable bulkhead.
- F. The longitudinal joints in one layer shall offset those in the layer immediately below by at least 6 inches. The joints in the top layer shall be at centerline or lane lines except where pre-formed marking tape striping is required, in which case the longitudinal joint in the top layer shall be offset not more than 1 foot.
- G. The density at the joints shall not be more than 2% lower than the density specified in the lanes away from the joint.
- H. Rolling at the longitudinal joint should be done from the hot side with a vibratory roller as soon as possible. The hot side should always overlap the cold side by 1" - 1.5" at the joint.
- I. The finished asphalt surface along the edge of curb and gutter shall be 1/4" above the top edge of the gutter pan.

### 3.11 SURFACE TOLERANCE

- A. The surface will be tested after final rolling at selected locations using a 10-foot straightedge. The variation of the surface from the testing edge of the straightedge between any two contacts with the surface shall not exceed 3/16 inch. The asphalt concrete mixture in all defective areas shall be removed and replaced. All costs associated with removal and replacement of asphalt concrete mixture in the defective areas shall be borne by the CONTRACTOR.

### 3.12 PATCHING DEFECTIVE AREAS

- A. Any asphalt concrete mixture that becomes contaminated with foreign material or is in any way defective shall be removed. Defective materials shall be removed for the full thickness of the course. The pavement shall be saw cut so that the sides are perpendicular and parallel to the direction of traffic and so that the edges are vertical. Edges shall be coated with a thin tack coat material. Fresh asphalt concrete mixture shall be placed in sufficient quantity so that the finished surface will conform to grade and smoothness requirements. The asphalt concrete mixture shall be compacted to the density specified. No payment shall be made for material replacing defective material. All costs associated with the patching of defective areas shall be borne by the CONTRACTOR.

### 3.13 ACCEPTANCE SAMPLING AND TESTING

- A. Asphalt concrete pavement will be accepted for payment based on the ENGINEER's approval of: the Job Mix Design; the materials; the placement and compaction of the asphalt concrete pavement to the specified depth, finished surface requirements, tolerances, and densities. Any area of finished surfacing that is visibly segregated, fails to meet surface tolerance requirements or specified

## SECTION 02801 - ASPHALT CONCRETE PAVEMENT

thickness or densities, or is in any way defective, shall be removed and replaced with new asphalt concrete pavement. Removal and replacement of defective pavement shall be at no additional cost to the OWNER. The full depth of the new asphalt concrete mixture will be replaced; surface patching will not be allowed.

- B. Acceptance sampling and testing shall be performed by the ENGINEER. Acceptance testing will determine whether the materials, installation and compaction efforts used by the CONTRACTOR have met these Specifications. The results of the acceptance testing performed by the ENGINEER may not be available to the CONTRACTOR until a period of at least seven working days has elapsed from the date of sampling.
- C. A lot will be the total asphalt placed on the project per season. A subplot will be one day's production on the project. Each subplot shall be randomly sampled and tested in accordance with this Subsection for asphalt cement content, density, and gradation.
- D. Samples taken for the determination of asphalt cement content and gradation will be taken from behind the screed prior to initial compaction. Asphalt cement content shall be determined by ATM T-23. The cost of this sampling (one per subplot) will be borne by the ENGINEER. The CONTRACTOR shall pay for additional testing if not in compliance.
- E. ASTM D-2950 will be used to measure density. A minimum of six random tests will be taken from each subplot. When using ASTM D-2950, the MSG or laboratory pounds per cubic feet shall be determined by using the Rice Method, AASHTO Designation T 209-93. The Rice Method, for the purposes of nuclear gauge compaction testing, replaces the Marshal Method. Acceptance testing for density will be completed by the ENGINEER in the following sequence:
  - 1. The ENGINEER will randomly sample the in-place asphalt concrete mixture with a nuclear densometer gauge. Frequency of this testing will be determined by the ENGINEER. The CONTRACTOR may request a re-test of any nuclear densometer sample not within Specification limits. The ENGINEER will select the sample location for the re-test. Only one re-test per sample will be allowed. This acceptance testing will be paid for by the OWNER.
  - 2. If the random density acceptance testing indicates that the density specified has not been met, further sampling and testing will be required by the ENGINEER. At the direction of the ENGINEER, the CONTRACTOR shall cut at least one full depth 6" diameter core sample (per lot) from the finished mat. The samples shall be neatly cut by a core drill at the randomly selected locations. Core holes for sampling shall be backfilled and compacted with hot asphalt concrete mixture within two hours of sampling. The core samples will be tested for compliance with these specifications at a certified laboratory specified by the ENGINEER. Any sampling and testing required beyond the nuclear densometer testing by the ENGINEER, will be paid for by the CONTRACTOR.
- F. At the direction of the ENGINEER, samples taken for the determination of aggregate gradation may be obtained from one of the following locations:
  - 1. From the combined aggregate cold feed conveyor via a diversion chute, or from the stopped conveyor belt.
  - 2. For dry batched aggregates, on batch plants, the pugmill shall be cleaned by dry batching at least two dry batches or until no asphalt coating is found on the aggregate. One complete

## **SECTION 02801 - ASPHALT CONCRETE PAVEMENT**

batch will be dropped in a loader bucket and hand mixed thoroughly with a shovel until a sample can be taken. The sample will be used for acceptance, gradation, control, and payment.

- G. Additional materials testing will be required whenever a new Trial Job Mix Design is approved. The MSG for each lot will be determined from the first randomly selected sample from the first subplot. Materials testing includes, but is not limited to, gradations, extractions, density testing and core analysis.
- H. If field density is determined in accordance with ASTM D-2950, additional core samples will be required whenever a new Trial Job Mix Design is approved or whenever there is a change in the typical section. The MSG for each lot will be determined from the first randomly selected sample from the first subplot. The CONTRACTOR shall reimburse the OWNER for all materials testing beyond the first \$2,000.00. Materials testing includes but is not limited to gradations, extractions, density testing and core analysis.
- I. All tests necessary to determine conformance with the requirements specified in this Section will be performed by the ENGINEER and paid for by the CONTRACTOR.
- J. The frequency of materials testing for asphalt is determined by the CBJ Materials Frequency Guide. For circumstances not covered by the Specifications, the Alaska Department of Transportation and Public Facilities Standard Specifications for Highway Construction, 1998 Edition, shall be used and incorporated by reference herein. The CA/Inspector shall meet with Project Manager prior to paving to determine the appropriate testing frequency.

**END OF SECTION**

## Section 02870 – SITE FURNISHINGS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the contract, including General and Supplementary Conditions and Division 1 specification sections, apply to this Section.

#### 1.2 SUMMARY

- A. This Section includes the following site furnishings:
  - 1. Picnic Tables.
  - 2. Benches.
- B. Related Sections include the following:
  - 1. Section 03300 – Cast-in-Place Concrete, for installation of cast-in-concrete footings.
- C. Products furnished, but not installed under this Section, include concrete footings.

#### 1.3 SUBMITTALS

- A. Product Data.
- B. Installation Instructions.
- C. Maintenance Data.

### PART 2 - PRODUCTS

#### 2.1 SITE FURNISHINGS

- A. The following site furnishings will be furnished by the Juneau School District and installed by the CONTRACTOR.
  - 1. Manufacturer: FairWeather, [www.fairweathersf.com](http://www.fairweathersf.com), 1-800-323-1798.
    - a. Four Seat Picnic Table embed mount, #F4-48 (quantity = 3)
    - b. Three Seat Picnic Table embed mount, #F4-48 (quantity = 1)
  - 2. Manufacturer: Gametime, [www.gametime.com](http://www.gametime.com), 1-800-235-2440.
    - a. 8' Bench embed mount, #28006 (quantity = 9)

#### 2.2 ANCHORS, FASTENERS, AND HARDWARE

- A. Contractor shall furnish all necessary anchors, fasteners and hardware that are not included with the site furnishings.

**Section 02870 – SITE FURNISHINGS**

1. Manufacturer's standard, galvanized, stainless steel, or aluminum materials; commercial quality; concealed, recessed, and capped or plugged. Provide as required for site furnishings' assembly, mounting, and secure attachment.

**PART 3 - EXECUTION**

3.1 EXAMINATION

- A. Examine areas and conditions for compliance with requirements for correct and level finished grade, mounting surfaces, installation tolerances, and other conditions affecting performance.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.
- C. Coordinate delivery of site furnishings supplied by Juneau School District with Juneau School District and freight carrier. Site furnishings will be delivered to site at which time CONTRACTOR shall assume responsibility for site furnishing. CONTRACTOR to unload site furnishings and store onsite in location approved by OWNER. CONTRACTOR is responsible to repair any damage incurred to site furnishings after CONTRACTOR accepts delivery of site furnishings at site.

3.2 INSTALLATION, GENERAL

- A. Comply with manufacturer's written installation instructions. Complete field assembly of site furnishings, where required.
- B. Install site furnishings level, plumb, true, and securely anchored at locations indicated on Drawings allowing for required use zones.

3.3 CLEANING

- A. After completing site furnishing installation, inspect furnishings. Remove spots, dirt, and debris. Repair damaged finishes to match original finish or replace furnishing.

**END OF SECTION**



**Section 02880 – PLAY STRUCTURES**

**PART 1 - GENERAL**

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the contract, including General and Supplementary Conditions and Division 1 specification sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
  - 1. Installation of play structures and equipment.
  - 2. Anchors, Fasteners, and Hardware.
- B. Related Sections include the following:
  - 1. Section 03300 – Cast-in-Place Concrete, for installation of cast-in-concrete footings.

1.3 SUBMITTALS

- A. Installation Instructions.
- B. Maintenance Data.

**PART 2 - PRODUCTS**

2.1 PLAY STRUCTURES

- A. The following Play Structures will be furnished by the Juneau School District and installed by the CONTRACTOR.
  - 1. Manufacturer: Gametime, [www.gametime.com](http://www.gametime.com), 1-800-235-2440.

	<b>Qty</b>	<b>Item</b>	<b>Description</b>
a.	4	873	Ultimate Front Mount Goal
b.	4	853	Steel Rectangular Backboard
c.	4	459	Cantilevered Post W/32" Ext.
d.	2	12584	Primetime Swing Add-A-Bay, 3 1/2" Od
e.	2	12584	Primetime Swing Add-A-Bay, 3 1/2" Od
f.	12	SS8910	Belt Seat 3 1/2" /8' w/Clevis 1
g.	2	12583	Primetime Swing Frame, 3 1/2" Od
h.	4	G12024	3 1/2" Uppt Ass'Y Galv 9'
i.	1	18200	36" Sq Punched Deck P/T 1.3125
j.	1	18282	Upper Body Trainer F/S
k.	1	19013	Transfer Platform w/Barrier (3')
l.	1	19035	Optional Access Step (3' & 5')
m.	1	19057	Wave Climber (Standard)
n.	1	19079	Rumble & Roll Zip Slide
o.	1	19106	Clover Leaf Climber (3' & 3'-6")
p.	1	38000	The Dragonfly

**Section 02880 – PLAY STRUCTURES**

q.	1	38004	Frog Climber
r.	2	38018	Flower Talk Tube
s.	1	38029	Turtle Spinner
t.	1	38109	Large Mushroom
u.	6	38110	Small Mushroom
v.	1	38112	Log Crawl Thru
w.	1	53	Health Ladder
x.	2	6201	Tilted Sky Runner (F/S)
y.	1	6510	Space Arch
z.	1	7035	Spiral Game, F/S
aa.	15	7088	Rock Step
bb.	1	7092	RockScape Lightning Climber
cc.	1	7093	RockScape Circle Stepper
dd.	2	7095	Rock Step Attachment
ee.	1	8662	Walking The Plank
ff.	1	10777	Tire Swing F/S, 5" Od
gg.	1	10778	Tire Swing F/S Add-A-Bay, 5" Od
hh.	4	26058	3 Way X-Pod Step
ii.	1	26070	Sail Climbing Wall Attachment
jj.	1	26077	Xcelerator
kk.	1	26078	Arched Loop Ladder Overhead
ll.	1	26081	Sky Wheels
mm.	1	26084	Arched Trapeze Ring Overhead
nn.	1	26088	Tri Ladder
oo.	4	26092	PS Plus Single Link Cross Beam
pp.	18	26094	Triangular Shroud
qq.	1	26095	Hanging Pod Link
rr.	1	26096	Arched Chain Net Link (stainless)
ss.	2	26113	Single Rock Upright w/Rock Step
tt.	2	80000	49" Sq Punched Steel Deck
uu.	12	80001	49"Tri Punched Steel Deck
vv.	1	80076	Deck Flat Cap Pkg
ww.	1	80082	Slide Transfer
xx.	2	80656	Access Attachment 3' & 4'
yy.	1	80687	Handhold/Kick Plate Pkg
zz.	1	80694	12" Stepped Platform
aaa.	1	81488	SHoriz Loop Lad Link 98
bbb.	1	90023	3'-0" Transfer System - Barrier
ccc.	1	90031	5' Transfer Platform - Barrier
ddd.	1	90032	3' Transfer Platform - Guardrail
eee.	1	90059	8' Cosmix Climber
fff.	1	90069	3'-6"/4' Fat Pipe Climber (curved)
ggg.	1	90073	3' Fat Pipe Climber (straight)
hhh.	1	90079	5' Loop Ladder
iii.	1	90131	5'-6"/6'-0" Trunk Climber
jjj.	1	90159	3'-6"/6' Giant Wave Climber Link
kkk.	1	90165	2'/5' Rope Span Climber
lll.	1	G90266	8' Upright Ass'Y (Galv)
mmm.	1	G90267	9' Upright Ass'Y (Galv)
nnn.	12	G90268	10' Upright Ass'Y (Galv)
ooo.	4	G90269	11' Upright Ass'y (Galv)
ppp.	9	G90270	12' Upright Ass'y (Galv)

## Section 02880 – PLAY STRUCTURES

qqq.	4	G90271	13' Upright Ass'y (Galv)
rrr.	3	90304	Climber Entryway (Barrier)
sss.	2	90306	Archway w/Socket (Barrier)
ttt.	1	90319	High Point Entryway (Barrier)
uuu.	1	90336	Offset Archway (Barrier)
vvv.	1	90352	6' F5 Spiral Slide w/Hood
www.	1	90371	4'-0"/5'-0" Climbing Pole
xxx.	1	90372	5'-6"/6'-0" Climbing Pole
yyy.	1	90393	Mini Arch Bridge w/Barrier
zzz.	1	90510	6' Dueling Wave Zip Slide
aaaa.	2	90549	Climber Archway w/Plate (Barrier)
bbbb.	1	90573	Scramble Up (3'-6" to 5'-0")
cccc.	1	90579	Double Swerve Slide
dddd.	1	90597	Fun-L Up Crawl Tube Link
eeee.	1	90598	Hour Glass Climber
ffff.	2	90610	Contoured Panel (above)
gggg.	1	90614	Walk In Double Fun-L Over
hhhh.	1	G12023	3 1/2" Uprt Ass'Y Galv 8'
iiii.	2	G12026	3 1/2" Uprt Ass'Y Galv 11'
jjjj.	2	G90262	4' Upright Ass'Y (Galv)
kkkk.	1	G90268	10' Upright Ass'Y (Galv)
llll.	1	G90270	12' Upright Ass'y (Galv)
mmmm.	1	G90271	13' Upright Ass'y (Galv)
nnnn.	8	161292	44"x48" Wear Mat
oooo.	1	178749	Owner's Kit

### 2.2 ANCHORS, FASTENERS, AND HARDWARE

- A. Contractor shall furnish all necessary anchors, fasteners and hardware that is not included with the play structures.
  - 1. Manufacturer's standard, galvanized or aluminum materials; commercial quality; concealed, recessed, and capped or plugged. Provide as required for play structures' assembly, mounting, and secure attachment.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine areas and conditions for compliance with requirements for correct and level finished grade, mounting surfaces, installation tolerances, and other conditions affecting performance.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.
- C. Coordinate delivery of OWNER furnished play structures with Juneau School District and freight carrier. Play structures will be delivered to site or mutually agreed upon location at which time CONTRACTOR shall assume responsibility for play structures. CONTRACTOR to unload play structures and store onsite in location approved by OWNER. CONTRACTOR is responsible to repair any damage incurred to play structures after CONTRACTOR accepts delivery of play structures at site or mutually agreed upon location.

## **Section 02880 – PLAY STRUCTURES**

### **3.2 INSTALLATION, GENERAL**

- A. Comply with manufacturer's written installation instructions. Complete field assembly of play structures, where required.
- B. Complete installation of play structures prior to installation of fall protection material.
- C. Install play structures level, plumb, true, and securely anchored at locations indicated on Drawings allowing for required use zones.

### **3.3 CLEANING**

- A. After completing play structure installation, inspect components. Remove spots, dirt, and debris. Repair damaged finishes to match original finish or replace component.

**END OF SECTION**

## **Section 02930 – PLANTING SOIL**

### **PART 1 - GENERAL**

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. This Section includes:
  - 1. Planting Soil

#### 1.3 SUBMITTALS

- A. Provide product data for planting soil demonstrating that it meets requirements of this Section.

### **PART 2 - PRODUCTS**

#### 2.1 PLANTING SOIL COMPONENTS AND AMENDMENTS

- A. Topsoil shall comply with ASTM D 5268 with a pH range of 5.5 to 7; have a minimum of 5% organic material content; and be free of vegetative plant parts that could regenerate. The deleterious material content greater than one inch shall be less than 5% of the topsoil mass. Topsoil shall be sourced from sites where topsoil occurs naturally in well draining areas at least 4 inches deep or it shall be manufactured off-site.
- B. Sand shall be washed and free of toxic materials.
- C. Lime shall comply with ASTM C 602, Class T, agricultural ground limestone, containing not less than 85% dolomite, with 95% passing through a 100 mesh screen..
- D. Organic Soil Amendments shall include native peat, compost, or manure that is completely decomposed, free of toxic materials and capable of absorbing water with a pH range of 5.5 to 8.
  - 1. Native Peat shall be fine or granular texture with a water-absorbing capacity of 1100 to 2000 percent and free of weeds, roots, and woody material one inch or larger.
  - 2. Manure shall be completely decomposed chicken or cattle manure with a maximum of 25% volume of straw, sawdust, or other organic bedding material and free of weed material and seeds.
  - 3. Compost shall be weed free organic matter with a moisture content of 35 to 55% by weight and with 100% passing through a ½ inch sieve.
- E. Commercial fertilizer shall be commercial grade consisting of fast and slow release nitrogen. The composition shall be 50% water insoluble with 8% nitrogen, 32% phosphorus, and 16% potassium by weight.

**Section 02930 – PLANTING SOIL**

2.2 PLANTING SOIL

- A. Type I Bedding Soil: Planting Soil components and amendments should be mixed as follows:
  - 1. Topsoil: 35%
  - 2. Sand: 25%
  - 3. Organic Soil Amendments: 40%
  - 4. Fertilizer: 10 LBS/Cubic Yard
  - 5. Lime: Add lime as needed to meet required pH levels but not exceeding 10 LBS/Cubic Yard

**PART 3 - EXECUTION**

3.1 PREPARATION

- A. Plant Bed Preparation: Remove and dispose of existing soil to establish a subgrade depth 12 inches below desired finish grade. Loosen subgrade to a depth of 6 inches (150 mm). Remove stones sticks, roots, and rubbish. Spread planting soil mixture to a depth of 12 inches (200 mm) but not less than required to meet finish grades. Work first layer into top of loosened subgrade.
- B. Disposal: Remove surplus soil and waste material, including excess subsoil, unsuitable soil, trash, and debris, and legally dispose of it off Owner's property.

**END OF SECTION**

## Section 03300 - CAST-IN-PLACE CONCRETE

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section includes cast-in-place concrete, including formwork, reinforcement, concrete materials, mixture design, placement procedures, and finishes, for the following:
  - 1. Footings.
  - 2. Retaining walls.
  - 3. Foundations.
  - 4. Curb and Gutter.

#### 1.2 DEFINITIONS

- A. Cementitious Materials: Portland cement alone or in combination with one or more of the following: blended hydraulic cement, fly ash and other pozzolans, ground granulated blast-furnace slag, and silica fume; subject to compliance with requirements.

#### 1.3 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. LEED Submittals:
  - 1. Product Data for Credit MR 4.1 and Credit MR 4.2: For products having recycled content, documentation indicating percentages by weight of postconsumer and preconsumer recycled content.
    - a. Include statement indicating costs for each product having recycled content.
- C. Design Mixtures: For each concrete mixture. Submit alternate design mixtures when characteristics of materials, Project conditions, weather, test results, or other circumstances warrant adjustments.
- D. Steel Reinforcement Shop Drawings: Placing drawings that detail fabrication, bending, and placement. Include bar sizes, lengths, material, grade, bar schedules, stirrup spacing, bent bar diagrams, bar arrangement, splices and laps, mechanical connections, tie spacing, hoop spacing, and supports for concrete reinforcement.
- E. Joint Layout: Indicate proposed joints required to construct the structure.
  - 1. Location of construction joints is subject to approval of the Architect.
  - 2. Location of control and isolation joints is subject to the approval of the Architect.
- F. Material Certificates: For each of the following, signed by manufacturers:
  - 1. Cementitious materials.
  - 2. Admixtures.

## Section 03300 - CAST-IN-PLACE CONCRETE

3. Form materials and form-release agents.
4. Steel reinforcement and accessories.
5. Fiber reinforcement.
6. Curing compounds.
7. Bonding agents.
8. Adhesives.
9. Repair materials.

G. Minutes of preinstallation conference.

### 1.4 QUALITY ASSURANCE

- A. **Installer Qualifications:** A qualified installer who employs on Project personnel qualified as ACI-certified Flatwork Technician and Finisher and a supervisor who is an ACI-certified Concrete Flatwork Technician.
- B. **Manufacturer Qualifications:** A firm experienced in manufacturing ready-mixed concrete products and that complies with ASTM C 94/C 94M requirements for production facilities and equipment.
- C. **Source Limitations:** Obtain each type or class of cementitious material of the same brand from the same manufacturer's plant, obtain aggregate from single source, and obtain admixtures from single source from single manufacturer.
- D. **ACI Publications:** Comply with the following unless modified by requirements in the Contract Documents:
  1. ACI 301, "Specifications for Structural Concrete," Sections 1 through 5.
  2. ACI 117, "Specifications for Tolerances for Concrete Construction and Materials."
- E. **Preinstallation Conference:** Conduct conference at Project site.
  1. Before submitting design mixtures, review concrete design mixture and examine procedures for ensuring quality of concrete materials. Require representatives of each entity directly concerned with cast-in-place concrete to attend, including the following:
    - a. Contractor's superintendent.
    - b. Independent testing agency responsible for concrete design mixtures.
    - c. Ready-mix concrete manufacturer.
    - d. Concrete subcontractor.
    - e. Special inspector.
    - f. Special concrete finish subcontractor.
  2. Review special inspection and testing and inspecting agency procedures for field quality control, concrete finishes and finishing, cold- and hot-weather concreting procedures, curing procedures, construction contraction and isolation joints, forms and form removal limitations, anchor rod and anchorage device installation tolerances, steel reinforcement installation, concrete repair procedures, and concrete protection.



## Section 03300 - CAST-IN-PLACE CONCRETE

### 1.5 DELIVERY, STORAGE, AND HANDLING

- A. Steel Reinforcement: Deliver, store, and handle steel reinforcement to prevent bending and damage.

## PART 2 - PRODUCTS

### 2.1 FORM-FACING MATERIALS

- A. Smooth-Formed Finished Concrete: Form-facing panels that will provide continuous, true, and smooth concrete surfaces. Furnish in largest practicable sizes to minimize number of joints.
  - 1. Plywood, metal, or other approved panel materials.
- B. Rough-Formed Finished Concrete: Plywood, lumber, metal, or another approved material. Provide lumber dressed on at least two edges and one side for tight fit.
- C. Void Forms: Biodegradable paper surface, treated for moisture resistance, structurally sufficient to support weight of plastic concrete and other superimposed loads.
- D. Chamfer Strips: Wood, metal, PVC, or rubber strips, 3/4 by 3/4 inch, minimum.
- E. Form-Release Agent: Commercially formulated form-release agent that will not bond with, stain, or adversely affect concrete surfaces and will not impair subsequent treatments of concrete surfaces.
  - 1. Formulate form-release agent with rust inhibitor for steel form-facing materials.
- F. Form Ties: Factory-fabricated, removable or snap-off metal or glass-fiber-reinforced plastic form ties designed to resist lateral pressure of fresh concrete on forms and to prevent spalling of concrete on removal.
  - 1. Furnish units that will leave no corrodible metal closer than 1 inch to the plane of exposed concrete surface.
  - 2. Furnish ties that, when removed, will leave holes no larger than 1 inch in diameter in concrete surface.

### 2.2 STEEL REINFORCEMENT

- A. Recycled Content of Steel Products: Provide products with an average recycled content of steel products so postconsumer recycled content plus one-half of preconsumer recycled content is not less than 25 percent.
- B. Reinforcing Bars: ASTM A 615/A 615M, Grade 60, deformed.
- C. Plain-Steel Wire: ASTM A 82/A 82M, as drawn.

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### 2.3 REINFORCEMENT ACCESSORIES

- A. Joint Dowel Bars: ASTM A 615/A 615M, Grade 60, plain-steel bars, cut true to length with ends square and free of burrs.
- B. Bar Supports: Bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcing bars and welded wire reinforcement in place. Manufacture bar supports from steel wire, plastic, or precast concrete according to CRSI's "Manual of Standard Practice," of greater compressive strength than concrete and as follows:
  - 1. For concrete surfaces exposed to view where legs of wire bar supports contact forms, use CRSI Class 1 plastic-protected steel wire or CRSI Class 2 stainless-steel bar supports.

### 2.4 CONCRETE MATERIALS

- A. Cementitious Material: Use the following cementitious materials, of the same type, brand, and source, throughout Project:
  - 1. Portland Cement: ASTM C 150, Type I, Type II or Type I/II, gray.
- B. Normal-Weight Aggregates: ASTM C 33, Class 4M coarse aggregate or better, graded. Provide aggregates from a single source with documented service record data of at least 10 years' satisfactory service in similar applications and service conditions using similar aggregates and cementitious materials.
  - 1. Maximum Coarse-Aggregate Size: 1 inch nominal.
  - 2. Fine Aggregate: Free of materials with deleterious reactivity to alkali in cement.
- C. Water: ASTM C 94/C 94M and potable.

### 2.5 ADMIXTURES

- A. Air-Entraining Admixture: ASTM C 260.
- B. Chemical Admixtures: Provide admixtures certified by manufacturer to be compatible with other admixtures and that will not contribute water-soluble chloride ions exceeding those permitted in hardened concrete. Do not use calcium chloride or admixtures containing calcium chloride.
  - 1. Water-Reducing Admixture: ASTM C 494/C 494M, Type A.
  - 2. Retarding Admixture: ASTM C 494/C 494M, Type B.
  - 3. Water-Reducing and Retarding Admixture: ASTM C 494/C 494M, Type D.
  - 4. High-Range, Water-Reducing Admixture: ASTM C 494/C 494M, Type F.
  - 5. High-Range, Water-Reducing and Retarding Admixture: ASTM C 494/C 494M, Type G.
  - 6. Plasticizing and Retarding Admixture: ASTM C 1017/C 1017M, Type II.

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### 2.6 FIBER REINFORCEMENT

- A. Synthetic Micro-Fiber: Monofilament or fibrillated polypropylene micro-fibers engineered and designed for use in concrete, complying with ASTM C 1116/C 1116M, Type III, 1/2 to 1-1/2 inches long.
1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
    - a. Monofilament Micro-Fibers:
      - 1) Axim Italcementi Group, Inc.; Fibrasol II P.
      - 2) Euclid Chemical Company (The), an RPM company; Fiberstrand 150.
      - 3) FORTA Corporation; FORTA Econo-Mono.
      - 4) Grace Construction Products, W. R. Grace & Co.; Grace MicroFiber.
      - 5) Metalcrete Industries; Polystrand 1000.
      - 6) Nycon, Inc.; ProConM.
      - 7) Propex Concrete Systems Corp.; Fibermesh 150.
      - 8) Sika Corporation; Sika Fiber PPM.
    - b. Fibrillated Micro-Fibers:
      - 1) Axim Italcementi Group, Inc.; Fibrasol F.
      - 2) Euclid Chemical Company (The), an RPM company; Fiberstrand F.
      - 3) FORTA Corporation; FORTA Econo-Net or Ultra-Net.
      - 4) Grace Construction Products, W. R. Grace & Co.; Grace Fibers.
      - 5) Nycon, Inc.; ProConF.
      - 6) Propex Concrete Systems Corp.; Fibermesh 300.
      - 7) Sika Corporation; Sika Fiber PPF.

### 2.7 LIQUID FLOOR TREATMENTS

- A. Penetrating Liquid Floor Treatment: Clear, chemically reactive, waterborne solution of inorganic silicate or silicate materials and proprietary components; odorless; that penetrates, hardens, and densifies concrete surfaces.
1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
    - a. ChemMasters; Chemisil Plus.
    - b. ChemTec Int'l; ChemTec One.
    - c. Conspec by Dayton Superior; Intraseal.
    - d. Curecrete Distribution Inc.; Ashford Formula.
    - e. Dayton Superior Corporation; Day-Chem Sure Hard (J-17).
    - f. Edoco by Dayton Superior; Titan Hard.
    - g. Euclid Chemical Company (The), an RPM company; Euco Diamond Hard.
    - h. Kaufman Products, Inc.; SureHard.
    - i. L&M Construction Chemicals, Inc.; Seal Hard.
    - j. Meadows, W. R., Inc.; LIQUI-HARD.
    - k. Metalcrete Industries; Floorsaver.

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- l. Nox-Crete Products Group; Duro-Nox.
- m. Symons by Dayton Superior; Buff Hard.
- n. US SPEC, Division of US Mix Products Company; US SPEC Industraseal.
- o. Vexcon Chemicals, Inc.; Vexcon StarSeal PS Clear.

### 2.8 CURING MATERIALS

- A. Evaporation Retarder: Waterborne, monomolecular film forming, manufactured for application to fresh concrete.
  1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
    - a. Axim Italcementi Group, Inc.; CATEXOL CimFilm.
    - b. BASF Construction Chemicals - Building Systems; Confilm.
    - c. ChemMasters; SprayFilm.
    - d. Conspec by Dayton Superior; Aquafilm.
    - e. Dayton Superior Corporation; Sure Film (J-74).
    - f. Edoco by Dayton Superior; BurkeFilm.
    - g. Euclid Chemical Company (The), an RPM company; Eucobar.
    - h. Kaufman Products, Inc.; Vapor-Aid.
    - i. Lambert Corporation; LAMBCO Skin.
    - j. L&M Construction Chemicals, Inc.; E-CON.
    - k. Meadows, W. R., Inc.; EVAPRE.
    - l. Metalcrete Industries; Waterhold.
    - m. Nox-Crete Products Group; MONOFILM.
    - n. Sika Corporation; SikaFilm.
    - o. SpecChem, LLC; Spec Film.
    - p. Symons by Dayton Superior; Finishing Aid.
    - q. TK Products, Division of Sierra Corporation; TK-2120 TRI-FILM.
    - r. Unitex; PRO-FILM.
    - s. Vexcon Chemicals, Inc.; Certi-Vex Envio Set.
- B. Absorptive Cover: AASHTO M 182, Class 2, burlap cloth made from jute or kenaf, weighing approximately 9 oz./sq. yd. when dry.
- C. Moisture-Retaining Cover: ASTM C 171, polyethylene film or white burlap-polyethylene sheet.
- D. Water: Potable.

### 2.9 RELATED MATERIALS

- A. Epoxy Bonding Adhesive: ASTM C 881, two-component epoxy resin, capable of humid curing and bonding to damp surfaces, of class suitable for application temperature and of grade to suit requirements, and as follows:
  1. Types I and II, non-load bearing, for bonding hardened or freshly mixed concrete to hardened concrete.

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### 2.10 REPAIR MATERIALS

- A. Repair Underlayment: Cement-based, polymer-modified, self-leveling product that can be applied in thicknesses from 1/8 inch and that can be feathered at edges to match adjacent floor elevations.
1. Cement Binder: ASTM C 150, portland cement or hydraulic or blended hydraulic cement as defined in ASTM C 219.
  2. Primer: Product of underlayment manufacturer recommended for substrate, conditions, and application.
  3. Aggregate: Well-graded, washed gravel, 1/8 to 1/4 inch or coarse sand as recommended by underlayment manufacturer.
  4. Compressive Strength: Not less than 4100 psi at 28 days when tested according to ASTM C 109/C 109M.
- B. Repair Overlayment: Cement-based, polymer-modified, self-leveling product that can be applied in thicknesses from 1/4 inch and that can be filled in over a scarified surface to match adjacent floor elevations.
1. Cement Binder: ASTM C 150, portland cement or hydraulic or blended hydraulic cement as defined in ASTM C 219.
  2. Primer: Product of topping manufacturer recommended for substrate, conditions, and application.
  3. Aggregate: Well-graded, washed gravel, 1/8 to 1/4 inch or coarse sand as recommended by topping manufacturer.
  4. Compressive Strength: Not less than 5000 psi at 28 days when tested according to ASTM C 109/C 109M.

### 2.11 CONCRETE MIXTURES, GENERAL

- A. Prepare design mixtures for each type and strength of concrete, proportioned on the basis of laboratory trial mixture or field test data, or both, according to ACI 301.
1. Use a qualified independent testing agency for preparing and reporting proposed mixture designs based on laboratory trial mixtures.
- B. Cementitious Materials: Limit percentage, by weight, of cementitious materials other than portland cement in concrete as follows:
1. Fly Ash: 25 percent.
  2. Combined Fly Ash and Pozzolan: 25 percent.
  3. Ground Granulated Blast-Furnace Slag: 50 percent.
  4. Combined Fly Ash or Pozzolan and Ground Granulated Blast-Furnace Slag: 50 percent portland cement minimum, with fly ash or pozzolan not exceeding 25 percent.
- C. Limit water-soluble, chloride-ion content in hardened concrete to 0.15 percent by weight of cement.

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- D. Admixtures: Use admixtures according to manufacturer's written instructions.
1. Use water-reducing high-range water-reducing or plasticizing admixture in concrete, as required, for placement and workability.
  2. Use water-reducing and retarding admixture when required by high temperatures, low humidity, or other adverse placement conditions.
  3. Use water-reducing admixture in pumped concrete, concrete required to be watertight, and concrete with a water-cementitious materials ratio below 0.45.

### 2.12 CONCRETE MIXTURES FOR BUILDING ELEMENTS

- A. All Concrete except slabs on grade: Proportion normal-weight concrete mixture as follows:
1. Minimum Compressive Strength: 4000 psi at 28 days.
  2. Maximum Water-Cementitious Materials Ratio: 0.45.
  3. Slump Limit: 4 inches or 8 inches for concrete with verified slump of 2 to 4 inches before adding high-range water-reducing admixture or plasticizing admixture, plus or minus 1 inch.
  4. Air Content: 6 percent, plus or minus 1.5 percent at point of delivery for 1-inch or 3/4-inch nominal maximum aggregate size.

### 2.13 FABRICATING REINFORCEMENT

- A. Fabricate steel reinforcement according to CRSI's "Manual of Standard Practice."

### 2.14 CONCRETE MIXING

- A. Ready-Mixed Concrete: Measure, batch, mix, and deliver concrete according to ASTM C 94/C 94M, and furnish batch ticket information.

## PART 3 - EXECUTION

### 3.1 FORMWORK

- A. Design, erect, shore, brace, and maintain formwork, according to ACI 301, to support vertical, lateral, static, and dynamic loads, and construction loads that might be applied, until structure can support such loads.
- B. Construct formwork so concrete members and structures are of size, shape, alignment, elevation, and position indicated, within tolerance limits of ACI 117.
- C. Limit concrete surface irregularities, designated by ACI 347 as abrupt or gradual, as follows:
1. Class A, 1/8 inch for smooth-formed finished surfaces.
  2. Class B, 1/4 inch for rough-formed finished surfaces.
- D. Construct forms tight enough to prevent loss of concrete mortar.

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- E. Fabricate forms for easy removal without hammering or prying against concrete surfaces. Provide crush or wrecking plates where stripping may damage cast concrete surfaces. Provide top forms for inclined surfaces steeper than 1.5 horizontal to 1 vertical.
  - 1. Install keyways, reglets, recesses, and the like, for easy removal.
  - 2. Do not use rust-stained steel form-facing material.
- F. Set edge forms, bulkheads, and intermediate screed strips for slabs to achieve required elevations and slopes in finished concrete surfaces. Provide and secure units to support screed strips; use strike-off templates or compacting-type screeds.
- G. Provide temporary openings for cleanouts and inspection ports where interior area of formwork is inaccessible. Close openings with panels tightly fitted to forms and securely braced to prevent loss of concrete mortar. Locate temporary openings in forms at inconspicuous locations.
- H. Chamfer exterior corners and edges of permanently exposed concrete as indicated.
- I. Form openings, chases, offsets, sinkages, keyways, reglets, blocking, screeds, and bulkheads required in the Work. Determine sizes and locations from trades providing such items.
- J. Clean forms and adjacent surfaces to receive concrete. Remove chips, wood, sawdust, dirt, and other debris just before placing concrete.
- K. Retighten forms and bracing before placing concrete, as required, to prevent mortar leaks and maintain proper alignment.
- L. Coat contact surfaces of forms with form-release agent, according to manufacturer's written instructions, before placing reinforcement.

### 3.2 EMBEDDED ITEMS

- A. Place and secure anchorage devices and other embedded items required for adjoining work that is attached to or supported by cast-in-place concrete. Use setting drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.
  - 1. Install anchor rods, accurately located, to elevations required and complying with tolerances in Section 7.5 of AISC's "Code of Standard Practice for Steel Buildings and Bridges."
  - 2. Install reglets to receive waterproofing and to receive through-wall flashings in outer face of concrete frame at exterior walls, where flashing is shown at lintels, shelf angles, and other conditions.

### 3.3 REMOVING AND REUSING FORMS

- A. General: Formwork for sides of beams, walls, columns, and similar parts of the Work that does not support weight of concrete may be removed after cumulatively curing at not less than 50 deg F for 24 hours after placing concrete. Concrete has to be hard enough to not be damaged by form-removal operations and curing and protection operations need to be maintained.

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1. Leave formwork for beam soffits, joists, slabs, and other structural elements that supports weight of concrete in place until concrete has achieved at least 70 percent of its 28-day design compressive strength.
  2. Remove forms only if shores have been arranged to permit removal of forms without loosening or disturbing shores.
- B. Clean and repair surfaces of forms to be reused in the Work. Split, frayed, delaminated, or otherwise damaged form-facing material will not be acceptable for exposed surfaces. Apply new form-release agent.
- C. When forms are reused, clean surfaces, remove fins and laitance, and tighten to close joints. Align and secure joints to avoid offsets. Do not use patched forms for exposed concrete surfaces unless approved by Architect.

### 3.4 SHORES AND RESHORES

- A. Comply with ACI 318 and ACI 301 for design, installation, and removal of shoring and reshoring.
1. Do not remove shoring or reshoring until measurement of slab tolerances is complete.
- B. Plan sequence of removal of shores and reshore to avoid damage to concrete. Locate and provide adequate reshoring to support construction without excessive stress or deflection.

### 3.5 STEEL REINFORCEMENT

- A. General: Comply with CRSI's "Manual of Standard Practice" for placing reinforcement.
1. Do not cut or puncture vapor retarder. Repair damage and reseal vapor retarder before placing concrete.
- B. Clean reinforcement of loose rust and mill scale, earth, ice, and other foreign materials that would reduce bond to concrete.
- C. Accurately position, support, and secure reinforcement against displacement. Locate and support reinforcement with bar supports to maintain minimum concrete cover. Do not tack weld crossing reinforcing bars.
- D. Set wire ties with ends directed into concrete, not toward exposed concrete surfaces.

### 3.6 JOINTS

- A. General: Construct joints true to line with faces perpendicular to surface plane of concrete.
- B. Construction Joints: Install so strength and appearance of concrete are not impaired, at locations indicated or as approved by Architect.



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1. Place joints perpendicular to main reinforcement. Continue reinforcement across construction joints unless otherwise indicated. Do not continue reinforcement through sides of strip placements of floors and slabs.
2. Form keyed joints as indicated. Embed keys at least 1-1/2 inches into concrete.
3. Locate horizontal joints in walls and columns at underside of floors, slabs, beams, and girders and at the top of footings or floor slabs.
4. Space vertical joints in walls as indicated. Locate joints beside piers integral with walls, near corners, and in concealed locations where possible.
5. Use epoxy-bonding adhesive at locations where fresh concrete is placed against hardened or partially hardened concrete surfaces.

C. Doweled Joints: Install dowel bars and support assemblies at joints where indicated.

### 3.7 CONCRETE PLACEMENT

- A. Before placing concrete, verify that installation of formwork, reinforcement, and embedded items is complete and that required inspections have been performed.
- B. Do not add water to concrete during delivery, at Project site, or during placement unless approved by Architect.
- C. Before test sampling and placing concrete, water may be added at Project site, subject to limitations of ACI 301.
  1. Do not add water to concrete after adding high-range water-reducing admixtures to mixture.
- D. Deposit concrete continuously in one layer or in horizontal layers of such thickness that no new concrete will be placed on concrete that has hardened enough to cause seams or planes of weakness. If a section cannot be placed continuously, provide construction joints as indicated. Deposit concrete to avoid segregation.
  1. Deposit concrete in horizontal layers of depth to not exceed formwork design pressures and in a manner to avoid inclined construction joints.
  2. Consolidate placed concrete with mechanical vibrating equipment according to ACI 301.
  3. Do not use vibrators to transport concrete inside forms. Insert and withdraw vibrators vertically at uniformly spaced locations to rapidly penetrate placed layer and at least 6 inches into preceding layer. Do not insert vibrators into lower layers of concrete that have begun to lose plasticity. At each insertion, limit duration of vibration to time necessary to consolidate concrete and complete embedment of reinforcement and other embedded items without causing mixture constituents to segregate.
- E. Deposit and consolidate concrete for floors and slabs in a continuous operation, within limits of construction joints, until placement of a panel or section is complete.
  1. Consolidate concrete during placement operations so concrete is thoroughly worked around reinforcement and other embedded items and into corners.
  2. Maintain reinforcement in position on chairs during concrete placement.
  3. Screed slab surfaces with a straightedge and strike off to correct elevations.
  4. Slope surfaces uniformly to drains where required.

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5. Begin initial floating using bull floats or darbies to form a uniform and open-textured surface plane, before excess bleedwater appears on the surface. Do not further disturb slab surfaces before starting finishing operations.
- F. Cold-Weather Placement: Comply with ACI 306.1 and as follows. Protect concrete work from physical damage or reduced strength that could be caused by frost, freezing actions, or low temperatures.
1. When average high and low temperature is expected to fall below 40 deg F for three successive days, maintain delivered concrete mixture temperature within the temperature range required by ACI 301.
  2. Do not use frozen materials or materials containing ice or snow. Do not place concrete on frozen subgrade or on subgrade containing frozen materials.
  3. Do not use calcium chloride, salt, or other materials containing antifreeze agents or chemical accelerators unless otherwise specified and approved in mixture designs.

### 3.8 FINISHING FORMED SURFACES

- A. Rough-Formed Finish: As-cast concrete texture imparted by form-facing material with tie holes and defects repaired and patched. Remove fins and other projections that exceed specified limits on formed-surface irregularities.
1. Apply to concrete surfaces not exposed to public view.
- B. Smooth-Formed Finish: As-cast concrete texture imparted by form-facing material, arranged in an orderly and symmetrical manner with a minimum of seams. Repair and patch tie holes and defects. Remove fins and other projections that exceed specified limits on formed-surface irregularities.
1. Apply to concrete surfaces exposed to public view, to receive a rubbed finish or to be covered with a coating or covering material applied directly to concrete.
- C. Rubbed Finish: Apply one of the following to smooth-formed finished as-cast concrete where indicated:
1. Grout-Cleaned Finish: Wet concrete surfaces and apply grout of a consistency of thick paint to coat surfaces and fill small holes. Mix one part portland cement to one and one-half parts fine sand with a 1:1 mixture of bonding admixture and water. Add white portland cement in amounts determined by trial patches so color of dry grout will match adjacent surfaces. Scrub grout into voids and remove excess grout. When grout whitens, rub surface with clean burlap and keep surface damp by fog spray for at least 36 hours.
  2. Cork-Floated Finish: Wet concrete surfaces and apply a stiff grout. Mix one part portland cement and one part fine sand with a 1:1 mixture of bonding agent and water. Add white portland cement in amounts determined by trial patches so color of dry grout will match adjacent surfaces. Compress grout into voids by grinding surface. In a swirling motion, finish surface with a cork float.
- D. Related Unformed Surfaces: At tops of walls, horizontal offsets, and similar unformed surfaces adjacent to formed surfaces, strike off smooth and finish with a texture matching adjacent

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formed surfaces. Continue final surface treatment of formed surfaces uniformly across adjacent unformed surfaces unless otherwise indicated.

### 3.9 MISCELLANEOUS CONCRETE ITEMS

- A. Filling In: Fill in holes and openings left in concrete structures after work of other trades is in place unless otherwise indicated. Mix, place, and cure concrete, as specified, to blend with in-place construction. Provide other miscellaneous concrete filling indicated or required to complete the Work.
- B. Curbs: Provide monolithic finish to interior curbs by stripping forms while concrete is still green and by steel-troweling surfaces to a hard, dense finish with corners, intersections, and terminations slightly rounded.
- C. Equipment Bases and Foundations: Provide machine and equipment bases and foundations as shown on Drawings. Set anchor bolts for machines and equipment at correct elevations, complying with diagrams or templates from manufacturer furnishing machines and equipment.

### 3.10 CONCRETE PROTECTING AND CURING

- A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures. Comply with ACI 306.1 for cold-weather protection and ACI 301 for hot-weather protection during curing.
- B. Evaporation Retarder: Apply evaporation retarder to unformed concrete surfaces if hot, dry, or windy conditions cause moisture loss approaching 0.2 lb/sq. ft. x h before and during finishing operations. Apply according to manufacturer's written instructions after placing, screeding, and bull floating or darbying concrete, but before float finishing.
- C. Formed Surfaces: Cure formed concrete surfaces, including underside of beams, supported slabs, and other similar surfaces. If forms remain during curing period, moist cure after loosening forms. If removing forms before end of curing period, continue curing for the remainder of the curing period.
- D. Unformed Surfaces: Begin curing immediately after finishing concrete. Cure unformed surfaces, including floors and slabs, concrete floor toppings, and other surfaces.
- E. Cure concrete according to ACI 308.1, by one or a combination of the following methods:
  - 1. Moisture Curing: Keep surfaces continuously moist for not less than seven days with the following materials:
    - a. Water.
    - b. Continuous water-fog spray.
    - c. Absorptive cover, water saturated, and kept continuously wet. Cover concrete surfaces and edges with 12-inch lap over adjacent absorptive covers.
  - 2. Moisture-Retaining-Cover Curing: Cover concrete surfaces with moisture-retaining cover for curing concrete, placed in widest practicable width, with sides and ends lapped

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at least 12 inches, and sealed by waterproof tape or adhesive. Cure for not less than seven days. Immediately repair any holes or tears during curing period using cover material and waterproof tape.

- a. Moisture cure or use moisture-retaining covers to cure concrete surfaces to receive floor coverings.
  - b. Moisture cure or use moisture-retaining covers to cure concrete surfaces to receive penetrating liquid floor treatments.
  - c. Cure concrete surfaces to receive floor coverings with either a moisture-retaining cover or a curing compound that the manufacturer certifies will not interfere with bonding of floor covering used on Project.
3. Curing Compound: Apply uniformly in continuous operation by power spray or roller according to manufacturer's written instructions. Recoat areas subjected to heavy rainfall within three hours after initial application. Maintain continuity of coating and repair damage during curing period.
- a. Removal: After curing period has elapsed, remove curing compound without damaging concrete surfaces by method recommended by curing compound manufacturer unless manufacturer certifies curing compound will not interfere with bonding of floor covering used on Project.
4. Curing and Sealing Compound: Apply uniformly to floors and slabs indicated in a continuous operation by power spray or roller according to manufacturer's written instructions. Recoat areas subjected to heavy rainfall within three hours after initial application. Repeat process 24 hours later and apply a second coat. Maintain continuity of coating and repair damage during curing period.

### 3.11 CONCRETE SURFACE REPAIRS

- A. Defective Concrete: Repair and patch defective areas when approved by Architect. Remove and replace concrete that cannot be repaired and patched to Architect's approval.
- B. Patching Mortar: Mix dry-pack patching mortar, consisting of one part portland cement to two and one-half parts fine aggregate passing a No. 16 sieve, using only enough water for handling and placing.
- C. Repairing Formed Surfaces: Surface defects include color and texture irregularities, cracks, spalls, air bubbles, honeycombs, rock pockets, fins and other projections on the surface, and stains and other discolorations that cannot be removed by cleaning.
  1. Immediately after form removal, cut out honeycombs, rock pockets, and voids more than 1/2 inch in any dimension to solid concrete. Limit cut depth to 3/4 inch. Make edges of cuts perpendicular to concrete surface. Clean, dampen with water, and brush-coat holes and voids with bonding agent. Fill and compact with patching mortar before bonding agent has dried. Fill form-tie voids with patching mortar or cone plugs secured in place with bonding agent.
  2. Repair defects on surfaces exposed to view by blending white portland cement and standard portland cement so that, when dry, patching mortar will match surrounding color. Patch a test area at inconspicuous locations to verify mixture and color match

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- before proceeding with patching. Compact mortar in place and strike off slightly higher than surrounding surface.
3. Repair defects on concealed formed surfaces that affect concrete's durability and structural performance as determined by Architect.
- D. Repairing Unformed Surfaces: Test unformed surfaces, such as floors and slabs, for finish and verify surface tolerances specified for each surface. Correct low and high areas. Test surfaces sloped to drain for trueness of slope and smoothness; use a sloped template.
1. Repair finished surfaces containing defects. Surface defects include spalls, popouts, honeycombs, rock pockets, crazing and cracks in excess of 0.01 inch wide or that penetrate to reinforcement or completely through unreinforced sections regardless of width, and other objectionable conditions.
  2. After concrete has cured at least 14 days, correct high areas by grinding.
  3. Correct localized low areas during or immediately after completing surface finishing operations by cutting out low areas and replacing with patching mortar. Finish repaired areas to blend into adjacent concrete.
  4. Correct other low areas scheduled to receive floor coverings with a repair underlayment. Prepare, mix, and apply repair underlayment and primer according to manufacturer's written instructions to produce a smooth, uniform, plane, and level surface. Feather edges to match adjacent floor elevations.
  5. Correct other low areas scheduled to remain exposed with a repair topping. Cut out low areas to ensure a minimum repair topping depth of 1/4 inch to match adjacent floor elevations. Prepare, mix, and apply repair topping and primer according to manufacturer's written instructions to produce a smooth, uniform, plane, and level surface.
  6. Repair defective areas, except random cracks and single holes 1 inch or less in diameter, by cutting out and replacing with fresh concrete. Remove defective areas with clean, square cuts and expose steel reinforcement with at least a 3/4-inch clearance all around. Dampen concrete surfaces in contact with patching concrete and apply bonding agent. Mix patching concrete of same materials and mixture as original concrete except without coarse aggregate. Place, compact, and finish to blend with adjacent finished concrete. Cure in same manner as adjacent concrete.
  7. Repair random cracks and single holes 1 inch or less in diameter with patching mortar. Groove top of cracks and cut out holes to sound concrete and clean off dust, dirt, and loose particles. Dampen cleaned concrete surfaces and apply bonding agent. Place patching mortar before bonding agent has dried. Compact patching mortar and finish to match adjacent concrete. Keep patched area continuously moist for at least 72 hours.
- E. Perform structural repairs of concrete, subject to Architect's approval, using epoxy adhesive and patching mortar.
- F. Repair materials and installation not specified above may be used, subject to Architect's approval.
- 3.12 FIELD QUALITY CONTROL
- A. Testing and Inspecting: Owner will engage a special inspector and qualified testing and inspecting agency to perform field tests and inspections and prepare test reports.

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### B. Inspections:

1. Steel reinforcement placement.
2. Headed bolts and studs.
3. Verification of use of required design mixture.
4. Concrete placement, including conveying and depositing.
5. Curing procedures and maintenance of curing temperature.
6. Verification of concrete strength before removal of shores and forms from beams and slabs.

### C. Concrete Tests: Testing of composite samples of fresh concrete obtained according to ASTM C 172 shall be performed according to the following requirements:

1. Testing Frequency: Obtain one composite sample for each day's pour of each concrete mixture exceeding 5 cu. yd., but less than 25 cu. yd., plus one set for each additional 50 cu. yd. or fraction thereof.
  - a. When frequency of testing will provide fewer than five compressive-strength tests for each concrete mixture, testing shall be conducted from at least five randomly selected batches or from each batch if fewer than five are used.
2. Slump: ASTM C 143/C 143M; one test at point of placement for each composite sample, but not less than one test for each day's pour of each concrete mixture. Perform additional tests when concrete consistency appears to change.
3. Air Content: ASTM C 231, pressure method, for normal-weight concrete; one test for each composite sample, but not less than one test for each day's pour of each concrete mixture.
4. Concrete Temperature: ASTM C 1064/C 1064M; one test hourly when air temperature is 40 deg F and below and when 80 deg F and above, and one test for each composite sample.
5. Compression Test Specimens: ASTM C 31/C 31M.
  - a. Cast and laboratory cure two sets of two standard cylinder specimens for each composite sample.
6. Compressive-Strength Tests: ASTM C 39/C 39M; test one set of two laboratory-cured specimens at 7 days and one set of two specimens at 28 days.
  - a. Test one set of two field-cured specimens at 7 days and one set of two specimens at 28 days.
  - b. A compressive-strength test shall be the average compressive strength from a set of two specimens obtained from same composite sample and tested at age indicated.
7. When strength of field-cured cylinders is less than 85 percent of companion laboratory-cured cylinders, Contractor shall evaluate operations and provide corrective procedures for protecting and curing in-place concrete.
8. Strength of each concrete mixture will be satisfactory if every average of any three consecutive compressive-strength tests equals or exceeds specified compressive strength and no compressive-strength test value falls below specified compressive strength by more than 500 psi.

## **Section 03300 - CAST-IN-PLACE CONCRETE**

9. Test results shall be reported in writing to Architect, concrete manufacturer, and Contractor within 48 hours of testing. Reports of compressive-strength tests shall contain Project identification name and number, date of concrete placement, name of concrete testing and inspecting agency, location of concrete batch in Work, design compressive strength at 28 days, concrete mixture proportions and materials, compressive breaking strength, and type of break for both 7- and 28-day tests.
  10. Nondestructive Testing: Impact hammer, sonoscope, or other nondestructive device may be permitted by Architect but will not be used as sole basis for approval or rejection of concrete.
  11. Additional Tests: Testing and inspecting agency shall make additional tests of concrete when test results indicate that slump, air entrainment, compressive strengths, or other requirements have not been met, as directed by Architect. Testing and inspecting agency may conduct tests to determine adequacy of concrete by cored cylinders complying with ASTM C 42/C 42M or by other methods as directed by Architect.
  12. Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.
  13. Correct deficiencies in the Work that test reports and inspections indicate do not comply with the Contract Documents.
- D. Measure floor and slab flatness and levelness within 24 hours of finishing.

**END OF SECTION**