



Anchorage School District

WENDLER MIDDLE SCHOOL FIRE ALARM REPLACEMENT DESIGN- BUILD

**RFP 2026-617
ASD PROJECT No. 770011**

DATE ISSUED: February 4, 2026

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REQUEST FOR PROPOSAL (RFP) NUMBER: 2026 - 617
WENDLER MIDDLE SCHOOL FIRE ALARM REPLACEMENT DESIGN-BUILD

Sealed proposals will be received in accordance with the time schedule shown below by the Anchorage School District, Purchasing Department, located at 4919 Van Buren Street Anchorage, Alaska 99517 for Wendler Middle School Fire Alarm Replacement Design-Build per the attached Instructions to Bidders/Proposers, General Conditions, Specifications and Bid Form.

ESTIMATED CONSTRUCTION COST: Between \$500,000 - \$1,000,000

On-Site Visit:	February 10, 2026 at 4:00 p.m. Local Time
Pre-Proposal Conference:	February 11, 2026 at 11:00 a.m. Local Time
Proposal Submission:	February 26, 2026 at 10:00 a.m. Local Time

At the above indicated time, the proposals will be physically received. Proposals received by the Purchasing Department after the time fixed for receipt of the proposals will not be considered. Time of receipt will be as determined by the time stamp at the Purchasing Department.

SEALED PROPOSALS MUST STILL BE PHYSICALLY RECEIVED BY THE ANCHORAGE SCHOOL DISTRICT, PURCHASING DEPARTMENT, LOCATED AT 4919 VAN BUREN STREET ANCHORAGE, ALASKA 99517 PRIOR TO THE ABOVE LISTED DATE AND TIME.

DOCUMENTS:

Prospective proposers may obtain copies of documents at the Anchorage School District website <https://www.asdk12.org/departments/support-services/purchasing-and-warehouse-dept/purchasing-and-warehouse/vendor-info>. Only electronic versions of this RFP are issued.

A copy of the current plan holder's list can be viewed at:
http://apps.asdk12.org/depts/purchasing/meeting/Plan_Holders/2026/617.xlsx

NOTICE TO PROPOSERS:

A bid bond in the amount of five (5%) percent of the total amount of the base bid will be required (**cash, personal or business checks are unacceptable**).

The successful Contractor shall be required to furnish 100 percent performance and payment bonds.

The Anchorage School District reserves the right to reject any and all proposals, and to waive any informalities or irregularities in bidding procedures.

ON-SITE AND PRE-PROPOSAL CONFERENCE:

An On-Site Visit will be held on February 10, 2026 at 4:00 p.m. Local Time at Wendler Middle School, 2905 Lake Otis Parkway, Anchorage, AK 99508. Please meet at the Front Office.

A Pre-Proposal Conference will be held February 11, 2026 at 11:00 a.m. Local Time at Anchorage School District, Purchasing Department, located at 4919 Van Buren Street Anchorage, Alaska 99517. Prospective proposers who wish to participate by teleconference may participate by calling (907) 742-6750. The line should be available approximately 5 minutes prior the conference start time.

All Proposers are encouraged to attend the On-Site Visit and Pre-Proposal Conference. Major sub-bidders are also encouraged to attend.

The Anchorage School District is committed to providing reasonable accommodations, according to applicable state and federal laws, to all individuals with a qualifying disability. If you require a reasonable accommodation in order to participate in this or any other district process, please contact the Anchorage School District's Compliance/Equal Employment Opportunity Office at (907) 742-4132.

END OF SECTION

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ARTICLE 1 GENERAL

- 1.1 Refer to the Request for Proposal (RFP) Section 00020 for information relating to time, date and place for receipt of proposals and other pertinent submittal information.
- 1.2 Anchorage School Board Policy 3515.5 prohibits a contractor whose employees or agents may have direct or incidental contact with Anchorage School District (the District) students from sending any employee or agent to district property who has been convicted of a sex offense under federal law or the law of any state and who is required to register as a sex offender under Alaska law or by court order, or who has been convicted of child kidnapping under federal law or the law of any state and who is required under Alaska law or court order to register on the Alaska Department of Public Safety Sex Offender/Child Kidnapper Central Registry. Board Policy 3515.5 requires contractors to certify in writing the contractor's knowledge of and compliance with Board Policy 3515.5. **Prior to executing a contract** for this project, the selected Contractor shall verify that no employee or agent who will be on district property is registered as a sex offender or child kidnapper in Alaska [Alaska Department of Public Safety "Sex Offender/Child Kidnapper Registry"] or in any other state. In addition, the contractor shall certify that, to its knowledge, no employee or agent is a convicted sex offender or child kidnapper. The required forms of certification are included in the proposal documents.
- 1.3 The District will be accepting competitive proposals from experienced professionals and contractors to perform as the Design-Build team (D/B) (Board Policy AR 3311.1(b).2) for the design and construction phases of the project. The D/B will participate in the design process as a member of a team with the owner. The D/B should be skilled in developing schedules (design and construction), phasing plans, preparing construction estimates, performing value engineering and life-cycle costing, analyzing alternative designs, studying labor conditions, understanding construction methods and techniques, performing constructability reviews and sequencing of work. In addition, the D/B must be familiar with the local labor and subcontracting market and be capable of working with subcontractors to generate viable pricing alternatives.
- 1.4 A one-step process will be used for submission and evaluation of proposals and selection of the successful D/B. The process shall consist of the submittal of a proposal which will be evaluated in accordance with the technical, qualifications-based criteria set forth in paragraph 12.7 and a proposal including sealed costs for the project. The highest ranked proposer based on the proposal submitted and the other factors set forth herein will be recommended for selection. All provisions of this RFP will become a part of the Contract.
- 1.5 The proposer's written response to the RFP will also become a part of the Contract. All costs incurred by contractors choosing to participate in this RFP process shall be borne by the proposing contractors.

ARTICLE 2 PROJECT DESCRIPTION

2.1. General Description:

Wendler Middle School Fire Alarm Replacement Design-Build project is a Design-Build procurement that places the responsibility for design and construction of the fire alarm system on the contractor. The contractor is responsible for professional design services, permitting from the Authority Having Jurisdiction, all facets of construction such as providing materials, labor, and supervision to successfully complete the project according to the Contract Documents.

2.2. Construction:

Wendler Middle School is a 115,000 sf two story building located at 2905 Lake Otis Pkwy. Anchorage, Alaska. The scope of work is to provide a new fire alarm system that meets Federal, State, and MOA AHJ code requirements and amendments to codes.

2.3. Schedule:

Sequence the start, installation, and completion of Work as required in Section 00200, Project Schedule Milestone Dates. Submit the proposed schedule to the owner for acceptance. The D/B contractor shall have the work substantially complete on February 17, 2027 with the final completion date of March 10, 2027. A MOA Certificate of Conditional Occupancy must be in place prior to substantial completion and a MOA Certificate of Occupancy must be in place prior to final completion. Scheduling should include activity during school holidays, evening, and weekend work as the D/B contractor deems necessary to finish the work.

2.4. Budget:

2.4.1. The district has the project budget to support this work.

ARTICLE 3 LICENSE REQUIREMENT

- 3.1. The proposer shall include on the proposal form its federal tax identification number and its current business and contractor's license numbers issued by the state of Alaska authorizing the proposer to operate as a business and to perform construction services as a specialty or general contractor.
- 3.2. The proposer shall provide a copy of its current state of Alaska business license and specialty or general contractor license.
- 3.3. The design portion of the team must hold a valid Alaska business license and any necessary applicable professional licenses required by Alaska statute as a condition of award. Offerors should contact the state of Alaska, department of commerce, community and economic development, division of occupational licensing, for information regarding business licensing.

ARTICLE 4 PROPOSALS

- 4.1. The proposer shall review all of the proposed contract documents to ascertain all of the requirements of the work.

ARTICLE 5 CONTRACT DOCUMENTS AND SITE REVIEW

- 5.1. The proposer shall examine carefully the site of the proposed work, the RFP, all contract documents, including the general and supplementary conditions, and specifications before submitting their proposal and cost factors. The submission of a proposal shall be an admission that the proposer has made such examination and understands the conditions to be encountered in performing the work and the requirements and sufficiency of the specifications and any special provisions and terms of the contract.
- 5.2. All documents furnished to any person, under any condition, remain the property of the Anchorage School District and shall be returned immediately upon request.

- 5.3. Documents may be obtained upon the conditions set forth in the RFP.

ARTICLE 6 METHOD FOR CLARIFICATION

- 6.1. Any proposer in doubt as to the meaning of any part of the specifications or other portions or provisions of the RFP documents may submit a written request for interpretation. ***The proposer submitting the request will be responsible for its prompt delivery not less than seven (7) working days prior to the date set for submission of the technical proposals.*** Questions may be delivered as follows:

Fax: (907) 243-6293
Email: purchasing@asdk12.org (preferred method)
Mail: Purchasing Department
4919 Van Buren Street
Anchorage, Alaska 99517
Hours: 7:30 a.m. – 4:00 p.m.

A written request for an interpretation, which in the opinion of the Purchasing Department requires a reply, will be answered by issuing an addendum to all plan holders prior to the proposal opening. The Owner will not be responsible for any other explanation or interpretation of the specifications or other documents made or given prior to the proposal opening.

ARTICLE 7 PREPARATION OF PROPOSALS

7.1. PROPOSAL SUBMISSION, WITHDRAWAL AND MODIFICATION

- 7.1.1. Proposals must be submitted on the forms furnished or copies thereof, and in accordance with these instructions to proposers and must be manually signed. **Proposers to provide one (1) original and five (5) copies of the proposal, for a total of six (6).** To secure consideration, the proposal must be submitted and sealed in an envelope on which the RFP identification is plainly marked on the outside. The proposal form, Section 00300 is included in the documents. The envelopes are to be addressed as indicated in the Request for Proposal, Section 00020.

7.1.1.1. If a joint venture is proposed, a copy of the joint venture or partnership agreement should be included in the proposal. These pages will not be counted against the maximum of fifteen (15) pages. The proposal should indicate which experience and information applies to which joint venture partner. Each member of the joint venture shall sign documents, including the proposals, contract, bonds, etc.

- 7.1.2. As part of the proposal package contractors must submit a cost using the form provided in Division 0, Bidding and Contract Requirements, of the Contract Documents. The cost form must be an original document and manually signed by the proposer. Facsimile, e-mail, or other similar forms of submittal will not be considered. To be considered the cost must be submitted in a separate sealed envelope on which the contract identification is plainly marked on the outside. The form shall be delivered as indicated in the RFP.

7.1.2.1. ONE manually signed cost page of the proposal form is to be submitted and sealed in a clearly marked envelope separate from the proposal submittal.

- 7.1.3. Prior to the time and date designated for receipt of proposals, a submitted cost form may

be modified or withdrawn by notice to the Purchasing office at the place designated for receipt of proposals. Notice shall be in writing and shall be signed by an authorized representative of the proposer and must be received, and date and time-stamped by the Purchasing office on or before the date and time set for receipt of proposals. Notice may be delivered by facsimile or electronically providing the document bears the signature of an authorized representative of the proposer. A change must be so worded so as not to reveal the amount of the original cost factor. It is the proposer's responsibility to verify that notice has been received by the Purchasing Office.

7.1.4. FAX/E-Mail Proposals and Proposal Modifications:

FAX/e-mail proposals will NOT be considered. Proposal modification by FAX/e-mail of proposals already submitted will be considered if received prior to the time fixed in the Request for Proposals. FAX/e-mail proposal modifications shall not reveal the amount of the original or revised cost factors and must be signed by an authorized representative of the proposer. It is the responsibility of the proposer to ensure delivery of any proposal modifications prior to the date and time fixed in the Request for Proposals. Proposal modifications received after the time fixed in the Request for Proposal will NOT be considered. Proposers are encouraged to ensure that the Owner has received any proposal modifications prior to the opening.

7.1.5. No proposal shall be withdrawn for a period of ninety (90) days subsequent to the proposal opening without the written consent of the Owner.

7.1.6. ALTERNATES

- A. The bidder shall include in the spaces provided on the "Bid Form" a bid for each alternate, if applicable.
- B. The Owner may accept alternates in any order or number and include them in the contract award price.

7.2. FORM

7.2.1. Where required on the cost proposal form, proposers must propose on all items. Failure to do so shall disqualify the proposal.

7.2.2. If erasures or other changes appear on the proposal forms, each such erasure or change must be initialed by the person signing the proposal.

7.3. ALTERNATE PROPOSALS AND QUALIFIED PROPOSALS

7.3.1. Proposals may be rejected if they show any omissions, alteration of the forms, or additions not provided for in the proposal form, including conditional or alternate cost factors, or irregularities of any kind.

ARTICLE 8 BID GUARANTEE

8.1 Each proposal shall be accompanied by a bid bond with good and sufficient surety or sureties acceptable to the Owner. The Anchorage School District will require five percent (5%) of the total amount of the base bid as a guarantee (cash, personal, or business checks are not acceptable). Bid guarantees for the three (3) low bidders will be held until the contract is executed.

- 8.2 All other bid guarantees will be returned within seven (7) days of the bid opening. Power of Attorney for the official signing of the bond for the surety company must be submitted with the bond.
- 8.3 **The bid guarantees are to be with the Cost Proposal Form (Section 00300 page 2) submitted in a separate sealed envelope labeled "Cost".**

ARTICLE 9 RECEIPT AND SUBMISSION OF PROPOSALS

9.1. TIME OF SUBMISSION

- 9.1.1 Proposals shall be submitted no later than the time specified in the RFP. The date and time of receipt of the proposal will be recorded by the Owner on the sealed proposal package. Proposals received after the date and time listed in the RFP will not be considered unless the proposal is late due to conduct of the Owner. Time of proposal receipt will be determined by the time stamp at the Purchasing Department, 4919 Van Buren Street, Anchorage, Alaska 99517. **The name of the contractors proposing will be read at the time and place specified for the submission. No public bid opening will be held.**

9.2. OFFICER'S RESPONSIBILITY

- 9.2.1. No responsibility will attach to any officer or agent of the Owner for the premature opening of, or the failure to open a proposal not properly addressed and identified.

ARTICLE 10 PROPOSERS INTERESTED IN MORE THAN ONE PROPOSAL

- 10.1. If more than one proposal is offered by any party, by or in the name of his clerk, partner, or other person, all such proposals will be rejected. A party who has quoted prices to a proposer is not thereby disqualified from quoting prices to other proposers, or from submitting a proposal directly for the work.

ARTICLE 11 REJECTION OF PROPOSALS

- 11.1. Proposers must comply with all of the terms of this RFP, and all applicable local, state, and federal laws, codes and regulations. The District may reject any proposal that does not comply with all of the material and substantial terms, conditions, and performance requirements of this RFP and any proposal which contains information or material which cannot be verified or otherwise confirmed for purposes of determining responsiveness to the solicitation.
- 11.2. The District reserves the right to waive informalities and minor irregularities, and/or reject any and all proposals, and to not award the proposed contract, if in its best interest. "Informalities and minor irregularities" means matters of form rather than substance which are evident from the submittal, or are insignificant matters that have a negligible effect on price, quantity, quality, delivery, or contractual conditions and that can be waived or corrected without prejudice to other proposers. These include items that:
- 11.2.1. Do not affect responsiveness;
- 11.2.2. Are merely a matter of form or format;
- 11.2.3. Do not change the relative standing or otherwise prejudice other offers;

- 11.2.4. Do not change the meaning or scope of the RFP;
- 11.2.5. Are trivial, negligible, or immaterial in nature;
- 11.2.6. Do not reflect a material change in the work, or;
- 11.2.7. Do not constitute a substantial reservation against a requirement or provision of the RFP.

ARTICLE 12 SELECTION PROCEDURE

- 12.1. The technical proposal shall be submitted in **a sealed envelope** labeled, **"QUALIFICATIONS"**. The proposal shall include:
 - 12.1.1. Proposal Form (Page 1)
 - 12.1.2. Letter of Interest
 - 12.1.3. Responses to each of the Selection Criteria, Section 00100, paragraph 12.7
 - 12.1.4. Copy of Alaska Business License
 - 12.1.5. Copy of Alaska General or Specialty Contracting License
 - 12.1.6. Cost Proposal Form (Section 00300 starting at page 2) submitted in a separate sealed envelope labeled "COST"
 - 12.1.7. **Bid Guarantee submitted with Cost Proposal Form in a separate sealed envelope labeled "Cost"**.
- 12.2. **The proposal should be no more than fifteen (15), 8 ½" x 11" pages** (each printed side equals one (1) page) in type no smaller than ten (10) point nor greater than six (6) lines per inch which responds to each of the Selection Criteria, Section 00100, paragraph 12.7. The proposer may use larger than 8 ½" x 11" size pages for any drawings they may wish to submit as part of the proposal responses. Tabs used for separating sections will not be counted towards the total number of pages.
- 12.3. The following technical proposal enclosures **WILL NOT** be counted as any of the fifteen (15) pages.
 - 12.3.1. Proposal Form
 - 12.3.2. Letter of Interest
 - 12.3.3. Alaska Business License
 - 12.3.4. Contractor's Alaska General or Specialty Contracting License
- 12.4. Letter of Interest - The letter of interest should be no more than two (2) pages long and may contain information not shown elsewhere in the proposal.
- 12.5. Proposal Format - Organizing proposer's written presentation in the order in which the selection criteria are presented in paragraph 12.7 will enhance the Selection Committee's ability to understand and evaluate the proposal. Criteria not specifically addressed in proposer's

presentation will be evaluated at zero score.

- 12.6. Evaluation of Proposal - The Selection Committee is interested only in a straightforward exposition of factual information concerning Proposer's ability to meet the Owner's requirements for this project.

12.6.1. Copies of licenses are required for evaluation of the proposal but do not count in proposal scoring.

12.6.2. The Competitive Sealed Proposals will be evaluated by a committee. Evaluation of responses to the selection criteria set forth in Section 00100, paragraph 12.7 results in a numerical score for each proposal. Each criterion has an assigned weight for this RFP which demonstrates its relative importance. The total of all weights is 100 (100%).

12.6.3. Scoring of proposals will be accomplished as follows:

- 12.6.3.1. Each Evaluator will individually read and rate each Offeror's response to each criterion described in Section 00100, paragraph 12.7. Ratings will be based solely on contents of proposal. Except as may be stated within any criterion description in Section 00100, paragraph 12.7, Evaluators will use the following qualitative rating factors for each of the RFP evaluation criteria:

1.0	Extraordinary
0.9	Excellent
0.8	Very Good
0.7	Good
0.5	Adequate
0.4	Fair
0.2	Poor
0.0	Unsatisfactory

A rating of "0" indicates a proposal which is non-responsive and/or provides no quality or value to the District. Ratings within the range indicate the level at which the proposal is responsive and/or provides quality or value to the District. For example, evaluating "Experience in completing D/B projects; or Projects With a Guaranteed Maximum Price", a determination of adequate would be 0.5 for that criterion. That Evaluators final score for that criterion would be determined by multiplying the qualitative rating factor of 0.5 by the 10 maximum points available resulting in a score of 5 for "Experience in completing D/B projects; or Projects with a Guaranteed Maximum Price". This process would be repeated for each evaluation criteria.

- 12.6.3.2. After completion of individual ratings, the evaluation committee will meet to discuss proposals. Evaluators may then alter their ratings; however, any changes shall be based solely on the criteria set forth in Section 00100, paragraph 12.7. The chairperson will sum individual ratings for each criterion and multiply those sums by the assigned weight for each criterion, to obtain total scores.

12.6.3.3. At no time will a proposer receive a score that is less than zero (0) for any criteria.

12.6.3.4. Evaluators may investigate and discuss factual knowledge of proposer's prior work experience and performance, including projects referenced in the proposal,

available written evaluations, etc., and may contact listed references or other persons knowledgeable of a Contractor's and/or a Subcontractor's past performance. Factors such as overall experience relative to the proposed contract, quality of work, control of cost, and ability to meet schedules may be addressed.

12.7. Evaluation criteria consists of the following:

12.7.1. **Prime Contractor**

Weight: 10

Provide a summary of Design/Build projects or project where the GMP or the price of the project was negotiated; with a construction value of \$50,000 or greater completed in the last 5 years. Highlight any school projects. Describe your experience, providing details regarding your company's specific contractual roles and responsibilities. Include the names, addresses and phone numbers of Owner and Architectural references for each project. For the projects provide initial GMP or negotiated cost, final construction cost, and an explanation of any variance.

Response must describe the history and experience of the firm and the current principals. How long has the firm been in business? How long under the current management? Describe the firm's experience with Design Build projects on which the prime contractor performed a lead role. Discuss other ongoing work which may have relevance to this project. How much work does the firm perform on an annual basis? How long has the firm been established in Alaska?

Address the design-builder's safety record, to include safety and drug testing policies and programs. Include any safety program related to COVID-19. Address quality control and quality assurance policies and programs to be employed on this project.

Identify any distinct and substantive qualifications for undertaking the proposed contract such as the availability of specialized equipment, technical resources and information technology, as well as unique approaches or concepts relevant to the project.

Address capacity to bond the entirety of the Contract. Address any arrangements you have made to finance the work. Has the firm ever failed to complete a contract due to insufficient resources?

12.7.2. **Design Build Team (Prime and Subcontractors)**

Weight: 10

Response must name all the firms to participate in the contract and define areas of responsibility to include, but not limited to the following:

- a) Fire Alarm Contractor
- b) Electrical Subcontractor
- c) General Contractor or Subcontractor
- d) Hazmat Subcontractor
- e) Professional Engineers and/or Architect
- f) Hazmat Consultant
- g) Project Manager
- h) Other major Suppliers/Subcontractors

Response must name all individuals in “responsible charge” for performance of Architecture, Engineering, and Construction plus any other key functions, and other key individuals you deem essential to perform the contract.

Describe the work to be performed by the individuals you name and detail their specific qualifications and substantive **experience directly related to the proposed contract**. A response prepared specifically for this proposal is required. Marketing resumes often include non-relevant information which may detract from the evaluation of proposals. Lists of projects are not useful. Focus on individual’s specific duties and responsibilities and how project experience is relevant to the proposed contract.

For each person named, identify their: employer, professional discipline or job classification, professional registration number if applicable, and state of residency. List at least 3 professional references (contact persons and telephone numbers) for each person.

Discuss any prior work relationships among the firms – in particular, Design-Build projects. Discuss each firm’s particular responsibilities for prior contracts that were similar to the work proposed in the RFP. Indicate which of the firms were involved in such contracts. For each contract, list the contracting entity and a reference (contact person and a telephone number).

Specifically, for the Project Manager, address the following

- a) Response must name the one individual to perform daily project management (single point of contact directly engaged in contract performance).
- b) Experience in Management of design-build projects in the type of work described in this RFP.
- c) Knowledge of the Contracting Agency’s construction management, engineering, and inspection policies and procedures.
- d) List recent projects managed including employer, project name, locations, client/owner, project value, and proposed **Project Manager’s role** on the management team for each project. Provide a reference name and phone number.

12.7.3 Project Schedule and Management Plan

Weight: 10

The Contracting Agency’s anticipated NTP and Substantial Completion dates for this project are May 13, 2026 and February 17, 2027. Address your team’s projected workload during the scheduled time for this project. Provide a Project Schedule which shows how your team will achieve (or beat) this schedule and address major project components including:

- a) Design and Approvals
- b) Materials procurement and delivery
- c) Phasing of Construction
- d) Building will be occupied during construction, address coordination issues
- e) Inspections by design professionals
- f) Substantial and Final Completion

g) MOA CCO's and CO.

The most specific schedule is desired (dates in lieu of time blocks, time blocks in lieu of ranges, etc.)

Discuss your proposed management plan and indicate the following:

- a) Organization structure, chain of command, decision authority, and communications.
- b) Construction approach including: logistics, use of local labor, etc.
- c) Procedure for solving problems on the project.

12.7.4 Design Narratives/Drawings**Weight: 15**

Response must demonstrate knowledge of project requirements. Provide a design narrative for each design discipline, describing the various proposed building systems, e.g. architectural, mechanical, electrical, etc. Include but do not limit discussion to quality of proposed fire alarm system to be installed, including quality of materials, durability, serviceability, and length of warranty. Define your approach to the problem and to the proposed solutions based on the minimum requirements listed in the bridging documents.

Discuss the efficacy of the project documents. What improvements in the fire alarm system can be designed and built into the project for the ease of construction and future maintenance?

NOTE: CRITERIA BELOW TO BE SCORED ONLY AFTER CRITERIA NUMBER 12.7.1 THROUGH 12.7.4 ARE REVIEWED AND SCORED. THE COST ENVELOPE WILL REMAIN CONCEALED FROM THE EVALUATORS UNTIL THE REVIEW OF TECHNICAL QUALIFICATIONS ARE COMPLETE FOR ALL THE PROPOSERS.

12.7.5. Cost**Weight: 55**

Provide the total cost for design, labor, materials and construction required for project in accordance with the requirements as delineated in these documents. The total value labeled cost will be evaluated as follows:

$$\frac{\text{Lowest Cost Proposal}}{\text{Cost Proposal}} \times 55$$

TOTAL POSSIBLE POINTS: 100

- 12.8. Submission of zero costs or unreasonably low (commercially unrealistic) costs will be considered non-responsive. Reasonable costs must be submitted for the proposer to be considered in the final evaluation.
- 12.9. The District reserves the right to request the highest-ranking proposers whose proposals are determined to be reasonably susceptible to award to review their previous bids with consideration of any additions, clarifications or modifications, submit revised bids for Best and Final Offers (bids). If Best and Final Offers are requested, selected offerors must submit revised bids on the

forms provided by the District to be considered for evaluation and award. Offerors who do not submit a Best and Final Offers (revised bids) will not be considered for evaluation and award and their proposals will be rejected and considered non-responsive.

- 12.10. For purposes of this RFP, proposals that are “reasonably susceptible to award” means the three (3) highest scoring proposals, unless, in the sole discretion of the District’s Purchasing Senior Director, one or more of the three highest scoring proposals did not achieve a score high enough to be within the competitive range and to remain under consideration for award when ranked with other proposals or the District received one or more additional proposals that are within the competitive range of the three highest scoring proposals such that the additional proposal(s) may remain under consideration when ranked with the other proposals. This is not a strict mathematical formula and may not be challenged on that basis except in the case of obvious arithmetic errors.
- 12.11. All proposals shall be open for public inspection of the selected proposer and final execution of the Contract, unless there is a protest to the award of Contract, in which case the proposals of both the successful and the aggrieved proposers shall be available for inspection by the successful and aggrieved proposers during the appeal. Proposers should not include proprietary information in proposals if such information should not be disclosed to the public. Proprietary information which may be provided after selection for contract negotiations will be held confidential if expressly agreed to by the Purchasing Department.
- 12.12. The selection committee will score criteria 12.7.1. through 12.7.4. Then the cost proposals will be opened and points will be assigned as listed in the criteria section. At this point, the scores will be totaled for each contractor and the contractors will be ranked. Highest score will be the top ranked proposer.

ARTICLE 13 AWARD OF CONTRACT

13.1. ACCEPTANCE OF PROPOSAL

- 13.1.1 Basis of Selection - Following completion of the evaluations and ranking of proposers, the Owner will select the highest ranked proposer for award of the contract. Selection will be by a notice in writing signed by a duly authorized representative of the Owner and no other act of the Owner or its representative will constitute an acceptance of a proposal. The acceptance of a proposal shall bind the successful proposer to execute the Contract, submit an acceptable Certificate of Insurance and fully executed performance and payment bonds, and be responsible for liquidated damages as provided herein.

13.2. BASIS OF AWARD

- 13.2.1. Following opening of the cost and determination of the apparent highest ranked proposer, the Owner will make public the Notice of Intent to Award within ten (10) calendar days prior to the scheduled date for award by the Owner. Offerors may, upon request to the Purchasing Office, review the final tabulation/proposal score summary and the apparent highest scoring offerors proposal documents prior to the scheduled award date.

ARTICLE 14 AGGRIEVED PROPOSERS

14.1. PROTEST

- 14.1.1. An interested party may protest a solicitation or a proposed award of a contract.

14.1.1.1. A protest as to the specifications and/or terms and conditions of a solicitation must be received by the Purchasing Senior Director at least five (5) calendar days prior to the due date of the proposal; failure to protest as provided herein constitutes a waiver of any objection to the solicitation.

14.1.1.2. For construction projects the protest of a proposed award of a contract must be received by the Purchasing Senior Director within ten (10) calendar days after issuance of the notice of intent to award.

14.1.1.3. The protest must include the name of the person submitting the protest, the name of the proposer represented by that person, the specific action or request for proposal contract award which is being protested, a detailed explanation of the reasons for the protest, and the relief requested.

14.1.1.4. The aggrieved person must serve all other interested parties with its protest.

14.1.2. The Purchasing Senior Director shall stay the intended award of a contract unless the senior purchasing director determines the award of the contract without further delay is necessary to protect the district's best interest.

14.1.3. The Purchasing Senior Director may, in his/her sole discretion, hold a hearing.

14.1.4. Failure to protest as provided herein constitutes a waiver of any objection to the solicitation and contract award.

14.2. APPEAL

14.2.1. A decision by the Purchasing Senior Director may be appealed to the Anchorage School Board.

14.2.2. Any appeal shall be filed with the Superintendent within five (5) days after the decision is received by the protester and must include the name of the person submitting the appeal, the name of the proposer represented by that person, and a detailed explanation of the basis for the appeal.

14.2.3. The aggrieved proposer must serve all other interested parties with its appeal.

14.2.4. The Superintendent may obtain an independent review of the appeal issues if the Superintendent determines such review will assist consideration of the appeal.

14.2.5. The independent review shall be conducted by a not directly involved district employee or an experienced but disinterested third party from outside the district.

14.2.6. Failure to appeal to the Anchorage School Board as provided herein constitutes a waiver of any objections to the solicitation and the contract award.

14.3. CONSIDERATION OF APPEAL

14.3.1. The decision being appealed and the findings from the independent review, if any, will be reported to the board.

14.3.2. Upon consideration of the appeal and allowing interested parties an opportunity to address the issues on appeal, the board may:

- 14.3.2.1. Award the contract as recommended, if applicable, indicating its reasons for rejecting the appeal;
- 14.3.2.2. Grant the appeal, indicating its reasons for granting the appeal, and determine an appropriate remedy consistent with AR3311.1(c).1 of board policy. The board may award the contract at that meeting to some other bidder/proposer if it finds that a delay in making the award would adversely affect the district;
- 14.3.2.3. Stay any award of the contract to permit further consideration of the appeal, with action to be scheduled as soon as practicable, but in no event more than twenty (20) days after the stay is initiated;
- 14.3.2.4. Reject all proposals;
- 14.3.2.5. Take such other action as appears appropriate and in the best interest of the district under the circumstances.

14.4. FRIVOLOUS PROTESTS

14.4.1. SIGNATURE ON PROTEST CONSTITUTES CERTIFICATE

The signature of an attorney or party on a request for review, protest, motion, or other document constitutes a certificate by the signer that the signer has read the document, to the best of his/her knowledge, information, and belief formed after reasonable inquiry it is well grounded in fact and is warranted by existing law or a good faith argument for the extension, modification, or reversal of existing law, and that it is not interposed for an improper purpose, such as to harass, limit competition, or to cause unnecessary delay or needless increase in the cost of the procurement or of the litigation.

14.4.2. SANCTIONS FOR VIOLATION

If a request for review, protest, pleading, motion, or other document is filed with the Purchasing Senior Director is signed in violation of board policy AR3311.1(c).1, the board, may impose upon the person who signed it, a represented party, or both, an appropriate sanction, that may include an order to pay to the other party or parties the amount of the reasonable expenses incurred because of the filing of the protest, pleading, motion, or other paper, including a reasonable attorney's fee.

ARTICLE 15 GUARANTEE SECTION

- 15.1. Whether or not there appears here or elsewhere herein specific reference to guarantees of all items of material, equipment or workmanship, they nevertheless shall be so guaranteed against defects for which the Contractor is responsible that may develop or become evident within a period of one (1) year from and after final acceptance of the work by the Owner. This guarantee shall be understood to imply prompt attention to any remedy of such defects as those mentioned above if and as they occur after the Contractor shall have written notice of their existence. If the defect, in the opinion of the Owner, is of such nature as to demand immediate repair, the Owner shall have the right to make them and the cost thereof shall be borne by the Contractor.

ARTICLE 16 SUBCONTRACTORS

- 16.1. All subcontractors proposed for the work must be acceptable to the Owner.
- 16.2. The Owner reserves the right to request the proposed subcontractors to complete qualification forms and/or current financial statements.

ARTICLE 17 MINIMUM WAGE RATES

- 17.1. Labor required for the construction of this project is subject to the minimum wage rates as provided in the General Requirements.

ARTICLE 18 EXECUTION OF CONTRACT

- 18.1. Within five (5) days after presentation of the Contract for signature, the proposer shall execute and return to the Owner two (2) originals each of the following documents: The contract, individually signed as originals by an authorized officer of the corporation or company; fully executed originals (2) of the required bonds and two (2) Power of Attorney for each set of bonds; and fully executed originals of the required insurance form(s). Failure or neglect to execute the contract within the time specified, or such extended period as the Owner may, in its sole discretion, authorize, shall constitute a breach of the agreement affecting the acceptance of the proposal. The damages to the Owner for such a breach shall include loss from interference with the general Capital Improvements Program of the Owner, and other damages, the exact amount of which is presently difficult or impossible to calculate or quantify with exactness. Therefore, the amount of the proposal guarantee of the apparently successful offeror which fails or neglects to execute the contract after proper notification of the acceptance of the proposal shall be retained by the Owner as liquidated damages for such breach.
- 18.2. The contract shall be deemed to be completely executed when two (2) originals of the contract, accompanied by the required bonding and insurance documents, have been properly executed by both the Contractor and the Owner.
- 18.3. All awards shall comply with the Anchorage School District Purchasing and Contracting Policy 3311. Awards of \$500,000 or more shall be presented to the School Board for their approval.

ARTICLE 19 NOTICE TO PROCEED

- 19.1 The Owner intends to issue a Notice to Proceed (NTP) with the work within ten (10) days following the Owner's execution of the contract. The date of commencement of the work shall be the date established in the NTP. The Owner will not be responsible for any costs incurred by the Contractor prior to the NTP.

ARTICLE 20 NON-DISCRIMINATION

- 20.1. No bidder/offeror on any District contract may illegally discriminate on the basis of sex, race, color, religion, gender identity, sexual orientation, national origin, ancestry, age, marital status, changes in marital status, pregnancy, parenthood, physical or mental disability, Vietnam era veteran status, genetic information, or good faith reporting to the board on a matter of public concern in employment, provision of services, or otherwise.
- 20.2. The submission of a proposal constitutes certification that if awarded a contract with the District, the offeror shall fully comply with the requirements of paragraph 20.1 above. This section of the RFP shall be deemed a part of the contract entered into by the successful proposer.

- 20.3. The successful proposer shall post in conspicuous places at its business operations a copy of this section, or notice setting forth the contents of this section, so that employees and job applicants are made aware of the protections against discrimination that this section provides.
- 20.4. Minority Business Enterprises:
- 20.4.1 The District requires adherence to the Anchorage Municipal Code, relating to Minority Business Enterprises and will monitor and implement these policies through the District's Equal Employment Opportunity Director (EEO).
 - 20.4.2. It is the policy of the District that socially and economically disadvantaged minority businesses located within the Municipality of Anchorage be afforded an equitable opportunity to participate in District contracts.
 - 20.4.3 Any appeal from a decision of the Equal Employment Opportunity Director shall be to the Superintendent and, if not satisfied, to the Board.

ARTICLE 21 ASBESTOS FREE MATERIALS

- 21.1. The proposer, by submitting a bid on this project, thereby certifies and guarantees to the Anchorage School District that any products or materials sold, used or installed under the terms of this contract will not contain any asbestos. In the event the product sold does not conform to the above standards, the buyer may return the product for correction or replacement at the seller's option and at the seller's expense. Services performed by the seller which do not conform to the above standards must be corrected by the seller at the seller's expense or make the appropriate correction within a reasonable time.

ARTICLE 22 CONFLICT OF INTEREST

- 22.1. The Contractor agrees to certify that Anchorage School District employees, School Board members, or a member of their household are not in conflict of interest with the contract and Board Policy as follows (AR3311.1(e).1 Disclosure and Waiver of Conflict of Interest):
- 22.1.1. No Board member, employee, or a member of their household, shall acquire, directly or indirectly, an economic interest in a District or Municipal contract, or engage in business with the District or the municipality, unless the contract is competitively solicited and other requirements of Section 3311 of Board Policy and section 1.15 of the Anchorage Municipal Code are met.
 - 22.1.2 The following acts and circumstances shall not be deemed to be in conflict with the performance of official duties if, at the earliest opportunity after having acquired such knowledge, the Board member or employee files a disclosure pursuant to AR3311.1(e).1 or requests and obtains a waiver pursuant to Board Policy AR3311.1(e).2:
 - 22.1.2.1. Such person owns a sole proprietorship, or is a partner in a partnership, or is an officer, director, major shareholder (five percent (5%) or more of the outstanding shares) or has management control in a corporation that submits a proposal to the District or attempts to enter or enters into a contract with the District;
 - 22.1.2.2 Such person has any significant (five percent (5%) or more) financial interest in any sale, lease or rental to the District of any service or property and such

person has knowledge that the District intends to purchase, lease or rent the property or service;

22.1.2.3 Such person wishes to sell or receive royalties on books or materials sold to the District for use in the school system for which the employee is the author;

22.1.2.4 Such person is an employee who has been providing private services to a child who transfers to a new school or class or advances to a higher grade and the child becomes a student in the class being taught/aided by his/her provider.

22.2. Board Members, District employees, and their household and/or immediate family members are required to comply with Board Policies and the Municipal Ethics Code by disclosing conflicts of interest.

22.2.1. When a board member, employee, or their household and/or immediate family member intends to do business with the District, the appropriate District and Municipal forms must be filed by the Board Member or District employee with the Municipal Clerk's Office and the Purchasing Department.

Note: *Notice of Intent to Respond To Public Solicitation* shall be filed with the Municipal Clerk's office in advance to allow a minimum of **7 calendar days to elapse between electronic publication by the clerk and the final date** for submitting a response to the solicitation. The form may be obtained from the Municipality of Anchorage website, www.muni.org.

District *Disclosure* and *Request for Waiver* forms and instructions may be obtained from the Purchasing Bid Information link under Quick Links on the ASD website, www.asdk12.org.

22.2.2. The responsibility for complete and timely filing rests solely with the Board Member or District employee.

22.3. Copies of all conflict of interest and ethics code documents should be submitted with your proposal.

ARTICLE 23 CONTRACT INDUCEMENTS

23.1. No payment, gratuity or offer of employment shall be made in connection with any contract, by or on behalf of the subcontractor to the prime contractor or higher tier subcontractor or any person associated therewith, as an inducement for the award of a subcontract or order.

ARTICLE 24 GOVERNANCE

24.1. This solicitation is a RFP governed by applicable Anchorage School Board Policies, including section 3311 of such Policies. Anchorage School Board Policies are available at <https://www.boardpolicyonline.com>. Offerors should read this RFP carefully and review all instructions contained herein. Incomplete or incorrect proposals may be rejected as not conforming to the essential requirements of the RFP. Proposals submitted on other than the prescribed forms contained in this RFP will be rejected. Offerors may copy the forms contained in the RFP for use in their proposals, but substitute forms or formats are unacceptable. Electronic copies of the forms which offerors must submit as part of any proposal, if any—if not provided with this RFP—may be obtained by contacting the Anchorage School District Purchasing Department. Forms shall not be altered except to supply requested Offerors information.

ARTICLE 25 APPRENTICESHIP UTILIZATION COMPLIANCE

- 25.1. In order to be deemed a responsive bid/offer, bidders/offerors shall provide a signed notarized Apprenticeship Utilization Affidavit ("AUA") with their bid. ASD reserves the right to request the signed notarized AUA to be submitted within three (3) working days after bid submission. By doing this, bidders/offerors are confirming that they understand and agree that in all trades/crafts categories in which there is an Alaskan Federally Registered Apprenticeship Program, they will ensure that 15% of the aggregate hours in those trades' categories will be worked by apprentices, as mandated by Anchorage School Board Policy 3311.1.2. This applies to both prime contractor labor hours and subcontractor labor hours. By signing the AUA, bidders/offerors are confirming their understanding and agreement that ASD will request documentation to factually demonstrate compliance with the 15% Apprenticeship Utilization Policy ("AUP"), and conduct audits. Audits for projects will be conducted every 30 days. In addition to providing documentation to ASD to confirm that 15% of the labor hours worked in trades/crafts categories that have Alaskan Federally Registered Apprenticeship Program has been done by certified apprentices enrolled in such programs, the prime contractor will provide documentation to confirm that the apprentices listed on the documentation submitted are currently in good standing in their Alaskan Federally Registered Apprenticeship Program. Attached to the solicitation will be the current version of the Federally Registered Alaskan Apprenticeship Programs, which was provided to ASD by the Federal Department of Labor.
- 25.2. Forms used to demonstrate compliance during the contract administration period are found in Section 00630 Construction Forms.
- 25.2.1 List of Federally Registered Alaskan Apprenticeship Programs
- 25.2.1.1 This list from the Federal Department of Labor will provide contractors with the list Alaskan apprenticeship programs and crafts/trades categories that are subject to ASD's AUP.
- 25.2.2 Apprenticeship Utilization Form
- 25.2.2.1 The Prime Contractor will list the crafts/trades categories required to complete the project that have Alaskan Federally Registered Apprenticeship Programs. This list will include all crafts/trades categories for both the prime and subcontractors.
- 25.2.3. Apprenticeship Utilization Program Calculation Form
- 25.2.3.1 This form will be submitted by the prime contractors to demonstrate compliance with the apprenticeship utilization percentage for both prime and subcontractors on the project.
- 25.2.3.2 Audits will be performed when the hours submitted by the prime's and/or subcontractor's certified payroll exceed 500 hours. Audits will continue as per the schedule unless the prime's and the subcontractor's certified payroll does not meet the minimum threshold of 500 hours. Prime and Subcontractors will be required to submit certified payrolls during periods where very little work is being performed. This will continue until the minimum threshold of 500 hours is met and warrants an audit. Audits will be conducted from Site Available to Contractors through Final Completion on all projects awarded by the District in excess of \$100,000 at the time of bid.

25.2.4. Penalty Table

25.2.4.1 This table lists the penalties for non-compliance with the AUP.

- 25.3 Prime Contractors are required to meet with Purchasing to discuss forms and processes of Apprentice Utilization Program prior to start of work.

END OF SECTION

PROJECT SCHEDULE MILESTONE DATES

Division 0
Section 00200

PROJECT SCHEDULE MILESTONE DATES

On-Site Visit	February 10, 2026
Pre-Proposal Conference.....	February 11, 2026
Proposal Submission	February 26, 2026
Board Meeting (anticipated).....	April 6, 2026, Non-Action, April 21, 2026, Action
Notice to Proceed (anticipated).....	May 13, 2026
Site Available to Contractor.....	May 20, 2026
Substantial Completion – Building	February 17, 2027
Substantial Completion - Site.....	February 17, 2027
Final Completion	March 10, 2027

Dates of Interest:

Presidents Day Holiday	February 16, 2026
Spring Break Week	March 9 – 13, 2026
School Ends for Students.....	May 20, 2026
Teachers Last Day	May 21, 2026
Memorial Day Holiday	May 25, 2026
Juneteenth Holiday	June 19, 2026
Independence Day Holiday	July 4, 2026
Teachers First Day.....	August 14, 2026
Students First Day.....	August 19, 2026
Labor Day Holiday.....	September 7, 2026
Parent Teacher Conferences	October 28 – 29, 2026
Thanksgiving Holiday	November 26 – 27, 2026
Winter Vacation.....	December 21, 2026 – January 1, 2027
Martin Luther King Holiday.....	January 18, 2027
Presidents Day Holiday.....	February 15, 2027
Parent Teacher Conferences	February 24 – 25, 2027
Spring Break Week	March 15 – 19, 2027

The Contractor shall be required to plan, schedule, execute and complete all work under the contract in accordance with the Project Schedule Milestone Dates set forth under this Section 00200. The above listed Project Schedule Milestone Dates for Substantial Completion and Final Completion may not be altered by the Contractor, either to schedule or to achieve early completion of the project, without the express written consent of the Owner.

The bidder's attention is drawn to the requirements of Division 1, Section 01311 of the General Requirements entitled Project Schedule and to the Phasing Drawings for associated phasing information.

END OF SECTION

**DESIGN-BUILD
PROPOSAL FORM**

This Proposal Form is the first sheet of the technical proposal, to be labeled "QUALIFICATIONS", submitted in a sealed envelope and marked in accordance with Sections 00020 & 00100. Page 2 through the end of this section must be submitted in a separate, sealed envelope labeled "COST" and marked in accordance with Sections 00020 & 00100.

RFP Number: RFP 2026 - 617
Project Title: Wendler MS Fire Alarm Replacement Design-Build
ADDENDA ACKNOWLEDGMENTS: The undersigned acknowledges receipt of the following Addenda, list by number and date appearing on Addenda;

PROPOSER

Proposer:	_____
Address:	_____ _____
City, State, Zip:	_____
Alaska Business License Number:	_____
Corporate/Professional License:	_____
Federal Tax Identification Number:	_____
Individual(s) to Sign Contract:	_____ Title: _____
Individual(s) to Sign Contract:	_____ Title: _____
Type of Business Enterprise: (check one):	
☐ Corporation in the State of: _____	☐ Individual ☐ Partnership ☐ Other (Specify): _____

ARTICLE 1: ACKNOWLEDGMENT

I certify that I am a duly authorized representative of the firm listed above and that information and materials enclosed with this proposal accurately represent capabilities of the office(s) listed above for providing the services indicated. The Anchorage School District is hereby authorized to request any owner identified in this proposal to furnish any pertinent information deemed necessary to verify information provided or regarding reputation, performance and capabilities of the Offeror(s). I certify no member of the School Board or District employee, or spouse or other member of his/her household shall have any undisclosed interest as noted in paragraph entitled Conflict of Interest (see Section 00100).

Signature	Date
Name	Telephone
Title	Fax
Firm	Email Address

A. NONE

3. UNIT PRICES:

The following unit prices will be used at the discretion of the Owner for the addition or deletion of work not reasonably implied or not included in the Contract Documents. Unit prices must include all labor, material, overhead, and profit for each unit of work. All unit price work will be processed by Request for Proposal followed by a Change Order to the Contract when quantities are verified and agreed upon.

A. NONE

4. ALLOWANCES / ASSIGNMENTS:

A. NONE

5. ADDENDA ACKNOWLEDGMENT:

The undersigned acknowledges receipt of the following addenda: (List by number and date appearing on addenda.)

6. TIME OF COMPLETION:

The undersigned agrees to complete all work under this contract in accordance with the Project Schedule Milestone Dates set forth under Section 00200 hereof.

7. BID SECURITY:

A bid bond in the amount of five percent (5%) of the total amount of the base bid is attached in the sum of:

\$ _____ (In Numbers)

which is to become the property of the Owner in the event the Performance Bond and Payment Bond are not executed within the time set forth in paragraph 10 of this section, as liquidated damages for the delay and additional work caused the Owner.

8. The undersigned agrees that upon receipt of the notice of acceptance of his bid, he will execute the formal contract, and will deliver all proper bonds and proof of insurance coverage as may be required by the contract documents.

9. The undersigned agrees to accept the Assignment of the Bid Allowance as set forth in Section 01031, Bid Allowances.

10. The undersigned further agrees to execute the formal contract within ten (10) days from the date of the notice of acceptance of this bid, and in case the undersigned fails or neglects to appear within the specified time to execute the contract, the undersigned will be considered as having

abandoned the contract, and the bid bond accompanying this bid will be forfeited to the Owner by reason of such failure on the part of the undersigned.

11. The undersigned further agrees to commence with the work under the contract in accordance with the date of commencement of the Work established in the Notice to Proceed.
12. The undersigned further agrees that the bid security may be retained by the Owner and that said bid guarantee shall remain with the Owner until the contract has been executed by the Owner.
13. The undersigned has checked all of the above figures, and understands that the Owner will not be responsible for any errors or omissions on the part of the undersigned in preparing this bid.
14. In submitting this bid, it is understood that the right is reserved by the Owner to reject any or all bids and waive any informalities and irregularities in connection therewith. It is agreed that this bid may not be withdrawn for a period of forty-five (45) days from the date and time of opening.
15. The undersigned declares that the person or persons signing this Bid Form is/are fully authorized to sign on behalf of the firm listed and to fully bind the firm listed to all the conditions and provisions thereof.
16. It is agreed that no person or persons or company other than the firm listed below or as otherwise indicated has any interest whatsoever in this bid or the contract that may be entered into as a result of the bid and that in all respects the proposal is legal and firm, submitted in good faith without collusion for fraud.
17. It is agreed that the undersigned has complied or will comply with all requirements of local, state and national laws, and that no legal requirement has been or will be violated in making or accepting this bid in awarding the contract to him and/or in the prosecution of the work required.
18. CONFLICT OF INTEREST:

I certify no member of the School Board or District employee, or spouse or other member of his/her household shall have any undisclosed interest as noted in paragraph entitled Conflict Of Interest (Section 00100). By and for the bidder:

Signature: _____

19. APPRENTICESHIP UTILIZATION AFFIDAVIT (FOR BIDS OVER \$100,000)

Pursuant to School Board Policy 3311.1.2, Use of Apprentices, I _____
the undersigned Principal for _____
on Solicitation _____ certify:

- A. I understand that Anchorage School District ("ASD") School Board Policy 3311.1.2 states, "For capital maintenance and construction projects with an estimated total cost of more than \$100,000, the Anchorage School District shall require that no less than fifteen percent (15%) of the total hours worked on the project shall be performed by apprentices enrolled in a federally registered or State of Alaska-approved apprenticeship program. This requirement shall only apply to crafts for which an Alaskan federally registered apprenticeship program exists."

- B. I will ensure that apprentices employed by the prime and sub-contractors, in the eligible trades categories, will provide no less than fifteen percent (15%) of the aggregate labor hours of those eligible trades categories.
- C. I understand that if awarded a contract in excess of \$100,000, ASD will audit the prime contractor at 30-day intervals and ASD reserves the right to audit at random intervals as needed.
- D. I understand ASD will conduct random site inspections to determine that employed apprentices are working at the project site.
- E. I understand that if I am awarded a contract ASD will require the following specific reporting requirements during the contract performance period to ensure that the 15% apprenticeship utilization requirement is met:
- a. List of the apprentices the prime contractor intends to use to meet the utilization goal, and the Alaskan federally registered apprenticeship programs to which they belong (Apprenticeship Utilization Form);
 - b. List of the subcontractors that the prime contractor will use on this project;
 - c. List of the apprentices the subcontractor intends to use to meet the utilization goal required by the prime contractor, and the apprenticeship programs they belong to (Apprenticeship Utilization Form);
 - d. Submission of Apprenticeship Utilization Program Calculations Form, to be submitted by the prime contractor, at 30-day intervals for contracts exceeding \$100,000, consisting of a compliance spreadsheet, with supporting documents demonstrating compliance by both the prime contractor and all subcontractors, identifying the trades categories that are subject to the utilization requirement, apprentice employees used to meet the goals, and apprentice hours calculation showing compliance with the required 15% utilization when compared to total hours worked in the eligible trades categories.
- F. I understand a non-compliance penalty for projects exceeding \$100,000 will be assessed at each 30-day audit per the Penalty Table, if I am found to be non-compliant during the contract period.
- a. Failure to comply at 1st 30-day audit will result in a penalty per the Penalty Table, which will be deducted from the prime contractor's invoice.
 - b. Failure to comply in a consecutive 2nd 30-day audit will result in a penalty per the Penalty Table, which will be deducted from the prime contractor's invoice.
 - c. Failure to comply in a consecutive 3rd 30-day audit will result in a penalty per the Penalty Table, which will be deducted from the prime contractor's invoice.
 - d. Failure to comply in a consecutive 4th 30-day audit will result in a penalty per the Penalty Table, which will be deducted from the prime contractor's invoice, and may result in a finding of non-responsibility on future bidding. (This penalty will repeat for any future non-compliance.)
- G. Application of the Penalty Table:
- a. Advancement of penalties in the Penalty Table will only be assessed for consecutive non-compliance. If the contractor gets back into compliance, any future non-compliance will be assessed at the beginning step of the Penalty Table, per the applicable contract threshold category.
- H. Lack of Apprentice(s) availability:

- a. If a contractor is awarded a contract but cannot meet the apprenticeship utilization requirement, and fail an audit, the contractor will have the opportunity to request a waiver from the apprenticeship utilization requirement. A waiver will only be granted if the contractor can factually demonstrate that the cause was from a lack of available apprentices in eligible trades categories.
- I. ASD will provide the List of Alaskan Federal Registered Apprenticeship Programs, which contains the crafts/trades categories within those federally registered programs. Once per year, ASD will receive the updated List of Alaskan Federal Registered Apprenticeship Programs from the Federal Department of Labor to capture any new Alaskan Federally Registered Apprenticeship Programs that have been added, or to capture any that have been dissolved or discontinued. The List of Alaskan Federal Registered Apprenticeship Programs provided to ASD by the Federal Department of Labor will be posted on ASD's website, as contained in the solicitation, so contractors have access to it.
- J. Definitions:
 - a. **Alaskan Federally Registered Apprenticeship Programs** are programs approved by the Federal Department of Labor, US DOL Office of Apprenticeship.
 - b. **Eligible Trades Categories** are the crafts/trades categories that fall under an Alaskan Federally Registered Apprenticeship Program. Eligible Trades Categories will be the categories measured for aggregate project hours and apprentice hours to establish the apprenticeship utilization percentage.
 - c. **The List of Alaskan Federal Registered Apprenticeship Programs** is a current list provided by ASD to contractors that shows the Alaskan Federally Registered Apprenticeship Programs and the eligible trades categories under those programs. That current list will be the list in effect and in force during the issuance of the solicitation. Any changes to the list will affect future solicitations and will not be retroactive to prior solicitations.
 - d. **Random Site Inspections** are defined as non-scheduled site inspections, in which ASD's representative will visit the project site to establish if apprentices are physically on-site. ASD will provide a minimum of 24 hours' notice to contractors prior to the site inspections.
 - e. **Consecutive Non-Compliance** is when a contractor consecutively fails to meet the required apprenticeship utilization percentage. If a contractor fails an audit, but then passes the next audit, any future non-compliance will be addressed at the first step of the Penalty Table per the contract values in the table.
 - f. **The Measurement of Aggregate Apprenticeship Utilization Hours** is defined by the following. Compliance will be audited at 30-day intervals for projects exceeding \$100,000. Each 30 day audit period will be measured independently for aggregate apprenticeship utilization hours. If a contractor does not meet the 15% apprenticeship utilization requirement in an audit period, a penalty will be assessed, per the penalty table. However, the deficiency in percentage of apprenticeship utilization hours, will not be carried forward from one audit period to the next. Contractors will only be required to meet the 15% apprenticeship utilization requirement in each audit period, which will be measured independently. In addition, if the aggregate hours for all audit periods for the entire project are 15% or greater, any previously assessed penalties for non-compliance in an audit period will be rescinded.
 - g. **Finding of non-responsibility:** If ASD determines a contractor to be non-responsible, they will not be permitted to bid on ASD projects.

IN WITNESS WHEREOF, the signature of the undersigned Contractor has been hereunto set this

_____ day of _____, 20____, at _____, Alaska.

Signature: _____

Printed Name: _____

I, _____, being first duly sworn, say that I am the agent for and executed the foregoing under authority of said company to do so; that I have read the same, know the contents thereof, and the matter set forth therein are as I truly believe.

Signature: _____

Subscribed and sworn to before me this _____ day of _____, 20____, at _____, Alaska.

Notary Public in and for: _____

My Commission Expires: _____.

20. LICENSE NUMBER(S):

Alaska Business License Number: _____

Alaska General or Specialty Contracting License Number: _____

Respectfully Submitted, this _____ day of _____, 20____.

Firm Name: _____

Federal Tax ID: _____

Address: _____

Signature: _____

Name (Typed): _____

Title: _____

CORPORATE SEAL

ENCLOSURES:

1. Bid Guarantee (in the form and amount specified or required, include Power of Attorney For Surety)

END OF SECTION

ASBESTOS ABATEMENT SUBCONTRACTOR'S CERTIFICATE OF INSURANCE

Division 0
Section 00420

ASBESTOS ABATEMENT SUBCONTRACTOR'S CERTIFICATE OF INSURANCE

PART 1. GENERAL

1.01 REFERENCE:

- A. As part of the Owner-Contractor Agreement (Document 00500), the Contractor shall cause its asbestos abatement subcontractor to submit a Certificate of Insurance on an Anchorage School District Form on which the Subcontractor's insurer certifies that the Subcontractor has insurance coverage to the same extent, with the same endorsements, and with the same limits and under the same conditions as those required of the Contractor pursuant to General Conditions of the Owner-Contractor Agreement, Article 11, with the exception of builder's risk insurance and umbrella liability insurance. The Contractor shall submit to the Owner the Subcontractor's completed Certificate of Insurance within five (5) days after the Owner's approval of the proposed Asbestos Abatement Subcontractor.

PART 2. (NOT USED)

PART 3. (NOT USED)

END OF SECTION

OWNER – CONTRACTOR AGREEMENT FORM

REFERENCE:

1. The form of agreement between the Owner and the Contractor shall be the form bound herein.
2. The Agreement shall be executed in duplicate.

CONTRACT NO. XXCXXXX
SCHOOL PROJECT TITLE
ITB 202X-8XX
ASD PROJECT NO.

Board Memo No.: N/A or NumberDate of Contract: Date of Contract

Company
Address
City, State, Zip

☐ Sole Proprietorship
☐ Partnership
☐ Incorporated in the
State of Alaska

OWNER: ANCHORAGE SCHOOL DISTRICT, ANCHORAGE ALASKA

CONTRACT FOR: ITB SCHOOL PROJECT TITLEAmount of Contract: Amount of Contract in words Dollars and No Cents

Base Bid:	\$xxx,xxx.xx
Additive Alternate 1:	\$xxx,xxx.xx
Siemens Allowance:	\$xxx,xxx.xx
Total:	<u>\$xxx,xxx.xx</u>

Statement of Work: The Contractor shall furnish all labor, equipment and materials and perform the work above described for the amount stated in strict accordance with Contract Documents, all of which are made a part of this Contract and designated as follows:

CONTRACT DOCUMENTS

- This Contract, consisting of two (2) pages plus sixteen (16) page attachment, General Architectural and Engineering Design and Construction Phase Services Appendix B.
- Section 00620 Performance Bond and Payment Bond, consisting of nine (9) pages, dated (date of contract) and attached Power of Attorney for Surety.
- Contractor signed Bid Form, Section 00300 and signed Addendum/a consisting of four (4) or five (5) pages.
- Alaska Sex Offender/Child Kidnapper Registry Contractor Certification consisting of one (1) page.
- Certificates of Insurance.
- Invitation to Bid (number) Project Manual dated (date) and all Drawings are hereby incorporated by reference as if in full text.

In the event of a conflict between any of the Contract Documents and the provisions of any purchase order of materials or service request issued in connection with this Contract, the provisions of the Contract Documents shall prevail.

Work shall be started in accordance with the Notice to Proceed. Time being of the essence, work shall be completed in accordance with the Project Schedule Milestone Dates set forth under Section 00200 thereof.

The ASD Project Manager for this Contract is: Insert Name of Project Manager Cell (907) XXX-XXXX, Office (907) XXX-XXXX and insert email address.

Anchorage School District Attorney

CONTRACTOR BUSINESS NAME

Account Code(s):

General Architectural and Engineering Design and Construction Phase Services
Appendix B

Contract No:
Date Prepared:

ANCHORAGE SCHOOL DISTRICT

FORMAL PROFESSIONAL SERVICES AGREEMENT

INDEX

<u>ARTICLE</u>	<u>TITLE</u>
B1	Professional Responsibilities, Standard of Care, Representations
B2	Relationship of the Parties
B3	Administrative Requirements
B4	Design Services
B5	Construction Phase Services
B6	Additional Services
B7	Anchorage School District Responsibilities
B8	Additional Provisions

ARTICLE B1 Professional Responsibilities, Standard of Care, Representations

- B1.1 The Contractor shall provide professional architectural/engineering services for the Project in accordance with the terms and conditions of this Agreement. The Contractor shall perform such services, as a professional consultant to the Anchorage School District, to carry out the activities of Project design and Construction Contract administration, and to provide the technical documents and construction observation that are necessary and desirable to complete the Project in a manner satisfactory to the Anchorage School District.
- B1.2 The Contractor shall provide all services required in this Agreement using no less than the usual and customary skill, care and judgment of a professional architectural/engineering firm that is registered in the State of Alaska and is well experienced in providing such services as the design and construction of public school buildings located within the Anchorage School District.
- B1.3 Contractor represents and agrees that (a) it is an experienced firm having the ability and skill (or that it will subcontract to obtain the services of qualified sub-consultant(s) acceptable to the Anchorage School District) that are necessary to perform the services required of it under this Agreement, including specifically, but without limitation, the design and construction of a project having the scope and complexity of the Project contemplated herein; (b) it has the capabilities and resources necessary to perform its obligations hereunder; (c) it is familiar with the current laws, rules and regulations applicable to the Project, including applicable municipal, state and federal building codes and sanitary and environmental laws, rules, regulations, and orders thereof.
- B1.3.1 In the event the Contractor becomes aware of a change or pending change in codes, laws, rules or regulations which may affect the design or construction of the Project, the Contractor shall inform the Project Manager of the change or pending change and the possible impacts thereof on the Project.

- B1.4 The Contractor represents and agrees that the drawings, specifications and other documents prepared by it or its Subcontractors pursuant to this Agreement shall be functional for the purposes intended, and that the Project, if constructed in accordance with such drawings, specifications and other documents, will be structurally sound and a complete and properly functioning facility in accordance with the general design intent established by the Educational Specifications.
- B1.5 The Contractor shall prepare drawings, specifications, and other documents necessary to complete the design of the Project and to meet applicable codes, laws, rules, regulations and professional standards in effect as of the date of design. The Contractor or its Subcontractors shall correct, at their own expense, any and all errors, omissions, ambiguities and conflicts in the drawings, specifications and other documents prepared by the Contractor.
- B1.6 The Contractor covenants and agrees to perform the services described in this Agreement through appropriate, competent professionals who are Contractor's staff members or Subcontractors, or the staff members of Contractor's Subcontractors, and are professionally registered when required by State of Alaska statutes. Subcontractors may include, but are not limited to, architects, structural engineers, mechanical engineers, electrical engineers, landscape architects, civil engineers, cost estimators, and others as necessary.
- B1.6.1 The Anchorage School District shall have the right to require the Contractor to exclude from providing services under this Agreement any Subcontractor, or any employee of Contractor or any of its Subcontractors, or any other person under the control of the Contractor, to whom the Anchorage School District has a reasonable objection. The Anchorage School District reserves the right to object to selection of Subcontractors based on considerations of cost, performance, special qualifications, and/or known work load relative to resources.

ARTICLE B2 Relationship of the Parties

- B2.1 The Anchorage School District has no design responsibilities of any nature under this Agreement. Additionally, the District's issuance of Design Standards and Technical Specifications guidelines and/or the District's approval or denial of deviations from said Design Standards or Technical Specifications guidelines shall not create in the District design responsibilities or obligations under this Agreement. None of the activities of the Anchorage School District are intended to supplant or conflict with the design, construction cost estimating, contract administration, construction observation, or any other services and responsibilities of the Contractor that are required under this Agreement.
- B2.1.1 The Contractor's architectural and engineering design services include, but are not limited to, cost and time estimating that are calculated to demonstrate that the Project can be constructed within the budget and time frame identified in this Agreement. Although the Project Manager may discuss or suggest changes to Contractor's cost and time estimates, such discussions or suggestions shall in no way relieve the Contractor of the responsibility of fulfilling its obligations and responsibilities therefor.
- B2.2 The Contractor, including its agents, employees and Subcontractors, is an independent contractor of the Anchorage School District, and not an agent, officer or employee of the Anchorage School District. The Contractor shall carry out its responsibilities under this Agreement and conduct itself at all times as an independent contractor, except as the authority to act as an agent of the Anchorage School District in relation to certain tasks and events may be specifically granted by the Project Manager in writing from time to time. The Contractor shall not represent itself to any third party as other than an independent contractor of the Anchorage

School District at any time, except in accordance with the foregoing written authority of the Project Manager.

- B2.3 Any and all employees of the Contractor, while engaged in the performance of any services required of the Contractor under this Agreement, shall be considered employees only of the Contractor and not of the Anchorage School District, and any and all claims that may or might arise under the Workers' Compensation Act on behalf of said employees while so engaged, and any and all claims made by a third party as a consequence of any act or omission on the part of the Contractor's employees while so engaged on any of the services to be rendered herein, shall be the sole obligation and responsibility of the Contractor.
- B2.4 Communications by the Anchorage School District to the Contractor relating to services performed by the Contractor may be issued or made through the Project Manager. Formal communications and submittals of the Contractor to the Anchorage School District and the Construction Contractor shall be issued or made through the Project Manager, unless otherwise directed by the Project Manager or by this Agreement. The Project Manager shall have the authority to establish procedures consistent with this Agreement, to be followed by the Contractor, and to call periodic conferences to be attended by the Contractor and its Subcontractors throughout the term of this Agreement.

ARTICLE B3 Administrative Requirements

- B3.1 The provisions contained in this Article B3 are administrative requirements of this Agreement.
- B3.2 Cost Analysis and Control. Cost analysis and cost control are primary concerns of the Anchorage School District. Provisions B3.2.1 - B3.2.6.2 are included in this Agreement in order to facilitate and promote effective cost analysis and control in relation to the Project.
- B3.2.1 The Contractor shall prepare and deliver Estimated Total Construction Costs (ETCC) to the Anchorage School District at periods designated by the Deliverables Checklist referenced in Article B4. The initial ETCC shall be reviewed by the Project Manager and revised to the extent necessary at each subsequent deliverable period at no additional cost to the Anchorage School District.
- B3.2.2 The Contractor shall provide a Project design that reflects the program as defined in Contractor's original or amended scope of work. If the Estimated Total Construction Cost exceeds the budgeted Construction Contract Award Price (CCAP), the Contractor shall at no additional cost to the Anchorage School District designate an appropriate base bid scope of Work and one or more additive alternate bid scope(s) of Work, at its own expense. The ETCC for such scopes of Work shall approximate the CCAP.
- B3.2.2.1 To the extent possible, and only when requested by and approved by the District, the Contractor shall provide additive alternates or redesign the basic bid; deductive alternates shall only be included with the approval of the Anchorage School District. Where Bid Documents require bid proposals for unit prices that exceed, or deduct from, base quantity allowances, such base allowances shall be based on specific quantity surveys and not factors.
- B3.2.3 The Anchorage School District may, at its option, obtain an independent estimate of the total construction cost based on the Contractor's design. If, in the opinion of the Project Manager, such independent estimate varies significantly from the ETCC provided by the Contractor, then the Project Manager and the Contractor shall review the discrepancies. If the Project Manager concludes that changes in the Project design are required in order to keep construction costs within the CCAP, the Contractor shall

modify the Construction Contract Documents accordingly at its own expense. Contractor's modification(s) shall be carried out in a reasonable time so as not to delay the scheduled completion and occupancy of the project by the Anchorage School District.

B3.2.4 Should the Contractor be required to redesign the Project for any reason, such redesign must be approved by the Anchorage School District.

B3.2.5 After opening bids, the Anchorage School District may exercise any option available to it, including without limitation the following:

B3.2.5.1 If the lowest responsive basic bid by a responsible bidder exceeds 100% of the CCAP, (a) increase the budgeted funds and award the Construction Contract(s), or (b) reduce the Project scope and require the Contractor to redesign the Project and modify the Bid Documents accordingly for rebid at Contractor's own expense.

B3.2.5.2 If the lowest responsive basic bid by a responsible bidder, plus all additive alternative bids, is less than 90% of the CCAP, and if the scope of the Project had previously been decreased or the quality of the materials used in the Project had previously been lessened from the Technical Specifications and Design Standards because the ETCC exceeded the CCAP, (a) award the Construction Contract(s), and (b) require the Contractor to redesign the Project and modify the Construction Contract Documents in order to return the Project to its previous scope, or the materials to their previous qualities, or both, or other mutually agreed upon adjustment. Contractor's modification(s) shall be carried out in a reasonable time so as not to delay the scheduled completion and occupancy of the project by the Anchorage School District. Such modification(s) will serve as the basis of a change order to the Construction Contract.

B3.2.6 If the Contractor is required by the Project Manager to redesign the Project and modify Bid Documents pursuant to provision B3.2.5.1, or to redesign the Project, modify the Construction Contract Documents and prepare a change order to the Construction Contract pursuant to provision B3.2.5.2, such redesign, modification and change order preparation shall be performed at Contractor's own expense, unless one or more of the following conditions exist:

B3.2.6.1 The required redesign, modification and preparation is made necessary as the result of a prior redesign or modification directed by the Project Manager following an independent estimate of total construction cost pursuant to provision B3.2.3.

B3.2.6.2 The required redesign and modification is the result of the lowest responsive bid by a responsible bidder being more than 100% of the CCAP, and (a) the Contractor notified the Project Manager in writing prior to completing the Construction Contract Documents that the CCAP would probably be insufficient for award of the basic bid and no action was taken by the Project Manager to resolve the matter, or (b) because the bid opening date was delayed, for reasons not the fault of the Contractor, more than ninety (90) days after the Project Manager's receipt of the ETCC submitted as part of Construction Document Services.

B3.3 Time for Performance, Delays Timely provision of a Master Time Schedule, as defined in Appendix A, is a material requirement of this Agreement. If such a schedule is not included in

Appendix F herein, Contractor shall develop and deliver it prior to the first billing for design services to the Anchorage School District, but in no event later than thirty (30) days after award of contract to the Contractor. Contractor shall coordinate Master Time Schedule with Anchorage School District's anticipated date for occupancy of Project.

B3.3.1 The Contractor shall not deviate from the Master Time Schedule unless, in accordance with and under the conditions set forth in Article A6 ("Changes to the Agreement"), one of the following conditions is met: (a) an Amendment incorporating such change of schedule is negotiated and signed by both parties hereto, or (b) a modification to the Master Time Schedule is agreed upon and signed by both parties. Contractor shall accordingly modify and submit a revised Master Time Schedule prior to submission of any subsequent billing to the Anchorage School District.

B3.3.1.1 Should the Project Manager reasonably determine that the Contractor is behind schedule, and so notify the Contractor, the Contractor shall accelerate its efforts at its own expense, including using additional manpower or overtime, or both, to maintain the approved Master Time Schedule.

B3.3.2 The Contractor shall not be held liable for damages incurred by the Anchorage School District due to a failure by the Contractor to meet any deadline established by the Master Time Schedule, provided that such failure arises out of a cause(s) beyond the control and without the fault or negligence of the Contractor. Such causes may include but are not limited to: Acts of God or of the public enemy, acts of a governmental entity acting in its sovereign or proprietary capacity, acts of the Anchorage School District acting in its contractual capacity, fires, floods, epidemics, quarantine restrictions, strikes, and weather that is unusually severe for the location(s) in which the Contractor is to perform its services. In the event of any such delay, Contractor shall provide to the Project Manager a written request for time extension by Amendment or modification to the Master Time Schedule in accordance with Article A6 ("Changes to the Agreement"). Except as provided in this provision B3.3.2, the Anchorage School District shall have all other contractual rights and remedies available to it at law or in equity in the event of Contractor's failure to perform this Agreement in a timely manner.

B3.3.3 Contractor shall not be entitled to any damages for delay from the Anchorage School District, whether caused by the Anchorage School District, or the Construction Contractor or another third party. Contractor's sole remedy for delay is a reasonable time extension granted by the Project Manager in an Amendment or modification to the Master Time Schedule pursuant to Article A6 ("Changes to the Agreement").

B3.3.4 In the event of a suspension in service directed by, or as a result of, the Anchorage School District, upon resumption of services, if any, the Contractor shall be required to review, revise and deliver the Master Time Schedule. Contractor shall be compensated for same based on stipulated sum pursuant to Article A6 ("Changes to the Agreement").

B3.4 Conformance with ASD guidelines. The Anchorage School District's Technical Specifications and Design Standards are intended as guidelines. The Contractor shall review these guidelines. The Contractor's use of such guidelines without written notice of exception shall constitute Contractor's acceptance of the guidelines. If the Contractor proposes deviations from these guidelines, such deviations shall be justified to the Anchorage School District in writing. The Anchorage School District retains the right to accept or reject such deviations, the Contractor shall modify the Construction Contract Documents accordingly at its own expense. The Contractor shall incorporate and coordinate the referenced guidelines into the Project.

- B3.5 Document Preparation and Submission Procedures. Contractor's compliance with the procedures and requirements set forth in provisions B3.5.1 - B3.5.9 concerning document preparation and submission is mandatory, except as may be specifically modified in writing by the Project Manager.
- B3.5.1 All drawings and specifications submitted for review and approval shall be marked as "Schematic Development Review Set," "Design Development Review Set," "Construction Document Review Set," or similar phrase, as appropriate. The original set used to duplicate the Bid Documents shall be marked and issue dated as directed by the Anchorage School District.
- B3.5.1.1 Technical specifications shall be provided in the current C.S.I. format.
- B3.5.1.2 Specifications shall be provided digitally in pdf and the current version of Microsoft Word used by the Anchorage School District.
- B3.5.2 All Construction Contract Documents shall bear the Anchorage School District's Project number and title, and shall be signed or initialed by the Contractor to acknowledge that the submissions have been checked by the Contractor for accuracy, completeness and coordination.
- B3.5.3 Electronic media drawing files shall be developed or usable in current version of AutoCAD used by the Anchorage School District, or as determined by the Project Manager in consultation with the Contractor.
- B3.5.3.1 Fonts used in drawing data bases shall be standard AutoCAD fonts, or Contractor shall supply the Anchorage School District with a licensed copy of font files used.
- B3.5.3.2 Contractor shall conform drawing production data classifications to the current version of the "United States National CAD Standard", except as otherwise approved by the Project Manager for project-specific requirements. Information regarding this Standard is available at: <http://www.nationalcadstandard.org>.
- B3.5.4 Contractor shall provide drawing files on writable CD-ROM disk(s), labeled with the Anchorage School District's Project name and number, and drawing numbers, dates, and phase status.
- B3.5.5 During design phases, Contractor shall provide digital progress drawings, as pdf, in sizes and quantities as agreed to by Project Manager and Contractor.
- B3.5.6 Contractor shall provide one complete set of final reproducible drawings each for Bid Document issuance and, subsequently, for Conformed Documents digitally in sizes as agreed to by Project Manager and Contractor.
- B3.5.7 At the completion of construction of the Work as provided by B5.17, the Contractor shall provide one complete set of Record Drawings electronically.
- B3.5.8 The Contractor shall not delegate or transfer in any way through the Bid Documents any service required of it by this Agreement, unless such delegation or transfer is submitted prior to the Construction Document phase and approved in writing by the Project Manager. Any performance specifications which require design services by the Construction Contractor or one of its subcontractors, or by a third party, or which require instruction (such as from a manufacturer, supplier or installer) shall state that

the Contractor must review and approve all such designs or instructions for conformance with design intent.

- B3.5.9 "Brand Name", "Sole Source", or proprietary specifications shall not be used in the Bid Documents except when directed by the Project Manager, or when justified by the Contractor and approved by the Project Manager. Basis shall be replacement inventory, compatibility with existing systems, spatial parameters, previous performance history, and/or Anchorage School District Technical Specifications and Design Standards. "Brand Name or Equal as approved by Architect or Engineer" specifications may be used in Bid Documents as a means to define the performance or other salient requirements of an item, if the specific features of the brand name establish the minimum essential characteristics required to satisfy its intended use and the same is clearly stated in the specifications. During construction, Contractor shall conform with Article B5.4.2 for substitution of specified products.

- B3.6 Review, Comment. The District's review of drawings and specifications may generate comments directed to the Contractor which are designated by the following classifications and which require certain types of action by the Contractor as indicated below:

Class I comments pertain to real or potential code or regulation violations, and require the Contractor's response by means of modification or formal written approval or variance from the regulatory agency. Any such approval or variance from the regulatory agency shall be copied to the Project Manager.

Class II comments pertain to errors, omissions, matters of document coordination, or deviations from Anchorage School District's Technical Specifications and Design Standards, and require the Contractor's correction of the documents, unless justification satisfactory to the Project Manager is provided in writing by the Contractor.

Class III comments pertain to matters of design judgment and are offered in a positive manner with the intent of improving the design result. These comments are not directions for design changes, but are provided as suggestions for consideration by Contractor as the Contractor may deem appropriate. These comments do not require any revision of the documents by the Contractor. However, they do require response by the Contractor justifying action taken.

- B3.7 Presentation, Approval, Acceptance. Notwithstanding presentation requirements of other regulatory agencies, the Contractor shall present Conceptual Design (when required) and subsequently Schematic Design documents to the Anchorage School Board at a regularly scheduled Board Meeting to obtain Board approval before proceeding with services for subsequent phase. At least three weeks prior to the anticipated Board meeting, the Contractor shall submit presentation drawings as defined by the attached Deliverables Checklist and shall notify the Project Manager that the Contractor will be ready to make the presentation to the School Board at the regularly scheduled meeting.

- B3.7.1 Approval of the Contractor's design and document submissions by the Project Manager, the Anchorage School District, or the Anchorage School Board constitutes approval of the basic design concept and layout only, and does not relieve the Contractor of the responsibility for preparing a complete set of Construction Contract Documents in accordance with the terms of this Agreement.

- B3.7.2 Acceptance by the Project Manager, the Anchorage School District, or the Anchorage School Board of the Contractor's design and document submissions is not an approval of any Contractor omissions, errors, conflicts, oversights or noncompliance with any

applicable governmental laws or regulations. The Anchorage School District shall not be liable for failure to identify any such omissions, errors, conflicts, oversights, or noncompliance. All such responsibility belongs to the Contractor.

ARTICLE B4 Design Services

B4.1 The Contractor shall provide all the design services described within this Article B4 ("Design Services"). Design Services shall consist of Conceptual Design Services (when required), Schematic Design Services, Design Development Services, Construction Document Services and Bid Services described herein, except that any such service may be modified or deleted in Article B8 ("Additional Provisions"), or deleted by a notation in the left margin of Article B4 which is initiated by both parties.

B4.1.1 The Contractor shall provide Deliverables as indicated on the attached Deliverables Checklist (Attachment A to PSA Appendix B) as negotiated within the Scope of Services by the Contractor and Project Manager.

B4.1.1.1 Where indicated on the Deliverables Checklist, drawings showing preliminary master plan development, site plan layout, building plan layouts, preliminary building cross-sections, exterior elevations, and interior elevations of salient features shall be provided in both full size and 8-1/2 x 11" format (or as otherwise directed by Project Manager) for presentation to the Anchorage School Board.

B4.1.1.2 Where three-dimensional control coordinates are indicated on the Deliverables Checklist, Contractor shall provide same for all critical control coordinates (i.e., tangent points, property corners, curvature points, grade breaks, horizontal and vertical control monuments, inverts, flow lines, etc.) CADD drawings shall include all disciplines referenced to the same geometric base. Should the Municipality of Anchorage require that certain drawings reflect a different basis of control than that selected by the Contractor, appropriate equation(s) shall be provided by the Contractor allowing coordination on either data base(s).

B4.1.1.3 Where indicated on the Deliverables Checklist, the Contractor shall review, approve and submit to the Project Manager Estimated Total Construction Costs of the Project, based on historic area, volume or other unit costs, construction sequence and scheduling, economic tradeoffs, safety and maintenance requirements, and such other factors as may be appropriate.

B4.1.2 The Contractor shall serve as a member of the Municipality of Anchorage Art in Public Places program's Art Advisory Committee to determine specific sites for work(s) of art and the scale and type of artwork most appropriate for the Project.

B4.1.2.1 The Contractor shall work closely with artist(s) and artist's (artists') consultants approved by the Anchorage School District to identify and coordinate the structural, utility or other requirements which interface with Contractor's work for selected work(s) of art for inclusion in the Bid Documents.

B4.1.3 The Contractor shall prepare and submit all Deliverables necessary to obtain all preliminary reviews or approvals required: by governmental entities that have regulatory and jurisdictional power over the Project through applicable laws, statutes, regulations and codes; by privately-owned utility companies or other entities which

may impose conditions on the Project; and by such other entities as may be identified by the Project Manager.

- B4.1.4 As part of its risk management program, the Anchorage School District requires submittal of Construction Documents to its property and casualty insurer (“Insurer”) for review and comment. Upon receipt of Insurer’s review comments, the District will evaluate issues raised and address with the Contractor. The Contractor shall become familiar with applicable Insurer standards and endeavor to comply with those standards.
- B4.2 When required, Conceptual Master Plan Services shall consist of the preparation and presentation of Deliverables which illustrate and describe the general master planning scope, scale and relationship of program components based on Educational Specifications for approval by the Anchorage School District.
- B4.3 Schematic Design Services shall consist of the preparation and presentation of Deliverables which illustrate and describe the general scope, scale and relationship of Project components based on the program, approved Master Time Schedule, and Construction Contract Award Price, for approval by the Anchorage School District.
- B4.3.1 The Contractor shall review the Educational Specifications, Technical Specifications and Design Standards, and other pertinent documents furnished by the Anchorage School District to ascertain the requirements of the Project.
- B4.3.2 The Contractor shall develop initial design concepts and options for the Project in close coordination with the Anchorage School District. The Contractor shall identify unusual structural, mechanical, electrical or other features that may impact costs or use, and shall develop the systems selected in sufficient detail to permit coordination among design elements.
- B4.3.3 In order to inventory existing site conditions, the Contractor shall request a Project site visit and propose an itinerary. Following the Project Manager’s written approval of the Contractor’s request, the Contractor’s principal, and other personnel as may be designated, shall visit the Project site.
- B4.3.4 When the Construction Contract Documents are approximately thirty-five percent (35%) complete, the Contractor shall submit to the Project Manager one complete set of reproducible drawings or complete electronic submittal for review.
- B4.4 Design Development Services shall be based on the approved Schematic Design, and shall consist of the preparation, for approval by the Anchorage School District, of Deliverables to fix and describe the size and character of the entire Project with regard to structural, mechanical and electrical systems, materials and such other essentials as may be appropriate. Design Development Services shall include a detailed expansion of the architectural design so that the Project’s size, appearance, form, construction type, and engineering systems are developed. Major material selections, equipment items, and quality of finishes shall be identified.
- B4.4.1 When the Construction Contract Documents are approximately sixty-five percent (65%) complete, the Contractor shall submit to the Project Manager one complete set of reproducible drawings or complete electronic submittal for review.
- B4.5 Construction Document Services shall be based on the approved Design Development Deliverables, and shall consist of the preparation, for approval by the Anchorage School District, of Deliverables, setting forth in detail the requirements for construction of the entire Project.

Deliverables shall establish the detailed quality levels and extent of materials and systems sufficient for both bidding and construction of the Work.

B4.5.1 The Contractor shall prepare and coordinate a complete set of Construction Contract Documents for the Project in accordance with the current Construction Specifications Institute Manual of Practice, except as provided by the Anchorage School District and enumerated below.

B4.5.1.1 The Contractor shall prepare applicable technical specifications (Divisions 2-17), an index of drawings, and drawings for inclusion in the Construction Contract Documents. The Anchorage School District will provide Conditions of the Contract (Division 0), with the exception of the index of drawings, and will transmit an informational copy to Contractor. The Contractor and the Project Manager shall jointly prepare General Requirements (Division 1) in a coordinated effort. All documents and specifications are to be complementary and compatible.

B4.5.2 When the Construction Contract Documents are approximately ninety-five percent (95%) complete, the Contractor shall submit to the Project Manager one complete set of reproducible drawings or complete electronic submittal for review.

B4.5.3 The Contractor shall review, approve and submit to the Project Manager, when the Construction Contract Documents are ninety-five percent (95%) complete, an updated and revised Estimated Total Construction Cost, based on materials, systems and details of construction, and which considers changes in the cost of materials, labor and services discovered since submission of the previous Estimated Total Construction Cost; adjustments for anticipated changes in the bidding market relative to the Project; and such other factors as may be appropriate.

B4.6 Bid Services shall be based on the approved Construction Contract Documents, and shall consist of assisting in the preparation, for approval by the Anchorage School District, of Bid Documents for obtaining bids and awarding contract(s) for construction of the Project.

B4.6.1 Upon direction by the Project Manager, the Contractor shall prepare responses to bidders' questions or requests for clarification or interpretation of Bid Documents. The Contractor shall not respond directly to any bidder's question or request for clarification or interpretation. All questions and requests for clarifications or interpretations as to the meaning of the information in the Bid Documents must be in writing, with responses by the Contractor provided to the Anchorage School District and retained in the Contractor's records. The Contractor shall not respond to bidders' oral questions and requests for clarifications except in writing.

B4.6.2 The Contractor shall prepare and deliver electronically, as defined by Article B3.5, any addenda to the Bid Documents which may be necessary to clarify or supplement drawings, specifications, or instructions, or to provide notice of any change in bidding procedures. All addenda will be distributed by the Anchorage School District during the bidding period.

B4.6.3 As directed by the Project Manager, the Contractor shall participate in pre-bid conferences, the bid opening, the review and evaluation of bids, and the recommendation for award of the Construction Contract(s).

B4.6.4 Contractor shall provide Conformed Documents within 30 days of bid opening, unless the Anchorage School District approves an extension in writing, which extension shall not exceed 15 days. Conformed drawing items shall be identified by clouds referenced

with revision numbers in triangles and corresponding revision dates in drawings' title blocks. Conformed technical specification items shall be italicized with footers referencing revision and date. Contractor shall submit Conformed Documents to applicable permitting agencies for their approval, and shall provide Project Manager both half-sized and full-sized pdf copies of Conformed Documents for issuance to Construction Contractor.

- B4.7 Permitting Services shall be provided as assistance to ASD and based on approved Construction Contract Documents submitted to the Municipality and/or others for permitting. Contractor shall review all building (or any other applicable) permit comments and respond/resolve all comments pertaining to Contractor's Scope of Work.

ARTICLE B5 Construction Phase Services

- B5.1 Construction Phase Services shall consist of providing such Construction Contract administration services and construction observation services during the construction of the Project as are described in this Article B5. Construction Phase Services shall commence with the award of the Construction Contract and shall terminate with the Anchorage School District's final acceptance of the Project, or approval of the Contractor's final invoice pursuant to the Contractor's satisfactory completion of obligations under this Agreement, whichever is later.
- B5.2 As directed by the Project Manager, the Contractor shall participate in pre-construction conferences with the successful bidder.
- B5.3 The Contractor shall consult with the Project Manager regarding the acceptability of the supervisory personnel, subcontractors and suppliers proposed by the Construction Contractor for various portions of the Work.
- B5.4 The Contractor shall review and approve or take other appropriate action on schedules, shop drawings, samples, schedules of values, and other submissions of the Construction Contractor(s), as well as the Work performed by the Construction Contractor(s), for conformance with the design concept of the Project and for compliance with the Construction Contract Documents.
- B5.4.1 The Contractor shall provide a submittal register listing the submittals required in format provided by Project Manager. The Contractor shall review and return submittals to the Construction Contractor expeditiously, but no later than fourteen (14) Days from date of receipt, except when otherwise authorized by the Project Manager. The Contractor shall coordinate directly with the Construction Contractor to obtain all submittals required by the Construction Contract Documents, and shall promptly notify the Project Manager concerning any submittals, or lack of submittals, which may affect the Project. The Contractor's approval of submittals must be in writing to the Project Manager and copied to the Construction Contractor. Approvals must contain Contractor's recommendation regarding any credit due the Anchorage School District for an item substituted by the Construction Contractor.
- B5.4.2 The Contractor shall submit to the Anchorage School District for acceptance all recommended approvals for substitutions of specified products proposed by the Construction Contractor.
- B5.5 The Project Manager will establish with the Contractor procedures to be followed for the review and processing of all the Construction Contractor's shop drawings, catalog submissions, Project reports, test reports, maintenance manuals, and other necessary documentation, as well as the Construction Contractor's requests for change orders and applications for extensions of time.

- B5.6 The Contractor shall render to the Project Manager with reasonable promptness, interpretations of the requirements of the Construction Contract Documents which are submitted by the Construction Contractor as Requests for Information (RFIs). The Contractor's interpretations shall be consistent with the intent of, and reasonably inferable from, the Construction Contract Documents. The Contractor's decisions in matters relating to artistic effect shall be consistent with the intent of the Construction Contract Documents. The Contractor's decisions set forth in response to RFIs which impact cost and schedule shall be approved by the Project Manager prior to the Contractor transmitting them to the Construction Contractor. The Contractor shall coordinate with the Anchorage School District's logs of RFIs, Proposal Requests, and Change Orders using owner-provided construction management software.
- B5.6.1 Should errors, omissions or conflicts in the drawings, specifications or other Construction Contract Documents be discovered which are due to the Contractor's fault, the Contractor shall prepare and submit to the Project Manager such amendments or supplementary documents and provide such consultation as may be required, for which the Contractor shall make no additional charge, but may be subject to claim, from the Anchorage School District.
- B5.7 As directed by the Project Manager, the Contractor shall research, review, and recommend for approval or disapproval the Construction Contractor's responses to requests for proposals or requests for change orders to the Construction Contract, and participate in Change Order negotiations.
- B5.8 The Contractor will have access to the Work at all reasonable times. All site visits, observations, and other on-site activities by the Contractor shall be coordinated through the Project Manager.
- B5.9 The Contractor is not responsible for construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the Work. Contractor is not responsible for any failure by the Construction Contractor to carry out the Work in accordance with the Construction Contract Documents. Nothing stated herein absolves the Contractor from the responsibility of observing construction to ascertain conformance of the Work with the Construction Contract Documents, as required herein.
- B5.10 The Contractor shall make periodic visits to the construction site to observe the Work, per the agreed upon scheduled, for conformance with the Construction Contract Documents. Such visits shall be timed to coincide with the Project Manager's construction progress meeting with the Construction Contractor. A representative from each engineering discipline shall make periodic visits to the construction site no less than once every two weeks during the course of Work applicable to that discipline. Contractor shall not be required to make extensive or full-time on-site observations to check the quality or quantity of the Work as part of Basic Services, but shall make as many observations as may be reasonably required to fulfill its obligations to the Anchorage School District hereunder. The Contractor and each representative from each engineering discipline shall prepare a written field report on each visit and observations of the Work made during each visit. Each field report shall be submitted via the Contractor to the Project Manager, in a form acceptable to the Project Manager, within two (2) working Days of the respective visit.
- B5.10.1 In addition to the foregoing, each of the engineering disciplines may be required by the Project Manager to make extended visits or have full-time personnel at the job site during critical phases of the Work. Such extended visits or full-time observation at the job site shall be Additional Services when directed, by written authorization, by the Project Manager.

- B5.11 On the basis of on-site observations, the Contractor shall take the appropriate steps to attempt to guard the Anchorage School District against defects and deficiencies in the Work of the Construction Contractor. If the Contractor observes any Work that does not conform to the Construction Contract Documents, the Contractor shall immediately make an oral report of all such observations to the Project Manager. The Contractor shall confirm the non-conformance in writing to the Project Manager within three (3) Days of such observation.
- B5.12 Only the Project Manager shall have authority to condemn or reject Work when in the Project Manager's or the Contractor's opinion the Work does not conform to the Construction Contract Documents. Such condemnation or rejection will be by written notice delivered to the Construction Contractor. Whenever, in the Project Manager's or the Contractor's reasonable opinion, it is considered necessary or advisable to ensure the proper implementation of the intent of the Construction Contract Documents, the Project Manager shall have the authority to require special inspection or testing of any Work in accordance with the provisions of the Construction Contract Documents, whether or not such Work is fabricated, installed or completed.
- B5.13 Based upon observations at the site and upon the Construction Contractor's applications for payment, the Contractor shall determine the amount it believes the Anchorage School District owes the Construction Contractor(s) pursuant to the terms of the Construction Contract, and shall within seven (7) Days after receipt of an application for payment from the Construction Contractor, submit to the Project Manager a signed certificate for payment in such amount.
- B5.13.1 The Contractor's signing of a certificate of payment shall constitute a representation by the Contractor to the Anchorage School District, based upon the Contractor's observations at the site and the data comprising the application for payment, that the Work has progressed to the point indicated, that to the best of the Contractor's knowledge, information and belief, the quality of the Work appears to be in accordance with the Construction Contract Documents (subject to: an evaluation of the Work for conformance with the Construction Contract Documents upon Substantial Completion; the results of any subsequent tests required in accordance with the Construction Contract Documents; minor deviations from the Construction Contract Documents correctable prior to completion; and to any specific qualifications stated in the recommendation); and that the Construction Contractor is entitled to payment in the amount stated in the recommendation. When required by the State of Alaska Department of Education and Early Development, and at the Project Manager's direction, the Contractor will provide the Project Manager with written certification when the Construction Contract is 50% complete in a format provided by the Project Manager.
- B5.13.2 By signing a certificate for payment to the Anchorage School District, the Contractor shall not be deemed to represent that it has made any examination to ascertain how and for what purpose the Construction Contractor has used the moneys paid on account of the Construction Contract.
- B5.13.3 The Project Manager shall consult with the Contractor regarding the determination of the amount due the Construction Contractor, and shall approve or disapprove the certificate for payment.
- B5.14 The Contractor shall, when directed by the Project Manager, research, review and make recommendations regarding any claim submitted by the Construction Contractor.
- B5.15 The Contractor shall be responsible for obtaining governing agency approval of its designs. If any exceptions arise related to the design, the Contractor shall endeavor to resolve the exception with the governing agency and provide its design services to correct the situation at no additional cost to the Anchorage School District. The Contractor shall not be liable for costs of design

services if the exceptions are subsequent contradictions to a governing agency's previous approval and/or if the exceptions appear to be unreasonable in the Project Manager's judgement.

- B5.16 Upon direction by the Project Manager following notice by the Construction Contractor that the Work (or portions of the Work) are substantially complete, the Contractor shall inspect the Work (or portions of the Work) and prepare and submit to the Project Manager typed punch lists of the Work which is not in conformance with the Construction Contract Documents. The Project Manager will transmit such punch lists to the Construction Contractor(s).
- B5.17 Upon direction by the Project Manager, following notice by the Construction Contractor that the Work or portions of the Work are finally complete, the Contractor shall conduct final completion inspections. Upon correction of all punch list items and acceptance of all other close-out submittals and certificates of the Construction Contractor, the Contractor shall approve the Construction Contractor's application for final payment and submit the signed certificate of final payment to the Project Manager for review and approval.
- B5.18 The Contractor shall review and approve for completeness, clarity and accuracy, As-builts provided by the Construction Contractor showing significant changes in the Work made during the construction process, based on neatly and clearly marked-up conformed contract drawings, prints, and other data furnished by the Construction Contractor(s), responses to RFI's, periodic site visits, and change orders which occurred during the Work. Contractor shall deliver to the Project Manager a reproducible set of the approved Record Drawings and such electronic copies as are required by provision B3.5.7 herein.

ARTICLE B6 Additional Services

- B6.1 The Architect shall provide selected Additional Services described in this Article B6, or as may be modified or supplemented in Article B8, only when the basis for ascertaining the compensation for such services is included either in Appendix C hereto or by subsequently issued Addenda and the services are authorized by a Notice(s) to Proceed.
- B6.2 Additional Services may include, but are not limited to, the following:
- B6.2.1 Upon the completion of the Schematic Design Services, the remaining Design Services may be divided to facilitate the bidding of separate trade contracts or the release of phased construction activities. The Project Manager shall have the right to determine whether there will be early, late, or phased release of construction contracts to meet funding and other Project constraints.
 - B6.2.2 Performing geotechnical site investigations, surveys, and/or platting services.
 - B6.2.3 Performing on-site observations of the Work which require extended visits or full-time personnel at the job site.
 - B6.2.4 Performing a preliminary energy audit in a format approved by the Project Manager. If the preliminary energy audit discloses opportunities for energy conservation, the Contractor shall develop and submit to the Project Manager a proposal to perform a detailed energy audit to identify technical solutions and the projected economic benefit of those solutions.
 - B6.2.4.1 If the Anchorage School District accepts a proposal submitted in accordance with provision B6.2.4, an Amendment covering the performance of the detailed energy audit must be executed before the Contractor will be entitled to any compensation therefor.

- B6.2.4.2 If a detailed energy audit identifies economical solutions to conserve energy, the Contractor and the Anchorage School District may execute an Amendment covering the preparation of the necessary design and the inclusion of such design requirements in the Bid Documents within the basic bid or as an additive alternative bid.
- B6.2.5 Providing start-up Commissioning assistance, including on-site observations and review of test data regarding the original operation of any equipment, and the operation of building systems during the initial occupancy and subsequent periods until proper operations are established. Such assistance may include determining responsibility for corrective measures or procedures as may be needed. If Commissioning reveals deficiencies caused by the Contractor's design, Contractor shall provide design services to correct the deficiencies at no additional cost to the Anchorage School District.
- B6.2.6 Providing warranty inspections, as required, through the scheduled completion of the warranty period specified in the construction contract.
- B6.2.7 Preparing an environmental assessment of the Project: obtaining federal, state and local review which must be obtained in accordance with applicable laws and regulations, and revising as necessary.
- B6.2.7.1 Preparing an environmental impact statement (EIS) for the Project; obtaining federal, state and local reviews which must be obtained in accordance with applicable laws and regulations; revising as necessary; preparing any necessary design requirements; and, including such design requirements in the Bid Documents within the basic bid or as an additive alternate bid.
- B6.2.8 Preparing Educational Specifications which conform to Anchorage School District Design Standards and Department of Education and Early Development requirements.
- B6.2.9 Preparing a Life Cycle Cost analysis and recommendations for materials and building systems to be considered as alternatives to those established by Anchorage School District Design Standards and Technical Specifications.

ARTICLE B7 Anchorage School District Responsibilities

- B7.1 The Anchorage School District shall, as applicable, provide the Educational Specifications for the Project, unless this task is identified as an Additional Service to be undertaken by the Contractor.
- B7.2 The Anchorage School District shall provide the Contractor with access to the land on which the Project is to be constructed and the Work of the Construction Contractor as may be required in order for the Contractor to perform its services required under the Agreement.
- B7.3 The Anchorage School District shall review documents submitted by the Contractor and render decisions pertaining thereto with reasonable promptness.
- B7.4 The Anchorage School District shall furnish information and responses to Contractor's requests for approvals with reasonable promptness.
- B7.5 The Anchorage School District shall provide all notices and advertisements inviting bids.
- B7.6 The Anchorage School District shall provide all standard construction contract forms for incorporation into the Bid Documents.

- B7.7 The Anchorage School District shall duplicate and distribute Bid Documents.
- B7.8 The Anchorage School District shall receive and open bids and provide tabulation of bids.
- B7.9 The Anchorage School District shall pay directly, or through the Construction Contractor, for all permits, licenses, approvals, easements, assessments, and charges required for the construction, use or occupancy of permanent structures or for permanent changes in existing facilities.
- B7.10 The Anchorage School District shall pay for such structural, mechanical, chemical and other laboratory tests, inspections and reports as are required by law and which are not required to be paid by Contractor in this Agreement.
- B7.11 The Anchorage School District shall decide all claims and disputes involving the Construction Contractor and the Anchorage School District, following its review of any related facts and recommendations submitted by the Contractor.
- B7.12 The Anchorage School District shall furnish such legal, accounting, and insurance counseling services as it may deem necessary to preserve its interests in the Project.

ARTICLE B8 Additional Provisions

- B8.1 Specifications provided by the Contractor shall follow the District's standards shown in attachment B to FPSA Appendix B.

END OF CONTRACT

END OF SECTION

BID BOND FORM

REFERENCE:

1. If the Bid Guarantee is submitted on Bond Form, the Bid Bond shall be the form as bound herein.

BID BOND

KNOW ALL MEN BY THESE PRESENT that we, _____ as
Contractor

PRINCIPAL, and _____, a corporation duly organized under the laws
Surety

of the State of _____, as SURETY/OBLIGOR authorized to transact surety business in the
state of Alaska, are held and firmly bound unto the ANCHORAGE SCHOOL DISTRICT, as OBLIGEE, in
the amount of 5% of the Base Bid Amount for payment whereof PRINCIPAL and SURETY bind ourselves,
our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these present.

WHEREAS, the PRINCIPAL is herewith submitting its proposal for _____

The condition of this obligation is such that if the PRINCIPAL will, within the time required, enter into a
formal contract, and give a good and sufficient bond to secure the performance of the terms and conditions
of the contract, then this Obligation to be void; otherwise, the PRINCIPAL and SURETY will pay unto the
OBLIGEE the amount stated above.

OWNER

Anchorage School District
4919 Van Buren Street
Anchorage, Alaska 99517

CONSTRUCTION PROJECT

Solicitation No.: _____

Location: _____

CONTRACTOR

Name: _____

Address: _____

City/State: _____

SURETY

Name: _____

Address: _____

City/State: _____

IN TESTIMONY WHEREOF, the parties hereunto have caused the execution of this bond on the _____
day of _____, 20____.

PRINCIPAL

SURETY

Contractor Name

Corporate Surety Name (Seal)

By: _____
Signature

By: _____
Signature

Typed Name and Title

Typed Name, Attorney-in-fact

WITNESS AS TO PRINCIPAL

Note: Attach Power of Attorney for Surety Signator.

END OF SECTION

PERFORMANCE BOND AND PAYMENT BOND

REFERENCE:

1. The Performance Bond and Payment Bond shall be the forms as bound herein.

CONSTRUCTION PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENT that we, _____ as
Contractor

PRINCIPAL, and _____, a corporation duly organized under the laws
Surety

of the State of _____, as SURETY/OBLIGOR authorized to transact surety business in the
state of Alaska, are held and firmly bound unto the ANCHORAGE SCHOOL DISTRICT, as OBLIGEE, in
the amount

of _____
_____ Dollars

(\$ _____), for payment whereof PRINCIPAL and SURETY bind ourselves, our heirs,
executors, administrators, successors and assigns, jointly and severally, firmly by these present.

This Construction Performance Bond ("Bond") is entered into by and between the undersigned parties to
ensure the faithful performance of the Construction Contract listed below.

OWNER

Anchorage School District
4919 Van Buren Street
Anchorage, Alaska 99517

CONSTRUCTION PROJECT

Solicitation No.: _____
Location: _____

BOND

Number: _____
Date: _____
Amount: _____

CONSTRUCTION CONTRACT

Number: _____
Date: _____
Amount: _____

CONTRACTOR

Name: _____
Address: _____
City/State: _____

SURETY

Name: _____
Address: _____
City/State: _____

PERFORMANCE BOND AND PAYMENT BOND

Division 0
Section 00620

IN TESTIMONY WHEREOF, the parties hereunto have caused the execution hereof of two (2) original counterparts as the _____ day of _____, 20_____.

PRINCIPAL

Contractor Name

Signature

Typed Name and Title

SURETY

Corporate Surety Name (Seal)

Signature

Typed Name, Attorney-in-fact

WITNESS AS TO PRINCIPAL

Note: Attach Power of Attorney for Surety Signator.

CONSTRUCTION PERFORMANCE BOND TERMS AND CONDITIONS

1. The CONTRACTOR and the SURETY, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the OWNER for the complete and proper performance of the Construction Contract, which is incorporated herein by reference.
2. If the CONTRACTOR completely and properly performs all of its obligations under the Construction Contract, the SURETY and the CONTRACTOR shall have no obligation under this Bond.
3. If there is no OWNER Default, the SURETY's obligation under this Bond shall arise after:
 - a. OWNER has declared a CONTRACTOR Default under the Construction Contract pursuant to the terms of the Construction Contract; and
 - b. The OWNER has agreed to pay the Balance of the Contract Sum to:
 - i. The SURETY in accordance with the terms of this Bond and the Construction Contract; or
 - ii. A contractor selected to perform the Construction Contract in accordance with the terms of this Bond and the Construction Contract.
4. When the OWNER has satisfied the conditions of Paragraph 3, the SURETY shall promptly (within thirty (30) days) and at the SURETY's expense elect to take one of the following actions:
 - a. Arrange for the CONTRACTOR, with consent of the OWNER, to perform and complete the Construction Contract (but OWNER may withhold consent, in which case the SURETY must election option 4b, 4c or 4d, below); or
 - b. Undertake to perform and complete the Construction Contract itself, through its agents or through independent contractors; or
 - c. Obtain bids from qualified contractors acceptable to OWNER for a contract for performance and completion of the Construction Contract, and, upon determination by OWNER of the lowest responsive and responsible bidder, arrange for a contract to be prepared for execution by OWNER and the contractor selected with OWNER's concurrence, to be secured with performance and payment bonds executed by a qualified SURETY equivalent to the bonds issued on the Construction Contract; and, if the SURETY's obligations defined in Paragraph 6 exceed the Balance of the Contract Sum, then the SURETY shall pay to OWNER the amount of such excess; or
 - d. Waive its right to perform and complete, arrange for completion, or obtain a new contractor and, with reasonable promptness under the circumstances and after investigation and consultation with OWNER, determine in good faith the amount for which it may then be liable to OWNER under Paragraph 6 for the performance and completion of the Construction Contract and, as soon as practicable after the amount is determined, tender payment therefore to OWNER with full explanation of the payment's calculation. If OWNER accepts the SURETY's tender under this paragraph 4.d, OWNER may still hold SURETY liable for future damages then unknown or unliquidated resulting from the CONTRACTOR Default. If OWNER disputes the amount of the SURETY's tender under this paragraph 4.d, OWNER may exercise all remedies available to it at law to enforce the SURETY's liability under paragraph 6.

5. If the SURETY does not proceed as provided in Paragraph 4, then the SURETY shall be deemed to be in default on this Bond ten (10) days after receipt of an additional written notice from OWNER to the SURETY demanding that the SURETY perform its obligations under this Bond. At all times OWNER shall be entitled to enforce any remedy available to OWNER at law or under the Construction Contract including, without limitation, and by way of example only, rights to perform work, protect work, mitigate damages, or coordinate work with other consultants or contractors.
6. The SURETY's monetary obligation under this Bond is limited by the amount of this Bond. Subject to these limits, the SURETY's obligations under this Bond are commensurate with the obligations of the CONTRACTOR under the Construction Contract. The SURETY's obligations shall include but are not limited to:
 - a. The responsibilities of the CONTRACTOR under the Construction Contract for completion of the Construction Contract and correction of defective work;
 - b. The responsibilities of the CONTRACTOR under the Construction Contract to pay liquidated damages, and for damages for which no liquidated damages are specified in the Construction Contract, actual damages caused by non-performance of the Construction Contract, including but not limited to, all valid and proper back charges, offsets, payments, indemnities or other damages;
 - c. Additional legal, design professional and delay costs resulting from the CONTRACTOR Default or resulting from the actions or failure to act of the SURETY under Paragraph 4.
7. No right of action shall accrue on this Bond to any person or entity other than OWNER or its heirs, executors, administrators, or successors.
8. The SURETY hereby waives notice of any change, alteration or addition to the Construction Contract or to related subcontracts, purchase orders and other obligations, including changes of time. The SURETY consents to all terms of the Construction Contract, including provisions on changes to the Contract. No extension of time, change, alteration, modification, deletion, or addition to the Contract Documents, or of the work required thereunder, shall release or exonerate SURETY on this Bond or in any way affect the obligations of SURETY on this Bond.
9. Any proceeding, legal or equitable, under the Bond shall be instituted in the Superior Court for the State of Alaska, Third Judicial District.
10. Notice to the SURETY, OWNER or the CONTRACTOR shall be mailed or delivered to the address shown on the front page.
11. Any provision in this Bond conflicting with any statutory or regulatory requirement shall be deemed deleted herefrom and provisions conforming to such statutory requirement shall be deemed incorporated herein.
12. Definitions.
 - a. Balance of the Contract Sum: The total amount payable by OWNER to the CONTRACTOR pursuant to the terms of the Construction Contract after all proper adjustments have been made under the Construction Contract, for example, deductions for progress payments made, and increases/decreases for approved modifications to the Construction Contract.
 - b. Construction Contract: The agreement between OWNER and the CONTRACTOR identified on the signature page, including all Contract Documents and changes thereto.

- c. CONTRACTOR Default: Material failure of the CONTRACTOR which has neither been remedied nor waived, to perform or otherwise to comply with the terms of the Construction Contract, including but not limited to, the provisions of Article 14 of the General Conditions of the Construction Contract.
- d. OWNER Default: Material failure of OWNER, which has neither been remedied nor waived, to pay the CONTRACTOR progress payments due under the Construction Contract or to perform other material terms of the Construction Contract, if such failure is the cause of the asserted CONTRACTOR Default and is sufficient to justify CONTRACTOR termination of the Construction Contract.

PAYMENT BOND

KNOW ALL MEN BY THESE PRESENT that we, _____ as
Contractor

PRINCIPAL, and _____ a corporation duly organized under the laws
Surety

of the State of _____, as SURETY/OBLIGOR authorized to transact surety business in the
state of Alaska, are held and firmly bound unto the ANCHORAGE SCHOOL DISTRICT, as OBLIGEE, in
the amount

of _____ Dollars

(\$ _____), for payment whereof PRINCIPAL and SURETY bind ourselves, our heirs,
executors, administrators, successors and assigns, jointly and severally, firmly by these present.

This Payment Bond ("Bond") is entered into by and between the undersigned parties to ensure the faithful
performance of the Construction Contract listed below.

OWNER

Anchorage School District
4919 Van Buren Street
Anchorage, Alaska 99517

CONSTRUCTION PROJECT

Solicitation No.: _____
Location: _____

BOND

Number: _____
Date: _____
Amount: _____

CONSTRUCTION CONTRACT

Number: _____
Date: _____
Amount: _____

CONTRACTOR

Name: _____
Address: _____
City/State: _____

SURETY

Name: _____
Address: _____
City/State: _____

PERFORMANCE BOND AND PAYMENT BOND

Division 0
Section 00620

IN TESTIMONY WHEREOF, the parties hereunto have caused the execution hereof of two (2)
original counterparts as the _____ day of _____, 20_____.

PRINCIPAL

Contractor Name

Signature

Typed Name and Title

SURETY

Corporate Surety Name (Seal)

Signature

Typed Name, Attorney-in-fact

WITNESS AS TO PRINCIPAL

Note: Attach Power of Attorney for Surety Signator.

PAYMENT BOND TERMS AND CONDITIONS

The condition of this obligation is such that if the PRINCIPAL shall promptly make payment to all Claimants who furnish labor or materials in the prosecution of the Work provided for in the Construction Contract, then this obligation shall be void; otherwise, it shall remain in full force and effect.

This Bond has been furnished to comply with Alaska Statute 36.25.010, and to allow enforcement rights pursuant to Alaska Statute 36.25.020. Any provisions in this Bond conflicting with said statutory requirements shall be deemed deleted herefrom and provisions conforming to such statutory requirements shall be deemed incorporated herein.

The SURETY hereby waives notice of any change, alteration or addition to the Construction Contract or to related subcontracts, purchase orders and other obligations, including changes of time. The SURETY consents to all terms of the Construction Contract, including provisions on changes to the Contract. No extension of time, change, alteration, modification, deletion, or addition to the Contract Documents, or of the work required thereunder, shall release or exonerate SURETY on this Bond or in any way affect the obligations of SURETY on this Bond.

END OF SECTION

GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION

Division 0
Section 00700

GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION

REFERENCE:

The General Conditions shall be GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION, ANCHORAGE SCHOOL DISTRICT, ANCHORAGE, ALASKA, bound herein.

SUPPLEMENTS:

Supplements may modify, change, delete, or add to these General Conditions. Where any article of the General Conditions is modified or any paragraph deleted, or any subparagraph or clause thereof is modified, or deleted by supplements, the unaltered provisions of such article, paragraph, subparagraph or clause shall remain in effect. The General Conditions and the Supplementary General Conditions are applicable to all of the Work under this Contract and shall apply to the Contractor and all Subcontractors, Sub-subcontractors, and Material Suppliers and Vendors.

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ARTICLE 1

CONTRACT DOCUMENTS

1.1 DEFINITIONS

1.1.1 The following terms as used in this Contract are defined as follows:

"Architect / Engineer or A/E": The design consultant of the Owner.

"Construction Manager": Supervises the construction phase of construction projects for the Anchorage School District Facilities Department.

"Contract": The Agreement between Owner and Contractor and the referenced Contract Documents stated therein.

"Contractor": The person, firm, or corporation contractually responsible to the Owner to provide the services called for by this Contract. Such entity may also be referred to as Managing General Contractor, General Contractor, or Prime Contractor.

"Days": Calendar days unless otherwise noted.

"Direct Cost": A direct cost is any cost that can be identified specifically with a particular final cost objective, i.e., with this contract, or an item of extra work, or change order under the contract.

"Senior Director of Capital Planning & Construction": Manages the Operations of the Anchorage School District Capital Planning & Construction Department.

"Furnish": Supply and deliver to the project including the cost to supply and deliver.

"Indirect Cost": An indirect cost, collectively called overhead, is any cost not directly identified with a single, final cost objective, but identified with two or more final cost objectives or an intermediate cost objective.

"Install": Build into the Work, ready to use in a complete, finished, and operable system, including the cost to install.

"Owner": The Anchorage School District, its Anchorage School Board of Education, the Superintendent of the Anchorage School District, and its employees.

"Project Manager": The person designated by the Senior Director of Capital Planning & Construction as the Owner's representative for this Contract, responsible for the day-to-day coordination between the Owner and the Contractor.

"Provide": Furnish and install for a complete, finished, and operable system.

"Reasonable Cost": A cost is reasonable if, in its nature or amount, it does not exceed that which would be incurred in a competitive market.

"Shop Drawings, Setting Drawings, Manufacturer's Printed Information and Submittal (collectively known as "Submittals")": The Contractor's information consisting of drawings, catalogs, illustrations, calculations, and other data delivered to the Owner for the purpose of assuring the Owner, prior to execution of that part of the Work, that the prescriptive element, component, subsystem, or service to be provided generally conforms with the

Contract. The Contractor is responsible to the Owner for the accuracy and completeness of the Submittals.

"Subcontractor": A person, firm, or entity who has a direct contract with the Contractor to perform any of the work.

"Work" or "Project": The finished product required by the Contract Documents together with the means and methods as determined, by the Contractor, to achieve the finished product.

1.1.2 THE CONTRACT DOCUMENTS

The Contract Documents consist of the Owner-Contractor Agreement, the Drawings, the Project Manual, and all Addenda issued prior to and all Modifications issued after execution of the Contract. A Modification is (1) a directive for change in the work pursuant to Section 12.1.2 or (2) a change order pursuant to Section 12.2.6.

1.1.3 THE CONTRACT

The Contract is the sum of all the Contract Documents. This Contract represents the entire and integrated agreement between the Owner and the Contractor and supersedes all prior negotiations, representations, or agreements, either written or oral. The Contract may be amended or modified only by a Modification as defined in Subparagraph 1.1.2.

1.1.4 THE WORK

The Work comprises the completed construction required by the Contract Documents and includes all labor necessary to produce such construction, and all materials and equipment incorporated or to be incorporated in such construction.

1.1.5 THE PROJECT

The Project is the total construction, of which the Work performed under the Contract documents may be the whole or a part.

1.1.6 SCHOOL BOARD

Board of Education of the Anchorage School District, Anchorage, Alaska.

1.1.7 BIDDER

Any individual, firm, partnership, corporation or combination thereof, formally submitting a bid for the work contemplated, or any portion thereof, acting directly or through an authorized representative.

1.1.8 MUNICIPALITY

Municipality of Anchorage, Alaska.

1.1.9 PROPOSAL

1.1.9.1 BID PROPOSAL

The written proposal of the Bidder on the form furnished by the Owner for the Work contemplated, and which is required to be signed by the Bidder.

1.1.9.2 REQUEST FOR PROPOSAL (RFP)

The offer of the Contractor submitted on the prescribed form from the Project Manager to perform the work and furnish labor, material and all other costs at the prices quoted by the Contractor for proposed changes in the work.

1.1.10 SPECIFICATIONS

The products, directions, requirements, explanations, terms and provisions pertaining to the various features of the Work to be done and the manner and method of performance. The specifications include such directions, requirements and explanations as appear on the drawings and as may otherwise be defined.

1.1.11 PROJECT SITE

The geographic location of the Project as indicated on the Drawings.

1.1.12 PROJECT MANUAL

The Project Manual includes the Bidding and Contract Requirements, Project Schedule Milestone Dates, General and Supplementary Conditions, Wage Rates, the Specifications and project drawings incorporated by reference.

1.1.13 REQUEST FOR INFORMATION

Request for Information. Written interpretations necessary for the proper execution or progress of the Work, in the form of drawings or otherwise, will be issued with reasonable promptness by the Project Manager. The Contractor may make written request to the Project Manager for such interpretations. Such interpretations will be consistent with and reasonably inferable from the Contract Documents.

1.2 EXECUTION, CORRELATION AND INTENT

1.2.1 The Contract shall be signed in doubles by the Owner and Contractor, each of which shall be deemed an original, but all or which shall constitute one and the same instrument.

1.2.2 By executing the Contract, the Contractor represents that he has visited the site, familiarized himself with the local conditions under which the Work is to be performed, and correlated his observations with the requirements of the Contract Documents.

1.2.3 The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work. Except as otherwise specifically provided, the Contractor shall furnish all labor, tools, implements, machinery, supplies, materials, and incidentals, and shall do all things necessary to perform and to complete the Work. The Contract Documents are complementary, and what is required by any one shall be as binding as if required by all. Work not covered in the Contract Documents will not be required unless it is consistent therewith and is reasonable inferable therefrom as being necessary to produce the intended results. Words and abbreviations which have well-known technical or trade meanings are used in the Contract Documents in accordance with such recognized meanings unless otherwise specifically defined herein.

1.2.4 The organization of the Specifications into division, sections and articles, and the arrangement of Drawings shall not control the Contractor in dividing the Work among Subcontractors or in establishing the extent of Work to be performed by a trade.

1.2.5 If any portion of the Contract Documents shall be in conflict with any other portion, the

various documents comprising the Contract Documents shall govern in the following order of precedence:

- 1.2.5.1 The Owner-Contractor Agreement;
- 1.2.5.2 Modifications;
- 1.2.5.3 Addenda;
- 1.2.5.4 Section 00800 - Supplementary General Conditions to the Contract for Construction;
- 1.2.5.5 Section 00700 - General Conditions of the Contract for Construction;
- 1.2.5.6 Specifications - embodying all other sections in the Project Manual;
- 1.2.5.7 Drawings: as between schedules and information given on Drawings, the schedules shall govern; as between written dimensions given on Drawings and scaled measurements, the written dimensions shall govern; as between large-scale Drawings and small-scale Drawings, the larger scale shall govern;
- 1.2.5.8 Performance Bond, Labor and Material Payment Bond;
- 1.2.5.9 Bid/Proposal Form;
- 1.2.5.10 Instructions to Bidders/Proposers;
- 1.2.5.11 Invitation to Bid/Request for Proposal;

All such conflicts shall be reported, in writing, to the Project Manager. Schedules, lists, indexes, tables, inventories, written instruction, written descriptions, summaries, statements, classifications, specifications, written selections, or written designations, although appearing on the Drawings, are deemed to be and are "Specifications" as defined by this Subparagraph 1.2.5. The principles as set forth herein shall not alter the provisions of Subparagraph 1.2.3.

In the event there is a conflict between or among any provisions within one of the component parts of the Contract Documents, the higher standard or more stringent requirement shall govern.

- 1.2.6 The Contractor agrees that nothing contained in the Contract Documents or any contract between the Owner and the Architect shall create any contractual relationship between the Architect and the Contractor, any Subcontractors, Sub-subcontractors, Material Suppliers or Vendors. The Contractor acknowledges and agrees that this Contract is not intended to create, nor shall any provision be interpreted as creating, any contractual relationship between the Owner or Contractor or any third parties.
- 1.2.7 Any material or operation specified by reference to published specifications of a manufacturer, a society, an association, a code, or other published standard, shall comply with requirements of the listed document and project specifications; or as between referenced documents, the more stringent code or performance requirements shall govern. The Contractor, if requested, shall furnish an affidavit from the manufacturer certifying that the materials or products delivered to the Project meet the requirement specified.

1.3 OWNERSHIP AND USE OF DOCUMENTS

- 1.3.1 All Drawings, Specifications and copies thereof furnished by the Owner are and shall remain its property. They are to be used only with respect to this Project and are not to be used on any other project.
- 1.3.2 The Owner will provide conformed drawings and specifications incorporating Addenda items into the Contract Documents. A reasonable number of reproduced sets will be provided to the contractor without charge.

END OF ARTICLE 1

ARTICLE 2

ARCHITECT

2.1 DEFINITION

- 2.1.1 The Architect is the person or organization lawfully licensed to practice architecture, or an entity lawfully practicing architecture identified as such in the Owner-Contractor Agreement, and is referred to throughout the Contract Documents as if singular in number and masculine in gender. The term Architect means the Architect and his engineers, whether under contract or within his own organization, or his authorized representative.
- 2.1.2 The term Architect is interchangeable with the term Project Architect, and is exclusive of the services of the Asbestos Abatement Architect.
- 2.1.3 The Asbestos Abatement Architect is not a part of the Architect's organization.

2.2 SERVICES OF THE ARCHITECT

- 2.2.1 The Architect will provide certain services as hereinafter described.
- 2.2.2 Should errors, omissions, or conflicts in the Drawings, Specifications, or other Contract Documents provided by the Architect be discovered, the Architect will prepare such amendments or supplementary documents and provide consultation as may be required.
- 2.2.3 The Architect and his consulting engineers (including but not limited to the structural, mechanical, and electrical disciplines) will visit the site at intervals appropriate to the stage of construction to familiarize themselves generally with the progress and quality of the Work and to determine in general if the Work is proceeding in accordance with the Contract Documents. Unless otherwise provided in the Owner-Architect Agreement, the Architect and his consulting engineers will not be required to make exhaustive or continuous on-site inspection or observations to check the quality or quantity of the Work, but they shall make as many on-site inspections and observations as may reasonably be required to fulfill their obligations to the Owner. On the basis of such on-site observation, the Architect and his consulting engineers shall endeavor to guard the Owner against defects and deficiencies in the Work of the Contractor.
- 2.2.4 The Architect will render written field reports to the Project Manager in the form required by the Project Manager relating to the periodic visits and inspections of the Project required by Subparagraph 2.2.3.
- 2.2.5 The Architect will not be responsible for and will not have control or charge of construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the Work, and he will not be responsible for the Contractor's failure to carry out the Work in accordance with the Contract Documents. The Architect will not be responsible for or have control or charge over the acts or omissions of the Contractor, Subcontractors, or any of their agents or employees, or any other persons performing any of the work.
- 2.2.6 The Architect shall at all times have access to the Work wherever it is in preparation or progress. The Contractor shall provide safe facilities for such access so the Architect may perform his functions under the Contract Documents.
- 2.2.7 The Project Manager will consult with the Architect regarding the Contractor's Applications for Payment and both shall sign the Applications for Payment as provided in Subparagraph

9.4.

- 2.2.8 As required, the Architect will render to the Project Manager interpretations necessary for the proper execution or progress of the Work, with reasonable promptness and in accordance with any time limit agreed upon.
- 2.2.9 All communications, correspondence, submittals, and documents exchanged between the Architect and the Contractor in connection with the Project shall be through or in the manner prescribed by the Project Manager.
- 2.2.10 All interpretations and decisions of the Architect will be consistent with the intent of and reasonably inferable from the Contract Documents.
- 2.2.11 The Architect's decision in matters relating to artistic effect will be final if consistent with the intent of the Contract Documents and approved by the Project Manager.
- 2.2.12 If the Architect observes any Work that does not conform to the Contract Documents, the Architect shall promptly report in writing this observation to the Project Manager. The Architect will prepare and submit to the Project Manager punchlists of the Contractor's Work which is not in conformance with the Contract Documents. The Project Manager will transmit such punchlists to the Contractor.
- 2.2.13 The Architect will review and take appropriate action upon Contractor's submittals such as Shop Drawings, Product Data and Samples, but only for conformance with the design concept of the Work and for general compliance with the Contract Documents. Such action shall be taken in no more than twenty-one (21) days of receipt unless otherwise authorized by the Project Manager.
- 2.2.14 The Project Manager will establish with the Architect procedures to be followed for review and processing of all Shop Drawings, catalog submittals, project reports, test reports, maintenance manuals, and other necessary documentation, as well as requests for changes and applications for extensions of time.
- 2.2.15 The Architect will prepare technical documentation for Change Orders when directed by the Project Manager.
- 2.2.16 The Architect and the Project Manager will conduct inspections to determine the dates of Substantial Completion and Final Completion, and will issue a final Certificate of Substantial Completion.
- 2.2.17 Unless otherwise provided in the Contract Documents, or the Owner-Architect Agreement, the Architect will prepare a set of reproducible record prints of Drawings showing significant changes in the Work made during the construction process, based on neatly and clearly marked-up prints, Drawings, and other data furnished by the Contractor.
- 2.2.18 In case of the termination of the employment of the Architect, the Owner may appoint an architect against whom the Contractor makes no reasonable objection whose status under the Contract Documents shall be that of the former architect, or the Owner may have the Project Manager assume all of the services of the Architect thereafter.

2.3 ASBESTOS ABATEMENT ARCHITECT

- 2.3.1 Solely with regards to asbestos abatement, the Asbestos Abatement Architect shall be afforded the same rights and authority as hereinbefore allowed the Architect.

2.3.2 The Architect is not a part of the Asbestos Abatement Architect's organization.

2.4 SEPARATE ARCHITECT, ENGINEER OR ARCHITECT/ENGINEER

2.4.1 Unless otherwise noted in the Contract Documents, the Separate Architect, Engineer or Architect/Engineer, as defined by the Supplementary General Conditions, Document 00800, shall be afforded the same rights and authority as hereinbefore allowed the Architect.

2.4.2 The Contract Documents, when applicable, shall define the portion of the Work relating to the services of the Separate Architect, Engineer or Architect/Engineer.

END OF ARTICLE 2

ARTICLE 3

OWNER

3.1 DEFINITIONS

- 3.1.1 The Owner is the Anchorage School District acting through its legally constituted officials, officers, employees, or agents and is referred to throughout the Contract Documents as if singular in number and masculine in gender. The term Owner means the Owner or its authorized representative or agent.
- 3.1.2 The Asbestos Abatement Consultant is under separate Agreement with the Owner. Communications protocol between the Contractor and the Asbestos Abatement Architect shall be as established by the Project Manager.

3.2 PROJECT MANAGER

- 3.2.1 The Project Manager will be the Owner's representative and agent to the Contractor with respect to the Project during construction and until the issuance of the final Certificate for Payment. The term Project Manager is referred to throughout the Contract Documents as if singular in number and masculine in gender. The Owner's communications with the Contractor and the Architect will be through the Project Manager, who will have full authority to act on behalf of the Owner with regard to all aspects of the Project except that the Owner must approve all Change Orders and payments to the Contractor. The Project Manager's actions with regard to this project will be as an agent and representative of the Owner.
- 3.2.2 The Project Manager is not authorized to revoke, alter, change, relax, or release any requirements of the Contract, nor to approve or accept any portion of the Work not executed in accordance with, nor to issue instructions contrary to, the Contract Documents.
- 3.2.3 Nothing contained within the Contract Documents shall create any contractual relationship between the Project Manager and the Contractor.

3.3 INFORMATION, SERVICES AND RIGHTS OF THE OWNER

- 3.3.1 The Owner, through the Project Manager, will provide administration of the Contract as hereinafter described.
- 3.3.2 The Owner and the Project Manager shall at all times have access to the Work whenever it is in preparation or progress. The Contractor shall provide safe facilities for such access.
- 3.3.3 The Owner and the Project Manager shall not be responsible for or have control or charge of the construction means, methods, techniques, sequences, or procedures, or for safety precautions and programs in connection with the Work and will not be responsible for the Contractor's failure to carry out the Work in accordance with the Contract Documents. The Project Manager will not be responsible for the acts or omissions of the Contractor, any Subcontractors, or any of their agents or employees, or any other persons performing any of the Work.
- 3.3.4 The Project Manager shall have authority on behalf of the Owner to condemn or reject Work when, in the Project Manager's opinion the Work does not conform to the Contract Documents. Whenever, in the Project Manager's reasonable opinion, it is considered necessary or advisable to insure the proper implementation of the intent of the Contract Documents, the Project Manager shall have the authority to require special inspection or

testing of any Work in accordance with the provisions of the Contracts Documents, whether or not such Work be then fabricated, installed, or completed.

- 3.3.5 The Project Manager will have authority to require additional inspection or testing of the Work in accordance with Subparagraph 7.7.3, whether or not such Work be then fabricated, installed, or completed. However, neither the Project Manager's authority to act under Subparagraphs 3.3.4 and 3.3.5, nor any decision made by the Project Manager in good faith either to exercise or not to exercise such authority shall give rise to any duty or responsibility of the Project Manager to the Contractor, any Subcontractor, any of their agents or employees, or any other persons performing any of the work.
- 3.3.6 The Project Manager shall have the authority and discretion to call, schedule, and conduct job meetings to be attended by the Contractor, and representatives of his Subcontractors, and Material Suppliers, and Vendors and the Architect, to discuss such matters as procedures, progress, changes, problems, claims and scheduling.
- 3.3.7 The Project Manager will establish procedures to be followed for processing all Shop Drawings, catalogs, and other project reports, and other documentation, test reports, and maintenance manuals.
- 3.3.8 The Project Manager will review all requests for changes and shall implement the processing of Change Orders, including applications for extension of the Contract time.
- 3.3.9 Project scheduling shall occur as set forth in Division 1, Section 01311 of the General Requirements, entitled "Schedules and Reports". The Owner and the Project Manager will not be responsible for the failure of the Contractor to plan, schedule, and execute the Work in accordance with the Contractor's accepted schedule or the failure of the Contractor to meet the Project Schedule Milestone Dates as set forth under Section 00200 hereof or the failure of the Contractor to schedule and coordinate the Work of his own trades and Subcontractors, and Material Suppliers and Vendors, or the failure of the Contractor to coordinate and cooperate with other separate contractors.
- 3.3.10 The Project Manager, in consultation with the Architect, will review and process all Applications for Payment by the Contractor, including the final Application for Payment.
- 3.3.11 The Owner and the Project Manager will not be responsible for the acts or omissions of the Contractor, or any Subcontractor, or Material Supplier and Vendor, or any contractor's, subcontractor's or Material Supplier's and Vendor's agents or employees, or any other persons performing any of the Work.
- 3.3.12 The Owner shall, if requested by the Contractor, furnish all existing and available surveys describing the physical characteristics, legal limitations and utility locations for the site of the Project.
- 3.3.13 Except as otherwise provided in the Contract Documents, the Owner shall pay for necessary easements required for permanent structures or for permanent changes in existing facilities. The Contractor shall be responsible for obtaining all necessary permits and coordinating the securing of easements, inspections and approvals for permanent structures and all associated work.
- 3.3.14 Information or services under the Owner's control shall be furnished by the Owner with reasonable promptness to avoid delay in the orderly progress of the Work.
- 3.3.15 Unless otherwise provided in the Contract Documents, the Contractor will be furnished, free of charge, all copies of Drawings and Specifications, and such supplemental

documents as are reasonably necessary for the execution of the Work.

- 3.3.16 The foregoing rights are in addition to other rights of the Owner enumerated herein and those provided by law.

3.4 OWNER'S RIGHT TO PERFORM WORK AND TO AWARD SEPARATE CONTRACTS

- 3.4.1 The Owner reserves the right to perform other work at the project site(s) with his own forces, and to award separate contracts in connection with portions of other work on the site.
- 3.4.2 The Contractor shall afford the Owner and separate Contractors reasonable opportunity for the introduction and storage of their materials and equipment and the execution of their Work, and shall coordinate his Work with theirs as required by the Contract Documents.
- 3.4.3 A pre-construction conference will be held with the Contractor, Project Manager, and other contractors performing work at the project site, for the purpose of coordinating work in areas where more than one contractor may be working. The time of the meeting will be established by the Owner's Representative prior to the Contractor commencing his work.
- 3.4.4 The Contractor shall attend additional coordination meetings, as requested by the Owner's Representative.

3.5 OWNER'S RIGHT TO STOP OR TO SUSPEND THE WORK

- 3.5.1 If the Contractor fails to correct defective Work as required by Paragraph 13.2 or fails to carry out the Work or supply labor and materials in accordance with the Contract Documents, the Owner, through the Project Manager, by a written order 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 Project Manager to stop the Work on behalf of the Owner shall not give rise to any duty on the part of the Project Manager to exercise this right for the benefit of the Contractor or any other person or entity.
- 3.5.2 The Project Manager may order the Contractor in writing to suspend, delay, or interrupt all or any part of the Work for such period of time as he may determine to be appropriate for the convenience of the Owner.
- 3.5.3 Upon receipt of any such suspension order, the Contractor shall immediately comply with its terms and take all reasonable steps to minimize incurring costs allocated to the Work covered by the order during the period of Work suspension.
- 3.5.4 If the performance of all or any part of the Work is suspended, or delayed, or interrupted by the Owner or the Project Manager pursuant to Subparagraph 3.5.2, the Contractor may make application for an adjustment in contract time and contract sum pursuant to Paragraph 12.2, and Division 1, Section 01311, Paragraph 2.03, respectively. No such adjustment shall be made if the performance of the Work is suspended by the Owner pursuant to Subparagraph 3.5.1.

3.6 OWNER'S RIGHT TO CARRY OUT THE WORK

- 3.6.1 If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents and fails within seven (7) days after receipt of written notice from the Project Manager to commence and continue correction of such default or neglect with diligence and promptness, the Owner may, after seven (7) days following receipt by the Contractor of an additional written notice and without prejudice to any other remedy he may have,

make good such deficiencies and may further elect to complete all Work thereafter through such means as the Owner may select, including the use of a new Contractor. In such a case an appropriate Change Order shall be issued deducting from the payments then or thereafter due the Contractor the cost of correcting such deficiencies, including additional Owner administrative and legal costs, and compensation for the Architect's and the Project Manager's additional services made necessary by such default, neglect or failure. If the payments then or thereafter due the Contractor are not sufficient to cover such amount, the Contractor shall pay the difference to the Owner.

3.7 AUDIT

- 3.7.1 The Owner shall have access to the Contractor's books, accounts, records, invoices and other records and documents pertaining to the Project at all reasonable times for the purpose of inspecting and auditing such. The Contractor shall provide to the Owner his daily manpower and equipment reports for all Subcontractors and any and all information requested or required by the Owner to validate or verify an Application for Payment, claim for cost or a requisition. The Contractor shall have no right to additional compensation or time in the event a requisition is delayed due to the inability of the Owner to validate or verify an Application for Payment due to the failure or refusal of the Contractor to allow such inspection or audit or to provide such requested information.
- 3.7.2 The Contractor shall maintain all data and records pertinent to the Work performed under this Contract in accordance with generally accepted accounting principles, and shall preserve and make available all data and records until the expiration of three (3) years from the date of final payment under this Contract, or for such longer period, if any, as is required by applicable statute, pending litigation, or by other articles of this Contract. The Owner and its authorized representatives shall have access to all such data and records for such time period to inspect, audit and make copies thereof during normal business hours.
- 3.7.3 The Contractor covenants and agrees that it shall require that any Subcontractor and any Sub-Subcontractor utilized in the performance of this Contract shall permit the authorized representatives of the Owner to similarly inspect and audit all data and records of said Subcontractors and Sub-Subcontractors relating to the performance of said Subcontractors and Sub-Subcontractors under this Contract for the same time period specified above.

END OF ARTICLE 3

ARTICLE 4

CONTRACTOR

4.1 DEFINITION

- 4.1.1 The Contractor is the person or organization identified as such in the Owner-Contractor Agreement and is referred to throughout the Contract Documents as if singular in number and masculine in gender. The term Contractor means the Contractor or his authorized representative, who shall have the authority to bind the Contractor in all matters pertinent to this Contract.

4.2 REVIEW OF CONTRACT DOCUMENTS

- 4.2.1 Before placing his proposal to the Owner, and continuously after execution of the Contract, the Contractor shall carefully study and compare the Contract Documents and shall at once report to the Owner, through the Project Manager, any error, inconsistency or omission he may discover, including any requirement which may be contrary to any law, ordinance, rule, regulation or order of any public authority bearing on the performance of the Work. By submitting his proposal or bid for the Contract and the Work under it, the Contractor agrees that the Contract Documents appear accurate, consistent, and complete insofar as can reasonably be determined. If the Contractor has reported in writing an error, inconsistency or omission, has promptly stopped the affected work until otherwise instructed, and has otherwise followed the instructions of the Owner, the Contractor shall not be liable to the Owner for any damage resulting from any such errors, inconsistencies or omissions in the Contract Documents. The Contractor shall perform no portion of the Work at any time without Contract Documents and, where required, approved Shop Drawings, Product Data or Samples for such portion of the Work.

4.3 SUPERVISION AND CONSTRUCTION PROCEDURES

- 4.3.1 The Contractor shall supervise and direct the Work, using his best skill and attention. He shall be solely responsible for and have control over all construction means, methods, techniques, sequences and procedures and for coordinating all portions of the Work under the Contract.
- 4.3.2 The Contractor shall be responsible to the Owner for the acts and omissions of his employees, Subcontractors, and Material Suppliers and Vendors, and their agents and employees, and other persons performing any of the work.
- 4.3.3 The Contractor shall not be relieved from his obligations to perform the Work in accordance with the Contract Documents either by the activities or duties of the Architect or the Project Manager in their administration of the Contract, or by inspections, tests or approvals (or the lack thereof) required or performed under Paragraph 7.7 by persons other than the Contractor.
- 4.3.4 Independent of this Contract, the Owner has undertaken a long term asbestos abatement program by which the Owner intends to properly document the existence of asbestos-contained materials and the lawful removal of ACM by qualified asbestos abatement contractors or subcontractors in accordance with the Asbestos Hazard Emergency Response Act (AHERA) and the Asbestos School Hazard Abatement Reauthorization Act (ASHARA). As part of this asbestos abatement program, the Owner has employed a private consultant to locate asbestos-containing materials present in the Owner's facilities. A copy of the AHERA report as it relates to the facility which is involved in this Contract can be obtained from the Owner by contacting the Project Manager.

GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION

Division 0
Section 00700

- 4.3.4.1 Before starting the Work or any Section of the Work, the Contractor shall inspect or, if using a Subcontractor for a Section of the Work, shall cause his Subcontractor to inspect all preparatory work, including that performed prior to the commencement of the Work under this Contract, for the presence of suspected asbestos-containing materials.
- 4.3.4.2 If the Contractor or his Subcontractor encounters any asbestos-containing material or suspected asbestos-containing material -- whether such material is identified in the AHERA report or the private consultant's report or not -- the Contractor shall bring it to the immediate attention of the Project Manager by timely written notice. Such notification shall be considered timely if received by the Project Manager within two (2) days after the discovery of the asbestos-containing material or suspected asbestos-containing material by the Contractor or by a Subcontractor if the Contractor uses a Subcontractor to perform that Section of the Work. If the Contractor does not give timely notice of the presence of asbestos-containing material or suspected asbestos-containing material, the Contractor will not receive additional compensation for delay caused by the necessity of the Owner to stop work and abate asbestos-containing material during the course of the Work. Failure of a Subcontractor to report the presence of asbestos-containing material or suspected asbestos-containing material to the Contractor shall not relieve the Contractor of his responsibilities hereunder.
- 4.3.4.3 If the Contractor, or his employees, agents or subcontractors intentionally or negligently disturbs or removes, or causes to be disturbed or removed, all or a portion of asbestos-containing material, the Contractor shall indemnify, hold harmless and defend the School District and the Project Manager from and against any claims, damages, losses and expenses, and alleged claims, damages, losses and expenses, including but not limited to attorney's fees, arising out of or resulting from any cleanup/decontamination work, medical treatment, or legal action arising or resulting from said intentional or negligent disturbance or removal of asbestos-containing material.
- 4.3.5 The Contractor shall make all necessary arrangements and so conduct the Work that all parts of the same will be carried out simultaneously and harmoniously and that the work of installing the various sections or items of same shall not interfere with or retard the progress of other Work.
- 4.3.6 If it becomes necessary at any time during the progress of the Work to move materials and/or equipment which have been temporarily located or stored, the Contractor shall move them or cause them to be moved, at his expense. Care shall be taken that no part of the Work shall be overloaded at any time.
- 4.3.7 The Contractor shall furnish all required information to ensure continuity between various sections of the Work and to avoid delay and obviate defects on any part of the whole Work, all as approved by the Owner.
- 4.3.8 Any damage caused by the handling or installation of materials or equipment, or the carrying out of any portion of the Work must also be made good by the Contractor to the satisfaction of the Project Manager.
- 4.3.9 The Contractor shall compare all the various drawings, and shall install Work in a manner to provide for all clearances and finishes indicated thereon. Work under each trade shall be arranged to clear piping, equipment, etc., of all other trades.
- 4.3.10 The Contractor shall inform himself fully regarding any peculiarities and limitations of the

space available for the installation of the material. He shall see that all equipment, such as valves, or other appliances necessary to be reached from time to time for operations and maintenance are made readily accessible.

- 4.3.11 The construction of the Work may develop conditions that render impracticable the location of equipment as shown or noted. In such cases, before installing his Work, the Contractor shall call the condition to the attention of the Project Manager for resolution.
- 4.3.12 It shall be the Contractor's sole responsibility to so coordinate the Work that chases or other recesses in walls shall be provided where required, and that reasonable clearance between the work of various trades shall be maintained. The layout for openings and chases through walls, floors, and partitions, etc., shall be arranged in advance of the actual construction and the work carried out without unnecessary and superfluous cutting, etc., after the Work has been completed.
- 4.3.13 Dimensions shall be verified by the measurements of the buildings and the property, and the Contractor shall be responsible for all of his work fitting in place in a satisfactory and workmanlike manner.
- 4.3.14 The Contractor has carefully examined, in detail, all of the Drawings and Specifications and the time established for completion of the Work, and he accepts them as adequate to meet the requirements specified.
- 4.3.15 The Contractor shall be responsible for coordinating the work performed by any artist in connection with the project's ornamentation with the construction of this project, so that there shall be no unnecessary delay or interference in connection with said construction.
- 4.3.16 The Contractor shall coordinate and generally supervise the Work of this Contract and shall coordinate his Work with Work performed under Separate Contracts by mutual arrangement and agreement with the Contractors for those Contracts and the Project Manager. Unresolved disputes will be finally resolved by the Project Manager, subject to approval of the Owner, and the dispute resolution provisions of Subparagraph 12.5.

4.4 LABOR AND MATERIALS

- 4.4.1 Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for all labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for the execution and completion of the Work in accordance with the Contract Documents, and any applicable building permit, conditional and final certificate(s) of occupancy, code or statute, whether specifically required by the Contract Documents or whether their provision may reasonably be inferred as necessary to produce the intended results, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work.
- 4.4.2 The Contractor shall at all times enforce strict discipline and good order among his employees and shall not employ on the Work any unfit person or anyone not skilled in the task assigned to him. The Project Manager may, by notice in writing, require the Contractor to promptly remove from the site of the Work any employee or worker the Project Manager deems incompetent, careless or otherwise objectionable including violation of District Policies relating to alcohol, illegal drugs, or firearms on District property.
- 4.4.3 The Contractor shall be responsible for ensuring that the Work is completed in a skillful and workmanlike manner.

4.5 WARRANTY

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- 4.5.1 The Contractor warrants to the Owner and the Architect that all materials and equipment furnished under this Contract will be new unless otherwise specified, and that all Work will be of good quality, free from faults and defects and in conformance with the Contract Documents. All Work not conforming to these requirements, including substitutions not properly approved and authorized, is defective. If required by the Project Manager or the Architect, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment. This warranty is not limited by the provisions of Paragraph 13.2.
- 4.5.2 The warranties set forth in this Paragraph 4.5 and elsewhere in the Contract Documents shall survive final acceptance under Paragraph 9.9.
- 4.6 TAXES
 - 4.6.1 The Contractor shall pay all sales, consumer, use and other similar taxes for the Work or portions thereof provided by the Contractor which are legally enacted at the time bids are received, whether or not yet effective.
- 4.7 PERMITS, FEES AND NOTICES
 - 4.7.1 Except as specifically provided in Subparagraph 3.3.13 the Contractor shall secure and pay for (1) all permits and governmental fees, licenses and inspections necessary for the proper execution of the Work which are legally required at the time the bids are received, and (2) all permits and governmental fees, licenses and inspections from any agency or department of the Municipality of Anchorage that would be necessary for the proper execution of the Work or legally required at the time bids are received just as if the Work were performed and the Project located within the Municipality of Anchorage. The Municipality of Anchorage shall be considered a "public authority bearing on the performance of the Work" and a "public authority having jurisdiction" for purposes of this Contract.
 - 4.7.1.1 The Anchorage School District has paid for the Municipality of Anchorage's Building Plan Review and Building Fee Permit. Contractor shall obtain permit upon notice from Project Manager.
 - 4.7.2 The Contractor shall give all notices and comply with all such laws, ordinances, rules, regulations and lawful orders of any public authority bearing on the performance of the Work.
 - 4.7.3 If the Contractor performs any Work knowing it to be contrary to any such laws, ordinances, rules, regulations or orders of any public authority bearing on the performance of the Work, and does so without reasonable notice to the Project Manager, the Contractor shall assume full responsibility therefore and shall bear all costs attributable thereto.
 - 4.7.4 Notification, coordination and completion of the installation of all required utilities, whether temporary or permanent, is the sole responsibility of the Contractor. The Owner shall not be responsible for any damage or delay caused by any party's inability to perform installations in the time frame desired by the Contractor.
- 4.8 ALLOWANCES
 - 4.8.1 The Contractor shall include in the Contract Sum all allowances stated in the Contract Documents. Items covered by these allowances shall be supplied for such amounts and by such persons as the Owner may direct, but the Contractor will not be required to employ persons against whom he makes a reasonable objection.

4.8.2 Unless otherwise provided in the Contract Documents:

- 4.8.2.1 These allowances shall cover the cost to the Contractor, less any applicable trade discount, of the materials and equipment required by the allowance delivered at the site, and all applicable taxes;
- 4.8.2.2 The Contractor's costs for unloading and handling on the site, labor, installation costs, overhead, profit and other expenses contemplated for the original allowance shall be included in the Contract Sum and not in the allowances;
- 4.8.2.3 Whenever the cost is more than or less than the allowance, the Contract Sum shall be adjusted accordingly by Change Order, the amount of which will recognize changes, if any, in handling costs on the site, labor, installation costs, overhead, profit and other expenses.

4.9 SUPERINTENDENT

- 4.9.1 The Contractor shall employ a competent superintendent and necessary assistants who shall be in attendance full-time at the Project Site during the progress of the Work. The superintendent shall represent the Contractor, and all communications given to the superintendent shall be as binding as if given to the Contractor. If requested by the Project Manager, the Contractor shall provide a management chart and a list of personnel in a number stipulated by the Project Manager which shall comprise the superintending staff. In such event, all references to the superintendent elsewhere in the Contract Documents shall mean the superintending staff.
- 4.9.2 The superintendent shall be in attendance at the Project Site not less than eight (8) hours per day, five (5) days per week, unless the job is closed down due to a general strike or conditions beyond the control of the Contractor or until termination of the Contract in accordance with the Contract Documents. The superintendent shall not be employed on any other project during the course of the Work.
- 4.9.3 In the event any of the following conditions shall exist, the Contractor shall require that his superintendent be at the Project Site not less than ten (10) hours per day, six (6) days per week:
 - 4.9.3.1 Should Substantial Completion not be accomplished on schedule.
 - 4.9.3.2 Should Final Completion not be accomplished on schedule.
 - 4.9.3.3 Should the Contractor's progress schedule indicate the Contractor to be fourteen (14) or more days behind schedule at any time during construction up until thirty (30) days prior to scheduled Substantial Completion.
 - 4.9.3.4 Should the Contractor's progress schedule indicate the Contractor to be seven (7) or more days behind schedule at any time during the last thirty (30) days prior to scheduled Substantial Completion.

4.10 CONSTRUCTION SCHEDULE

- 4.10.1 The Contractor shall prepare and submit to the Project Manager for the Owner's review and acceptance a construction schedule pursuant to and in accordance with Division 1, Section 01311 of the General Requirements entitled "Project Schedule."

4.11 DOCUMENTS AND SAMPLES AT THE SITE

- 4.11.1 The Contractor shall maintain at the site for the Owner one record copy of all Drawings, Specifications, Addenda, Change Orders and other Modifications, in good order and marked currently to record all changes made during construction, and approved Shop Drawings, Product Data and Samples. These shall be available to the Project Manager and the Architect and shall be delivered to the Project Manager upon substantial completion of the Work.

4.12 SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

- 4.12.1 Shop Drawings are drawings, diagrams, schedules and other data specially prepared for the Work by the Contractor or any Subcontractor, manufacturer, supplier or distributor to illustrate some portion of the Work.
- 4.12.2 Product Data are illustrations, standard schedules, performance charts, instructions, diagrams, and other information furnished by the Contractor to illustrate a material, product or system for some portion of the Work.
- 4.12.3 Samples are physical examples which illustrate materials, equipment or workmanship and establish standards by which the Work will be judged.
- 4.12.4 The Contractor shall review, approve and submit using the ASD Procore Construction Management Program, with reasonable promptness and in such sequence as to cause no delay in the Work or in the work of the Owner or any separate contractor, all Shop Drawings, Product Data and Samples required by the Contract Documents, or subsequently by the Project Manager. The Contractor's Shop Drawings, Product Data, and Samples submissions shall be coordinated and consistent with the Contractor's Project Scheduling obligations under Division 1, Section 01311 of the Contract Documents. Shop Drawings and Samples shall be properly identified as specified, or as the Project Manager may require. At the time of submission, the Contractor shall inform the Architect in writing of any deviation in the Shop Drawings or Samples from the requirements of the Contract Documents.
- 4.12.5 By approving and submitting Shop Drawings, Product Data and Samples, the Contractor represents that he has determined and verified all materials, field measurements, and field construction criteria related thereto, and that he has checked and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents. The Contractor shall adhere to any supplementary processing and scheduling instruction pertaining to Shop Drawings which may be issued by the Project Manager.
- 4.12.6 The Contractor shall not be relieved of responsibility for any deviation from the requirements of the Contract Documents by the Architect's approval and Project Manager's review of Shop Drawings, Product Data or Samples under Subparagraph 2.2.14 unless the Contractor has specifically informed the Architect and Project Manager in writing of such deviation at the time of submission and the Architect and Project Manager have given written approval to the specific deviation. The Contractor shall not be relieved from responsibility for errors or omission in the Shop Drawings, Product Data or Samples by the Architect's approval of or Project Manager's review thereof.
- 4.12.7 The Contractor shall promptly make corrections required by the Architect and shall resubmit the required number of corrected copies of Shop Drawings or new Product Data or Samples. The Contractor shall direct specific attention, in writing or on resubmitted Shop Drawings, Product Data or Samples, to revisions other than those requested by the

Architect on previous submittals. Resubmittals necessitated by required corrections due to Contractor's errors or omissions, or less than complete submittals as required by the specifications, shall not be cause for extension of Contract Time.

- 4.12.8 The Contractor shall keep on the job at all times copies of approved Shop Drawings, Product Data or Samples which bear the review stamp of the Architect/Engineer.
- 4.12.9 The review of Shop Drawings, Product Data or Samples by the Architect and Project Manager shall not relieve the Contractor from his responsibility to coordinate the work of the Subcontractors.
- 4.12.10 The review of Shop Drawings, Product Data or Samples by the Architect and the Project Manager shall not relieve the Contractor of his responsibilities to construct the work in accordance with the Contract Documents.
- 4.12.11 The review of Shop Drawings, Product Data or Samples by the Architect shall not be construed as an approval of the quantities of materials or confirmation of dimensions.
- 4.12.12 In preparing a schedule for delivery of materials the Contractor shall allow reasonable time for the approval, including resubmissions due to Contractor's errors and omissions, of Shop Drawings, Product Data or Samples.
- 4.12.13 When Shop Drawings, Cuts, or Brochures are forwarded to the Architect by the Contractor for approval, a copy of the Contractor's letter of transmittal with project name, Contractor's name, number of drawings, title and other pertinent data covering each transaction is to be mailed to the Project Manager. The Architect and his consulting Engineers shall follow the same procedure when it is necessary for them to return or transfer Shop Drawings, Cuts or Brochures either between themselves or to the Contractor for changes, corrections or resubmittal, so that the Project Manager can record and follow procedure for each transaction to finality.
 - 4.12.13.1 Pursuant to and consistent with the Contractor's Project Schedule development obligations under Division 1, Section 01311 of the Contract Documents, the Contractor shall submit Shop Drawings, Product Data and Sample submission schedule information to the Architect and Project Manager. The Contractor shall submit, and the Architect and Project Manager will review, the Contractor's submittals in accordance with the Contractor's accepted Preliminary and Detailed Project Schedules, as required under Division 1, Section 01311 of the Contract Documents. The Contractor shall submit no Shop Drawings, Product Data or Samples which do not comply with the Contract Documents.
 - 4.12.13.2 No portion of the Work requiring a Shop Drawing, Product Data or Sample submission shall be commenced until such submission has been reviewed, and approved, by the Architect in accordance with Subparagraph 2.2.13. All such portions of the Work shall be in accordance with approved submittals.
 - 4.12.13.3 No claim for delay shall be allowed the Contractor on account of failure of the Architect to furnish drawings or approval of Shop Drawings and Samples until at least twenty-one (21) days after submission to the Architect.
- 4.12.14 Shop Drawings, Product Data, and Samples shall be dated and shall bear the name of the Project; a description or the names of equipment, materials and items; and complete identification of locations at which materials or equipment are to be installed.

- 4.12.15 In submitting for approval the use of any material or device as the equal of some other material or device specified by name, the Contractor shall submit a sample of the material specified and also a sample of the material proposed to be submitted as the equal thereof, together with any supporting data necessary to reasonably allow the Architect and the Project Manager to review the material.
- 4.12.16 In case of devices, samples of which cannot readily be submitted, catalogs and other data, shall be submitted.
- 4.12.17 Any material or device proposed to be substituted shall not be deemed acceptable except by written communication from the Architect and Project Manager.
- 4.12.18 All Work for which samples are required to be submitted and approved shall be executed and performed in conformity with the said approved samples.

4.13 USE OF SITE

- 4.13.1 The Contractor shall confine operations at the site to areas permitted by law, ordinances, permits and the Contract Documents and shall not unreasonably encumber the building or site with any materials or equipment.
- 4.13.2 The Contractor shall coordinate all of his operations with and secure approval from the Project Manager before using any portion of the site.
- 4.13.3 All Work or materials of every description subject to injury during the course of the Work shall be fully protected from damage from any source. In any event, should any Work or materials under this Contract, become damaged in any way or manner the Contractor shall repair and perfect the same at his own expense, and when the entire Contract is completed, the building and premises shall be delivered to the Owner without defects. Any damage which may be caused by the installation of any portion of the Work covered by these specifications and conditions, or by the Contractor shall be satisfactorily made good and repaired by the Contractor without cost to the Owner.
- 4.13.4 The Contractor shall provide and maintain all lights, footways, guards, fences, gates, etc., for the proper protection of the public, and shall comply with all municipal rules, regulations, ordinances and laws, relating to the prosecution of his work.
- 4.13.5 The Contractor shall properly and carefully shore up or otherwise support all live water, sewer and gas pipes, electric wires, free-standing walls, conduit, etc., which may be encountered.
- 4.13.6 The Contractor shall furnish for his use, throughout the entire construction all scaffolding, ladders, decking or runways as needed to perform the Work under this Contract.
- 4.13.7 The Contractor shall construct elevators, cranes and other rigging, concrete lifts, etc., as required for his Work.
- 4.13.8 All such construction shall be carried out as required by the code or authority having jurisdiction. No cranes or other heavy equipment shall be located or moved in such manner as to damage or strain the framework or any part(s) of the proposed building and/or existing building.
- 4.13.9 As construction proceeds, the Project Manager may deem it necessary to have the Contractor move trailers, fences, stored materials, etc., to facilitate the construction. Upon written notice from the Project Manager, this will be done without additional cost to the

Owner.

4.13.10 When school is in session the Contractor will be restricted to the areas which do not interfere with school operations. These areas shall be safety and security fenced to not impact school operations. Additional areas may be utilized upon concurrence of the Project Manager. The Contractor shall minimize his impact on the educational program while his work is in progress. Workers must stay out of school while school is in session. All work in the existing school can only take place during the hours approved by the Project Manager

4.13.11 The Contractor must maintain interior building fire exits through the construction areas and maintain these exits during all school operation hours, to the satisfaction of the Authorities having Jurisdiction. These exit routes may not be modified without concurrence of the Project Manager and the School Principal.

4.13.12 The Contractor must maintain fire equipment access routes open to site and buildings. According to UFC 10.502 fire equipment access and water supplies shall be installed and made serviceable prior to and during the time of construction. This is the Contractor's responsibility to coordinate.

4.13.13 The Contractor shall keep the boilers operational while the average outside temperature is below 60° F while the school program is in operation or at any time temperature is below 40° F, to protect facility utility systems.

4.14 CUTTING AND PATCHING OF WORK

4.14.1 The Contractor shall be responsible for all cutting, fitting or patching that may be required to complete the Work or to make its several parts fit together properly.

4.14.2 The Contractor shall not damage or endanger any portion of the Work or the work of the Owner or any separate contractors by cutting, patching or otherwise altering any work, or by excavation. The Contractor shall not cut or otherwise alter the work of the Owner or any separate Contractor except with the written consent of the Owner and of such separate Contractor. The Contractor shall not unreasonably withhold, from the Owner, or any separate contractor his consent to cutting or otherwise altering the Work.

4.14.3 Existing structures and facilities including but not limited to building, utilities, topography, streets, curbs, walks, etc., that are damaged or removed due to required excavations or other construction work, shall be patched, repaired or replaced by the Contractor to the satisfaction of the Project Manager, the owner of such structures and facilities, and authorities having jurisdiction. In event the local jurisdictional authorities require that such repairing and patching be done with their own labor and materials, the Contractor shall abide by such regulations and pay for such work.

4.14.4 Whenever, for the convenience of work, an oversized opening has been provided, it shall be the responsibility of the Contractor requesting and requiring such opening to eventually fill unused portions of such openings with the appropriate material and with special attention to penetrations of firewalls. Such repair shall be in accordance with Paragraph 4.14.1.

4.15 CLEANING UP

4.15.1 The Contractor at all times shall keep the premises free from accumulation of waste materials or rubbish caused by his operations. At the completion of the Work he shall remove all his waste materials and rubbish from and about the Project as well as all his

tools, construction equipment, machinery and surplus materials.

- 4.15.2 If the Contractor fails to clean up during or at the substantial or final completion of his Work, the Owner may do so as provided in Paragraph 6.3 and the costs thereof shall be charged to the Contractor.

4.16 COMMUNICATIONS

- 4.16.1 The Contractor shall forward all communications to the Architect or the Owner through the Project Manager, except as described under Paragraph 4.12.13.

4.17 ROYALTIES AND PATENTS

- 4.17.1 The Contractor shall pay all royalties and license fees. He shall defend all suits or claims for infringement of any patent rights and shall save the Owner harmless from loss on account thereof, except that the Owner shall be responsible for all such loss when a particular design, process or the product of a particular manufacturer or manufacturers is specified, but if the Contractor has reason to believe that the design, process or product specified is an infringement of a patent, he shall be responsible for such loss unless he promptly gives such information to the Project Manager.

4.18 INDEMNIFICATION

- 4.18.1 To the fullest extent permitted by law, the Contractor shall, at his sole cost and expense, indemnify, hold harmless and defend the Owner, the Municipality of Anchorage and their Board or Assembly members, administrators, representatives, and employees, and the Project Architect and its agents, representatives, and employees from and against all claims, actions, judgments, costs, liabilities, penalties, damages, losses and expenses, including but not limited to attorneys' fees, which arise out of or result from the performance of the Work, and which are:

- 4.18.1.1 Attributable to bodily injury, sickness, disease or death, or to injury to, pollution of, or destruction of property (other than the Work itself) including the loss of use resulting therefrom; and
- 4.18.1.2 Caused by the default of the Contractor, or by any act, whether negligent or wrongful, or omission of the Contractor, any Subcontractor, Material Supplier or Vendor, anyone directly or indirectly employed by any of them or anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable.

- 4.18.2 In any and all claims against the Owner or the Municipality of Anchorage or their Board or Assembly members, administrators, representatives or employees, and the Project Architect and its agents, representatives, and employees by any employee of the Contractor, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them or anyone for whose acts any of them may be liable, the indemnification obligation under this Paragraph 4.18 shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the Contractor and Subcontractor under worker's compensation acts, disability benefit acts or other employee benefit acts.

4.19 PERSONS AUTHORIZED TO SIGN DOCUMENTS

- 4.19.1 The Contractor, within five (5) days after the Notice to Proceed shall file with the Project Manager a list of all persons who are authorized to sign documents such as contracts,

modifications, schedules, certificates, and affidavits on behalf of the Contractor and to fully bind the Contractor to all the Conditions and provisions of such documents, except that in the case of a corporation he shall file with the Project Manager a certified copy of a resolution of the Board of Directors of the corporation in which are listed the names and titles of corporation personnel who are authorized to sign documents on behalf of the corporation and to fully bind the corporation to all the conditions and provisions of such documents. This person, or at least one of these persons, shall be available to meet in Anchorage, Alaska, with the Owner or his representative(s) to discuss, negotiate and/or resolve any Change Order or other Modification to the Contract or any other matter needing resolution by the parties as determined at the sole discretion of the Owner within forty-eight (48) hours after receipt of written notice, at no additional cost to the Owner.

4.20 CONDITIONS AFFECTING THE WORK

- 4.20.1 The Contractor shall be responsible for taking all steps necessary to ascertain the nature and location of the Work and the general and local conditions which can affect the Work or the cost thereof. Failure by the Contractor to fully acquaint himself with conditions which may affect the Work, including, but not limited to conditions relating to transportation, handling, storage of materials, availability of labor, water, roads, weather, topographic and subsurface conditions, multi-prime contract conditions, applicable provisions of law, and the character and availability of equipment and facilities needed prior to and during the execution of the Work, shall not relieve the Contractor of his responsibilities under the Contract Documents and shall not constitute a basis for an adjustment in the Contract Sum or the Contract Time under any circumstances. The Owner assumes no responsibility for any understanding or representation about conditions affecting the Work made by any of his officers, employees, representatives, or agents prior to the execution of the Contract, unless such understandings or representations are expressly stated in the Contract Documents.
- 4.20.2 Until final acceptance by the Owner, the Contractor shall be in complete control of and fully responsible for the Work.
- 4.20.3 The Contractor shall give to the proper authorities all required notices relating to the Work in his charge, and shall be responsible for all acts and events which are violations of the law or which would be violations of the law had the Work been performed or the Project located within the Municipality of Anchorage.
- 4.20.4 Wherever herein mention is made of any article, material or workmanship to be in accordance with the laws, ordinances, building code, Underwriter's Code, and A.S.T.M. Specifications or similar expressions, the requirement of these laws, ordinances, etc., shall be construed as the minimum requirements of these Specifications, and all articles, materials and workmanship required by these laws, ordinances, etc., shall be provided by the Contractor without any additional cost to the Owner.
- 4.20.5 Where the requirements of the laws, ordinances, etc., are mandatory, they shall govern.
- 4.20.6 Where the requirements of the Specifications call for higher grade or are not in conflict with the laws, ordinances, etc., the Specifications shall govern.
- 4.20.7 In case of any apparent conflict between the Specifications and such laws, ordinances, etc., the Contractor shall immediately call the attention of the Project Manager (in writing) to such conflict for decision, before proceeding with any work which may involve such conflict.

END OF ARTICLE 4

ARTICLE 5

SUBCONTRACTORS

5.1 DEFINITION

- 5.1.1 A Subcontractor is a person, organization or entity who has a direct contract with the Contractor to perform any of the Work. The term Subcontractor is referred to throughout the Contract Documents as if singular in number and masculine in gender and means a Subcontractor or his authorized representative. The term Subcontractor does not include any separate contractor or his subcontractors.
- 5.1.2 A Sub-subcontractor is a person or entity who has a direct or indirect contract with a Subcontractor to perform any of the Work. The term Sub-subcontractor is referred to throughout the Contract Documents as if singular in number and masculine in gender and means a Sub-subcontractor or an authorized representative thereof.
- 5.1.3 Nothing contained in the Contract Documents is intended to, nor shall it create, any contractual relationship between the Owner, the Project Manager, the Architect, or any of their agents, employees, or representatives and any Subcontractor or Sub-subcontractor.

5.2 AWARD OF SUBCONTRACTS AND OTHER CONTRACTS FOR PORTIONS OF THE WORK

- 5.2.1 The Contractor, in compliance with the requirements of the Contract Documents, shall furnish to the Project Manager in writing the names of the persons or entities (including those who are to furnish materials or equipment fabricated to a special design) proposed for each of the principal portions of the Work. The Project Manager will within ten (10) days of receipt of such information reply to the Contractor in writing stating whether or not the Owner, after due investigation, has reasonable objection to any such proposed person or entity. Failure of the Project Manager to reply within a reasonable time shall constitute notice of no reasonable objection. The Contractor understands and agrees that no contractual agreement exists for any part of the Work under this Contract between the Owner and any of the Contractor's Subcontractors or Sub-subcontractors. Further, the Contractor understands and agrees that he alone is responsible to the Owner for all of the Work under this Contract and that any review of Subcontractors or Sub-subcontractors by the Owner or Project Manager will not in any way make the Owner responsible to any Subcontractor or Sub-subcontractor, nor responsible for the actions or failures of any Subcontractor or Sub-subcontractor.
 - 5.2.1.1 Within ten (10) days after the Notice to Proceed, the Contractor shall furnish to the Project Manager, in writing, for acceptance by the Owner, a list of names of the Subcontractors, Sub-subcontractors, and Material Suppliers and Vendors, proposed for the principal portions of the Work.
 - 5.2.1.2 Within thirty-five (35) days after Notice to Proceed, the Contractor shall submit to the Project Manager, copies of Purchase Orders or other satisfactory evidence of purchase for all major materials.
- 5.2.2 The Contractor shall not contract with any such proposed person or entity to whom the Project Manager has made reasonable objection under the provisions of this Subparagraph.
 - 5.2.2.1 The Contractor shall not be required to contract with anyone to whom he has a reasonable objection. There shall be no entitlement to additional compensation based upon the Project Manager's reasonable objection made

under this Section.

- 5.2.3 If the Project Manager has reasonable objection to any such proposed person or entity, the Contractor shall submit a substitute to whom the Project Manager has no reasonable objection.
- 5.2.4 The Contractor shall make no substitution for any Subcontractor, person or entity previously selected if the Project Manager makes reasonable objection to such substitution.
- 5.2.5 During the course of the Project the Contractor must notify the Project Manager in writing regarding any changes in any Work by any Subcontractor, Sub-subcontractor, Material Supplier or Vendor.

5.3 SUBCONTRACTUAL RELATIONS

- 5.3.1 By an appropriate agreement, written where legally required for validity, the Contractor shall require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound to the Contractor by the terms of the Contract Documents, and to assume toward the Contractor all the obligations and responsibilities which the Contractor, by these Documents, assumes toward the Owner. Said agreement shall preserve and protect the rights of the Owner under the Contract Documents with respect to the Work to be performed by the Subcontractor so that the subcontracting thereof will not prejudice such rights, and shall allow to the Subcontractor, unless specifically provided otherwise in the Contractor-Subcontractor agreement, the benefit of all rights, remedies and redress against the Contractor that the Contractor, by these Documents, has against the Owner. Where appropriate, the Contractor shall require each Subcontractor to enter into similar agreements with his Sub-subcontractors. The Contractor shall make available to each proposed Subcontractor, prior to the execution of the Subcontract, copies of the Contract Documents to which the Subcontractor will be bound by this Paragraph 5.3, and identify to the Subcontractor any terms and conditions of the proposed Subcontract which may be at variance with the Contract Documents. Each Subcontractor shall similarly make copies of such Documents available to his Sub-subcontractors, Material Suppliers or Vendors.
- 5.3.2 In addition to Sub-Contractual agreement in Paragraph 5.3.1, the Contractor shall allow the Subcontractor, Sub-subcontractor, Material Supplier or Vendor to notify the Project Manager due to failure of payment, unwarranted retainage or deductions of payment or unwarranted lateness of payment.
- 5.3.3 As a condition precedent to the acceptance of the Contractor's proposed Preliminary and Detailed Project Schedules by the Project Manager, each major Subcontractor shall in writing, with the submission of said schedules by the Contractor, confirm that they have reviewed the Contractor's proposed Project Schedules, and that each concurs with the activity breakdowns, durations, cost loading, and logic as relates to each major Subcontractor's scope of the Work and the incorporation of said Work into the Contractor's proposed Preliminary and Detailed Project Schedules, as prescribed under Division 1, Section 01311 of the General Requirements of the contract documents.

5.4 PREPARATORY WORK

- 5.4.1 Before starting work, the responsible Subcontractor shall carefully examine all preparatory Work that has been executed to receive his Work. He shall check carefully, by whatever means are required, to ensure that his work and adjacent related Work will finish to proper contours, planes, and levels. He shall promptly notify the Contractor and the Project

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Manager of any defects or imperfections in preparatory Work which will, in any way, affect satisfactory completion of his Work. Absence of such notification will be construed as an acceptance of preparatory work and later claims of defects therein will not be recognized.

- 5.4.2 Each Subcontractor is required to follow the provisions of 4.3.4 relating to asbestos abatement.

5.5 PAYMENTS TO SUBCONTRACTORS, SUB-SUBCONTRACTORS, AND MATERIAL SUPPLIERS AND VENDORS

- 5.5.1 If the Project Manager withholds a Certificate for Payment for any cause which is the fault of the Contractor and not the fault of a particular Subcontractor, Sub-subcontractor, and Material Supplier and Vendor, the Contractor shall pay that Subcontractor, Sub-subcontractor, Material Supplier and Vendor on demand, made at any time after the Certificate for Payment should otherwise have been issued, for his work to the extent completed, less any retained percentage.
- 5.5.2 The Contractor shall pay each Subcontractor, Sub-subcontractor, and Material Supplier and Vendor a just share of any insurance monies received by the Contractor, and he shall require each Subcontractor to make similar payments.

END OF ARTICLE 5

ARTICLE 6

WORK BY OWNER OR BY SEPARATE CONTRACTORS

6.1 OWNER'S RIGHT TO PERFORM WORK AND TO AWARD SEPARATE CONTRACTS

- 6.1.1 The Owner reserves the right to perform work related to the Project with his own forces, and to award separate contracts in connection with other portions of the Project or other work on the site under these or similar Conditions of the Contract.
- 6.1.2 When separate contracts are awarded for different portions of the Project or other work on the site, the term Contractor in the Contract Documents in each case shall mean the Contractor who executes each separate Owner-Contractor Agreement.
- 6.1.3 Upon transfer of such separate contracts to a General Contractor, if the Owner so desires to transfer such contracts, the Contractor shall be obligated to the conditions as outlined by Paragraph 6.3. of these Conditions.

6.2 MUTUAL RESPONSIBILITY

- 6.2.1 The Contractor shall afford the Owner and separate Contractors reasonable opportunity for the introduction and storage of their materials and equipment and the execution of their Work, and shall connect and coordinate his Work with theirs as required by the Contract Documents.
- 6.2.2 If any part of the Contractor's Work depends for proper execution or results upon the Work of the Owner or any separate contractor, the Contractor shall, prior to proceeding with the Work, promptly report to the Owner any apparent discrepancies or defects in such other work that render it unsuitable for such proper execution and results. Failure of the Contractor to so inspect and report in writing to the Owner shall constitute an acceptance of the Owner's or separate contractors' work as fit and proper to receive his Work, except as to defects which may subsequently become apparent in such work by others.
 - 6.2.2.1 In addition to inspection as to defect, the Contractor, if so deemed necessary by the Contractor, shall measure or inventory work already in place or stored and shall at once report, in writing, to the Project Manager any conflicts between the executed Work and the Contract Documents the Contractor has signed his name thereto.
 - 6.2.2.2 Upon notification from the Owner that a part of the Work furnished under this Contract is not in accordance with the Contract Documents, the Contractor shall immediately initiate action to correct the Work.
 - 6.2.2.3 If the Contractor fails to install his Work in a timely manner, the Owner through the Project Manager may authorize other Contractor(s) to perform their Work out of proper sequence. All extra Work necessary to properly interface with the other Contractor(s)' Work will be accomplished by this Contractor at no additional cost to the Owner.
- 6.2.3 Any costs caused by defective or ill-timed work shall be borne by the Contractor.
- 6.2.4 Should the Contractor wrongfully cause damage to the Work or property of the Owner, or to other Work on the site, the Contractor shall promptly remedy such damage as provided in Subparagraph 10.2.5.

- 6.2.5 Should the Contractor wrongfully cause damage to the work or property of any separate contractor, the Contractor shall upon due notice promptly attempt to settle with such other Contractor by agreement; or otherwise to resolve the dispute. If such separate Contractor sues or initiates a proceeding against the Owner, the Project Manager and/or the Architect on account of any damage alleged to have been caused by the Contractor, the Owner shall notify the Contractor who shall defend such proceedings at his own expense, and if any judgment or award against the Owner, the Project Manager, and/or the Architect arises therefrom the Contractor shall pay or satisfy it and shall reimburse the Owner, the Project Manager and/or the Architect for all attorneys' fees and court or other costs which the Owner, the Project Manager and/or the Architect have incurred.
- 6.2.6 In the event there is more than one contractor engaged on the Project, each such contractor shall be responsible to the other for damages to work, injury to any person or persons, or for any loss, cost, claims, or damages arising out of or in connection with the Work required by this Contract or any loss, cost, expense, or damage caused by the Contractor's neglect or failure to finish or satisfactorily complete his part of the Work within the time prescribed. In all events, the provisions of Paragraph 4.18 shall be applicable.
- 6.2.7 Whenever the Contractor receives items from another Contractor or from the Owner for storage, erection or installation, the Contractor receiving such items shall give receipt for items delivered, and thereafter will be held responsible for care, storage and any necessary replacing of item or items received.
- 6.2.8 The separate contractors shall establish and maintain communication throughout the course of their Work to assure maximum coordination of the Work performed by each. This includes the approvals of the Work of each as required by proper coordination.
- 6.3 OWNER'S RIGHT TO PERFORM DISPUTED WORK
- 6.3.1 If a dispute arises between the Contractor and separate contractors as to their responsibility for cleaning up as required by Paragraph 4.15 or for accomplishing coordination or doing required cutting, filling, excavating or patching as required by Paragraph 4.14, the Owner may carry out such Work and charge the cost thereof to the contractors responsible therefor as the Owner shall determine to be just.
- 6.4 EQUIPMENT OR WORK NOT IN CONTRACT (NIC)
- 6.4.1 When certain items of equipment and other work are indicated as "NIC" (Not In Contract), or to be furnished and installed under other contracts, any requirements for preparation of openings, provision of backing, etc., for receipt of such "NIC" work, information will be furnished upon written request of the Contractor who shall properly form and otherwise prepare his Work in a satisfactory manner to receive such "NIC" work.
- 6.5 CUTTING AND PATCHING UNDER SEPARATE CONTRACTS
- 6.5.1 Each Contractor shall be responsible for any cutting, fitting and patching that may be required to complete his Work except as otherwise provided in the Contract Documents. The Contractor shall not endanger any human life or portion of the Work performing any cutting, excavating or otherwise altering the Work or any part thereof.

END OF ARTICLE 6

ARTICLE 7

MISCELLANEOUS PROVISIONS

7.1 GOVERNING LAW

7.1.1 Unless otherwise provided in the Contract Documents, the Contract shall be governed by the law of the place where the Project is located.

7.2 SUCCESSORS AND ASSIGNS

7.2.1 The Owner and the Contractor each binds himself, his partners, successors, assigns and legal representatives to the other party hereto and to the partners, successors, assigns and legal representatives of such other party in respect to all covenants, agreements and obligations contained in the Contract Documents. The Contractor shall not assign the Contract or sublet it as a whole without the written consent of the Owner, nor shall the Contractor assign any monies due or to become due to him hereunder, without the previous written consent of the Owner.

7.3 WRITTEN NOTICE

7.3.1 Written notice shall be deemed to have been duly served if delivered in person to the individual or member of the firm or entity or to an officer of the corporation for whom it was intended, or if delivered at or sent by registered or certified mail to the last business address known to him who gives the notice.

7.4 CLAIMS FOR DAMAGES

7.4.1 Should the Contractor suffer injury or damage to person or property because of any act or omission of the Owner or of any of his employees, agents or others for whose acts he is legally liable, claim shall be made in writing to the Owner, through the Project Manager, within twenty (20) days after the first observance of such injury or damage; otherwise, the Contractor shall have waived any and all rights he may have against the Owner, the Project Manager, the Architect, or their employees, representatives or agents.

7.4.2 Decisions of the Project Manager shall be rendered as provided for under the Contract Documents, but no decision of the Project Manager shall deprive the Owner or the Contractor of any form of redress which may be available under the laws of the State. Any decision of the Project Manager shall be final and binding on the Contractor in the absence of written notice of protest from the Contractor received by the Owner by registered mail, within fifteen (15) days of the date of the decision of the Project Manager. The Owner shall have sixty (60) days from the date of receipt of a formal protest within which to investigate and make reply.

7.5 PERFORMANCE BOND AND PAYMENT BOND

7.5.1 Prior to the execution of the Contract, the Contractor shall furnish to the Owner, on forms acceptable to the Owner, surety bonds in the amounts and for the purposes provided in this Paragraph 7.5. Each bond must be signed by both the Contractor and the Surety. The current power of attorney for the person who signs for the surety company, indicating the monetary limit of such powers, must be attached to the bonds. The Contractor shall pay all premiums and cost thereof and incidental thereto. Such bonds shall be made payable to the Owner. The surety (or sureties) shall be corporate surety(ies) licensed to transact business in Alaska and acceptable to the Owner. Each bond shall be in an amount equal to the Contract Sum. The effective date of the bond shall be on the execution date of the

contract.

- 7.5.2 The "Performance Bond" shall be so conditioned as to assure the faithful performance by the Contractor of all Work under said Contract, within the time limits prescribed, including any maintenance provisions, in a manner that is satisfactory and acceptable to the Owner; that all materials and workmanship supplied by him will be free from original or developed defects; and that should original or developed defects or failures appear within a period of one year from the date of final acceptance of the Work by the Owner, the Contractor shall, at his own expense, make good such defects and failures and make all replacements and adjustments required, within a reasonable time after being notified by the Owner to do so. This bond shall be maintained by the Contractor in full force and effect during the performance of the Work of the Contractor and for a period of two (2) years after the date of final acceptance of the Work by the Owner.
- 7.5.3 The "Payment Bond" shall be so conditioned as to inure to the benefit of persons furnishing materials for or performing labor upon the Work. This bond shall be maintained by the Contractor in full force and effect until the Work is completed and finally accepted by the Owner, and until all claims for materials, labor and subcontracts are paid.
- 7.5.4 Should any surety or sureties upon said bonds become insufficient or be disqualified from doing business in Alaska, the Contractor shall renew said bond or bonds with good and sufficient sureties, acceptable to the Owner, within ten (10) work days after receiving notice that the surety or sureties are insufficient and/or disqualified. Should any surety or sureties be deemed unsatisfactory at any time by the Owner, notice will be given the Contractor to that effect, and he shall forthwith substitute a new surety or sureties satisfactory to the Owner. No further payment shall be deemed due or will be made under this Contract until the new sureties shall qualify and be accepted by the Owner.
- 7.5.5 In the event of any change order resulting in the performance of additional work in connection with the Work, the amounts of such bonds shall be increased by the cost of such additional work or materials or fixtures to be incorporated into the Project.

7.6 RIGHTS AND REMEDIES

- 7.6.1 The Contractor's duties and obligations imposed by the Contract Documents and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise imposed or available by law.
- 7.6.2 Except as may be specifically agreed in writing, the failure of the Owner, the Project Manager, or the Architect to insist in any one or more instances upon the strict performance of any one or more of the provisions of this Contract, or to exercise any right herein contained or provided by law, shall not be construed as a waiver or relinquishment of the performance of such provision or right(s) or of the right to subsequently demand such strict performance or exercise such right(s), and the rights shall continue unchanged and remain in full force and effect.
- 7.6.3 The Contractor agrees that he can be adequately compensated by money damages for any breach of this Contract which may be committed by the Owner and hereby agrees that no default, act, or omission of the Owner, the Project Manager or the Architect, except for unauthorized failure to make payments as required by the Contract Documents, shall constitute a material breach of the Contract entitling the Contractor to cancel or rescind the provisions of this Contract or (unless the Owner shall so consent or direct in writing) to suspend or abandon performance of all or any part of the Work. The Contractor hereby waives any and all rights and remedies to which he might otherwise be or become entitled, save only his right to money damages.

7.7 TESTS

- 7.7.1 If the Contract Documents, laws, ordinances, rules, regulations or orders of any public authority having jurisdiction require any portion of the Work to be inspected, tested, or approved, the Contractor shall give the Architect and Project Manager timely notice, but not less than seventy-two (72) hours, of its readiness so the Architect and the Project Manager may observe such inspection, testing or approval. The Contractor shall bear all costs of such inspections, tests or approvals except as provided in subparagraph 7.7.2. Notification, coordination and execution of all inspections and tests required by the Contract Documents or by the governing building department shall be the sole responsibility of the Contractor. The Owner shall not be responsible for any damage or delay caused by any Party's inability to make required inspections in the time frame desired by the Contractor.
- 7.7.2 Special Inspection and testing as required in accordance with IBC section 1704 shall be coordinated by the Contractor and the Owner shall bear all costs of Special Inspections or approvals. The Special Inspector, designated by the Owner, shall observe the Work assigned for conformance with the approved design drawings and specifications. The Project Manager may order additional Special Inspections, testing, or approval, as required by the authority having jurisdiction by providing notice to the Contractor. The Contractor shall provide notification and coordination for additional Special Inspections as provided in subparagraph 7.7.1. If such special inspection or testing reveals a failure of the Work to comply (1) with the requirements of the Contract Documents, or (2) with respect to the performance of the Work, with laws, ordinances, rules, regulations, or orders of any public authority having jurisdiction, the Contractor shall bear all costs thereof, including compensation of the Owner's administrative and legal expenses, and for the Architect's, the Project Manager's, and the Special Inspector's additional services made necessary by such failure.
- 7.7.3 Inspections and Tests required to establish compliance with the Contract Documents, as provided for in the Contract Documents, will be made by a qualified, independent testing agency approved by the Owner. The cost of the services of such agency will be paid by the Contractor, unless otherwise provided in the Contract Documents. When the initial tests indicate non-compliance with the Contract Documents, any subsequent retesting occasioned by non-compliance shall be performed by the same agency and the costs thereof borne by the Contractor. The Contractor shall provide facilities for such access to the Work in order that the agency may properly perform its functions. Representatives of the testing agency shall have access to the Architect, Project Manager, or Owner at all times.
- 7.7.4 Inspections or testing performed exclusively for the Contractor's convenience shall be the sole cost and responsibility of the Contractor.
- 7.7.5 The independent testing agency, employed as specified in the Technical portion of these specifications, shall prepare the test reports, logs, and certificates applicable to the specific inspections and tests and shall deliver, immediately or within forty-eight (48) hours, as applicable, the specified number of copies of same to the designated parties. Other required certificates of inspection, testing or approval shall be secured by the Contractor and delivered by him to the Project Manager and the Architect, in such time as to not delay progress of the Work or final payment therefor.
- 7.7.6 If the Architect, the Project Manager or the Special Inspector is to observe the inspections, tests or approvals required by the Contract Documents, laws, ordinances, rules, regulations, or orders of any public authority having jurisdiction or that are required to establish compliance with the Contract Documents, he will do so promptly and, where

practicable, at the normal place of testing.

7.7.7 Unless otherwise stipulated in the Contract Documents, the Contractor shall pay for all utilities required for testing of installed equipment of all of his Work and work of each Subcontractor furnishing equipment. Labor and supervision required for making such tests shall be provided at no additional cost to the Owner.

7.7.8 Owner may provide Quality Assurance testing. Contractor shall provide knowledgeable support personnel and cooperate fully with Owner's designated representative in conducting all Quality Assurance tests. If project fails tests, Contractor shall make all necessary corrections to meet test criteria and pay the Owner for all costs associated with additional tests.

7.8 ALTERNATES

7.8.1 Alternates may be either additive or deductive.

7.8.2 Alternates, if taken, may be taken in any sequence.

7.8.3 The Contractor shall include in his bid, or bid proposal, a bid for all alternates listed in the Bid Form. These alternates shall include the Contractor's net cost of the labor, materials, overhead and profit, and equipment necessary to perform or delete, the Work as outlined by such alternates.

7.9 UNENFORCEABILITY OF ANY PROVISION

7.9.1 If any provision of the Contract is held as a matter of law to be unenforceable, the remainder of the Contract shall be enforceable without such provision.

7.10 NO WAIVER BY OWNER

7.10.1 The failure of the Owner in any one or more instances to insist upon the strict performance of any of the terms of this Contract or to exercise any option herein conferred, shall not be construed as a waiver or relinquishment to any extent of the right to assert or rely upon such terms or option on any future occasion.

7.11 ASSIGNMENT OF CONTRACT

7.11.1 The Contractor shall not assign the responsibilities of this Contract, either as a whole or in part, nor assign any monies due or to become due to it hereunder, without previous written consent of the Owner.

END OF ARTICLE 7

ARTICLE 8

TIME

8.1 DEFINITIONS

- 8.1.1 Unless otherwise provided, the Contract Time is the period of time allotted in the Contract Documents for Substantial and Final Completion of the Work as defined in Subparagraph 8.1.3, including authorized adjustments thereto.
- 8.1.2 The date of execution of the Contract Agreement between the Owner and Contractor shall be subsequent to School Board Approval and the Contractor's satisfactory submittals to the Owner of the Certificate of Insurance, the Performance Bond and the Payment Bond as noted in the Invitation to Bidders. The Owner will issue a Notice to Proceed no later than ten (10) days from execution of the Owner-Contractor Agreement by both Owner and Contractor. The date of commencement of the Work shall be the date established by the Notice to Proceed. The Owner shall not be responsible for any costs incurred by the Contractor prior to the Notice to Proceed.
- 8.1.3 The Date of Substantial Completion of the Work or designated portion thereof is the Date certified by the Project Manager and Architect when the Work or a designated portion thereof is sufficiently complete, in accordance with the Contract Documents, so the Owner can fully occupy and utilize the Work or designated portion thereof for the use for which it is intended, with all of the Project's parts and systems cleaned and operable as required by the Contract Documents. Only incidental corrective work and any final cleaning beyond that needed for the Owner's full use may remain for Final Completion.
- 8.1.4 The term day as used in the Contract Documents shall mean calendar day unless otherwise specifically designated. All dates shall mean 12:01 a.m. of the indicated day unless otherwise stipulated.
- 8.1.5 The term "working day" as may be used in the Contract Documents shall mean any day not otherwise defined herein as a non-working day.
- 8.1.6 The term non-working day as may be used in the Contract Documents shall mean Sunday, a recognized holiday, a day on which the Contractor is specifically required to suspend construction operations or a day on which a suspension order is in effect. Recognized holidays shall be: New Year's Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, Christmas Eve (half day), and Christmas Day. When any of the above days fall on a Saturday, the preceding Friday shall be counted as a holiday. When any of the above days fall on a Sunday, the following Monday shall be counted as a holiday.
- 8.1.7 The term "Beneficial Occupancy" is interchangeable with the term Substantial Completion.

8.2 PROGRESS AND COMPLETION

- 8.2.1 All times stated in the Contract Documents are of the essence of the Contract.
- 8.2.2 The Contractor shall begin the Work on the date of commencement as defined in Subparagraph 8.1.2. He shall carry the Work forward expeditiously with adequate forces and shall achieve Substantial Completion and Final Completion in accordance with the Project Schedule Milestone Dates set forth under Section 00200 hereof.
- 8.2.3 Attention is directed to the fact that the Work is urgently needed by the Owner and that time is of the essence; for this reason, it shall be agreed that the Contractor shall

substantially complete all Work under the Contract in accordance with the Project Schedule Milestone Dates set forth under Section 00200 hereof and, that he will complete the contract in all its details for final acceptance as specified after Substantial Completion.

8.3 DELAYS AND EXTENSIONS OF TIME

8.3.1 The Contractor shall be entitled to extensions in the time required for performance of the Work as specifically provided in the Contract. Except as otherwise specifically provided under Paragraph 3.4., 12.1, or 8.3.5, the Contractor shall not be entitled to payment or compensation of any kind from the Owner for direct, indirect, impact or consequential damages, including but not limited to costs of acceleration because of hindrance or delay or loss of labor or equipment efficiency or productivity arising out of any hindrance, interference, obstruction, disruption or delay from any source or cause whatsoever, whether such hindrance, interference, obstruction, disruption or delays be reasonable or unreasonable, foreseeable or unforeseeable, or avoidable or unavoidable.

8.3.2 The Contract Time may be adjusted only for changes pursuant to Paragraph 12.1, suspension of Work pursuant to Paragraph 3.4. and delays pursuant to Subparagraph 8.3.3.

8.3.3 Types of delay shall be defined as follows:

8.3.3.1 Actions or inactions of the Owner, or events for which the Owner has assumed contractual responsibility, which would independently delay the date of Substantial Completion beyond the current contractually established date of Substantial Completion shall be designated as Compensable delays.

8.3.3.2 Events which are outside the control of, and without the fault or negligence of either the Owner or the Contractor, which would independently delay the date of Substantial Completion beyond the current Contract Completion Date shall be designated as Excusable delays, as follows:

8.3.3.2.1 Labor disputes and strikes (including strikes affecting transportation), that do, directly and critically affect the progress of the Work; however, any extension of Contract Time on account of an individual labor strike shall not exceed the number of days of said strike.

8.3.3.2.2 Acts of God, tornado, fire, hurricane, blizzard, earthquake, typhoon, or flood that damage completed work or stored materials.

8.3.3.2.3 The Contract Time will not be extended due to normal inclement weather. Unless the Contractor can substantiate to the satisfaction of the Owner that the weather actually encountered by the Contractor was unusually severe considering the full term of the Contract Time using a ten (10) year average of accumulated record mean values from climatological data compiled by the U.S. Department of Commerce, National Oceanic and Atmospheric Administration for the locale of the Project and that such alleged substantially greater than normal inclement weather actually delayed the Work or portions thereof which had an effect upon the Contract Time, the Contractor shall not be entitled to an extension of time.

8.3.3.2.4 Acts of the public enemy, acts of the state, federal or local government in its sovereign capacity, and acts of another contractor in the performance of a contract with the Owner relating to the Project.

8.3.3.3 Actions or inactions of the Contractor, or events for which the Contractor has assumed contractual responsibility, which would independently delay the date of Substantial Completion beyond the current Contract Completion Date shall be designated as Non-excusable delays.

8.3.3.4 Concurrent delay is any combination of the above three types of delay occurring on a calendar date, except in cases where the combination consists of two or more instances of the same type of delay occurring on a calendar date.

A delay to the Contractor caused by the acts of another contractor under contract to the Owner will be classified as a compensable delay to the extent said delay meets the requirements of compensable delay as set forth under Subparagraph 8.3.3.1. Also, it is the Owner's belief that the definitions of delay as included in this paragraph comply with all applicable law in the State of Alaska.

8.3.4 Any claim for extension of time shall be made in writing to the Project Manager not more than seven (7) calendar days after commencement of the delay; otherwise it shall be waived. The Contractor shall also provide an estimate of the probable effect of such delay on the progress of the Work. In the case of a continuing delay only one claim is necessary. Any event, action, inaction, or other cause which may give rise to a delay shall constitute a basis for adjustment in:

8.3.4.1 Contract Time, only if it can be demonstrated that the date of Substantial Completion will be delayed beyond the current Contract Completion Date and that the delay is classified as only a Compensable, Excusable, or Concurrent Delay. The Contract Time shall be adjusted by Change Order pursuant to the requirements of Paragraph 8.3 and Division 1, Section 01311; or

8.3.4.2 Contract Amount, only if it can be demonstrated that the Contractor's time-related costs to complete the Work will be increased and the delay is classified as only a Compensable Delay. The Contract Sum shall be adjusted by Change Order pursuant to the requirements of Subparagraphs 8.3 and 12.3.

8.3.5 All time limits stated in the Contract Documents are of the essence of this Contract. The failure of the Contractor to complete the Work in conformance with the Contract shall result in damages suffered by the Owner due to delays in completion of the Work.

8.3.5.1 If the Contractor fails to substantially complete the Work in conformance with the Contract Documents and the Owner nevertheless permits the Contractor to continue performance of the Work, such permission shall neither modify nor waive the Owner's right to assess and collect, and the Contractor's obligation to pay liquidated damages.

8.3.5.2 The Owner shall be entitled to claim against the Contractor for any liquidated damages incurred. The Owner cannot anticipate at this time what liquidated damages may occur or what the per diem cost of these damages might be. Determination of liquidated damage details will be a matter of proof should the issue arise.

- 8.3.5.3 The Owner shall recover said liquidated damages by deducting the amount thereof from any monies due or that may become due the Contractor. In the event the remaining balance due the Contractor is insufficient to cover the full amount of assessed damages, then the Contractor or his Surety shall pay the amount due and the Owner shall be entitled to any and all rights and remedies available to it in law or equity to recover same.

8.4 RESPONSIBILITY FOR COMPLETION

- 8.4.1 The Contractor shall furnish such manpower, materials, facilities and equipment and shall work such hours, including night shifts, overtime operations and Sundays and holidays, as may be necessary to insure the progress and completion of the Work in accordance with the accepted and currently updated progress schedule. If Work actually in place falls behind the currently updated and accepted progress schedule and it becomes apparent from the current schedule that the Work will not be completed in accordance with the Contract Time, the Contractor agrees that he will, as necessary, take some or all of the following actions at no additional cost to the Owner, as required to substantially eliminate the schedule slippage deficiency:
- 8.4.1.1 Increase manpower in such quantities and crafts as will substantially eliminate in the opinion of the Project Manager the schedule slippage deficiency;
- 8.4.1.2 Increase the number of working hours per shift, shifts per working day, working days per week, or the amount of equipment, or any combination of the foregoing sufficiently to substantially eliminate, in the opinion of the Project Manager the schedule slippage deficiency; and,
- 8.4.1.3 Reschedule activities to achieve maximum practical concurrence of accomplishment of activities.
- 8.4.2 The Project Manager may require the Contractor to submit a recovery schedule in accordance with Section 01311 of the Specifications, demonstrating his program and proposed plan to make up the slippage in scheduled progress and to ensure completion of the Work in accordance with the requirements of the Contract. If the Project Manager finds the proposed plan not acceptable, he may require the Contractor to submit a new plan. If the actions taken by the Contractor or the second plan proposed are not satisfactory, the Project Manager may require the Contractor to take any of the actions set forth in this Paragraph 8.4 without additional cost to the Owner, to make up the slippage in scheduled progress.
- 8.4.3 Failure of the Contractor to substantially comply with the requirements of this Paragraph 8.4 may be considered grounds for a determination by the Owner, pursuant to Clause 14.1, that the Contractor is failing to prosecute the Work with sufficient diligence to ensure its in accordance with the Project Milestone Dates set forth under Section 00200 hereof.

END OF ARTICLE 8

ARTICLE 9

PAYMENTS AND COMPLETION

9.1 CONTRACT SUM

- 9.1.1 The Contract Sum is stated in the Owner-Contractor Agreement and, including authorized adjustments thereto, is the total amount payable by the Owner to the Contractor for the performance of the Work under the Contract Documents.

9.2 SCHEDULE OF VALUES

- 9.2.1 Before the first Application for Payment, the Contractor shall submit to the Owner, through the Project Manager, a schedule of values allocated to the various portions of the Work, as set forth in Division 1, Section 01370 of the General Requirements entitled "Schedule of Values" and supported by such data to substantiate its accuracy as the Architect, Project Manager and the Owner may require. This schedule, unless objected to by the Architect, Owner, or Project Manager, may be used as a basis for the Contractor's Applications for Payment except as otherwise noted under Division 1, Section 01311. The Schedule of Values shall be prepared in such a manner that each major item of work and each subcontracted item of work is shown as a single item on the Application and Certificate of Payment.

9.3 APPLICATIONS FOR PAYMENT

- 9.3.1 Prior to the date for each progress payment established in the Contract Documents, the Contractor, in accordance with Division 1, Section 01311 of the General Requirements entitled "Project Schedule," shall submit to the Project Manager an itemized Application for Payment, notarized if required, supported by such data substantiating the Contractor's right to payment as the Project Manager and the Architect may require, and reflecting retainage, if any, as provided elsewhere in the Contract Documents. The form of Application for Payment shall be Anchorage School District Forms 100, 100A, 100B and 100C and the computer-produced Cost Report updated in accordance with Division 1, Section 01311.
- 9.3.2 If the Project Manager finds that satisfactory progress is not being made, he may require retainage of up to 10% of the total amount earned on all subsequent progress payments. This retainage may be released at such time as the Project Manager finds that satisfactory progress is being made.
- 9.3.3 Payments may be authorized by the Project Manager at his discretion, on account of materials or equipment not incorporated in the Work but delivered and suitably stored at the site by the Contractor. Payments for materials or equipment stored on the site shall only be considered upon submission by the Contractor of satisfactory evidence that he has acquired title to such material, that it will be utilized on the Work under this Contract and that it is satisfactorily stored, protected, and insured or that other procedures satisfactory to the Project Manager that will protect the Owner's interests have been taken.
- 9.3.4 The Contractor warrants that title to all Work, materials and equipment covered by an Application for Payment will pass to the Owner either by incorporation in the construction or upon the receipt of payment by the Contractor, whichever occurs first, free and clear of all liens, claims, security interests or encumbrances, hereinafter referred to in this Article 9 as "liens"; and that no Work, materials or equipment covered by an Application for Payment will have been acquired by the Contractor, or by any other person performing Work at the site or furnishing materials and equipment for the Project, subject to an agreement under which an interest therein or an encumbrance thereon is retained by the seller or otherwise

imposed by the Contractor or such other person.

9.4 APPROVAL OF PAY APPLICATION

- 9.4.1 The Project Manager will, after receipt of the Contractor's Application for Payment, and within the time set forth in Division 1, Section 01311 of the General Requirements entitled "Project Schedule," either approve the Application for its full amount or notify the Contractor in writing of his reasons for withholding approval, in whole or in part, as provided in Subparagraph 9.6.1.
- 9.4.2 The submission and acceptance of the Contractor's Preliminary and Detailed Progress Schedules and monthly updates thereof as required by Division 1, Section 01311 of the General Requirements entitled "Project Schedule," shall be an integral part and basic element of the application upon which progress payments shall be made. If in the judgment of the Project Manager the Contractor fails or refuses to provide information required to accomplish a complete Project Schedule Update or revision thereto as specified under Division 1, Section 01311 of the General Requirements, the Contractor shall be deemed to have not provided the information necessary to enable the Project Manager and the Architect to properly evaluate the Contractor's progress, and shall not be entitled to progress payments until it has furnished the information necessary for a complete Project Schedule Update or revision thereto as specified herein to the satisfaction of the Project Manager.
- 9.4.3 The signing of an Application for Payment will constitute a representation by the Project Manager and the Architect, based on their observations at the site and the data comprising the Application for Payment, that the Work has progressed to the point indicated; that, to the best of their knowledge, information and belief, the quality of the Work is in accordance with the Contract Documents (subject to an evaluation of the Work for conformance with the Contract Documents upon Substantial Completion, to the results of any subsequent tests required by or performed under the Contract Documents, to minor deviations from the Contract Documents correctable prior to completion, and to any specific qualifications stated in their Certificate); and that the Contractor is entitled to payment in the amount certified. However, by approving an Application for Payment, the Project Manager and the Architect shall not thereby be deemed to represent that either has made exhaustive or continuous on-site inspections to check the quality or quantity of the Work or that either has reviewed the construction means, methods, techniques, sequences or procedures, or that either has made an examination to ascertain how or for what purpose the Contractor has used the monies previously paid on account of the Contract Sum.

9.5 PROGRESS PAYMENTS

- 9.5.1 After an Application for Payment has been approved, the Owner shall make payment within thirty (30) calendar days.
- 9.5.2 The Contractor shall promptly pay each Subcontractor (including suppliers, laborers, and material-men) performing labor or furnishing material for the Work, upon receipt of payment from the Owner, out of the amount paid to the Contractor on account of such Subcontractor's Work, the amount to which said Subcontractor is entitled, reflecting the percentage actually retained, if any, from payments to the Contractor on account of such Subcontractor's Work. The Contractor shall, by an appropriate agreement with each Subcontractor, also require each Subcontractor to make payments to his Sub-subcontractors in similar manner.
- 9.5.3 The Owner may, on request and at his discretion, furnish to any Subcontractor, Sub-subcontractor, or Material Supplier and Vendor, if practicable information regarding the

percentages of completion or the amounts applied for by the Contractor and the action taken thereon by the Project Manager on account of Work done by such Subcontractor, Sub-subcontractor, or Material Supplier or Vendor.

- 9.5.4 Neither the Owner, the Project Manager, nor the Architect shall have any obligation to pay or to see to the payment of any monies to any Subcontractor except as may otherwise be required by law.
- 9.5.5 No approval for a progress payment, nor any progress payment, nor any partial or entire use of occupancy of the Project by the Owner, shall constitute an acceptance of any Work not in accordance with the Contract Documents.
- 9.5.6 The Contractor agrees to keep the Work and the site(s) on which Work is to be performed free and clear of all liens and claims of liens on materials furnished pursuant to the Contract Documents. Contractor hereby waives any right it may have in connection with the Work to file any liens, mechanics or otherwise. Notwithstanding anything to the contrary contained in the Contract Documents, if any such lien is filed or there is any reason to believe that any lien may be filed at any time during the progress of the Work or within the duration of this Contract, the Owner may refuse to make any payment otherwise due to Contractor or withhold from any payment due the Contractor a sum sufficient in the opinion of the Owner to pay all obligations and expenses necessary to satisfy such lien or claim and completely indemnify the Owner against any such lien or claim unless and until Contractor shall thereof, if any, has been satisfied, discharged and released of record or that the Contractor has caused such lien to be released or record if and as provided by law pending the resolution of any dispute between Contractor and the person filing such lien; and if such evidence is not furnished by Contractor to the Owner within a period of five (5) days after demand to do so, the Owner may discharge such indebtedness and deduct the amount required therefore, together with any and all losses, costs, damages and attorney's fees suffered or incurred by the Owner from any sum payable to Contractor under the Contract Documents. Final payment to Contractor may be withheld until the Work and the site(s) on which the Work is to be performed are free and clear of any and all liens for rights thereto arising because of Work performed or materials furnished under the Contract Documents. This Subparagraph 9.5.6 shall be specifically included in all subcontracts and purchase orders entered into by Contractor.
- 9.5.7 No reference to a claim or claims of lien or to the Owner's right to withhold payments to the Contractor or to discharge the Contractor's debts to Subcontractors, in Subparagraph 9.5.6, or elsewhere in the Contract Documents, shall be interpreted as a waiver of the Owner's right to exemption pursuant to AS 09.38.015(c) or any requirements with regard to the filing of claims of lien as set forth in AS 34.35.

9.6 PAYMENTS WITHHELD

- 9.6.1 The Architect and the Project Manager may decline to approve an Application for Payment in whole or in part, to the extent reasonably necessary to protect the Owner, if in their opinion they are unable to make representations to the Owner as provided in Subparagraph 9.4.3. If the Project Manager and the Architect are unable to make representations to the Owner as provided in Subparagraph 9.4.3 and to certify payment in the amount of the Application, they will notify the Contractor as provided in Subparagraph 9.4.1.

If the Contractor, Project Manager and the Architect cannot agree on a revised amount, the Project Manager will promptly approve the Application for Payment for the amount for which he is able to make such representations to the Owner. The Project Manager may also decline to certify payment or, because of subsequently discovered evidence or

subsequent observations, he may nullify the whole or any part of any approval of an Application for Payment previously issued to such extent as may be necessary in his opinion to protect the Owner from loss because of:

- 9.6.1.1 Defective work not remedied,
- 9.6.1.2 Third-party claims filed or reasonable evidence indicating probable filing of such claims,
- 9.6.1.3 Failure of the Contractor to make payments properly to Subcontractors or for labor, materials or equipment,
- 9.6.1.4 Reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum,
- 9.6.1.5 Damage to the Owner or another contractor,
- 9.6.1.6 Reasonable evidence that the Work will not be completed within the Contract Time,
- 9.6.1.7 Failure or refusal of the Contractor to carry out the Work in accordance with the Contract Documents, including scheduling, project management, or coordination requirements,
- 9.6.1.8 Liens filed for any portion of the Work, or
- 9.6.1.9 Failure or refusal of the Contractor to fully comply with Division 1, Section 01311 of the General Requirements entitled "Schedules and Reports".

9.6.2 When the above grounds in Subparagraph 9.6.1 are removed, payment shall be made for amounts withheld because of them.

9.7 FAILURE OF PAYMENT

9.7.1 If the Owner does not pay the Contractor within seven (7) days after the date established in the Contract Documents any amount certified by the Architect and the Project Manager, then the Contractor may, upon seven (7) additional days' written notice to the Owner and the Architect, stop the Work until payment of the amount not in dispute has been received. The Contractor shall not refuse or fail to diligently proceed with the Work pending the resolution of any amount(s) in dispute unless agreed to by the Owner.

9.8 SUBSTANTIAL COMPLETION

9.8.1 When the Contractor considers that the Work, or a designated portion thereof which is acceptable to the Owner, is substantially complete as defined in Subparagraph 8.1.3, the Contractor shall prepare for submission to the Project Manager a list of items to be completed or corrected. The failure to include any items on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents. When the Architect and the Project Manager on the basis of an inspection jointly determine that the Work or designated portion thereof is substantially complete, the Architect will then prepare a Certificate of Substantial Completion which shall establish the Date of Substantial Completion, shall state the responsibilities of the Owner and the Contractor for security, maintenance, heat, utilities, correction of punchlist items and damage to the Work, and insurance, and shall fix the time within which the Contractor shall complete the items listed therein. Warranties required by the Contract Documents shall

commence on the Date of Substantial Completion of the work or designated portion thereof unless otherwise provided in the Certificate of Substantial Completion. The Certificate of Substantial Completion shall be submitted to the Owner and the Contractor for their written acceptance of the responsibilities assigned to them in such Certificate.

- 9.8.2 Upon Substantial Completion of the Work or designated portion thereof and upon application by the Contractor and certification by the Project Manager and the Architect, the Owner shall make payment, reflecting adjustment in retainage, if any, for such Work or portion thereof, as provided in the Contract Documents.
- 9.8.3 The acceptance of Substantial Completion payment shall constitute a waiver of all claims by the Contractor except those previously made in writing and identified by the Contractor as unsettled at the time of the Application for Payment for Substantial Completion, and except for the retainage sums due at final acceptance if any.

9.9 FINAL COMPLETION AND FINAL PAYMENT

- 9.9.1 Upon receipt of written notice that the Work is ready for final inspection and acceptance and upon receipt of a final Application for Payment, the Architect and the Project Manager will promptly make such inspection and, when they find the Work acceptable under the Contract Documents and the Contract fully performed, they will jointly issue a final Certificate for Payment stating that to the best of their knowledge, information and belief, and on the basis of their observations and inspections, the Work has been completed in accordance with the terms and conditions of the Contract Documents and that the entire balance found to be due the Contractor, as noted in said final Certificate, is due and payable. The final Certificate for Payment will constitute a further representation that the conditions precedent to the Contractor's being entitled to final payment as set forth in Subparagraph 9.8.2 have been fulfilled.
- 9.9.2 Neither the final payment nor the remaining retained percentage shall become due until the Work is free and clear of any and all liens and the Contractor submits to the Owner (1) an affidavit that all payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the Owner or his property might in any way be responsible, have been paid or otherwise satisfied, (2) consent of surety, if any, to final payment and (3), if required by the Project Manager, other data establishing payment or satisfaction of all such obligations, such as receipts, releases and waivers of liens arising out of the Contract, to the extent and in such form as may be designated by the Project Manager. If any Subcontractor refuses to furnish a release or waiver required by the Owner, the Contractor may furnish a bond satisfactory to the Owner to indemnify him against any loss. If any such lien or claim remains unsatisfied after all payments are made, the Contractor shall refund to the Owner all monies that the latter may be compelled to pay in discharging such lien or claim, including all costs and reasonable attorney's fees. The Owner may withhold from the final payment any sum that the Owner has reason to believe may be needed to satisfy any lien, claim or threat of lien arising from the Work. The Owner may deduct from the final payment an amount equal to any costs, expenses and attorneys' fees incurred by the Owner in removing or discharging any liens arising from the Work.
- 9.9.3 If, after Substantial Completion of the Work, final completion thereof is materially delayed through no fault of the Contractor, or by the issuance of change orders affecting final completion, and the Owner so confirms, the Owner shall, upon application by the Contractor and certification by the Project Manager and the Architect, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance for Work not fully completed or corrected is less than the retainage stipulated in the Contract Documents, and if bonds have been furnished as provided in Paragraph 7.5, the written consent of the surety to the

payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by the Contractor to the Project Manager prior to certification of such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of claims.

9.9.4 The making of final payment shall constitute a waiver of all claims by the Owner against the Contractor except those arising from:

9.9.4.1 Unsettled liens, and claims against the Owner, the Project Manager, or the Architect, or their employees, agents, or representatives,

9.9.4.2 Faulty or defective Work appearing after Substantial Completion,

9.9.4.3 Failure of the Work to comply with the requirements of the Contract Documents,

9.9.4.4 Terms of any warranties contained in or required by the Contract Documents,

9.9.4.5 Liquidated damages due the Owner for the Contractor's delay in completion, or

9.9.4.6 Damages incurred by the Owner resulting from lawsuits brought against the Owner, the Project Manager, the Architect, or their agents, employees or representatives because of failures or actions on the part of the Contractor, his Subcontractors, Sub-subcontractors, Material Suppliers and Vendors, or any of their employees, agents or representatives.

9.9.5 The acceptance of final payment shall constitute a waiver of all claims by the Contractor except those previously made in writing and identified by the Contractor as unsettled at the time of the final Application for Payment.

9.9.6 Final Completion includes, but is not limited to, the Contractor obtaining an unconditional Certificate of Occupancy from the governing building official.

9.10 OWNER'S RIGHT TO OCCUPY INCOMPLETE WORK

9.10.1 Should the Project, or any portion thereof, be incomplete for Beneficial Occupancy or Final Completion at the scheduled date or dates, the Owner shall have the right to occupy any portion of the Project. In such an event, the Contractor shall not be entitled to any extra compensation on account of said occupancy by the Owner or by the Owner's normal full use of the Project, nor shall the Contractor interfere in any way with said normal full use of the Project. Further, in such an event, the Contractor shall not be entitled to any extra compensation on account of the Owner's occupancy and use of the Project, nor shall the Contractor be relieved of any responsibilities of the Contract including the required times of completion. Such occupancy by the Owner would not, in itself, constitute Beneficial Occupancy nor Final Completion.

9.10.2 If the Owner exercises his rights under the foregoing and occupies the full project, then there shall be no liquidated damages due to delay on account of failure on the Contractor's part to provide Beneficial Occupancy from that date forward. This provision does not affect, however, any damages due to delay that would be assessed for any period of time between the scheduled date of Beneficial Occupancy and the date of any such actual occupancy. Further, this provision would have no effect on actual damages assessed on account of late Final Completion.

9.11 RETENTION AND INSPECTION OF RECORDS

9.11.1 Inspection.

The Anchorage School District, or any of its duty authorized representatives, shall have the right to examine all project records and documents, including without limitation, all books, correspondence, reports, analyses, instructions drawings, receipts, vouchers, memoranda, and all financial and accounting books, records, and data and all other documents of both the Contractor and the Contractors, Subcontractors and any Sub-subcontractors which are directly pertinent to this specific Contract for the purpose of making an audit, examination, reproduction, excerpts, or transcriptions. All required records shall be retained by the Contractor and its first tier Subcontractors for three (3) years after the Owner makes final payments and all other pending matters are closed.

9.11.2 Retention and Maintenance.

The Contractor shall keep and maintain in safe condition full and accurate records of all costs incurred and items billed and all other project records and documents relating to performance, communications, and correspondence in connection with the performance of the Work under this Contract, which records and documents shall be open to review, examination or audit by the Owner or its authorized representatives during performance of the Work and until three (3) years after Final Payment and all other pending matters are closed.

9.11.3 Subcontractor Records.

The Contractor shall make it a condition of all subcontracts and sub-subcontracts relating to the Work under this Contract that any and all Subcontractors and sub-subcontractors will keep accurate records of costs incurred and items billed in connection with their work and that such records shall be open to review, examination, reproduction or audit by the Owner or its authorized representatives during performance of the Work and until three (3) years after Final Payment under the subcontract and all other pending matters are closed.

9.11.4 Availability.

The Contractor shall make available at its business office upon request at all reasonable times the materials described in this Article including materials of both the Contractor and its first tier Subcontractors, for review, examination reproduction or audit for a period of three (3) years after Final Payment under this Contract and all other pending matters are closed.

9.11.5 Termination.

If this Contract is completely or partially terminated, the records relating to the Work terminated shall be made available for three (3) years after any resulting final termination settlement.

9.11.6 Claims and Appeals.

Records pertaining to any settlement, mediation, arbitration, litigation or appeals of claim submitted pursuant to Paragraphs 12.4 or 12.5 or otherwise arising from or relating to the performance of Work under this Contract shall be made available until such settlement, mediation, arbitration, litigation, or appeals are finally concluded. Such documents or records shall be made available to the Anchorage School District or its duty authorized representatives within thirty (30) days of the Anchorage School District's request.

9.11.7 Subcontracts.

The Contractor shall include the provisions of this Article in all first tier Subcontracts so as to be binding on all first tier Subcontractors.

9.11.8 Cost or Pricing Data.

If the Contractor has submitted cost or pricing data in connection with the pricing of any change order or modification to this Contract - unless the pricing was based on—

- 9.11.8.1 adequate price competition, or
- 9.11.8.2 established catalog or market price of commercial items sold in substantial quantities to the general public; or
- 9.11.8.3 prices set by law or regulation -

the Anchorage School District or a representative who is an employee of the Anchorage School District, shall have the right to examine and audit all books, records, documents, and other data of the Contractor, including computations and projections, related to negotiating, pricing, or performing the change order or modification, in order to evaluate the accuracy, completeness, and currency of the cost or pricing data.

END OF ARTICLE 9

ARTICLE 10

PROTECTION OF PERSONS AND PROPERTY

10.1 SAFETY PRECAUTIONS AND PROGRAMS

10.1.1 The Owner, the Project Manager, the Architect, or their agents, employees or representatives are not responsible for the means, methods, techniques, sequences or procedures utilized by the Contractor, or for safety precautions and programs in accordance with the Work. The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work.

10.2 SAFETY OF PERSONS AND PROPERTY

10.2.1 The Contractor shall take all reasonable precautions for the safety of, and shall provide all reasonable protection to prevent damage, injury or loss to:

10.2.1.1 All employees on the Work and all other persons who may be affected thereby;

10.2.1.2 All the Work and all materials and equipment to be incorporated therein, whether in storage on or off the site, under the care, custody or control of the Contractor or any of his Subcontractors or Sub-subcontractors; and

10.2.1.3 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.

10.2.2 The Contractor shall give all notices and comply with all applicable laws, ordinances, rules, regulations and lawful orders of any public authority bearing on the safety of persons or property or their protection from damage, injury or loss.

10.2.2.1 The Contractor shall contact the State Historic Preservation Office (907-269-8700) immediately, should cultural or paleontological resources be discovered as a result of performing the Work.

10.2.3 The Contractor shall erect and maintain, as required by existing conditions and progress of the Work, all reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards, promulgating safety regulations and notifying owners and users of adjacent utilities.

10.2.4 When the use or storage of explosives or other hazardous materials or equipment is necessary for the execution of the Work, the Contractor shall exercise the utmost care and shall carry on such activities under the supervision of properly qualified personnel.

10.2.5 The Contractor shall promptly remedy all damage or loss to any property referred to in paragraphs 10.2.1.2 and 10.2.1.3 caused in whole or in part by the Contractor, any Subcontractor, any Sub-subcontractor, any Material Supplier or Vendor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable and for which the Contractor is responsible under paragraphs 10.2.1.2 and 10.2.1.3, except damage or loss attributable to the acts or omissions of the Owner, Project Manager or Architect or anyone directly or indirectly employed by either of them, or by anyone for whose acts either of them may be liable, and not attributable to the fault or negligence of the Contractor. The foregoing obligations of the Contractor are in addition to his obligations under Paragraph 4.18.

GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION

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- 10.2.6 The Contractor shall designate a responsible member of his organization at the site whose duty shall be the prevention of accidents. This person shall be the Contractor's superintendent unless otherwise designated by the Contractor in writing to the Owner through the Project Manager.
- 10.2.7 The Contractor shall not load or permit any part of the Work to be loaded so as to endanger its safety.
- 10.2.8 Following the Notice to Proceed, the Contractor is required to obtain facility keys and the security system access code from ASD Operations Department and obtain the facility keys by contacting the Project Manager.
- 10.2.8.1 A unique security code will be assigned to the Contractor. The ASD Operations office, 1301 Labar, will assign the code and provide access training.
- 10.2.8.2 The Contractor's signature on the key receipt acknowledges liability for the Owner's loss or damage due to unauthorized access with the facility key(s) and/or access code issued to the Contractor. The Contractor's Superintendent is solely responsible for the opening and closing of the facility.
- 10.2.8.3 Lost or stolen key(s) issued to the Contractor are to be reported immediately to the Project Manager. A written report shall be required for each incident.
- 10.2.8.4 If a FOB is issued, instead of keys, and is lost or stolen, the Contractor is required to immediately report the loss to the Project Manager. Notice is to be completed, in writing, within 12 hours or there will be a \$500 fine.
- 10.2.8.5 Upon completion of the Project and prior to final payment, the Contractor will return all key(s) to the Project Manager. A maximum per facility charge of up to \$10,000 may apply to any key not returned to the Project Manager.
- 10.2.8.6 Do not put any identifying tags or markers on the keys that would identify them as ASD building keys.

10.3 EMERGENCIES

- 10.3.1 In any emergency affecting the safety of persons or property, the Contractor shall act, at his discretion, to prevent threatened damage, injury or loss. Any additional compensation or extension of time claimed by the Contractor on account of emergency work shall be determined as provided in Article 8 for Time, and Article 12 for Changes in the Work.

END OF ARTICLE 10

ARTICLE 11

INSURANCE

11.1 GENERAL

11.1.1 Before signing this Contract, or commencing work on any project or allowing any Subcontractor to commence work, the Contractor shall obtain all insurance required under this section. The Contractor shall maintain this insurance until Final Acceptance. Proof of Insurance will be required prior to performing work under the warranty. The Contractor shall file with Owner as verification of insurance, an original signed certificate of insurance showing the type and amounts of insurance, the policy number, and expiration date. The Contractor shall provide copies of each insurance policy if requested by the Owner. The Contractor shall purchase insurance from companies reasonably acceptable to the Owner and authorized to do business in the State of Alaska, possessing a Best's policyholder's rating of A- or better and a financial rating of not less than VII.

11.2 WORKERS' COMPENSATION INSURANCE

11.2.1 The Contractor shall purchase and maintain during the life of this Contract, Workers' Compensation Insurance for all employees who will work on this project and if any work is sublet, the Contractor shall require the Subcontractor to provide similar Workers' Compensation Insurance for employees. Such workers' compensation insurance shall meet the statutory requirements of the State of Alaska.

11.3 PUBLIC AND EMPLOYER LIABILITY INSURANCE

11.3.1 The Contractor and his Subcontractors, if any, shall purchase and maintain such Public and Employer Liability Insurance as will protect the Contractor against loss which may result from claims for damages from operations under this Contract, whether such operations be those of the Contractor, a Subcontractor, or any person directly or indirectly employed by them. Such liability insurance shall have a scope of coverage at least as broad as the current ISO form # CG 0001 (occurrence version) for General Liability and the current ISO form # CA 0001 for Automobile Liability, and in minimum limits specified in Paragraph 11.3.2.

11.3.2 Public and Employer Liability Insurance Requirements

11.3.2.1 Commercial General Liability

Combined Single Limit \$1,000,000
Annual Aggregate \$2,000,000

11.3.2.2 Comprehensive Auto Liability

Including all owned, hired and non-owned vehicles.
Combined Single Limit \$1,000,000 each accident

11.3.2.3 Employer's Liability Insurance
\$1,000,000 limit

11.3.3 Umbrella Liability

- 11.3.3.1 The Contractor shall maintain an umbrella liability policy according to the following:

Projects < \$10 million construction cost – \$5,000,000 per occurrence and annual aggregate.

Projects > \$10 million construction cost – \$10,000,000 per occurrence and annual aggregate.

This requirement does not apply to Subcontractors.

- 11.3.3.2 Umbrella liability insurance shall be maintained in effect until final acceptance by the Owner of the completed construction, and for products liability and completed operations liability, a minimum of two years thereafter.

11.4 BUILDERS RISK INSURANCE

- 11.4.1 The Contractor shall purchase and maintain an all risk Builder's Risk policy on all construction projects. The Builders Risk coverage shall be in an amount equal to the initial contract, plus any contract modifications, and the cost of materials supplied or installed by others. Perils insured must be all physical loss and will include earthquake, flood, testing and startup, resultant damage from errors in design, plans or specifications, and transit and offsite storage.

- 11.4.2 A loss insured under Subparagraph 11.4.1 shall be adjusted by the Insurer, or by the Contractor as Fiduciary, and made payable to the Contractor as Fiduciary for the insureds, as their interests may appear, subject to requirements of any applicable mortgagee clause and of Subparagraph 11.4.5. The Contractor shall pay each Subcontractor a just share of any insurance monies received by the Contractor, and by appropriate agreement, written where legally required for validity, shall require each Subcontractor to make payments to his Sub-subcontractors in similar manner.

- 11.4.3 The Owner and Contractor shall waive all rights against each other for damages caused by fire or other perils to the extent covered by insurance obtained pursuant to this Paragraph 11.4 or any other property insurance applicable to the Work, except such rights as they may have to the proceeds of such insurance held by the Contractor as Fiduciary. The Contractor shall require, by appropriate agreement, written where legally required for validity, similar waivers in favor of the Owner and the Contractor by Subcontractors and Sub-subcontractors. With respect to the waiver of rights of recovery, the term Owner shall be deemed to include, to the extent covered by property insurance applicable thereto, his consultants, employees, agents and representatives, including the Project Manager. The Contractor waives as against any separate Contractor described in Article 6 all rights for damages caused by fire or other perils in the same manner as is provided above as against the Owner. The Owner shall require, by appropriate agreement, written where legally required for validity, similar waivers in favor of the Contractor by any separate Contractor and his Subcontractors and Sub-subcontractors.

- 11.4.4 If required in writing by any party in interest, the Contractor as Fiduciary shall, upon the occurrence of an insured loss, give bond for the proper performance of his duties. He shall deposit in a separate account any money so received, and he shall distribute it in accordance with a court order or award. If after such loss no other special agreement is made, replacement of damaged work shall be covered by an appropriate Change Order.

11.4.5 The Contractor as Fiduciary shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within five (5) days after the occurrence of loss to the Owner's exercise of this power, and if such objection is made, the matter shall be decided by a court of competent jurisdiction or as parties in interest otherwise agree. The Contractor as Fiduciary shall, in that case, make settlement with the insurers accordingly.

11.4.6 If the Owner finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion thereof, such occupancy shall not commence prior to a time mutually agreed to by the Owner and Contractor and to which the insurance company or companies providing the property insurance have consented by endorsement of the policy or policies. This insurance shall not be canceled or lapsed on account of such partial occupancy. Consent of the Contractor and of the insurance company or companies to such occupancy or use shall not be unreasonably withheld.

11.5 CERTIFICATE OF INSURANCE REQUIREMENTS

11.5.1 Each insurance policy required in this section will be evidenced by a certificate of insurance which contains the following:

11.5.1.1 Notice of cancellation to the Anchorage School District in accordance with Alaska Statutes 21.36.220 and .260.

11.5.1.2 Contract number.

11.5.1.3 Project location.

11.5.1.4 Waiver of Subrogation. All policies, except where prohibited, will include a Waiver of Subrogation in favor of the District.

11.5.1.5 Additional Insured. All policies except Workers Compensation and professional liability will note the District as an additional insured.

11.6 OWNER'S RIGHT TO INSURE

11.6.1 In the event Contractor neglects, refuses, or fails to provide the insurance required under the Contract Documents, or if such insurance is canceled for any reason, the Owner shall have the right, but not the duty to procure the same, and the costs thereof shall be deducted from monies then due or thereafter to become due the Contractor.

11.7 ADDITIONAL INSURANCE

11.7.1 If not covered by the above insurance, the Contractor must obtain additional Insurance for items stored off-site or in transit. Payments for materials stored off-site will not be made unless Contractor provides documentation of valid insurance coverage for same.

11.8 ASBESTOS ABATEMENT SUBCONTRACTOR'S CERTIFICATE OF INSURANCE

11.8.1 After the Intent to Award Notification, the low bidder shall submit an insurance binder of insurance certificate provided by the proposed asbestos abatement subcontractor's insurance company stating that upon execution of the Contract the types and amount of insurance required elsewhere in these specifications will immediately become effective.

The asbestos abatement subcontractor is required to carry a minimum of \$1,000,000 of General Public Liability Insurance with no exclusion for asbestos abatement.

11.8.2 Comprehensive General Liability Minimum Limits

Bodily Injury and Property Damage \$2,000,000 per occurrence
Premises Operations
Independent Contractors
Products - Completed Operations
Contractual Liability
Broad Form Property Damage - Lloyds Form
Explosion, Collapse, and Underground
Personal Injury

11.8.3 Comprehensive Auto Liability

Including all owned, hired, and non-owned vehicles
Combined single limit per accident \$1,000,000

END OF ARTICLE 11

ARTICLE 12

CHANGES IN THE WORK AND CONTRACT SUM AND TIME

12.1 CHANGES IN THE WORK

12.1.1 The Owner may, at any time, without notice to the sureties, make any change in the Work within the general scope of the Contract, including, but not limited to changes:

12.1.1.1 In the Specifications or Drawings;

12.1.1.2 In the method or manner of performance of the Work;

12.1.1.3 In the Owner-furnished facilities, equipment, materials, services or site; or

12.1.1.4 Directing acceleration in the performance of the Work for reasons other than delays caused by the Contractor.

12.1.2 All such changes in the Work shall be performed under the applicable conditions of the Contract Documents and shall be authorized in one of the following manners:

12.1.2.1 Field Directive. The Project Manager may issue a written Field Directive to the Contractor that directs a change in the Work. If the Contractor believes that the requested change will increase the Contract Time or Contract Sum, he must notify the Project Manager in writing prior to implementing the change.

12.1.2.2 Information Bulletin. The Architect may issue an Information Bulletin to the Contractor that clarifies or modifies the plans or specifications. If the Contractor believes that the clarification or modification of plans or specifications will increase the Contract Time or Contract Sum, he must notify the Project Manager in writing prior to implementing the change.

12.1.2.3 Request for Information (RFI). The Contractor may submit a RFI to the Project Manager or Architect using the ASD Procore Construction Management Program to request clarification of plans or specifications or to point out areas of apparent conflict or other concerns relating to the Work. The response to the RFI by the Architect or Project Manager may clarify or modify the plans or specifications. If the Contractor believes that the clarification or modification of plans or specifications will increase the Contract Time or Contract Sum, he must notify the Project Manager in writing prior to implementing the change.

12.1.2.4 Request for Proposal (RFP). The Owner may issue an RFP to the Contractor that directs a change in the Work and requests the Contractor's evaluation of the impact of the change on Contract Time or Contract Sum. If the Contractor believes that the Work required by the RFP will increase the Contract Time or Contract Sum, he must notify the Project Manager in writing prior to implementing the changes.

12.1.3 Except as provided in Subparagraph 12.1.2, no order, statement or conduct of the Owner, Project Manager or Architect shall be treated as a change or entitle the Contractor to an equitable adjustment hereunder. No oral agreement of any kind shall be construed as a Change Order.

12.2 AMENDING CONTRACT SUM OR TIME

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- 12.2.1 If any change under Paragraph 12.1 causes an increase or decrease in the Contractor's cost or the time required for the performance of any part of the Work under the Contract, including Work not affected directly by the change, an equitable adjustment shall be processed and approved following the provisions of Division 1, Section 01311, Project Schedule for any adjustment to time. Adjustments to Contract Sum shall be determined in one or more of the following ways:
- 12.2.1.1 By mutual acceptance of a lump sum price properly itemized in accordance with Subparagraph 12.2.2 and supported by sufficient data to permit evaluation;
 - 12.2.1.2 In the event that unit prices are included in the bid and accepted by the Owner, payment for the Work performed shall be at the unit price amount for each item of Work accepted by the Owner and conforming to the contract requirements. Such prices shall be additive and deductive and include all costs necessary to complete the Work, inclusive of overhead costs and profit.
 - 12.2.1.3 If prior to the commencement of the Work the Contractor has not provided a lump sum price, or the Contractor and the Owner have not agreed on a lump sum price as described in Subparagraph 12.2.1.1 above, the price shall be established in one of the following ways, as determined by the Project Manager;
 - 1. on a lump sum basis following completion of the Work. The lump sum price shall be properly itemized in accordance with Subparagraph 12.2.2. and supported by sufficient data to permit evaluation;
 - 2. on a time and materials basis, with or without a maximum not-to-exceed price, at the discretion of the Project Manager. Costs will be accumulated on a time and materials basis as described in Subparagraph 12.2.3 and presented daily (the day after the Work is performed) for approval by the Owner on the forms provided by the Owner. The daily report will be signed by the Contractor and the Owner.
- 12.2.2 For Work proceeding on a lump sum basis. In accordance with Subparagraph 12.2.1.1 or 12.2.1.3.1, the Contractor shall provide a detailed breakdown of the costs as described herein and submit the costs and substantiating data in a proposal to the Owner:
- 12.2.2.1 Direct Costs: Direct costs shall be limited to the following: cost of materials, including sales tax and cost of delivery to the project; cost of labor (from apprentice level up through and including the general foreman classification) comprising of the base wage plus fringe benefits, including burden (Social Security, Worker's Compensation, and Unemployment Insurance, etc.); rental rate including fuel and maintenance for any power tools valued at over \$3,000 and equipment as described below, under "Equipment Rates;" bond premiums and additional cost of Builder's Risk Insurance, at rates equal to the amount billed for the base contract or the actual rate as supported by an invoice.
 - 12.2.2.1.1 Equipment Rates: For any machinery or special equipment (other than small tools) which has been authorized by the Project Manager, the Contractor shall receive the rental rates in the current edition and appropriate volume of the "Rental Rate Blue Book for Construction Equipment," published by K-III Directory Corp., 10 Lake Drive, Highstown, NJ 08520-5397.

Hourly rental rates shall be determined as follows. The established hourly rental rate shall be equal to the adjusted monthly rate for the basic equipment plus the adjusted monthly rate for applicable attachments, both divided by 176, and multiplied by the area adjustment factor, plus the estimated hourly operating costs. The adjusted monthly rate is that resulting from application of the rate adjustment formula in order to eliminate replacement cost allowances in machine depreciation and contingency cost allowances. Attachments shall not be included unless required for the time and materials Work. For equipment not listed in the Blue Book, the Contractor shall receive a rental rate as agreed upon before such Work is begun. If agreement cannot be reached, the Owner reserves the right to establish a rate based on similar equipment in the Blue Book or prevailing commercial rates in the area. These rates shall apply for equipment used during the Contractor's regular shift of 10 hours per day. Where the equipment is used more than 10 hours per day, either on the Contractor's normal Work or on time and materials, and either on single or multiple shifts, an overtime rate, computed as follows, shall apply: The hourly overtime rate shall be equal to the adjusted monthly rate for the basic equipment plus the adjusted monthly rate for applicable attachments, both divided by 352, and multiplied by the area adjustment factor, plus the estimated hourly operating cost.

12.2.2.1.2 Equipment which must be rented or leased specifically for Work required under this section shall be authorized in writing by the Project Manager.

12.2.2.1.3 When it is necessary to obtain equipment from sources beyond the project limits exclusively for time and materials Work, the actual cost of transferring the equipment to the site of the Work and return will be allowed as an additional item of expense. Where the move is made by common carrier, the move-in allowance will be limited to the amount of the freight bill or invoice. If the Contractor hauls the equipment with his own forces, the allowance will be limited to the rental rate for the hauling unit plus operator wages. In the event that the equipment is transferred under its own power, the moving allowance will be limited to one-half of the normal hourly rental rate plus operator's wages. In the event that the move-out is to a different location, payment will in no instance exceed the amount of the move-in. Move-in allowance shall not be made for equipment brought to the project for time and materials Work which is subsequently retained on the project and utilized for completion of contract items, camp maintenance, or related Work.

12.2.2.1.4 Equipment ordered to be on stand-by basis shall be paid for at the stand-by rental rate for the number of hours in the Contractor's normal Work shift, but not to exceed 8 hours per day. The stand-by rental rate shall be computed as follows:

The hourly stand-by rate shall be equal to the adjusted monthly rate for the basic equipment plus the adjusted monthly rate for applicable attachments, both divided by 352, all multiplied by the

area adjustment factor.

Time will be recorded to the nearest one-half hour for purposes of computing compensation to the Contractor for equipment utilized under these rates.

The equipment Direct Cost determination covers all costs for providing required equipment and no additional compensation will be made for other costs such as, but not limited to, fuels, lubricants, replacement parts or maintenance costs. Cost of repairs, both major and minor as well as charges for mechanic's time utilized in servicing equipment to ready it for use prior to moving to the project and similar charges will not be allowed.

12.2.2.2 Overhead: Overhead shall include the following: the Contractor's management staff; supervision; superintendence; wages of timekeepers; watchmen and clerks; small tools; incidentals; costs of preparing and responding to Request for Proposals, including estimating; schedule revisions, software costs and clerical expenses; general home and field office expenses; including any financial/financing costs; legal costs; and/or accounting costs; temporary facilities; temporary utilities (power, water, sewer, telephone, etc.) and any utilities used by the Contractor during the construction period; and all other expenses not specifically defined in Subparagraph 12.2.2.1 as direct costs. Unless specifically required or requested, any travel and associated costs from outside of the Municipality of Anchorage is considered as part of the Contractor's project overhead and will not be paid by the Owner.

12.2.2.3 The Contractor shall apply a combined percentage rate to the direct costs to compensate it for additional Overhead and Profit associated with the change. The combined rate to the Owner of any change shall not exceed the rates set forth in the following schedule:

For the Contractor, for Work performed by his own forces, up to fifteen percent (15%) of direct costs;

For each Subcontractor involved, for Work performed by the Subcontractor's forces, up to fifteen percent (15%) of direct costs;

For the Contractor, for Work performed by Subcontractors, up to ten percent (10%) of the Subcontractor's direct costs;

For the Subcontractor, for Work performed by the multiple-tier-contractors up to ten percent (10%) of direct costs;

The total Contractor and all-subcontractors overhead allowance shall not exceed twenty-five percent (25%) of direct costs.

12.2.3 For Work proceeding on a time and material basis in accordance with Subparagraph 12.2.1.3.2, the Contractor shall be compensated for its costs in accordance with the following:

12.2.3.1 Direct Costs: Direct Costs shall be as defined in Subparagraph 12.2.2.1.

12.2.3.2 Overhead: Overhead shall be as defined in Subparagraph 12.2.2.2.

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- 12.2.3.3 Overhead and Profit combined included in the total costs to the Owner of any change shall not exceed the rates set forth in the following schedule:

For the Contractor, for Work performed by his own forces, up to ten percent (10%) of direct costs;

For each Subcontractor involved, for Work performed by the Subcontractor's forces, up to ten percent (10%) of direct costs;

For the Contractor, for Work performed by Subcontractors, up to five percent (5%) of the Subcontractor's direct cost.

For the Subcontractor, for Work performed by multiple-tier-contractors up to five percent (5%) of direct costs;

The total Contractor and multiple-tier-contractor overhead allowances shall not exceed twenty percent (20%) of direct costs.

- 12.2.4 If the net value of a change results in a credit from the Contractor, Subcontractor, or Material Suppliers or Vendors, the credit given shall be the net cost without overhead or profit. The costs as used herein shall include all items of labor, materials, plant and equipment. Credit changes shall include a percentage of the direct costs for overhead and profit at fifty percent (50%) of the rates defined in Subparagraph 12.2.2.3.
- 12.2.5 If unit prices are stated in the Contract Documents or subsequently agreed upon, and if the quantities originally contemplated are so changed in the proposed Change Order that application of the agreed unit prices to the quantities of Work proposed will cause substantial inequity to the Owner or the Contractor, the applicable unit prices shall be equitably adjusted.
- 12.2.6 The Contract Sum, the Contract Time, and the date required for performance of any part of the Work may be changed only by a Change Order to the Contract. Each Change Order will be identified at the bottom of each approved RFP, with a heading of "Change Order Authorization." Change Orders executed pursuant to this article constitute full and final settlement of all aspects of cost and time related to and/or occasioned by the Work (or event) described therein. Costs are defined to include all direct labor costs; all direct materials and equipment expenses; any and all overhead, profit, and commission; any and all impact costs related to and/or occasioned by the Work described herein; as well as all taxes and insurance. All Change Orders shall be approved by the Project Manager and signed by the Owner and Contractor.
- 12.2.7 For accounting purposes, the Change Orders identified in Subparagraph 12.2.6 will be accumulated on a monthly basis or more frequently and summarized in a Summary Change Order. The Summary Change Order shall be approved by the Project Manager and signed by the Owner and Contractor. No claim by the Contractor for or on account of any Change Order shall be due nor shall any such claim appear on an Application for Payment or demand for final payment until the Summary Change Order has been fully executed by the Contractor and the Owner.
- 12.2.8 The Superintendent of Schools and/or the Senior Director of Capital Planning and Construction are authorized to make contract modifications or to execute orders up to one hundred thousand dollars (\$100,000) that are within the project's budget. The Superintendent is authorized to make contract modifications in excess of one hundred thousand dollars (\$100,000) but not-to-exceed two hundred fifty thousand dollars (\$250,000) that are within the project's budget. All contract modifications or change orders

above two hundred fifty thousand dollars (\$250,000) shall be recommended by the Superintendent to the School Board for its approval.

12.2.9 No claim by the Contractor for an equitable adjustment hereunder shall be allowed if asserted after final payment or more than six months after the date of substantial completion, whichever is earlier.

12.2.10 Nothing in this Article shall excuse the Contractor from proceeding with the Contract as changed.

12.3 DIFFERING CONDITIONS

12.3.1 The Contractor shall promptly, and before the conditions are disturbed, give written notice to the Owner of (1) subsurface or latent physical conditions at the site which differ materially from those indicated in this Contract, or (2) unknown physical conditions at the site, of an unusual nature, which differ materially from those ordinarily encountered and generally recognized as inherent in Work of the character provided for in the Contract.

12.3.2 The Owner shall investigate the site conditions promptly after receiving notice. Work shall not proceed at the affected site, except at the Contractor's risk, until the Owner has provided written instructions to the Contractor. If the conditions do materially so differ and cause an increase or decrease in the Contractor's cost of, or the time required for, performing any part of the Work under this Contract, whether or not changed as a result of the conditions, an adjustment shall be made under this Article and the Contract modified in writing accordingly.

12.3.3 No request by the Contractor for an adjustment to the Contract under this Article shall be allowed unless the Contractor has given the written notice required.

12.3.4 No claim by the Contractor for an adjustment hereunder shall be allowed if asserted after final payment or more than six months after the date of substantial completion, whichever is earlier.

12.4 CLAIMS FOR ADDITIONAL COST OR TIME

12.4.1 If the Contractor claims that additional cost is involved because of, but not limited to (1) any written interpretation pursuant to Subparagraph 2.2.8; (2) any order by the Owner to stop the Work pursuant to Paragraph 3.4 where the Contractor was not at fault; or (3) any other impacts related to the Work, the Contractor shall make such claim as provided in Subparagraph 12.4.2.

12.4.2 If the Contractor wishes to make a claim for an increase in the Contract Sum, and such claim is not barred under Paragraph 8.3, he shall deliver to the Project Manager written notice thereof within fourteen (14) days after the occurrence of the event giving rise to such claim. This notice shall be given by the Contractor before proceeding to execute the Work, except in an emergency endangering life or property in which case the Contractor shall proceed in accordance with Paragraph 10.3. No such claim shall be valid unless so made. The written notice shall state:

12.4.2.1 the date, nature and circumstances of the conduct regarded as a change;

12.4.2.2 the name, function and activity of each Contractor official, agent or employee involved in or knowledgeable about such conduct;

12.4.2.3 the identification of any documents and the substance of any communication

involved in such conduct;

12.4.2.4 in the instance of alleged acceleration of scheduled performance or delivery, the basis upon which it arose;

12.4.2.5 the particular elements of Contract performance for which the Contractor may seek an equitable adjustment under this Paragraph, including:

12.4.2.5.1 what Contract Drawings or Specification have been or may be affected by the alleged change;

12.4.2.5.2 what labor or materials or both have been or may be added, deleted or wasted by the alleged change;

12.4.2.5.3 to the extent practicable, what delay and disruption in the manner and sequence of performance and effect on continued performances have been or may be caused by the alleged change in accordance with Division 1, Section 01311, "Project Schedule;"

12.4.2.5.4 what adjustments to the Contract Sum and other provisions of the Contract affected by the alleged change are estimated; and

12.4.2.6 the Contractor's estimate of the time by which the Project Manager and Architect must respond to the Contractor's notice to minimize cost, delay or disruption of performance in accordance with Division 1, Section 01311, "Project Schedule."

12.4.3. After receipt of a Contractor's claim, the Project Manager may visit the site, schedule an informal review hearing, or request additional information in order to fully evaluate the issues of the claim. The Project Manager has thirty (30) calendar days to review the claim and to send a written decision to the Contractor. If the Project Manager agrees with the Contractor that the issues presented in the Contractor's claim justify a change in the Contract Sum or the Contract Time, the Project Manager and the Contractor shall negotiate the amount of the adjustment in the Contract.

If the Project Manager determines that the claim does not justify a change in the Contract Sum or Contract Time, or if the Project Manager cannot reach agreement with the Contractor on the amount of the adjustment in the Contract Sum or Contract Time, the amount shall be determined in accordance with Paragraph 12.5

12.4.4 In no event shall the Contractor slow or stop the Work while such determination is pending and the Owner shall continue to make payment in accordance with the Contract Documents except as to the amount in dispute. Any change in the Contract Sum resulting from such claim shall be authorized by Change Order.

12.5 RESOLUTION OF DISPUTED CLAIMS

12.5.1 All disputed claims arising from this contract shall be resolved according to the process identified in this section 12.5. This includes any interpretations of the contract documents, claims for increase in the Contract Sum or Contract Time, or any other issues of equitable adjustment.

12.5.2 Disputes between the Owner and the Contractor will be processed through the appeal process described in 12.5.3 and/or through the use of Alternative Dispute Resolution (ADR) procedures described in 12.5.4.

12.5.3 Appeal Process

- 12.5.3.1 If the Contractor does not agree with the decision of the Project Manager, the Contractor may, within ten (10) calendar days of receipt of the decision, file a notice of appeal with the Chief Operating Officer. The Chief Operating Officer will then have sixty (60) calendar days to review the appeal and send a written decision to the Contractor.
- 12.5.3.2 If the Contractor does not agree with the final decision rendered by the Chief Operating Officer, it may pursue litigation.

12.5.4 ADR Process

- 12.5.4.1 Either the Owner or the Contractor may request, prior to litigation, that a dispute be submitted to mandatory mediation.
 - 12.5.4.2 The parties shall jointly select and compensate a third party mediator.
 - 12.5.4.3 Both parties shall attend joint mediation sessions and make a good faith effort to reach agreement through this process.
 - 12.5.4.4 There is no obligation for either of the parties to accept any agreement during the mediation process.
- 12.5.5 The Contractor shall diligently carry on the Work and maintain the progress schedule during any dispute resolution proceedings, unless otherwise agreed in writing.

END OF ARTICLE 12

ARTICLE 13

UNCOVERING AND CORRECTION OF WORK

13.1 UNCOVERING OF WORK

- 13.1.1 If any portion of the Work should be covered contrary to the request of the Owner, Project Manager or the Architect or to requirements specifically expressed in the Contract Documents, it must, if required in writing by the Project Manager, be uncovered for his observation and shall be replaced at the Contractor's expense.
- 13.1.2 If any other portion of the Work has been covered which the Architect or the Project Manager has not specifically requested to observe prior to being covered, either may request to see such Work and it shall be uncovered by the Contractor. If such Work be found in accordance with the Contract Documents, the cost of uncovering and replacement shall, by appropriate Change Order, be charged to the Owner. If such work be found not in accordance with the Contract Documents, the Contractor shall pay such costs unless it be found that this condition was caused by the Owner or a separate contractor as provided in Article 6, in which event the Owner shall be responsible for the payment of such costs.

13.2 CORRECTION OF WORK

- 13.2.1 The Contractor shall promptly correct all Work rejected by the Project Manager as defective or as failing to conform to the Contract Documents whether observed before or after Substantial Completion and whether or not fabricated, installed or completed. The Contractor shall bear all costs of correcting such rejected Work, including additional Owner Administrative and legal expenses, and additional compensation for the Architect's and/or Project Manager's additional services made necessary thereby.
- 13.2.2 If, within one (1) year after the Date of Substantial Completion of the Work or designated portion thereof or within such longer period of time as may be prescribed by law or by the terms of any applicable special warranty required by the Contract Documents, any of the Work is found to be defective or not in accordance with the Contract Documents, the Contractor shall correct it promptly after receipt of a written notice from the Owner through the Project Manager to do so unless the Owner through the Project Manager has previously given the Contractor a written acceptance of such condition. This obligation shall survive the provisions of Subparagraph 9.5.5 and termination of the Contract. The Owner shall give such notice promptly after discovery of the condition.
- 13.2.3 The Contractor, unless removal is waived by the Owner, shall remove from the site all portions of the Work which are defective or non-conforming, or if permitted or required, he shall correct such Work in place by and at the expense of the Contractor promptly after receipt of notice, and such rejected Work shall not thereafter be tendered for acceptance unless the former rejection or requirement for correction is disclosed.
- 13.2.4 If the Contractor does not proceed with the correction of such defective or non-conforming Work within a reasonable time fixed by written notice from the Owner, through the Project Manager, the Owner may either:
- 13.2.4.1 by separate contract or otherwise replace or correct such Work and charge the Contractor the cost occasioned the Owner thereby and remove and store the materials or equipment at the expense of the Contractor, or
 - 13.2.4.2 terminate this Contract for default as provided in Paragraph 14.1. If the Contractor does not pay the cost of such replacement or correction and the

removal and storage within ten (10) days thereafter, the Owner may upon ten (10) additional days' written notice sell such Work at auction or at private sale and shall account for the net proceeds thereof, after deducting all the costs that should have been borne by the Contractor, including compensation for the Owner's administrative and legal expenses, and additional services of the Architect and the Project Manager made necessary thereby. If such proceeds of sale do not cover all costs which the Contractor and an appropriate Change Order shall be issued. If the payments then or thereafter due the Contractor are not sufficient to cover such amount, the Contractor shall pay the difference to the Owner.

13.2.5 The Contractor shall bear the cost of making good all Work of the Owner or separate contractors destroyed or damaged by such correction or removal.

13.2.6 Nothing contained in this Paragraph 13.2 shall be construed to establish a period of limitation with respect to any other obligation which the Contractor might have under the Contract Documents, including Paragraph 4.5. thereof. The establishment of the time period of one (1) year after the date of Substantial Completion or such longer period of time as may be prescribed by law or by the terms of any warranty required by the Contract Documents relates only to the specific obligation of the Contractor to correct the Work, and has no relationship to the time within which his obligation to comply with the Contract documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Contractor's liability with respect to his obligations other than specifically to correct the Work.

13.3 ACCEPTANCE OF DEFECTIVE OR NONCONFORMING WORK

13.3.1 If the Owner prefers to accept defective or nonconforming Work, he may do so instead of requiring its removal and correction, in which case a Change Order will be issued to reflect a reduction in the Contract Sum where appropriate and equitable, or the Owner may elect to accept payment in materials or services, in lieu of a reduction in the Contract Sum. If the amount of a reduction is determined after final payment, it shall be paid to the Owner directly by the Contractor.

END OF ARTICLE 13

ARTICLE 14

TERMINATION OF THE CONTRACT

14.1 TERMINATION BY THE OWNER

14.1.1 If the Contractor:

- 14.1.1.1 is adjudged bankrupt; or
- 14.1.1.2 makes a general assignment for the benefit of his creditors; or
- 14.1.1.3 has a receiver appointed on account of his insolvency; or
- 14.1.1.4 if he refuses or fails to commence the Work within the time required by this Contract; or
- 14.1.1.5 refuses or fails to prosecute the Work or any separable part with the diligence that will ensure its completion within the time specified in this Contract, including any extension; or
- 14.1.1.6 refuses or fails to provide sufficient and properly skilled workmen or proper materials or equipment to complete the Work in an acceptable manner and without delay; or
- 14.1.1.7 refuses or fails to complete the Work in accordance with the Project Schedule Milestone Dates set forth under Section 00200 hereof; or
- 14.1.1.8 fails to make prompt payment to Subcontractors or for materials or labor, or
- 14.1.1.9 persistently disregards laws, ordinances, rules, regulations, or orders of any public authority having jurisdiction; or
- 14.1.1.10 fails or refuses to comply with the requirements of Division 1, Section 01311, "Project Schedule" of the Contract Documents; or
- 14.1.1.11 otherwise is guilty of a substantial violation of a provision of the Contract Documents,

then the Owner, may, without prejudice to any right or remedy and after giving the Contractor and his surety, if any, seven (7) days' written notice, terminate the employment of the Contractor and take possession of the site and of all materials, equipment, tools, construction equipment and machinery thereon owned by the Contractor and may finish the Work by whatever method he may deem expedient. In such case the Contractor shall not be entitled to receive any further payment until the Work is finished. Such an event of termination shall at the option of the Owner result in the automatic assignment to the Owner of all of the Contractor's subcontracts, and the Owner may thereafter enforce such subcontracts in the prosecution of the Work in the same manner and to the same extent as the Contractor.

- 14.1.2 If the cost of finishing the Work exceeds the unpaid portion of the Contract Sum, the Contractor or his assigns, heirs or sureties shall pay the difference to the Owner. This obligation shall survive the termination of the Contract.

14.1.3 Nothing contained in this Article 14 shall impair any of the obligations of the surety.

14.2 TERMINATION FOR CONVENIENCE

14.2.1 The performance of the Work under this Contract may be terminated by the Owner in whole, or from time to time in part, whenever the Owner shall determine that such termination is in the best interest of the Owner. Any such termination shall be effected by delivery to the Contractor of a Notice of Termination specifying the extent to which performance of Work under the Contract is terminated, and the date upon which such termination becomes effective.

14.2.2 After receipt of a Notice of Termination, and except as otherwise directed by the Owner, the Contractor shall:

14.2.2.1 stop Work under the Contract on the date and to the extent specified in the Notice of Termination;

14.2.2.2 place no further orders or subcontracts for materials, services or equipment, except as may be necessary for completion of such portion of this Work under the Contract as is not terminated;

14.2.2.3 terminate all orders and subcontractors to the extent that they relate to the performance of Work terminated by the Notice of Termination;

14.2.2.4 assign to the Owner, in the manner, at the times, and to the extent directed by the Owner, all of the right, title, and interest of the Contractor under the orders and subcontracts so terminated, in which case the Owner shall have the right, in its discretion, to settle or pay any or all claims arising out of the termination of such orders and subcontracts;

14.2.2.5 settle all outstanding liabilities and all claims arising out of such termination of orders and subcontracts, with the approval or ratification of the Owner, to the extent he may require, which approval or ratification shall be final for all the purposes of this clause;

14.2.2.6 transfer title and deliver to the Owner, in the manner, at the times, and to the extent, if any, directed by the Owner, (A) the fabricated or unfabricated parts, Work in process, completed Work, supplies, and other material produced as a part of, or acquired in connection with the performance of, the Work terminated by the Notice of Termination, and (B) the completed or partially completed plans, drawings, information, and the property which, if the Contract has been completed, would have been required to be furnished to the Owner;

14.2.2.7 use his best efforts to sell, in the manner, at the time, to the extent and at the price or prices directed or authorized by the Owner, any property of the types referred to in Subparagraph 14.2.2.6 above, provided, however, that the Contractor (A) shall not be required to extend credit to any purchase, and (B) may acquire any such property under the conditions prescribed by and at a price or prices approved by the Owner, and provided further, that the proceeds of any such transfer or disposition shall be applied in reduction of any payments to be made by the Owner to the Contractor under this Contract or shall otherwise be credited to the price or cost of the Work covered by this Contract or paid in such other manner as the Owner may direct;

14.2.2.8 complete performance of such part of the Work as shall not have been terminated by the Notice of Termination and may incur obligations as are

necessary to do so; and

- 14.2.2.9 take such action as may be necessary, or as the Owner may direct, for the protection and preservation of the property related to this Contract which is in the possession of the Contractor and in which the Owner has or may acquire an interest.
- 14.2.3 The Contractor may submit to the Owner a list, certified as to quantity and quality, of any or all items of termination inventory not previously disposed of, exclusive of items the disposition of which has been directed or authorized by the Owner, and may request the Owner to remove such items or enter into a storage agreement covering them. Not later than fifteen (15) days thereafter, the Owner will accept title to such items and remove them or enter into a storage agreement covering the same; provided that the list submitted shall be subject to verification by the Owner upon removal of all items, or if the items are stored within forty-five (45) days from the date of submission of the list, and any necessary adjustment to correct the list as submitted shall be made prior to final settlement.
- 14.2.4 After receipt of a Notice of Termination, the Contractor shall submit to the Owner his termination claim, in the form and with certification prescribed by the Owner. Such claim shall be submitted promptly but in no event later than six (6) months from the effective date of termination. Upon failure of the Contractor to submit his termination claim within the time allowed, the Owner may determine on the basis of information available to him, the amount, if any, due to the Contractor by reason of the termination and shall thereupon pay to the Contractor the amount so determined.
- 14.2.5 Subject to the provisions of Subparagraph 14.2.4 above, the Contractor and the Owner may agree upon the whole or any part of the amount or amounts to be paid to the Contractor by reason of the total or partial termination of Work pursuant to this paragraph, which amount or amounts may include a reasonable allowance of profit on Work done; provided that such agreed amount or amounts, exclusive of settlement costs, shall not exceed the total Contract Sum as reduced by the amount of payments otherwise made and as further reduced by the Contract Sum attributable to that portion of Work not terminated. The Contract shall be amended accordingly, and the Contractor shall be paid the agreed amount. Nothing in Subparagraph 14.2.6 below, prescribing the amount to be paid to the Contractor in the event of failure of the Contractor and the Owner to agree upon the whole amount to be paid to the Contractor by reason of the termination of Work pursuant to this clause, shall be deemed to limit, restrict, or otherwise determine or affect the amount or amounts which may be agreed upon to be paid to the Contractor pursuant to this Subparagraph 14.2.5.
- 14.2.6 In the event of the failure of the Contractor and the Owner to agree, as provided in Subparagraph 14.2.5 above, upon the whole amount to be paid to the Contractor by reason of the termination of Work pursuant to this paragraph, the Owner shall pay to the Contractor the amounts determined by the Owner as follows, but without duplication of any amounts agreed upon in accordance with Subparagraph 14.2.5:
 - 14.2.6.1 with respect to all Contract Work performed prior to the effective date of the Notice of Termination, the total (without duplication of any items) of:
 - 14.2.6.1.1 the cost of such Work;
 - 14.2.6.1.2 the cost of settling and paying claims arising out of the termination of Work under subcontracts or orders as provided in Subparagraph 14.2.2.5 above exclusive of the amounts paid or payable on account of supplies or materials delivered or services

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furnished by the Subcontractor prior to the effective date of the Notice of Termination Work under this Contract, which amounts shall be included in the cost on account of which payment is made under Subparagraph 14.2.6.1 above; and

- 14.2.6.1.3 a sum as profit on Subparagraph 14.2.6.1.1 above, determined by the Owner to be fair and reasonable; and
- 14.2.6.2 the reasonable cost incidental to termination of Work including:
 - 14.2.6.2.1 accounting, legal, clerical and other expenses reasonably necessary for the preparation of termination settlement proposals and supporting data;
 - 14.2.6.2.2 the termination and settlement of subcontracts (excluding the amounts of such settlements); and storage, transportation and other costs incurred (pursuant to Subparagraph 14.2.2.9), reasonably necessary for the preservation, protection or disposition of the termination inventory.
- 14.2.6.3 The total sum to be paid to the Contractor under Subparagraph 14.2.6.1 above shall not exceed the total Contract Sum as reduced by the portion of the Contract Sum attributable to that portion of Work not terminated. Except for normal spoilage, and except to the extent that the Owner shall have otherwise expressly assumed the risk of loss, there shall be excluded from the amounts payable to the Contractor under Subparagraph 14.2.6.1, the fair value, as determined by the Owner, of property which is destroyed or lost, stolen, or damaged so as to become undeliverable to the Owner, or to a buyer pursuant to Subparagraph 14.2.2.7.
- 14.2.7 In arriving at the amount due the Contractor under this paragraph, there shall be deducted (1) all unliquidated advance or other payments on account theretofore made to the Contractor, applicable to the terminated portion of this Contract, (2) any claim which the Owner may have against the Contractor in connection with this Contract, and (3) the agreed price for, or the proceeds of sale of, any materials, supplies or other things acquired by the Contractor or sold, pursuant to the provisions of this paragraph and not otherwise recovered by or credited to the Owner.
- 14.2.8 If the termination hereunder be partial, the Contractor may file with the Owner a claim for an equitable adjustment of the price or prices specified in the Contract relating to the continued portion of the Contract (the portion not terminated by the Notice of Termination), and such equitable adjustment as may be agreed upon shall be made in such price or prices. Any claim by the Contractor for an equitable adjustment under this clause must be asserted within ninety (90) days from the effective date of the termination.
- 14.2.9 The Owner may from time to time, under such terms and conditions as it may prescribe, make partial payments and payments on account against costs incurred by the Contractor in connection with the terminated portion of this Contract whenever in the opinion of the Owner the aggregate of such payments shall be within the amount to which the Contractor will be entitled hereunder. If the total of such payments is in excess of the amount finally agreed or determined to be due under this paragraph, such excess shall be payable by the Contractor to the Owner upon demand, together with interest computed at the legal prevailing rate, for the period from the date such excess payment is received by the Contractor to the date on which such excess is repaid to the Owner, provided, however, that no interest shall be charged with respect to any such excess payment, attributable to

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a reduction in the Contractor's claim by reason of retention or other disposition of termination inventory until ten (10) days after the date of such retention or disposition, or such later date as determined by the Owner by reason of the circumstances.

- 14.2.10 Unless otherwise provided for in this Contract, or by applicable statute, the Contractor shall - from the effective date of termination until the expiration of three (3) years after final settlement under this Contract - preserve and make available to the Owner at all reasonable times at the office of the Contractor but without direct charge to the Owner, all his books, records, documents and other evidence bearing on the costs and expenses of the Contractor under this Contract and relating to the Work terminated hereunder, or, to the extent approved by the Project Manager, photographs, microphotographs, or other authentic reproductions thereof.

END OF ARTICLE 14

SUPPLEMENTARY GENERAL CONDITIONS TO THE CONTRACT FOR CONSTRUCTION

REFERENCE:

1. **GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION ANCHORAGE SCHOOL DISTRICT, ANCHORAGE, ALASKA**, constitutes the General Conditions of this Contract, and is further revised and supplemented by the provisions of these Supplementary General Conditions. The General Conditions and the Supplementary General Conditions are applicable to all of the work under this Contract and shall apply to the Contractor and all Subcontractors, Sub-subcontractors, and Material Suppliers and Vendors.

SUPPLEMENTS:

1. The following supplements modify, change, delete, or add to the General Conditions. Where any article of the General Conditions is modified or any paragraph deleted, subparagraph or clause thereof is modified, or deleted by these supplements, the unaltered provisions of such article, paragraph, sub-paragraph or clause shall remain in effect.

ARTICLE 4

Remove and replace Section 4.7.1.1 with the following:

- 4.7.1.1 The Contractor shall submit and pay for all necessary Anchorage Building Plan Review and Building Fee Permits. The Contractor shall be responsible to pay for any additional permit fees including, but not limited to Sub-Contractor building permit fees, inspection fees, re-inspection fees, special construction permit fees, and the like.

Add the following new Paragraphs 4.7.1.2 & 4.7.1.3:

- 4.7.1.2 Unless otherwise authorized by the Project Manager, successfully obtaining the necessary permits shall be the responsibility of the Contractor and shall constitute a requirement for the issuance of the Notice to Proceed by the Owner.
- 4.7.1.3 Contractor shall submit Fire Alarm shop drawings to the Municipality of Anchorage Building Safety Office.
 - 4.7.1.3.1 Contractor shall pay for the Municipality of Anchorage Fire Alarm permits.
 - 4.7.1.3.2 Contractor shall obtain the permits upon approval.

Add the following new Paragraph 4.21, Construction Management Software:

4.21 CONSTRUCTION MANAGEMENT SOFTWARE

- 4.21.1 The Contractor shall fully utilize the Owner provided construction management software, currently Sage Procore Construction Management for communications, Submittals, Requests for Information, for submission of construction record documents and photographs, and other purposes as directed by the Project Manager.
- 4.21.2 The contractor shall designate a minimum of two (2) people from their internal project staff to access the Construction Management Software. It is incumbent upon the Contractor to ensure these individuals familiarize themselves and become proficient in the use of the Construction Management software utilizing the manuals, help files, training videos, forums and other support services provided by the Construction

Management Software.

ARTICLE 7

Add the following new Paragraph 7.12, Fire Alarm System:

7.12 FIRE ALARM SYSTEM

- 7.12.1 Before beginning any work that may result in a fire alarm transmission, the contractor shall call both the Anchorage Fire Department dispatcher at (907) 522-1122 and the local fire station which would respond to an alarm and let them know you will be working on the system and for approximately how long. Second the contractor shall call Guardian Security at (907) 277-1975 and notify the dispatcher that you have called the Fire Department, what type of work you are planning to do, and approximately how long before you expect to be completed. After the contractor is completed with your work, you must reverse the process by notifying the Fire Department dispatcher and the ASD Dispatcher that you are finished.
- 7.12.2 The Contractor shall be held responsible for all charges incurred from false fire alarms. Currently the Anchorage Fire Department charges seven hundred fifty dollars and no cents (\$750.00) per false alarm, or current rate charged.

Add the following new Paragraph 7.13, Apprenticeship Utilization Requirements for Contracts:

7.13 APPRENTICESHIP UTILIZATION REQUIREMENTS FOR CONTRACTS

- 7.13.1 Once awarded a contract by ASD, the prime contractor will be responsible to gather and submit all documentation to ASD to confirm compliance with the Apprenticeship Utilization Policy ("AUP") mandated by Anchorage School Board Policy 3311.1.2. The Prime contractor will provide documentation to ASD to confirm that 15% of the labor hours worked in trades/crafts categories that are included in the Alaskan Federally Registered Apprenticeship Program has been executed by certified apprentices enrolled in those programs, and will provide documentation to confirm that the apprentices listed on the documentation submitted are currently in good standing with their Alaskan Federally Registered Apprenticeship Program. ASD will provide several forms which the prime contractor will be required to fill out in addition to submitting their certified payroll documents. Also, ASD will audit the prime contractor's documentation on the following schedule. Audits for projects will be conducted every 30 days. In addition, ASD will conduct on-site audit at non-scheduled intervals to ensure that the apprentices listed on the written documentation are physically on-site. ASD will give a reasonable notice of 24 hours prior to on-site inspections.
- 7.13.2 The prime contractor will be required to submit the following, at the intervals requested by ASD:
- Certified Payroll for prime and subcontractors.
 - Apprenticeship Utilization Form for prime and subcontractors.
 - Apprenticeship Utilization Calculation form for prime and subcontractors, which demonstrates labor hours worked by apprentices in applicable crafts/trades categories, and reports status as to whether the apprentices listed are in good standing with their Alaskan Federally Registered Apprenticeship Program.

Add the following new Paragraph 7.14, Preference for Alaska Forest Products:**7.14 PREFERENCE FOR ALASKA FOREST PRODUCTS****7.14.1 Preference for Alaska Forest and Agricultural Products**

This project is funded by state money in which the use of timber, lumber, and manufactured lumber products are required, and, therefore, only timber, lumber, and manufactured lumber products originating in this state from local forest products shall be used whenever practical.

Pursuant to AS 36.15.050 and AS 36.30.322, agricultural and timber, lumber and manufactured lumber products harvested in Alaska shall be used in state funded projects whenever they are priced no more than seven percent above agricultural/wood products harvested outside the state and are of a like quality as compared with agricultural/wood products harvested outside the state. The Contractor shall maintain records which establish the type and extent of Alaska agricultural/wood products utilized. When such products are not utilized, the Contractor shall document the efforts the Contractor made towards obtaining agricultural/wood products harvested in Alaska and include in this documentation a written statement that the Contractor contacted the manufacturers and suppliers identified on the Department of Commerce and Economic Development's list of suppliers of Alaska forest products concerning the availability of agricultural/wood products harvested in Alaska and, if available, the product prices. The Contractor shall complete this documentation at a time determined by the district's project manager.

The Department of Commerce and Economic Development's list of suppliers of Alaska forest products is available at:

<http://www.commerce.state.ak.us/ded/dev/prodpref/fppproduct.cfm>

The Contractor's use of agricultural/wood products that fail to meet the requirements of this section shall be removed and replaced in accordance with **Division 0, Section 00700, paragraph 13.3** of the contract. In addition, pursuant to AS 36.15.050(d), the district may withhold payment until the Contractor complies with this section.

To clarify, the actions required by the successful bidder awarded the contract are as follows:

- For all lumber items required under the contract the Contractor will contact all applicable suppliers of Alaska forest products to determine availability and cost.
- Contractor must use lumber from the suppliers of Alaska forest products unless the cost of the Alaska forest products that are of like quality is seven percent higher than non-Alaska produced forest products, or the Alaska forest products are not available.
- Contractor must maintain records showing efforts made in using Alaska forest products or evidence of Alaska forest products not being available or reasonably competitive.
- The records showing compliance with the Alaska forest products preference must be provided to Owner during the submittal process (Division 1, Section 01300).
- Per AS 36.15.010 if the Contractor fails to provide evidence regarding proper sourcing and comparison of Alaska forest products, the District shall withhold payment until the Contractor complies.

ARTICLE 9

Add the following new Paragraph 9.12, Liquidated Damages:

9.12 LIQUIDATED DAMAGES

- 9.12.1 Should the Contractor fail to substantially complete the Work on or before any date stipulated for Substantial Completion (or such later date as may result from extension of time granted by the Owner), he shall pay the Owner, as liquidated damages, the sum of one thousand dollars and no cents (\$1,000.00) for each consecutive calendar day that terms of the contract remain unfulfilled beyond the date allowed by the Contract, which sum is agreed upon as a reasonable and proper measure of damages which the Owner will sustain per day by failure of the Contractor to complete work within time as stipulated; it being recognized by the Owner and to the Contractor that the injury to the Owner which could result from a failure of the Contractor to complete on schedule is uncertain and cannot be computed exactly. In no way shall costs for liquidated damages be construed as a penalty on the Contractor.
- 9.12.2 For each consecutive calendar day that the Work remains incomplete after the date established for Final Completion, the Owner will retain from the compensation otherwise to be paid to the Contractor the sum of one thousand dollars and no cents (\$1,000.00). This amount is the minimum measure of damages the Owner will sustain by failure of the Contractor to complete all remedial work, correct deficient work, clean up the project and miscellaneous tasks as required to complete all work specified.
- 9.12.3 In no instance shall more than one thousand dollars and no cents (\$1,000.00) a day are assessed for liquidated damages for work, which remains incomplete.

ARTICLE 10

Add the following new Paragraph 10.4, Compliance:

10.4 COMPLIANCE

- 10.4.1 When the school is in session the Contractor will be restricted to the areas, which do not interfere with school operations. These areas shall be safety and security fenced to not impact school operations. Additional areas may be utilized upon concurrence of the Project Manager. The Contractor shall minimize his impact on education while his work is in progress. Workers must stay out of school while school is in session. All renovation work in the existing school, including sprinklers, must be performed while school is not in session. If scheduling pushes this work into the school session, then the work must be performed on nights and weekends.
- 10.4.2 The Contractor must maintain interior building fire exits through the construction areas and maintain these exits during all school operation hours. These exit routes may not be modified without concurrence of the Project Manager and the School Principal.

ARTICLE 11

Remove and replace Section 11.3.3.1 with the following:

- 11.3.3.1 The Contractor shall maintain an umbrella liability policy according to the

following:

Projects < \$2 million construction cost - \$1,000,000 per occurrence and annual aggregate.

Projects < \$10 million construction cost – \$5,000,000 per occurrence and annual aggregate.

Projects > \$10 million construction cost – \$10,000,000 per occurrence and annual aggregate.

This requirement does not apply to Subcontractors.

ARTICLE 12

Article 12, 12.5.2: Delete this section in its entirety and replace with the following:

Disputes between the Owner and the Contractor will be processed through the appeal process described in 12.5.3.

Article 12, 12.5.3: Delete this section in its entirety and replace with the following:

12.5.3 Appeal Process

- 12.5.3.1 The contractor will submit in writing the issue(s) being claimed and the Project Manager will review. The Project Manager may visit the site, schedule a review hearing, or request additional information in order to fully evaluate the issues of the claim. The Project Manager will send the written decision to the Contractor within ten (10) days of receipt of claim.
- 12.5.3.2 If the Contractor does not agree with the decision of the Project Manager, within ten (10) days from the receipt of the written decision by the Project Manager, the Contractor may request an appeal of the decision to the Senior Director of Capital Planning & Construction. The Senior Director of Capital Planning & Construction will then have ten (10) days to review the issue(s) and send a written decision to the Contractor.
- 12.5.3.3 If the Contractor does not agree with the decision of the Senior Director of Capital Planning & Construction, within ten (10) days from the receipt of the written decision by the Senior Director of Capital Planning & Construction, the Contractor may request an appeal of the decision to the Chief Operating Officer. The Chief Operating Officer will then have ten (10) days to review the issue(s) and send a written decision to the Contractor.
- 12.5.3.4 If the Contractor does not agree with the final decision rendered by the Chief Operating Officer, it may pursue litigation.
- 12.5.3.5 The Contractor may bring no action on claims unless the claims have been properly raised in accordance with all notice provisions of the conditions and considered in the above dispute-resolution procedures.

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- 12.5.3.6 The Contractor shall diligently carry on the Work and maintain the progress schedule during any dispute-resolution proceedings, unless otherwise agreed in writing.
- 12.5.3.7 Any step in the process identified above can be waived only by explicit written waiver by both parties.

Article 12, 12.5.4: Delete this section in its entirety.

END OF SECTION

WAGE RATES

I. GENERAL

A. STATE OF ALASKA PREVAILING WAGE SCALE AND ALASKA HIRE

Attention of bidders is particularly called to the requirements as to conditions of employment to be observed and minimum wage rates to be paid under the Contract. Among other things, the requirements of Alaska's Little Davis Bacon Act (AS 36.05.010) are applicable to this project. Each bidder must inform himself/herself fully of the conditions relating to the construction of the project and the employment of labor thereon. Failure to do so will not relieve a successful bidder of his/her obligation to furnish all material and labor necessary to carry out the provisions of the Contract.

State Labor Wage and Hour Administration Pamphlets No. 600 for Laborers' and Mechanics' are updated on April 1, and September 1. It is the responsibility of the bidder to obtain the new labor wage and hour rates when available from the State of Alaska Department of Labor, and to use the Prevailing wage scale and hiring requirements when formulating your bid.

For copies of this pamphlet, contact the nearest office of the Division of Labor Standards and Safety, Wage and Hour office or visit the internet site at:

<http://labor.state.ak.us/lss/pamp600.htm>

END OF SECTION

GENERAL REQUIREMENTS RELOCATION

PART 1. GENERAL

1.01 SCOPE OF WORK

A. GENERAL

1. Relocation of all Anchorage School District personal property in areas of construction shown on the drawings during the time specified herein.
2. Personal property is defined as all items not attached to the building.
3. The Anchorage School District personal property shall be moved within the building prior to the construction phase of the contract and after substantial completion.
4. All personal property shall be identified by an inventory control system. A copy shall be provided to the Project Manager.
5. All work shall be coordinated with the Project Manager and Building Administrator.
6. The Owner will remove earthquake restraints from all personal property. Personal property to be moved after packing is completed.
7. The Owner will move copiers and telephones.
8. Contractor shall provide a spotter person for public safety when operating machinery.
9. Contractor shall be required to furnish all permits related to this contract, including a current Alaska Transportation Commission (A.T.C.), Common Carrier permit which allows the contractor to perform all duties as called for in this specification.
10. Contractor drivers shall be required to have the appropriate Commercial Drivers License (CDL).
11. Contractor shall abide by all laws pertaining to transportation, parking, fire lanes and safety.

B. TEMPORARY STORAGE

1. ASD property shall be placed in temporary storage.
 - a. The Owner will provide temporary storage on site.
 - b. Property placed in temporary storage shall be identified by location of origin.
 - c. Upon substantial completion the contractor will advise the Project Manager that items in storage are ready to be moved to their permanent location. The Contractor will give the Owner 48-hours notice.

C. DELAY IN UNPACKING

1. After the removal and movement of all items to destination locations, there shall be a delay for the unpack until the return of District personnel.

D. IMPLEMENTATION MEETING

1. Prior to commencement of work under this specification section there will be an implementation meeting to discuss contract interfaces and to identify any problem areas apparent to ASD or the contractor.
2. The contractor shall bring to that meeting a list of key personnel who will be responsible for the execution of the packing/move, including a copy of driver's Commercial Drivers Licenses (CDL's) if materials are located off premises.
3. The Project Manager will coordinate the meeting with the building staff and the contractor.

E. SITE CONDITIONS

1. For bidding purposes the following site conditions exist.
 - a. Hours of operation: Unoccupied.
 - b. Loading access: Main doors.
 - c. Fire Lanes: Fire lane is to remain clear around the perimeter of the building.
 - d. Handicaps Access: Keep access available during entire move.

PART 2. PRODUCTS

2.01 PACKING MATERIALS

- A. All packing materials, (boxes, tape, pallets, wrap, dividers, etc.) shall be provided by the contractor.

2.02 SPECIAL MOVING LIBRARY BOOKS

- A. Books shall be transferred to and from original shelves using moving racks/shelves or boxes provided by the contractor.
- B. Boxed books shall be labeled by shelf number and location. Contractor shall provide shop drawings indicating layout of books to coordinate box labels with bookshelf numbers and labels.
- C. Contactor shall move empty shelves to the storage location.
- D. Books shall be stored back on original shelving at the storage location or in boxes.
- E. Books shall be returned to their original shelf location and order. (Dewey Decimal Classification)
- F. Contactor shall coordinate packing and unpacking of books with the school librarian.

PART 3. EXECUTION

3.01 EQUIPMENT AND MANPOWER

- A. All equipment and manpower necessary for the move shall be provided by the contractor, including vehicles, hand trucks, furniture dollies, blankets, and other necessary items required for this contract.

3.02 IDENTIFICATION OF MATERIAL BEING MOVED

- A. All furniture, boxes, and other items packed by the contractor will be labeled with building destination and room number.

3.03 PACKING CONTENTS

- A. The contractor shall be responsible to pack items from bookshelves, storage cabinets, file cabinets, storage rooms, as appropriate.
- B. The Owner may box and labeled some property which contractor will move to destination site.
- C. Computers
 1. The Owner will properly shut down computers and unplug all cords.
 2. The contractor shall provide packing and transporting of the computers.

3.04 PLACEMENT OF FURNITURE

- A. Contractor shall place and position furniture in each office/classroom into its original location.

3.05 UNPACKING

- A. Contractor will be responsible for unpacking of contents packed by the contractor and for placement of contents in original location.
- B. The Owner will set up computers once unpacked by the contractor.

3.06 PACKING, TRANSPORTATION, STORAGE, UNPACKING

- A. The contractor shall provide all necessary supervision, labor, materials, tools, equipment, supplies, transportation, security, protection from inclement weather and all related requirements not mentioned to perform all service contemplated during the term of the contract in an orderly, timely, and efficient manner for the package, removal, limited storage, and reinstall at designated locations.
- B. Contractor shall pack and/or guarantee the safety of all material and equipment against loss or damage during the contract term (except for property in ASD temporary storage).
- C. Contractor shall reassemble all property disassembled during the move.

3.07 PROTECTION OF FINISHES

- A. Contractor shall be responsible for damage to buildings, installed equipment, walls, floors, doors, door jams, and elevators.
- B. Contractor shall provide protective floor coverings for carpeted areas and a minimum of 3/8 OSB in the gym and multipurpose floors.
- C. Contractor shall provide protective moving pads for elevators.

END OF SECTION

SUMMARY OF WORK

PART 1. GENERAL

1.01 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.

1.02 WORK COVERED BY CONTRACT DOCUMENTS

- A. The Work of this Contract comprises the general construction of the facility identified in the Solicitation including all noted site improvements.
- B. Definition of Site: Wherein the term Site is used in the contract documents, it shall mean the areas where work is to be performed; located as identified in the Solicitation and on the Contract Drawings.
- C. Acceptance of Site: The Contractor shall fully inform himself of the areas in which work is to be processed, material delivered, and limitation in working conditions, and access to work areas.
- D. Existing Conditions: The drawings may not show all arrangements and condition of the site as they now exist. The Contractor shall be responsible for a complete visual inspection.

1.03 CONTRACT

- A. Construct the work under a single fixed price contract as bound herein.
- B. It is the intent of these documents to require all work for a complete facility and plant with only minor owner-furnished items to be incorporated. See technical sections for specifics.

1.04 WORK FURNISHED AND INSTALLED BY OWNER

- A. Equipment and furniture as noted in documents. Other Contractors or ASD Maintenance personnel may be performing work at this facility concurrent with this project. See Section 1.07 below for requirements concerning coordination with Contractor's work.

1.05 GENERAL PROJECT DESCRIPTION

- A. General Description: The project is located at 2905 Lake Otis Parkway, Anchorage, Alaska, 99508
- B. Construction: A fire alarm replacement project encompassing the entire school. The scope of work includes demolition of the old fire alarm system and installation of the new fire alarm system. The RFP contains all the information to complete the project. The contractor is responsible for moving all furniture, fixtures, and equipment to accomplish the work, see Section 01005 GENERAL REQUIREMENTS RELOCATION.
- C. Sequence the start, conduct and completion of Work as required in Section 00200, Project Schedule Milestone Dates.

1.06 CONTRACTOR'S USE OF PREMISES

- A. Limit use of premises for work and for storage to allow for:
 - 1. Area of site indicated on Contract Drawings
 - 2. Owner occupancy of existing building
 - 3. Public use
 - 4. Coordinated use of premises under direction of Project Manager.
 - 5. Full responsibility for protection and safekeeping of products under this Contract stored at Site.
 - 6. Moving any stored products, under Contractor's control, which interfere with operations of Owner or separate Contractor.

1.07 OWNER'S USE OF PREMISES

- A. During the regular school year, conduct operations to minimize interference with normal school operations.
- B. Schedule any work which could interfere with school operations during summer vacation or when the school is not in session during the regular year.
- C. Cooperate with Project Manager in conducting operations to minimize conflict with and to facilitate Owner usage as established by the Project Manager.
- D. Schedule work to maintain Owner's continuous operation. Include in contract sum sufficient funds as may be required for any "after-hours" work caused by this requirement. No additional payment to Contractor will be authorized because of Contractor's failure to anticipate required "after-hours" work.
- E. At all times conduct operation as to ensure the least inconvenience to students, staff, visitors, and the general public.
- F. The contractor shall provide advance notice at least 72 hours prior to any utility outages or other operations anticipated to inconvenience the school activities. The Project Manager will review and evaluate the request. The contractor may have to reschedule the operations to another time that will not impact school activities.
- G. The Contractor shall be responsible for maintaining power to the Fire Alarm, Security, Access Control, and Network systems to ensure they are in proper working order throughout the project. If the systems must be off-line during the project, the Contractor shall obtain written approval from the Project Manager. During any time in which the fire alarm or security system is not operational, the Contractor shall provide a fire watch and security watch 24 hours a day, 7 days a week, for the entire period of the shutdown at no additional cost to ASD. The Contractor shall notify the ASD Project Manager of the intended method 72 hours prior to the shutdown.
 - 1. An acceptable method of maintaining power to the fire alarm and security panels includes maintaining power during the entire period of the Electrical Utility Shutdown.
- H. While school is occupied by students and the general public the contractor must keep operational the emergency egress lighting.

1.08 COORDINATION OF NOISE, DUST AND FUMES

- A. Contain noise, dust and fumes within work area. Notify Project Manager at least 24 hours

prior to any necessary excessive noise, dust or fumes. Comply with the Project Manager's instructions.

1.09 PRODUCTS FURNISHED BY OWNER AND INSTALLED BY CONTRACTOR

A. Owner's Responsibilities:

1. Arrange for and deliver necessary shop drawings, product data, and samples to Contractor.
2. Arrange and pay for product delivery to Site in accordance with construction schedule.
3. Deliver supplier's bill of materials to Contractor.
4. Inspect deliveries jointly with Contractor
5. Submit claims for Transportation damage.
6. Arrange for replacement of damaged, defective, missing or otherwise unacceptable items.
7. Arrange for manufacturer's warranties, bonds, service, and inspections as required.

B. Contractor's Responsibilities:

1. Designate delivery date for each product in construction schedule.
2. Receive and unload products at Site.
3. Promptly inspect products jointly with Owner, record shortages, damaged or defective items.
4. Handle products at Site, including uncrating and storage.
5. Protect products against damage and discoloration.
6. Assemble, install, connect, adjust, and finish products, as stipulated in respective Specification Sections.
7. Clean, repair, or replace items damaged by Contractor.

1.10 SALVAGE RIGHTS

- A. The Anchorage School District wishes to salvage all equipment, panels, devices, and parts associated with the existing fire alarm system. The contractor is to box up all salvaged items and bring to the Material Control Room (MCR) located at 1301 Labar St. Anchorage, Alaska.
- B. Remove scheduled materials and equipment without damaging items. Store items in protected environment. Coordinate with Owner for pick up and/or delivery to the owner. If delivered to the owner include project name and school for easy identification.

1.11 USE OF OWNER'S PROPERTY AND EQUIPMENT

- A. Use of Owner's property or equipment such as tools, ladders, furniture, janitorial equipment and supplies, etc., is strictly prohibited.

1.12 PERMITTING

- A. Contractor shall obtain all necessary building permits required to complete the scope of work identified in the contract documents. These include any/all subcontractor or specialty permits.
- B. Contractor shall ensure all required Municipal inspections, in accordance with the aforementioned permits, are requested and conducted prior to covering, closing or concealing the work in the field. Understanding and adhering to all MOA inspection requirements is mandatory. The Owner is not liable for re-inspection or rework costs

associated with non-conforming or prematurely concealed work.

- C. Contractor shall maintain an inspection log and retain copies of all inspection reports, on site, for review by inspection officials and district project representatives.
- D. The District will be requiring preconstruction meeting with municipality building safety department.

END OF SECTION

PROJECT COORDINATION

PART 1. GENERAL

1.01 GENERAL CONTRACTOR

- A. Coordinate work of his own employees and subcontractors and coordinate his work with that of other contractors and Owner.
- B. Expedite his work to assure compliance with schedules.
- C. Comply with orders and instructions of the Project Manager.
- D. Monitor and control the use of site:
 - 1. Supervise field engineering and site layout.
 - 2. Allocate space for each subcontractor's use for field offices, sheds, work and storage areas.
 - 3. Establish access, traffic, parking allocations, and regulations.

1.02 GENERAL AND SUBCONTRACTORS SHALL DILIGENTLY COMPLY WITH THE FOLLOWING:

- A. Cooperate in planning and layout of the work well in advance of operations. Inform other contractors of requirements at proper time to prevent delay or revisions.
- B. Be informed of the requirements of other contractors and check own work for conflicts with the work of others.
- C. Ensure delivery of materials and performance of work on coordinated schedule with other contractors.
- D. Be responsible for proper layout of the work, and for all lines and measurements for all of the work executed under the contract documents. Verify the figures shown on the drawings before laying out the work and report any inaccuracies in writing to the Project Manager before commencing work. The Owner, Architect or their representative will in no case assume the responsibility for layout of the work.
- E. The mechanical and electrical trades shall be responsible for the layout of the ductwork, piping and conduits based on the reference lines established.

1.03 COORDINATING UTILITIES

- A. Cooperate and coordinate work with all utilities to be installed for service to Project. Utilities may include, but are not limited to water, sewer, natural gas, telephone, electrical, and cable television. Contractor shall maintain communication with utilities in order to coordinate time and requirements of utilities' installation.
- B. Contractor shall provide all work necessary to comply with requirements of Contract Documents for Utility work that does not meet Contract Document requirements, or for work that is disturbed by utility installation.

1.04 OWNER NOTIFICATION/REIMBURSEMENT

- A. Provide the Owner forty-eight (48) hours advance notice of his intention to work overtime, nights, Sundays or holidays, or anytime outside the usual working hours. In no case will the Contractor do any such work without first notifying the Owner to permit arrangements for proper inspection. Unless of an emergency nature, work performed in violation of this paragraph will not be paid for.
- B. Reimburse the additional cost to the Owner for inspection work on Sundays or recognized holidays. Such reimbursement shall include all additional costs to the Owner.
- C. Reimbursement for inspection or observation required of the Project Manager or the Engineer on Sundays or recognized holidays shall be at the rate of One Hundred Fifty dollars (\$150.00) per man-hour of work.
- D. The contractor shall reimburse the additional cost to the owner, architect and consultants for inspection work beyond a first substantial of first final completion inspections. The contractor is expected to be virtually complete at time of substantial completion inspection with only minor punchlist items remaining. Should punchlist items remain at time of final inspection and should subsequent inspections be required, the contractor shall pay all costs for all.

PART 2. PRODUCTS (NOT USED)

PART 3. EXECUTION (NOT USED)

END OF SECTION

CUTTING AND PATCHING

PART 1. GENERAL

1.01 DESCRIPTION OF WORK

- A. Cutting and patching is defined to include, but it not necessarily limited to, the cutting and patching of nominally completed work, and is defined to exclude integral cutting and patching during the manufacturing, fabricating, erecting, and installing process for individual units of work.
- B. Contractor shall be responsible for all cutting, fitting, and patching required to complete the work or to:
 - 1. Accommodate the coordination of work.
 - 2. Provide for installation of other work.
 - 3. Remove and replace defective work.
 - 4. Remove and replace work not conforming to requirements of Contract Documents.
 - 5. Uncover other work for access or inspection.
 - 6. Obtain samples for testing or similar purposes.
 - 7. Provide routine penetrations of nonstructural surfaces for installation of piping and electrical conduit.

1.02 RELATED REQUIREMENTS

- A. Section 00700 Article 4.14.
- B. Section 01010 - Summary of Work.
- C. Individual Specification Sections:
 - 1. Cutting and patching incidental to work of the Section.
 - 2. Advance notification to other Sections of openings required in work of those Sections.
 - 3. Limitations on cutting structural members.

1.03 SUBMITTALS

- A. Ten (10) days prior to beginning any demolition activities, the Contractor shall provide written notification to EPA, in accordance with NESHAP regulations, with copy to Project Manager. Notice shall indicate asbestos containing materials are or are not anticipated to be encountered. If no asbestos is anticipated, a negative declaration is made addressing 40CFR61.146 (a), (b) and (c,1-5).
- B. Submit written request in advance of cutting or alteration which affects:
 - 1. Structural integrity of any element of Project.
 - 2. Integrity of weather-exposed or moisture-resistant element.
 - 3. Efficiency, maintenance, or safety of any operational element.
 - 4. Visual qualities of sight-exposed elements.
 - 5. Work of Owner or separate contractor.
- C. Include in Request:
 - 1. Identification of Project.
 - 2. Location and description of affected work.
 - 3. Necessity for cutting and alteration.

4. Description of proposed work. Designate:
 - a. Scope of cutting and patching.
 - b. Contractor and trades to execute work.
 - c. Products proposed to be used.
 - d. Extent of refinishing.
5. Date and time work will be executed.

PART 2. PRODUCTS

2.01 MATERIALS

- A. For replacement of work removed, comply with specifications for type of work to be done, unless otherwise noted.
- B. Provide materials for cutting and patching which will result in equal to or better than the work being cut and patched in terms of performance characteristics and visual effect where applicable.

PART 3. EXECUTION

3.01 GENERAL

- A. Execute cutting, fitting, and patching to complete Work, and to:
 1. Fit the several parts together, to integrate with other Work.
 2. Uncover work to install or correct ill-timed Work.
 3. Remove and replace defective and non-conforming Work.
 4. Remove samples of installed Work for testing.
 5. Provide openings in elements of Work for penetrations of mechanical and electrical work.
 6. Repair surfaces damaged by removal or relocation of surface mounted or built-in items.

3.02 INSPECTION

- A. Inspect existing conditions, including elements subject to damage or movement during cutting and patching.
- B. Do not cut and patch work which is exposed to view in a manner resulting in a reduction of visual qualities or resulting in substantial evidence of the cut and patch work. Remove and replace work judged by Project Manager to be visually unsatisfactory.
- C. After uncovering, inspect conditions affecting performance of work.
- D. Beginning of cutting or patching means acceptance of existing conditions.

3.03 PREPARATION

- A. Clean adjacent structures and improvements of dust, dirt, and debris caused by cutting and patching operations, as directed. Return adjacent areas to condition existing prior to start of work.
- B. Provide supports to assure structural integrity of surroundings; devices and methods to

protect other portions of Project from damage.

- C. Provide protection from elements for areas which may be exposed by uncovering work; maintain openings free of water.

3.04 PERFORMANCE

- A. Execute work by methods to avoid damage to other work, and which will provide proper surfaces to receive patching and finishing.
- B. Restore work with new products in accordance with requirements of Contract Documents.
- C. Fit work airtight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces. Maintain all fire assembly rating wall or area separation construction in accordance with applicable codes.
- D. Refinish surfaces to match adjacent finishes. For continuous surfaces, refinish to nearest intersection; for an assembly, refinish entire unit.

END OF SECTION

FIELD ENGINEERING

PART 1. GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Provide and pay for field engineering services required for project, i.e., civil, structural, or other professional engineering services required to execute Contractor's construction methods.

1.02 RELATED REQUIREMENTS

- A. Conditions of the contract.
- B. Section 01010: Summary of Work.
- C. Section 01700: Project Close-Out.

1.03 QUALIFICATIONS OF SURVEYOR AND ENGINEER

- A. Provide Qualified Professional Engineer and Registered Land Surveyor with current Alaska license and acceptable to Contractor and Owner.

1.04 SURVEY REFERENCE POINTS

- A. Locate and protect bench marks, monuments, and other control points prior to starting site work, preserve all permanent points during construction.
 - 1. Make no changes or relocations without prior written notice to Project Manager.
 - 2. Report to Project Manager when any reference point is lost, destroyed or required relocation because of necessary changes in grades or locations.
 - 3. Require surveyor to replace project control points which may be lost or destroyed and establish replacements based on original survey control.

1.05 PROJECT SURVEY REQUIREMENTS

- A. Establish a minimum of two permanent bench marks on site, referenced to data established by survey control points.
- B. Record locations, with horizontal and vertical data, on Project Record Documents.
- C. Establish and identify lines, levels, contours, and datum by instrumentation or similar appropriate means for:
 - 1. Stakes for grading, fill, and topsoil placement.
 - 2. Utility slopes and invert elevations.
 - 3. Batter boards for structures.
 - 4. Building foundation, column locations, and floor levels.
 - 5. Controlling lines and levels required for mechanical and electrical trades.
- D. From time to time, verify layouts by same methods.

1.06 RECORDS

- A. Maintain a complete, accurate log of all control and survey work as it progresses.

1.07 SUBMITTALS

- A. Submit name and address of Surveyor and Professional Engineer to Project Manager.
- B. On request of Project Manager, submit documentations to verify accuracy of field engineering work.
- C. Submit certificate signed by Registered Engineer and Surveyor certifying that elevations and locations of improvements are in conformance with Contract Documents in the form of an "As-Built" survey.

PART 2. PRODUCTS (NOT USED)

PART 3. EXECUTION (NOT USED)

END OF SECTION

REGULATORY REQUIREMENTS

PART 1. GENERAL

1.01 BUILDING CODES

- A. Construction which is not governed by a local building code or the Contract Specifications will be governed by the more stringent provisions of the latest published edition of Statute adopted edition with MOA local amendments, of the following applicable codes and regulations:

1. International Building Code (IBC)
2. International Existing Building Code (IEBC)
3. International Energy Conservation Code (IECC)
4. International Fuel Gas Code (IFGC)
5. International Mechanical Code (IMC)
6. International Fire Code (IFC)
7. National Electrical Code (NEC)
8. Uniform Plumbing Code (UPC)
9. ASHRAE 90-75 as applicable to Alaska
10. National Fire Code, Volumes 1-10
11. National Electrical Safety Code
12. NFPA Life Safety Code
13. NFPA National Fire Code
14. ADA Guidelines
15. Accessible and Useable Buildings and Facilities (ICC/ANSI A117.1)

1.02 APPLICABLE STANDARDS

- A. Where indicated, comply with the requirements and recommendations of the standards and other publications, except to the extent more detailed or more stringent requirements are indicated, including those of applicable codes and governing regulations.
- B. Where two or more standards or recommendations of trade associations apply to the same quality control requirement for the work, comply with the most stringent. Refer uncertain instances to the Project Manager for a decision.

PART 2. PRODUCTS (NOT USED)

PART 3. EXECUTION (NOT USED)

END OF SECTION

ABBREVIATIONS AND DEFINITIONS

PART 1. GENERAL

1.01 ABBREVIATIONS

- A. References in the contract documents to publications and recommendations by either name or abbreviation thereof include but are not necessarily limited to the following trade associations, technical societies, government agencies, recognized authorities and standards.

AAMA	Architectural Aluminum Manufacturers Association
AASHTO	American Association of State Highway and Transportation Officials
ACI	American Concrete Institute
AGA	American Gas Association
AGC	The Associated General Contractors of America
AI	The Asphalt Institute
AIA	The American Institute of Architects
AISC	American Institute of Steel Construction, Inc.
AISI	American Iron and Steel Institute
AITC	American Institute of Timber Construction
ANSI	American National Standards Institute
APA	American Plywood Association
ASAHC	American Society of Architectural Hardware Consultants
ASHRAE	American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
AWI	Architectural Woodwork Institute
AWPA	American Wood-Preservers' Association
AWPB	American Wood-Preservers' Bureau
AWS	American Welding Society, Inc.
CPSC	Consumer Product Safety Commission
CRA	California Redwood Association
CRSI	Concrete Reinforcing Steel Institute
CS	Commercial Standard of NBS (U.S. Department of Commerce)
CSI	The Construction Specifications Institute, Inc.
EPA	Environmental Protection Agency
FM	Factory Mutual Engineering Corp.
FGMA	Flat Glass Marketing Association
FS	Federal Specification (General Services Administration)
GA	Gypsum Association
HPMA	Hardwood Plywood Manufacturers Association
IBC	International Building Code
MFMA	Maple Flooring Manufacturers Association
MLMA	Metal Lath/Manufacturers Association
NAAMM	The National Association of Architectural Metal Manufacturers
NBFU	National Board of Fire Underwriters
NBHA	National Builders Hardware Association
NBS	National Bureau of Standards (U.S. Department of Commerce)
NEC	National Electrical Code by NFPA
NEMA	National Electrical Manufacturers Association
NFPA	National Fire Protection Association
N.F.P.A.	National Forest Products Association

NRCA	National Roofing Contractors Association
NSF	National Sanitation Foundation
NWMA	National Woodwork Manufacturers Association, Inc.
OSHA	Occupational Safety and Health Administration
PCA	Portland Cement Association
PCI	Prestressed Concrete Institute
RIS	Redwood Inspection Service (Grading Rules)
SDI	Steel Deck Institute
S.D.I.	Steel Door Institute
SIGMA	Sealed Insulating Glass Manufacturers Association
SJI	Steel Joist Institute
SMACNA	Sheet Metal and Air Conditioning Contractor's National Association, Inc.
SPR	Simplified Practice Recommendation of NBS
SSPC	Steel Structures Painting Council
TCA	Tile Council of America, Inc.
UL	Underwriters' Laboratories, Inc.
WCLA	West Coast Lumbermen's Association
WCLB	West Coast Lumber Inspection Bureau (Grading Rules)
WRI	Wire Reinforcing Institute
WWPA	Western Wood Products Association (Grading Rules)
W.W. P.A.	Woven Wire Products Association

- B. Refer to individual sections for other names and abbreviations of trade associations and standards applicable to specific portions of the work. In particular, refer to Division 26 for names and abbreviations applicable to mechanical and electrical work.

1.02 SPECIFICATION EXPLANATION

- A. The specifications are divided into divisions and sections for the convenience of writing and using. The titles of these are not intended to imply a particular meaning nor to fully describe the work of each division or section, nor to define the limits of any subcontract.
- B. These specifications are of the abbreviated, or "streamlined" type, and may include incomplete sentences.
- C. Omissions of words or phrases such as "the Contractor shall", "in conformity therewith", "shall be", "as noted on the drawings", "according to the plans", "a", "an", "the", and "all" are intentional.
- D. Omitted words or phrases shall be supplied by inference in the same manner as they are when a "note" occurs on the drawings.

1.03 DEFINITIONS

- A. Certain terms used generally throughout the specifications (and drawings) are hereby defined as follows:
1. Indicated: 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 "indicated", 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 the Contractor or his Subcontractor or Sub-subcontractor for the performance of a particular unit or 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 delivery 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.

1.04 DRAWINGS, DIMENSIONS AND MEASUREMENTS

- A. 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.
- B. 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.
- C. Where the word "similar" occurs on the drawings, it shall be interpreted in its general sense and not as meaning identical, and all details shall be worked out in relation to their location and their connection with other parts of the work.
- D. The figured dimensions on the drawings or notes indicating dimensions shall be used instead of measurements of the drawings by scale, and shall be strictly complied with.
- E. No scale measurements shall be used as a dimension to work with except on "full size" drawings not dimensioned.

PART 2. PRODUCTS (NOT USED)

PART 3. EXECUTION (NOT USED)

END OF SECTION

REFERENCED SPECIFICATIONS AND STANDARDS

PART 1. GENERAL

1.01 QUALITY ASSURANCE

- A. For products or workmanship specified by Referenced Specification or Standard, comply with requirements of the specification or standard, except when more rigid requirements are specified or are required by governing codes.
- B. Except where a specific date is specified, the date of the referenced specification standard is that in effect as of the bid date.
- C. Obtain a copy of all Referenced Specifications and Standards, and maintain at Jobsite during the specific work until Substantial Completion of the Project.

1.02 SCHEDULE OF REGULATORY AGENCY REFERENCES

- A. AASHTO American Association of State Highway and Trans. Officials
444 North Capitol Street, N.W.
Washington, DC 20001
- B. AAC Anchorage Administrative Code (and Local Amendments)
Municipality of Anchorage
4700 Elmore Rd
Anchorage, AK 99507
- C. ADA Americans with Disabilities Act
The Disabilities Rights Section
Civil Rights Division
P.O. Box 66738
Washington, DC 20035-6738
- D. ANSI American National Standards Institute
1430 Broadway
New York, NY 1018
- E. ASA American Standards Association
Now known as ANSI (See above)
- F. ASTM American Society for Testing Materials
1916 Race Street
Philadelphia, PA 19103
- G. ATBCB The U.S. Architectural and Transportation Barrier Compliance Board
Suite 1000, 131 F St. NW
Washington, DC 20004-1111
- H. CS Commercial Standards of the Commodities
Division of the Department of Commerce
Washington, DC 20006
- I. FM Factory Mutual Engineering and Research Corporation
P. O. Box 688
Norwood, MA 02062
- J. F.S. Federal Specifications of the United States General Services
Administration

REFERENCED SPECIFICATIONS AND STANDARDS

Division 1
Section 01090

		Specifications and Consumer Information Distribution Section (WFSIS) Washington, DC 20407
K.	IBC	International Building Code published by the International Code Council (ICC) 4051 West Flossmoor Road Country Club Hills, IL 60478-5795
L.	IEBC	International Existing Building Code Published by ICC (See IBC above)
M.	ICC/ANSI A117.1-2003	Accessible and Usable Buildings and Facilities Published by ICC (See IBC above)
N.	IECC	International Energy Conservation Code Published by ICC (See IBC above)
O.	IFC	International Fire Code Published by ICC (See IBC above)
P.	IFGC	International Fuel Gas Code Published by ICC (See IBC above)
Q.	IMC	International Mechanical Code Published by ICC (See IBC above)
R.	MOA	Municipality of Anchorage MASS Specifications Public Works Dept. 4700 Elmore Rd Anchorage, AK 99507
S.	NBFU	National Bureau of Fire Underwriters 85 John Street New York, NY 10017
T.	NEC	National Electric Code published by the National Fire Protection Association (See NFPA below)
U.	NFPA	National Fire Protection Association Battery March Park Quincy, MA 02269
V.	PS	Product Standards of the Commodities Division of the Department of Commerce Washington, DC 20203
W.	UPC	Uniform Plumbing Code Published by IAPMO 5001 East Philadelphia Street Ontario, CA 91761-2816
X.	UL	Underwriter's Laboratories 333 Kingston Road Northbrook, IL 60062
Y.	State of AK	State of Alaska Amendments Fire and Life Safety Regulations Juneau, AK

1.03 TRADE ASSOCIATION REFERENCES

REFERENCED SPECIFICATIONS AND STANDARDS

Division 1
Section 01090

A. See specific specification sections.

PART 2. PRODUCTS (NOT USED)

PART 3. EXECUTION (NOT USED)

END OF SECTION

ALTERATION PROCEDURES

PART 1. GENERAL

1.01 DESCRIPTION OF WORK

- A. Part of alteration work may expose portions of the building to the elements. During such periods Contractor shall take all necessary precautions to protect building elements to remain. Any damage due to negligence shall be repaired at no cost to the Owner.
- B. In addition to Cutting and Patching (Section 01045) cut, move, or remove items as necessary to provide access or to allow alterations and new work to proceed. Include such items as:
 - 1. Repair or removal of hazardous or unsanitary conditions.
 - 2. Removal of abandoned items and items serving no useful purpose such as abandoned piping, conduit, and wiring.
 - 3. Removal of unsuitable or extraneous materials not marked for salvage, such as abandoned furnishings and equipment, and debris such as rotted wood, rusted metals, and deteriorated concrete.
 - 4. Cleaning of surfaces, and removal of surface finishes as needed to install new work and finishes.

1.02 RELATED REQUIREMENTS

- A. Section 00700 and 00800 - General and Supplementary General Conditions of the Contract for Construction.
- B. Section 01045 - Cutting and Patching.
- C. Section 01300 - Submittals.

1.03 COORDINATION

- A. Coordinate scheduling, submittals, and Work of the various Sections of Specifications to assure efficient and orderly sequence of installation of interdependent construction elements, with provisions for accommodating items installed later.
- B. Verify that utility requirement characteristics of operating equipment are compatible with building utilities. Coordinate work of various Sections having interdependent responsibilities for installing, connecting to, and placing in service, such equipment.
- C. Coordinate space requirements and installation of mechanical and electrical work which are indicated diagrammatically on Drawings. Follow routing shown for pipes, ducts, and conduit, as closely as practicable; place runs parallel with line of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.
- D. In finished areas, except as otherwise indicated, conceal pipes, ducts, and wiring within the construction. Coordinate locations of fixtures and outlets with finish elements.
- E. Coordinate completion and cleanup of Work of separate sections in preparation for Substantial Completion.
- F. After Owner occupancy of premises, coordinate access to site for correction of defective

Work and Work not in accordance with Contract Documents, to minimize disruption of Owner's activities.

PART 2. PRODUCTS

2.01 ALTERATION PROJECT PROCEDURES

- A. Materials: As specified in Product Sections; match existing Products and work for patching and extending work.
- B. Close openings in exterior surfaces to protect existing work from weather and extremes of temperature and humidity.
- C. Remove, cut, and patch Work in a manner to minimize damage and to provide a means of restoring Products and finishes to specified condition.
- D. Refinish visible existing surfaces to remain in renovated rooms and spaces, to specified condition for each material, with a neat transition to adjacent finishes.
- E. Where new Work abuts or aligns with existing, perform a smooth and even transition. Patched Work to match existing adjacent Work in texture and appearance.
- F. When finished surfaces are cut so that a smooth transition with new work is not possible, terminate existing surface along a straight line at a natural line of division and make recommendation for Project Manager review and approval.
- G. Where a change of plane of 1/8 inch or more occurs, submit recommendation for acceptable transition for Project Manager review and approval.
- H. Patch or replace portions of existing surfaces which are damaged, lifted, discolored, or showing other imperfections.
- I. Finish surfaces as specified in individual Product Sections.

PART 3. EXECUTION (NOT USED)

END OF SECTION

PROJECT MEETINGS

PART 1. GENERAL

1.01 DESCRIPTION

A. Work Included:

1. In general, project meetings will be held weekly at the job site in accordance with a mutually acceptable schedule. The Project Manager will conduct project meetings throughout the construction period.
2. The purpose of the project meetings is to enable orderly review of progress during construction and to provide for systematic discussion and analysis of problems that might arise between the Owner, Project Architect, Project Manager and/or Contractor relative to execution of the work.

B. Related Work described elsewhere:

1. The Contractor's relations with his subcontractors and material suppliers, and discussions relative thereto, are the Contractor's responsibility as described in the General Conditions and are not part of project meetings content.
2. Section 01400 describes the requirements for quality control meetings that will be held in addition to the requirements of this section.

1.02 AUTHORITY DESIGNATION

- A. Persons designated by the Contractor to attend and participate in project meetings shall have all required authority to commit the Contractor to solutions as agreed upon in the project meetings.

1.03 SUBMITTALS

A. Agenda Items:

To the maximum extent possible, advise the Project Manager forty-eight (48) hours in advance of the project meeting regarding all agenda items to be discussed, including tours in advance of the meeting.

1.04 AGENDA

A. Preconstruction Meeting

1. The Project Manager will conduct this meeting within fifteen (15) days after date of Notice to Proceed.
2. Location:
Anchorage School District
Capital Planning & Construction
1301 Labar Street
Anchorage, Alaska 99515
(907) 348-5190
3. Attendance:
 - a. ASD Construction Supervisor
 - b. ASD Project Manager

- c. Architect and his Professional Consultants
 - d. Contractor's Project Manager and Superintendent
 - e. Major Subcontractors, as appropriate
 - f. Major Suppliers, as appropriate
 - g. Others as appropriate
4. Agenda items will include, but not be limited to:
- a. Designation of responsible personnel
 - b. Distribution (by Contractor) and discussion of list of major Subcontractors and Suppliers with addresses and telephone numbers
 - c. Project coordination
 - d. Procedures and processing of:
 - (1) Field decisions
 - (2) Submittals
 - (3) Proposal requests
 - (4) RFI's Change Orders
 - (5) Applications for Payment
 - (6) Schedules and Reports
 - e. Discussion of initial Project Schedule
 - f. Critical work sequencing
 - g. Major equipment deliveries and priorities
 - h. Adequacy of Contract Documents distribution
 - i. Procedures for maintaining Record Documents
 - j. Use of premises:
 - (1) Office, work, and storage area
 - (2) Owner's requirements
 - k. Construction facilities, controls, and construction aids
 - l. Temporary utilities
 - m. Safety and first-aid procedures
 - n. Security procedures
 - o. Housekeeping procedures

B. Progress Meetings:

- 1. The Project Manager will conduct weekly meetings as required, at the Project Site to coordinate the work, answer questions, and resolve problems.
- 2. Meeting Agenda will include but not be limited to:
 - a. Attendees:
List of attendees and company they represent
 - b. Minutes Review:
Corrections, additions, and/or deletions to previous minutes
 - c. Outstanding Action Items:
Review of items not resolved from previous meeting
 - d. Submittal status
 - e. Request for Information status
 - f. Request for Proposal Status
 - g. Schedule Review:
 - h. Project job concerns
 - i. Next meeting
 - j. Summarize and Review of all Action Items:
- 3. All items to be discussed shall be addressed at the time scheduled on the agenda. All attendees shall familiarize themselves with the agenda and be prepared in

advance with their items for discussion.

C. Special Meetings:

The Project Manager may call special meetings at the project site or the office of the Project Manager to coordinate the work, answer questions, and resolve problems.

1.05 MINUTES

- A. The Project Manager will compile minutes of each project meeting and will distribute copies to all interested parties within seven (7) calendar days after the meeting. Items in the minutes shall be numbered consecutively and grouped under divisions and sections. Each item shall be carried forward until resolved.
- B. The minutes compiled by the Project Manager will be the official record minutes and all clarifications and/or corrections shall be transmitted in writing to the Project Manager within fourteen (14) days of date of receipt of the minutes or unless noted during the next scheduled meeting under the appropriate agenda item. Transmitted corrections shall be legibly submitted on company letterhead.
- C. At least one (1) bound volume of all minutes shall be maintained by the Contractor in the job office until project completion.

PART 2. PRODUCTS (NOT USED)

PART 3. EXECUTION (NOT USED)

END OF SECTION

SUBMITTALS

PART 1. GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Procedures
- B. Construction Progress Schedules
- C. Schedule of Values
- D. Shop Drawings
- E. Product Data
- F. Samples
- G. Manufacturer's Instructions
- H. Manufacturer's Certificates

1.02 RELATED REQUIREMENTS

- A. Section 01010 - Summary of Work
- B. Section 01311 - Project Schedule
- C. Section 01340 - Shop Drawings, Product Data and Samples
- D. Section 01370 - Schedule of Values
- E. Section 01400 - Quality Control
- F. Section 01630 - Substitution and Product Options
- G. Section 01700 - Project Close-Out
- H. Section 01710 - Cleaning
- I. Section 01720 - Project Record Documents
- J. Section 01730 - Operation and Maintenance Data
- K. Section 01750 - Closeout Forms

1.03 PROCEDURES

- A. Deliver submittal documents to the Project Manager using the ASD Procore Construction Management Program. Number each submittal with the section number, dash, numerical order of the submittal, example 03300-1. Add an alpha to each resubmittal, example, 03300-1A. Deliver samples to the Project Manager or Architect as directed to the address listed on the cover of the project manual.

- B. Transmit each item with company submittal. Identify Project, Contractor, subcontractor, major supplier; identify pertinent Drawing sheet and detail number and specification section number, as appropriate. Identify deviations from Contract Documents. Provide space for Contractor and Architect/Engineer review stamps.
- C. Submit initial progress schedules and schedule of values in duplicate prior to issuance of Notice to Proceed. After review by the Architect/Engineer, 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. Distribute copies of reviewed submittals to concerned persons. Instruct recipients to promptly report any inability to comply with provisions. Review with subconsultants/suppliers any inability to meet requirements of project. Find solutions with subconsultants/suppliers making conformance with documents possible. Review solutions with owner and architect for acceptance prior to proceeding with work.

1.04 CONSTRUCTION PROGRESS SCHEDULES

- A. Submit Project Schedule as called for in Section 01311, Project Schedule.

1.05 SCHEDULE OF VALUES

- A. Submit Schedule of Values as called for in Section 01370, Schedule of Values.

1.06 SHOP DRAWINGS, PRODUCT DATA & SAMPLES

- A. Submit in the form as called for in Section 01340.

1.07 MANUFACTURERS' INSTRUCTIONS

- A. When required in individual specification section, submit manufacturers printed instructions for delivery, storage, assembly, installation adjusting and finishing, in quantities specified for product data.

1.08 FIELD SAMPLES

- A. Provide field samples of finishes at project site as required by individual specification sections. Install sample complete and finishes. Acceptable samples in place may be retained in completed work.

PART 2. PRODUCTS (NOT USED)

PART 3. EXECUTION (NOT USED)

END OF SECTION

PROJECT SCHEDULE

PART 1. GENERAL

1.01 GENERAL REQUIREMENTS

- A. The work under this Section consists of Project Schedule ("Schedule") requirements including the preparation of a Schedule and Schedule Revisions. The Schedule shall be developed by the Contractor and shall be in accordance with the requirements of this Section 01311. No direct payment will be made to the Contractor for performing and complying with the requirements of this Section 01311.
- B. The Schedule will be prepared by the Contractor for this Project and made available to the Owner. It is intended that the Schedule will reflect the Contractor's actual construction plan. The existence of schedules, networks, vector charts or any other charts or services, shall in no way relieve the Contractor of the responsibility of the Contract Document including, but not limited to the responsibility of completing the Work within the contract time and the responsibility of planning, scheduling and coordinating the Work.
- C. The Schedule shall be in the form of a bar chart or other format approved by the project manager.

1.02 REFERENCES

- A. Associated General Contractors of America, "Construction Planning & Scheduling," Copyright January 1994 (AGC's Manual), also referred to as AGC Publication No. 1107.1. The general principles stated in the AGC's Manual shall be used in preparing and updating the Project Schedule, except that the requirements of this Section shall govern.
- B. Related Requirements:
 - 1. Section 00200 - Project Schedule Milestones Dates
 - 2. Section 00700 and 00800 - General Conditions and Supplementary General Conditions of the Contract for Construction
 - 3. Section 01370 - Schedule of Values

PART 2. PRODUCTS

2.01 PROJECT SCHEDULE

- A. Within fourteen (14) calendar days following the Notice to Proceed, the Contractor shall submit for the Project Manager's review, comment and acceptance, a Project Schedule ("Schedule"). The Schedule shall show the activities of work in sufficient detail to demonstrate that the Contractor has a reasonable and workable plan to complete the Project in accordance with the Project Schedule Milestone Dates set forth under Section 00200 of the Contract Documents. The Contractor shall submit two (2) prints of the Schedule, which shall be neatly organized and time scaled from left to right on 11 in. x 17 in. sheets, or 24 in. x 36 in. sheets, at the Contractor's discretion.
- B. Within five (5) calendar days of receipt of the Schedule, the Project Manager shall meet face to face with the Contractor to review the plan and to determine if there are any concerns regarding the Contractor's plan to execute the work. If a resubmittal of the Schedule is required by the Project Manager, the Contractor shall revise and resubmit the

Schedule incorporating the Project Manager's comments within seven (7) calendar days after this review meeting. Progress payments will be withheld until the Contractor submits an approvable Schedule.

- C. Revisions to the Schedule shall be done in accordance with paragraph 2.02.

2.02 PROJECT SCHEDULE REVISIONS

- A. Should the Contractor, after acceptance of the Schedule, desire to change his plan of construction, he shall submit his proposed revisions to the Project Manager, along with a written rationale for the revisions. Only the requested changes accepted by the Project Manager will be incorporated into the Schedule in the next reporting period.

2.03 TIME IMPACT ANALYSIS FOR CONTRACT MODIFICATIONS, CHANGES OR DELAYS

- A. If the Contractor believes that a change under Article 12 Paragraph 12.1 causes an increase or decrease in the Contractor's time for completing the Work, he shall complete a Time Impact Analysis that demonstrates how the Contractor proposes to incorporate or has incorporated the Change into the Schedule and the time impact, if any, on the Schedule Milestone Dates set forth under Section 00200 of the Contract Documents.
1. The Time Impact Analysis shall demonstrate the time impact based upon the date the Change in Work is directed by the Project Manager; the status of construction at that point in time; and the event time computations of all affected activities. The event times used in the Time Impact Analysis shall be those set forth in the update of the Schedule in effect at the time the Change in Work is directed by the Project Manager.
 2. The Time Impact Analysis is based on an "as-planned" to "as-built" comparison of the event times. In developing an as-built schedule of performance, the Contractor shall utilize actual daily performance data from Schedule Updates and the Contractor's daily construction reports to graphically depict the sequence and manner in which the Contractor actually performed the Work under the Contract.
- B. Activity delays shall not automatically mean that an extension of the Contract Time is warranted or due the Contractor. It is possible that a modification, change or delay will not affect projected or as-built critical activities or cause non-critical activities to become critical. A modification, change or delay may result in only absorbing a portion of the available total float that may exist within an activity chain of the Schedule, thereby not causing any effect on the Contract Time.
- C. Each Time Impact Analysis shall be submitted as follows:
1. Within fourteen (14) calendar days after receipt of a written order designated or indicated to be a change in accordance with Article 12, Changes in the Work;
 2. Within fourteen (14) calendar days after the furnishing of written notice by the Contractor;
 3. Within fourteen (14) calendar days from the commencement of a delay related to unforeseeable conditions; provided the Contractor complies with the requirements of the Contract Documents regarding said condition.
- D. In cases where the Contractor does not submit a written request for extension of time and Time Impact Analysis within the time stated above in Paragraph 2.03, it is mutually agreed that the Change in the Work does not require an extension of the Contract Time.
- E. Acceptance or rejection of each Time Impact Analysis which requests an extension of the

Contract Time shall be made by the Project Manager within fourteen (14) calendar days after receipt of each Time Impact Analysis, unless subsequent meetings and negotiations are necessary. Upon acceptance, the Time Impact Analysis shall be incorporated into the Schedule.

- F. Time Impact Analysis related to requests for an extension of the Contract Time and/or Change Order work shall be incorporated into and attached to the applicable Change Order(s).
- G. No revision to any Schedule Milestone Date or contractually mandated schedule provisions will be permitted without authorization from the Project Manager.

2.04 COMPLIANCE WITH THE SCHEDULE

- A. The Contractor shall furnish sufficient labor and equipment resources, offices, and facilities, and shall work such hours, including night shift and overtime operations as necessary, to ensure the prosecution of the Work in accordance with the Schedule. If the Contractor falls behind in meeting the Schedule, the Contractor shall take such steps as may be necessary to improve its progress. If the Contractor fails to take such steps, the Project Manager may require the Contractor to increase the hours of work, the number of shifts, overtime operations, the number of workers and/or the amount of construction plant and equipment without additional cost to the Owner. The provisions of this subsection shall not be construed as prohibiting work on Saturdays, Sundays, and holidays, if the Contractor so elects and gives 24 hours' notice to the Project Manager.
- B. Failure of the Contractor to comply with the requirements of this Subsection 2.04 shall be a basis for determination by the Project Manager that the Contractor is not prosecuting the Work with such diligence as will ensure completion of the Work in accordance with the requirements of the Contract Documents. Upon such determination, the Project Manager may terminate the Contractor's right to proceed with the Work or any separable part thereof, in accordance with the clause entitled "Termination of Contract" of the Contract Documents, or may take such other actions as he may deem appropriate.

PART 3. EXECUTION (NOT USED)

END OF SECTION

SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES

PART 1. GENERAL

1.01 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.

1.02 DESCRIPTION

- A. Prepare and submit to the Project Manager with the Construction Schedule, a separate schedule listing dates for submission and of review for shop drawings, product data, and samples, refer to General Conditions 4.12.13.1. Include installing Subcontractors name responsible for that portion of the Work
- B. Submit Shop Drawings, Product Data, and Samples as may be required, whether mentioned specifically in Contract Documents or not.
- C. Individual submittals shall not include material covering more than one section of the specifications.
- D. Products fabricated and/or installed prior to approval of submittals are subject to demand for removal and replacement with approved products by the Contractor at no additional cost to the Owner.
- E. Shop drawing submittal cannot be used for product substitution submittal. See Section 01630 for required procedure.

1.03 RELATED REQUIREMENTS

- A. Section 01311: Project Schedule
- B. Section 01630: Substitution and Product Option
- C. Section 01720: Project Record Documents

1.04 SHOP DRAWINGS

- A. Prepare original drawings (by Contractor, subcontractor, manufacturer, supplier, or distributor), which illustrate some portion of the work; showing fabrication, layout, setting or erection details.
- B. Prepare shop drawings for this particular project. Drawings prepared for other projects and revised for this project will be rejected.
- C. When necessary, base shop and setting drawings upon actual measurements taken at site and other job conditions. Show any variations and revisions to Contract Documents that are necessary for proper installation of work. Fabrication or installation of work shall not be started until shop or setting drawings have been reviewed and returned by Architect, with his stamp and comments.
- D. Identify details by reference to sheet and detail, schedule or room numbers shown on

Contract Drawings.

- E. Minimum sheet size: 8 ½" x 11". Note: Submit full-size sheet submittals. Use of 8 ½" x 11" format subject to readability and approval of architect.

1.05 PRODUCT DATA

- A. Manufacturer's standard schematic drawings:
 - 1. Modify drawings to delete information which is not applicable to project.
 - 2. Supplement standard information to provide additional information applicable to project.
- B. Manufacturer's catalog sheets, brochures, diagrams, schedules, performance charts, illustrations, and other standard descriptive data.
 - 1. Clearly mark each copy and identify pertinent materials, products or models.
 - 2. Show dimensions and clearances required.
 - 3. Show performance characteristics and capacities.
 - 4. Show wiring diagrams and controls.
 - 5. Catalog cuts and descriptive data sheets shall include a complete listing of repair and replacement parts for all equipment and the name and address of a source of supply for parts and service.

1.06 SAMPLES

- A. Physical examples to illustrate materials, equipment or workmanship and to establish standards by which completed work is judged.
- B. Office Samples: Of sufficient size and quantity to clearly illustrate:
 - 1. Functional characteristics of product or material, with integrally related parts and attachment devices.
 - 2. Full range of color, texture and pattern.
- C. Field Samples and Mock-Ups:
 - 1. Erect at project site at location acceptable to Project Manager.
 - 2. Construct each sample or mock-up complete, including work of all trades required in finished work.
 - 3. After review, samples may be used in construction of Project.

1.07 SUBMITTAL REQUIREMENTS

- A. Make all submittals far enough in advance of scheduled dates for installation to provide all required time for review, for securing necessary approvals, for possible revision and resubmittals and for placing orders and securing delivery. Submission of all shop drawings shall be through the General Contractor.
- B. The contractor shall allow at least 14 days for review of original submittals or resubmittals except as follows:
 - 1. Structural steel shop drawings shall be broken down into separate submittal packages for most efficient review and delivered at least two weeks apart.
 - 2. Division 26
 - a. Special Systems shop drawings - 21 days
- C. Submit one (1) reproducible unfolded transparency print of shop drawing. Upon Architects approval, Contractor shall provide five (5) opaque prints for owners use. Transparency will

be returned to Contractor for printing and distribution as needed. Additional copies will be returned without review or mark-ups.

- D. Submit four (4) each of samples.
- E. Unless otherwise specifically permitted by the Project Manager, make all submittals in groups containing all associated items. Partial submittals may be rejected.
- F. Accompany submittals with transmittal letter, in duplicate, containing:
 - 1. Date
 - 2. Project Title and number
 - 3. Contractor's name and address
 - 4. The number of each shop drawing, product data and sample submitted
- G. Submittals shall include:
 - 1. Date and revision dates
 - 2. Project title and number
 - 3. The name of:
 - a. Architect
 - b. Contractor
 - c. Subcontractor
 - d. Supplier
 - e. Manufacturer
 - f. Separate detailer when pertinent
 - 4. Identification of product or material
 - 5. Relation to adjacent structure or materials
 - 6. Field dimensions, clearly identified as such
 - 7. Specification section number
 - 8. Applicable standards, such as ASTM number or Federal Specifications.
 - 9. A blank space, for Architect's review stamp

1.08 CONTRACTOR RESPONSIBILITIES

- A. Review shop drawings, product data, and samples prior to submission.
- B. Include noted and required corrections and indicate by stamp and signature that submittal is acceptable to Contractor. Submittals without stamp and signature will be rejected.
- C. Verify:
 - 1. Field measurements.
 - 2. Field Construction criteria.
 - 3. Conformance with specifications.
- D. Coordinate each submittal with requirements of work and Contract Documents.
- E. Contractor's responsibility for errors and omissions in submittals is not relieved by Architect's review and approval.
- F. Contractor's deviations in submittal requirements shall not relieve Contractor from completing Contract requirements.
- G. The submittal documents shall be transmitted using the ASD Procore Construction Management Program. Number the submittals with the CSI Section then a dash then the

numerical order (01650-1). Resubmittals shall have the same number with an alpha at the end. (01650-1A).

- H. Contractor shall update the Procore Submittal Log on a weekly basis until Submittal Process is complete.

1.09 RESUBMITTAL REQUIREMENTS

- A. Revise initial drawings as required and resubmit as specified for initial submittal.
- B. Indicate on drawings any changes which have been made other than those requested by the Architect.
- C. Project data and samples: Submit new data and samples as required for initial submittal.

1.10 ARCHITECT'S DUTIES

- A. Review submittals with a turn-around time for review of original or resubmittal of no more than fourteen (14) calendar days, except as indicated in paragraph 1.07 B above.
- B. The review will be for conformance to the design concept and compliance with information given in the Contract Document. The Architect will make notations directly on the reproducible.
- C. The review is intended to foresee unacceptable products to avoid the possibility of their rejection at the site. The review shall not be construed as:
 - 1. Permitting a departure from the Contract Documents, unless specifically so noted.
 - 2. Relieving the Contractor of the responsibility for errors or omissions.
 - 3. Acceptance of an assembly in which an approved item is a part.
 - 4. Approval of variations from previously approved items.
 - 5. Approval of dimensions.
- D. The Architect will review all samples. Such review will be for appearance only. Compliance with all other requirements is the responsibility of the Contractor.
- E. Affix stamps and initials or signatures certifying the review of submittal.
- F. Where the Contract Documents require the design of the structural, mechanical, or electrical systems or components of systems by a supplier, such systems or components shall be designed by a registered professional engineer and all calculations submitted to the Architect for his records, prior to starting fabrication or installation of the work. The Architect will not be responsible for the designs of such other Professionals.

1.11 VARIATIONS FROM CONTRACT DOCUMENTS

- A. See Section 01630 for procedure.
- B. If the Contractor fails to mention variations from the Contract Documents, he will not be relieved of the responsibility for executing the work in accordance with the Contract Documents.

1.12 SUBMITTALS FOR COLOR SELECTION

- A. The Contractor shall take particular note that color selections cannot be made for the

project until such time as all items requiring color selection have been submitted. After such submittal has been made, the Architect with Owner's concurrence will within fourteen (14) days, make a complete color selection for the entire project.

- B. It will be the contractor's responsibility to review the Contract Documents completely to determine items requiring color selection, obtain color samples from the manufacturer and submit to the Architect at the earliest possible date.

1.13 DISTRIBUTION OF SUBMITTALS AFTER REVIEW

- A. Contractor shall distribute copies of shop drawings and product data which carry Architect's stamp, to:
1. Contractor's file (required)
 2. Job-site file (required)
 3. Record Documents file (required)
 4. Other prime Contractors (as required)
 5. Subcontractors (as required)
 6. Supplier (as required)
 7. Fabricator (as required)
 8. Others (as required)

PART 2. PRODUCTS (NOT USED)

PART 3. EXECUTION (NOT USED)

END OF SECTION

AIRBORNE CONTAMINANT CONTROL

PART 1. GENERAL

1.01 SUMMARY:

A. Related sections:

1. Section 02050 Demolition
2. Section 02 26 00 Hazardous Materials Assessment
3. Section 02 89 00 Minor Hazardous Materials Related Work

- B. Notification of Potential Hazards: Asbestos, lead and other potentially hazardous materials are present in the building that may impact the work of all trades. Regulated air contaminants, including asbestos and lead, are also present in settled and concealed dust in and on architectural, structural, mechanical and electrical components or systems throughout the building. All trades shall coordinate with other trades and conduct their work to prevent worker exposure or site contamination. Refer to Specification Divisions 0, 1 and 2 for specific information concerning disturbing, removing and disposing of these materials and the installation of new materials or components. This notification is provided in accordance with EPA and OSHA requirements.

1.02 DEFINITIONS:

- A. "Airborne Contaminants" are those contaminants listed in 29 CFR 1926.55 and 8 AAC 61.1100 that have the potential to become airborne due to various work activities being performed by the Contractor. Additionally, airborne contaminants include those fumes and odors that may be objectionable to personnel in Occupied Areas of the facility even though they are not listed in the reference regulations. Airborne contaminants may be broadly categorized as Pre-Existing or Activity Generated. Contaminant producing activities include, but are not limited to:

1. Demolition, removal, installation and disposal of walls, floors, ceilings, steel, and other architectural or structural materials.
2. Disturbance or removal of existing settled and concealed dusts.
3. Demolition, relocation, installation and disposal of plumbing, mechanical and electrical systems and equipment.
4. Finish operations such as sanding, preparation, painting, and application of special surface coatings.
5. Any construction activity, which can generate aerosols, dust, smoke, or fumes.
6. Temporary heat sources.
7. Other on-site work operations not described above.

- B. "Pre-Existing Contaminants" are those contaminants that are present in the facility prior to the start of any work. These contaminants, including asbestos and lead, are also present in settled and concealed dust throughout the building in areas not subject to routine cleaning, including the roof and inside and on top of architectural, mechanical, electrical and structural elements. The dust generally contains several common components including, but not limited to asbestos, cellulose, cotton, fiberglass, lead, silica and other Particulates Not Otherwise Regulated. Representative dusts throughout the facility have been examined and previously sampled by an EPA Certified Building Inspector and determined not to be "asbestos debris" from adjacent "Asbestos-Containing Building Materials" (ACBM). Based on similar sampling from similar buildings, the inspector also determined that the dusts do not contain more than one percent (1%) asbestos by weight, and therefore are not an asbestos-containing material (ACM). Reference 40 CFR 763.83 for asbestos, and 29 CFR 1926.1153 for silica. Refer to Section 02 26 00, Hazardous Materials Assessment. Dust and debris related to adjacent damaged asbestos containing

materials are addressed in Section 02 89 00, MINOR HAZARDOUS MATERIALS RELATED WORK.

- C. "Activity Generated Contaminants" are those contaminants generated by the various demolition or construction related activities of the Contractor. Examples of typical Activity Generated Contaminants include wood dust (cellulose), cement dust (silica), gypsum dust (particulates not otherwise regulated), paint fumes, and welding fumes. A complete list of regulated air contaminants is available in 29 CFR 1926.55 and 8 AAC 61.1100.
- D. "Work Areas": Areas of demolition, renovation, construction, adjacent staging and storage areas, and passage areas for workers, supplies, and waste. This may include but is not limited to attic spaces, spaces above ceilings, crawl spaces, mechanical and electrical spaces, confined spaces and other spaces not normally accessed or occupied.
- E. "Occupied Areas": Areas as determined by Owner's Representative and as shown on contract drawings. Typically these include areas adjacent to Work Areas or containment areas, either occupied or used for passage, as well as areas connected to construction area by mechanical system air intake, exhaust, and ductwork. Contaminant control procedures may be relaxed during periods when school is not in session as allowed by the Contractor's approved work plan.
- F. "Critical Clean Areas": Areas inside or outside the Work Area with equipment or occupants that cannot tolerate airborne contamination, and are to be maintained under positive pressure by High-Efficiency, Particulate, Air (HEPA) filtered equipment relative to the surrounding air. These areas will be described or shown in contract documents or drawings.
- G. "Contractor" is defined to include all trades and all subcontractors performing work on the work site.
- H. "Negative Initial Determination" is a determination made either through air monitoring or other objective data that indicates worker exposure to regulated airborne contaminants are below or expected to be below the regulated limits.

1.03 AIRBORNE CONTAMINANT CONTROL

- A. There is no requirement to remove Pre-Existing Contaminants from the facility. The Contractor may remove Pre-Existing Contaminants from their work areas if they determine that to be a more cost effective means of completing the work.
- B. The Contractors shall establish and maintain control over the generation and containment of all potential airborne contaminants so that workers, facilities, students, staff, educational programs, equipment, and operations are not adversely affected, including adverse effects on air monitoring. Construction activities that disturb existing materials or create airborne contaminants must be conducted in Work Areas specifically constructed, ventilated, and/or equipped to prevent the movement of contaminants into Occupied or Critical Clean Areas.
- C. The Contractor shall establish and maintain control over Activity Generated Contaminants within the Work Area to prevent abnormally high levels of airborne contaminants from settling on architectural, mechanical, electrical or structural components within the work areas, or interference with monitoring conducted for other work. The Contractor shall be required to clean all surfaces within a work area where abnormally high levels of Activity Generated Contaminants are deposited.
- D. The Contractor shall ensure that all workers are aware of the Occupied and Critical Clean Areas, the potential air contaminants present and the means and methods established in the work plan to control those contaminants.
- E. The Contractor shall ensure workers have the proper protective equipment needed for the job being performed.

1.04 TRAINING

- A. The Contractor shall ensure that all workers/trades performing work on the project site are trained in accordance with OSHA standards for hazard communication (29 CFR 1910.1200) and proper protective equipment (29 CFR 1926), as well as engineering controls and work methods required to prevent exposure to regulated air contaminants that might be generated or encountered as a result of their work, including 29 CFR 1926.1153.

1.05 RESPONSIBILITY:

- A. Owner's Responsibilities
 - 1. The Owner shall identify in contract documents Occupied Areas and Critical Clean Areas prior to allowing the Contractor to begin work. The Contractor shall be notified of all changes to these areas as work progresses.
- B. Contractor's Responsibilities:
 - 1. Preparing proposed work plans and procedures for control of airborne contaminants during demolition and construction.
 - 2. Identifying and implementing specific means and methods of achieving and maintaining control of airborne contaminants.
 - 3. Controlling the generation and spread of airborne contaminants from the Contractor's Work Areas.
 - 4. Cleaning and decontaminating all areas contaminated as the result of their operation. The Owner has the right to review and approve of any and all clean-up and decontamination procedures, chemicals, and processes.
 - 5. Notifying Owner's Representative a minimum of 48 hours prior to starting construction activities that might be expected to produce excess levels of airborne contaminants in Work Area so that precautions may be taken.

1.06 SUBMITTALS:

- A. Submittals Required: Submit the following documentation to the Owner for approval. The submittal shall be coordinated with all the Contractor's subcontractors and trades and be submitted as one submittal for all work covered by this section. WORK SHALL NOT PROCEED UNTIL THE SUBMITTAL PACKAGE IS APPROVED, AND THE PRE-CONSTRUCTION MEETING HAS BEEN HELD.
 - 1. Shop Drawings: Make all shop drawings accurately and to a scale sufficiently large to show all pertinent features of the work. Shop Drawings shall show:
 - a. Boundaries of each Work Area, Occupied Areas and Critical Clean Areas.
 - b. Location of barriers, negative pressure areas, positive pressure areas, and exhaust fan units (if required).
 - c. Locations of windows, louvers, ducts and other penetrations into Occupied Areas and/or Critical Clean Areas that need to be protected from airborne contamination.
 - d. Disposal Routes.
 - e. Locations of contaminant producing operations like painting or sanding which could be moved away from Occupied Areas.
 - 2. Work Plan: The Work Plan shall be prepared for this specific job in the form of checklists and shall include:
 - a. Work area set-up and protection procedures during occupied times.
 - b. Work area set-up and protection procedures during periods of limited occupancy (vacation and holidays).
 - c. Work procedures to minimize generation of airborne contaminants, including a written exposure control plan.
 - d. Worker protection procedures.

- e. Daily cleanup procedures and activities.
 - f. Procedures to follow if air contaminants enter Occupied or Critical Clean Areas.
 - g. Exposure assessment procedures if a “negative initial determination” has not been completed (note that negative initial determinations are not allowed related to silica exposure). A record of “negative initial determinations” shall be maintained by the Contractor and be available on the job site for review by the Owner or regulatory agencies.
3. Safety Data Sheets (SDSs): The Contractor shall maintain on the job site, at a location approved by the owner, SDSs for each encapsulant, surfactant, solvent, detergent, and other material proposed to be used.
- B. Monitoring Results: The Contractor shall submit copies of all air monitoring and testing results to the Owner within 24 hours of receipt of results.

1.07 WORKER PROTECTION:

- A. The Contractor shall review the SDS’s for the substances that will be used, data provided by these specifications, proposed means and methods, manufacturers data and other available data to determine the potential for worker exposure.
- B. Conduct air monitoring of worker exposures as necessary to show that workers are not being exposed above the permissible exposure limits established by 29 CFR 1926 and 8 AAC 61.1100 (negative initial determination). Not all contaminants or substances will require exposure monitoring. All sampling by the Contractor shall be at their own cost.
- C. In lieu of worker exposure monitoring, the Contractor may rely on objective data from recognized trade groups, manufacturer or previous exposure monitoring data that establish that worker exposure above the permissible exposure limits is not probable under conditions “closely resembling” the processes, types of materials, control methods, work practices and environmental conditions in the current job.

PART 2. PRODUCTS (NOT USED)

PART 3. EXECUTION

3.01 WORK PRACTICES:

- A. General: All construction/demolition work shall be isolated, either by enclosures, and/or work practices and equipment to prevent worker exposures above the permissible exposure limit(s), and prevent the migration of contaminants (dust, fumes, smoke, etc.) into Occupied Areas and Critical Clean Areas of the facility. Exposures to occupants shall be maintained at least 10 times lower than the permissible exposure limit(s) for airborne contaminants. Conduct disturbance of concrete, brick, stone, mortar, etc. in accordance with 29 CFR 1926.1153 related to crystalline silica. If the Contractor’s work practices are not effective in controlling airborne contaminants, as evidenced by dust, fumes, smoke, odors, etc. in Occupied or Critical Clean Areas, the Contractor shall provide a sealed barrier at the perimeter of the work area and exhaust the work area to maintain a negative pressure and/or provide a filtered positive pressure to Critical Clean and Occupied areas to keep airborne contaminants out. Maintain a positive pressure of 0.05 inches of water column relative to the air outside the Critical Clean Areas, with a minimum 100 feet per minute velocity through cracks, openings, etc.
- B. Direct exhaust from fume or smoke producing equipment away from building air intakes, windows and other penetrations into Occupied and Critical Clean Areas.
- C. The Contractor shall provide “walk-off” mats, at all connections between Work Areas and Occupied Areas, vacuumed or changed daily when there is traffic between the Work Area and the Occupied Areas.

- D. Enclosures, where used, shall be dust tight and withstand air pressure.
- E. Prohibited Materials: The use or application of the following materials is prohibited:
 - 1. All cleaners and aerosol products not submitted and approved by the Owner.
 - 2. All flammable or chlorinated hydrocarbon solvents, unless approved by the Owner.
- F. Any dust or debris tracked outside of Work Areas into Occupied Areas shall be cleaned up immediately. Contractor shall have the necessary manpower and equipment (dust and wet mops, HEPA vacuums, buckets and clean wiping rags) to keep adjacent Occupied Areas clean at all times.
- G. Dry Sweeping is prohibited. All vacuums used for cleaning shall be equipped with HEPA filters.
- H. Traffic between Work Areas and Occupied Areas shall be kept to a minimum. Keep doors between such areas closed at all times. Transport refuse through Occupied Areas in covered containers.
- I. Notify the Owner's Representative immediately of any release of airborne contaminants into Occupied Areas.

3.02 ENFORCEMENT:

- A. The Contractor shall periodically inspect Occupied Areas at the perimeter of the work area and Critical Clean Areas to verify that airborne contaminants have not spread into those areas.
- B. Failure to properly maintain airborne contaminant control in Work Areas, Occupied or Critical Clean Areas will result in issuance of a written warning. If the problem is not corrected immediately, the Owner will have cause to stop work.
- C. Failure of the Contractor to correct deficiencies in controlling airborne contaminants will result in corrective action taken by the Owner and deduction of all costs from the Contract.

3.03 WORK STOPPAGE:

- A. The Contractor shall stop work and notify the Owner whenever his work has caused visible dust, smoke, fumes or objectionable odors in Occupied or Critical Clean Areas.
- B. When such work stoppage occurs, the area shall be restored to its original condition by the Contractor at no expense to the Owner. The Contractor is responsible for removing dust, fumes and debris that were generated as a result of his work.

3.04 WORK COMPLETION:

- A. Provide thorough cleaning of finished surfaces that become exposed to dust or other airborne contaminants. Cleaning of Pre-Existing contaminants is not required.
- B. Removal of construction barriers and airborne contaminant control equipment shall be performed in a manner to minimize disturbance of airborne contaminants into occupied spaces. HEPA vacuum and clean all finished surfaces free of dust after the removal of barriers and equipment.

END OF SECTION

SCHEDULE OF VALUES

PART 1. GENERAL

1.01 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.

1.02 REQUIREMENTS INCLUDED

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

1.03 RELATED REQUIREMENTS

- A. Section 00700 - General Conditions of the Contract for Construction and Section 00800 Supplementary Conditions to the Contract for Construction.
- B. Section 01311 – Project Schedule.

1.04 FORMAT

- A. Schedule of Values shall be submitted on ASD Form 100B.

1.05 CONTENT

- A. List installed value of each major item of work and each subcontracted item of work as a separate line item to serve as a basis for computing values for progress payments. Round off values to nearest dollar.
- B. For each major subcontract, list products and operations of that subcontract as separate line items.
- C. Include work allowances within line item of work.
- D. Coordinate listings with progress schedule.
- E. Component listings shall each include a directly proportional amount of Contractor's overhead and profit.
- F. For items on which payments will be requested for stored products, list the cost of stored products.
- G. The sum of values listed shall equal total contract sum.
- H. In addition to the above, values shall be listed for the following close out items.
 - 1. As-builts.
 - 2. O & M Manuals.
 - 3. Warranties.
 - 4. Landscape Maintenance Warranty.
 - 5. Owner Training.
 - 6. Demobilization (If mobilization is itemized).

7. Project close-out must retain a minimum of \$25,000.00.

1.06 SUBMITTAL

- A. Transmit under transmittal letter. Identify project by title and contract number.

1.07 SUBSTANTIATING DATA

- A. When the 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, date and line item by number and description.

PART 2. PRODUCTS (NOT USED)

PART 3. EXECUTION (NOT USED)

END OF SECTION

QUALITY CONTROL

PART 1. GENERAL

1.01 RELATED REQUIREMENTS

- A. Section 00700 - General Conditions of the Contract for Construction and Section 00800 – Supplementary General Conditions to the Contract for Construction.
- B. Section 01090 - Reference Specifications and Standards.
- C. Section 01300 - Submittals.

1.02 GENERAL REQUIREMENTS

- A. The contractor is responsible for quality control and shall establish and maintain an effective quality control system in compliance with this section. The quality control system shall consist of plans, procedures, and organization necessary to produce an end product which complies with the contract requirements. The system shall cover all construction operations, both onsite and offsite, and shall be keyed to the proposed construction sequence.

1.03 QUALITY CONTROL PLAN

- A. The Contractor shall furnish for review by the Owner, not later than 30 days after receipt of notice to proceed, the Contractor Quality Control (CQC) Plan proposed to implement the requirements of this section. The plan shall identify personnel, procedures, control, instructions, tests, records, and forms to be used.
 - 1. Content of the CQC Plan: The CQC Plan shall include, as a minimum, the following to cover all construction operations, both onsite and offsite, including work by subcontractors, fabricators, suppliers, and purchasing agents:
 - a. A description of the quality control organization, including the name, qualifications (in resume format), duties, responsibilities, and authorities of each person assigned a CQC function, including the person assigned responsibility of CQC manager.
 - b. Control, verification, and acceptance testing procedures for each specific test to include the test name, specification paragraph requiring test, feature of work to be tested, test frequency, and person responsible for each test. (Laboratory facilities will be approved by the Owner.)
 - c. Procedures for tracking preparatory and follow-up control phases, verification, and acceptance tests, including documentation.
 - d. Procedures for tracking construction deficiencies from identification through acceptable corrective action. These procedures shall establish verification that identified deficiencies have been corrected.
 - e. Reporting procedures, including proposed reporting formats.
 - f. A list of the definable features of work. A definable feature of work is a task which is separate and distinct from other tasks, has separate control requirements, and may be identified by different trades or disciplines, or it may be work by the same trade in a different environment. Although each section of the specifications may generally be considered as a definable feature of work, there are frequently more than one definable features

under a particular section.

2. Acceptance of Plan: Acceptance of the Contractor's plan is required prior to the start of construction. Acceptance is conditional and will be predicated on satisfactory performance during the construction. The Owner reserves the right to require the Contractor to make changes in the CQC Plan and operations including removal of personnel, as necessary, to obtain the quality specified.
3. Notification of Changes: After acceptance of the CQC Plan, the Contractor shall notify the Owner in writing of any proposed change. Proposed changes are subject to acceptance.

1.04 COORDINATION MEETING

- A. After the Preconstruction Conference and before start of construction, the Contractor shall meet with the Project Manager to discuss the Contractor's quality control system. The CQC Plan shall be submitted for review a minimum of 15 calendar days prior to the Coordination Meeting. During the meeting, a mutual understanding of the system details shall be developed, including the forms for recording the CQC operations, control activities, testing, administration of the system for both onsite and offsite work, and the interrelationship with the Owner's special inspection personnel. Minutes of the meeting shall be prepared by the Contractor and signed by both the Contractor and the Project Manager.

1.05 QUALITY CONTROL ORGANIZATION

- A. CQC Manager: The Contractor shall identify as CQC Manager an individual within the onsite work organization who shall be responsible for overall management of CQC and have the authority to act in all CQC matters for the Contractor. The CQC Manager shall be a person with a minimum of ten (10) years' experience in construction with a minimum of three (3) years' experience in Quality Control Management or Construction Inspection, preferably with some formal Quality Control training. This CQC Manager shall be on the site at all times during construction and shall be employed by the prime Contractor.
- B. CQC Personnel: In addition to CQC personnel specified elsewhere in the contract, the Contractor shall provide as part of the CQC organization specialized personnel to assist the CQC Manager for the following areas: electrical, mechanical, structural, and architectural. Each of these individuals must have either an engineering degree in their respective field and two years of experience or five (5) years of related experience. These individuals are to be responsible to the CQC Manager; be physically present at the construction site during work on their areas of responsibility; have the necessary education and/or experience in accordance with this section. These individuals may perform other duties but must be allowed sufficient time to perform their assigned quality control duties as described in the Quality Control Plan.
- C. ASD CQC Testing Requirements: See Attachment 1 below.

ASD CQC TESTING REQUIREMENTS

Attachment 1

MATERIAL TESTED	CHARACTERISTIC TESTED	SAMPLE FREQUENCY	SAMPLING POINT	REPORT DUE
CLASSIFIED FILL MATERIAL AND BACKFILL (TYPE II, TYPE IIA, BLENDED, ETC.)	GRADATION	1 PER SOIL TYPE AND NOTABLE CHANGE IN CHARACTERISTICS	PRIOR TO PLACEMENT	BEFORE USE ON PROJECT
	MOISTURE DENSITY (PROCTOR)			
	COMPACTION/DENSITY	STRUCTURAL = 1 PER LIFT & PER 500 S.F. TRENCHES = 1 PER LIFT & PER 150 L.F. FLATWORK = 1 PER LIFT & PER 5000 S.F.	IN PLACE	PRIOR TO NEXT LIFT
LEVELING COURSE (D-1, RAP, ETC.)	GRADATION	1 PER SOIL TYPE AND NOTABLE CHANGE IN CHARACTERISTICS	PRIOR TO PLACEMENT	BEFORE USE ON PROJECT
	MOISTURE DENSITY (PROCTOR)			
	COMPACTION/DENSITY	FLATWORK = 1 PER LIFT & PER 5000 S.F.	IN PLACE	PRIOR TO NEXT LIFT
STRUCTURAL IN-SITU BASE OF EXCAVATION (BOTTOM OF HOLE)	GRADATION	1 PER IN-SITU STRUCTURAL BOTTOM OF HOLE AND NOTABLE CHANGE IN CHARACTERISTICS	PRIOR TO PLACEMENT	BEFORE BUILDING UPON
	MOISTURE DENSITY (PROCTOR)			
	COMPACTION/DENSITY	BASE OF EX. = 1 PER FOUNDATION AREA	IN PLACE	BEFORE BUILDING UPON
STRUCTURAL CONCRETE	SAMPLING	1 MINIMUM PER PLACEMENT, PER DAY (1-25 C.Y.), 1 EVERY 50 C.Y. THEREAFTER. 1 AFTER EACH ADDITION OF ADMIXTURE OR WATER (SLUMP AND AIR ONLY AFTER ADDING ONLY WATER)	POINT OF PLACEMENT (NOT @ TRUCK)	REPORT-24 HRS VERBAL-TIME OF TEST
	SLUMP			
	AIR CONTENT			
	TEMPERATURE			
	COMP. STRENGTH			7 & 28 DAYS
ARCHITECTURAL & CIVIL CONCRETE	SAMPLING	1 MINIMUM PER PLACEMENT, PER DAY (1-25 C.Y.), 1 EVERY 100 C.Y. THEREAFTER.	POINT OF PLACEMENT OR TRUCK CHUTE	REPORT-24 HRS VERBAL-TIME OF TEST
	SLUMP			
	AIR CONTENT			
	TEMPERATURE			
	COMP. STRENGTH			7 & 28 DAYS
STRUCTURAL GROUT (BASEPLATES, CMU, ETC.)	SAMPLING	1 PER PLACEMENT, PER DAY	BATCH POINT (ENSURE BATCH CONFORMS TO MFR SPECS)	REPORT-24 HRS VERBAL-TIME OF TEST
	SLUMP			
	AIR CONTENT			
	TEMPERATURE			
	COMP. STRENGTH			7 & 28 DAYS

MATERIAL TESTED	CHARACTERISTIC TESTED	SAMPLE FREQUENCY	SAMPLING POINT	REPORT DUE
AC PAVING	GRADATION	1 PER PLACEMENT, PER DAY AND EVERY 700 TONS THEREAFTER.	BEHIND PAVER & PRIOR TO COMPACTION	REPORT-24 HRS VERBAL-TIME OF TEST OR OBSERVATION
	CONTENT			
	COMPACTION/DENSITY	1 PER 5000 S.F.	AFTER FINAL ROLL	
	VISUAL	OBSERVE & DOCUMENT DEPTH, AGGREGATE SIZE, VOIDS IN AGGREGATE, OIL POOLING, ETC. VERIFY BATCH TICKET MIX DESIGN & PROJECT	DURING PLACEMENT	
CONTRACTOR IS RESPONSIBLE FOR ALL COSTS INCURRED FOR RETESTS, REINSPECTIONS, REPLACEMENT OF NON-CONFORMING PRODUCTS. OWNER EMPLOYED SPECIAL INSPECTION VERIFICATION AND TESTING IS IN ADDITION TO THE CONTRACTOR'S QUALITY CONTROL TESTING. SPECIAL INSPECTION IN NO WAY DIMINISHES OR REDUCES THE CONTRACTOR'S QUALITY CONTROL OBLIGATIONS.				

1.06 CONTROL

- A. Contractor Quality Control is the means by which the Contractor ensures that the construction, to include that of subcontractors and suppliers, complies with the requirements of the contract. At least two phases of control shall be conducted by the CQC Manager for each definable feature of work as follows:
1. Preparatory Phase: This phase shall be performed prior to beginning work on each definable feature of work, after all required plans/documents/materials are approved, and after copies are at the work site. This phase shall include:
 - a. A review of each paragraph of applicable specifications, reference codes, and standards. A copy of those sections of referenced codes and standards applicable to that portion of the work to be accomplished in the field shall be made available by the Contractor at the preparatory inspection. These copies shall be maintained in the field and available for use by the Owner until final acceptance of the work.
 - b. A review of the contract drawings.
 - c. A check to assure that all materials and/or equipment have been tested, submitted, and approved.
 - d. Review of provisions that have been made to provide required control inspection and testing.
 - e. Examination of the work area to assure that all required preliminary work has been completed and is in compliance with the contract.
 - f. A physical examination of required materials, equipment, and sample work to assure that they are on hand, conform to approved shop drawings or submitted data, and are properly stored.
 - g. Discussion of procedures for controlling quality of the work including repetitive deficiencies. Documentation of construction tolerances and workmanship standards for that feature of work.
 - h. A check to ensure that the portion of the plan for the work to be performed has been accepted by the Project Manager.

- i. Discussion of the initial control phase.
 - j. The Owner shall be notified at least 48 hours in advance of beginning the preparatory control phase. This phase shall include a meeting conducted by the CQC Manager and attended by the Superintendent, other CQC personnel (as applicable), and the foreman responsible for the definable feature. The results of the preparatory phase actions shall be documented by separate minutes prepared by the CQC Manager and attached to the daily CQC report. The Contractor shall instruct applicable workers as to the acceptable level of workmanship required in order to meet contract specifications.
2. Follow-up Phase: Daily checks shall be performed to assure control activities, including control testing, are providing continued compliance with contract requirements, until completion of the particular feature of work. The checks shall be made a matter of record in the CQC documentation. Final follow-up checks shall be conducted, and all deficiencies corrected prior to the start of additional features of work which may be affected by the deficient work. The Contractor shall not build upon nor conceal non-conforming work.

1.07 TESTS

- A. Testing Procedure: The Contractor shall provide inspections, tests, and similar quality control services, specified in individual Specification Sections, and required by governing authorities, (Costs for these services shall be included in the Contract Sum). Upon request, the Contractor shall furnish to the Owner duplicate samples of test specimens for possible testing by the Owner. Testing includes operation and/or acceptance tests when specified. The Contractor shall perform the following activities and record and provide the following data:
- 1. Verify that testing procedures comply with contract requirements.
 - 2. Verify that facilities and testing equipment are available and comply with testing standards.
 - 3. Check test instrument calibration data against certified standards.
 - 4. Verify that recording forms and test identification control number system, including all of the test documentation requirements, have been prepared.
 - 5. Results of all tests taken, both passing and failing, shall be recorded on the CQC report for the date taken. Specification paragraph reference, location where tests were taken, and the sequential control number identifying the test shall be given. If approved by the Project Manager, actual test reports may be submitted later with a reference to the test number and date taken. An information copy of tests performed by an offsite or commercial test facility shall be provided directly to the Project Manager. Failure to submit timely test reports as stated may result in nonpayment for related work performed and disapproval of the test facility for this contract.
- B. Retesting: The Contractor is responsible for retesting where results of required inspections, tests, or similar services prove unsatisfactory and do not indicate compliance with Contract Document requirements, regardless of whether the original test was the Contractor's responsibility. Cost of retesting construction revised or replaced by the Contractor is the Contractor's responsibility, where required tests were performed on original construction.
- C. Associated Services: The Contractor shall cooperate with agencies performing required inspections, tests, and similar services and provide reasonable auxiliary services as requested. Notify the agency sufficiently in advance of operations to permit assignment of personnel. Auxiliary services required include but are not limited to:

1. Providing access to the Work, approved plans, and furnishing incidental labor and facilities necessary to facilitate inspections and tests.
 2. Providing facilities for storage of all special inspection reports at the Project site and make available for review by the authorities having jurisdiction.
 3. Taking adequate quantities of representative samples of materials that require testing or assisting the agency in taking samples.
 4. Providing facilities for storage and curing of test samples, and delivery of samples to testing laboratories.
 5. Providing the agency with a preliminary design mix proposed for use for materials mixes that require control by the testing agency.
 6. Security and protection of samples and test equipment at the Project site.
- D. Correction of Work: The Contractor shall bear all costs of correcting all Work identified as defective or as failing to conform to the Contract Documents, including any additional Owner Inspection Costs, and additional compensation for the Architect's and/or Project Manager's additional services made necessary thereby.
- E. Qualification for Laboratory Agencies: Engage inspection and testing service agencies, including independent testing laboratories free of conflict on interests with the General Contractor, which are prequalified as complying with "Recommended Requirements for Independent Laboratory Qualification" by the American Council of Independent Laboratories, and which specialize in the types of inspections and testing to be performed.
1. Each independent inspection and testing agency engaged on the Project shall be authorized by the authorities having jurisdiction to operate in the State of Alaska and the Municipality of Anchorage.
 2. The Owner reserves the right to direct the specific location or area of work to be tested in accordance with contract requirements.

1.08 SPECIAL INSPECTIONS

- A. The Owner will provide Special Inspections, tests, and similar quality control services as identified in Section 01420, "Special Inspections". Costs for the Special Inspection services are not included in the Contract Sum.
- B. Duties of the Testing Agency: The independent testing agency engaged to perform inspections, sampling, and testing of materials and construction specified in individual Specification Sections shall cooperate with the Owner's Representative and Contractor in performance of its duties and shall provide qualified personnel to perform required inspections and tests.
1. The agency shall notify the Project Manager, and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.
 2. The agency is not authorized to release, revoke, alter, or enlarge requirements of the Contract Documents, or approve or accept any portion of the Work.
 3. Special Inspection agency shall not perform any duties of the Contractor, nor be under contract to perform testing services required of the Contractor.
- C. Coordination: The Contractor and each agency engaged to perform inspections, tests, and similar services shall coordinate the sequence of activities to accommodate required services. In addition, the Contractor and each agency shall coordinate activities to avoid the necessity of removing and replacing construction to accommodate inspections and tests.

1. The Contractor is responsible for scheduling times for inspections, tests, taking samples, and similar activities.
2. The Contractor shall notify the Owner's Special Inspectors, and the Owner, in writing 72 hours prior to required special inspection and coordinate with these inspectors so there are no additional project costs, schedule impacts or delays. The Contractor shall also be responsible to coordinate with the special inspectors and the Owner to identify on the construction schedule when these inspections shall occur.

1.09 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 in positive anchorage devices designed and sized to withstand stresses, vibration, and racking.

1.10 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 Project Manager before proceeding.

1.11 MANUFACTURER'S FIELD SERVICE

- A. When required by individual Specifications Section, submit manufacturer's certificate, signed by responsible officer of the Manufacturer, that products meet or exceed specified requirements.
- B. When required by manufacturer, have manufacturer provide qualified representative to observe field conditions, conditions of surfaces and installation, quality of workmanship, start-up of equipment, test, adjust, and balance of equipment as applicable. Manufacturer Field Representative shall make a written report of observations and recommendations to the Project Manager.

1.12 SAMPLE PANELS AND MOCK-UPS

- A. Sample panels and/or mock-ups shall be used to establish uniform level of workmanship and finish color and texture. Accepted sample or mock-up shall serve as minimum standard of quality for subsequent work.
- B. Work on any Section requiring a sample panel or mock-up shall be approved in writing by the Owner.
- C. Sample panels or mock-ups may be requested by the Owner even though not specifically required of Specification Section to clarify level of workmanship, color, or texture.
- D. Tests shall be performed in accordance with Section 01410 and this section.

1.13 OBSERVATION

The following stages of construction specifically require observation by the Architect, Owner, and

other Authorities having jurisdiction. Provide the indicated notice to the Project Manager prior to commencing work on the phase or upon completion as appropriate:

A. Stages that require two day notice include:

1. Completion of utility trench excavation prior to placement of bedding.
2. Completion of utility pipe installation prior to backfill.
3. Completion of subdrain system's drainage mat and perforated pipe prior to backfill.
4. Completion of driveway, parking lot and sidewalk excavation, installation of geotextile fabric and backfill prior to placement of pavement.
5. Completion of asphalt concrete pavement placement.
6. Completion of portland cement concrete pavement placement.
7. Completion of building excavation, geotextile fabric installation, and backfill prior to placement of concrete floor slab.
8. Completion of excavation forming prior to concrete placement.
9. Completion of concrete masonry, as damp-proofing work is beginning.
10. Wall framing and sheathing completed, observation of shear wall fastening and connections.
11. Mechanical and electrical rough-in and wall blocking, prior to cover.
12. Insulation and vapor barrier installation prior to cover, observation required as work progresses, notify as phases are complete.
13. Completion of mock-ups and finishes as mock-ups and areas are completed.
14. Prior to beginning roofing.

B. Stages that require five day notice include:

1. Substantial Completion.
2. Operational instructions.
3. Final Completion.

1.14 COMPLETION INSPECTION

- A. Punch-Out Inspection: Near the end of the work, or any increment of the work established by a time stated in the specifications, the CQC Manager shall conduct an inspection of the work. A punch list of items which do not conform to the approved drawings and specifications shall be prepared and included in the CQC documentation, as required by Section 01400, paragraph 1.15 A.4. The list of deficiencies shall include the estimated date by which the deficiencies will be corrected. The CQC Manager or staff shall make a second inspection to ascertain that all deficiencies have been corrected. Once this is accomplished, the Contractor shall notify the Owner that the facility is ready for the Owner Substantial inspection.
- B. Final Inspection: The Contractor's Quality Control Inspection personnel shall be in attendance at the final inspection.

1.15 DOCUMENTATION

- A. The Contractor shall maintain current records providing factual evidence that required quality control activities and/or tests have been performed. These records shall include the work of subcontractors and suppliers and shall be on an acceptable form that includes, as a minimum, the following information:
1. Contractor/Subcontractor and area of responsibility.
 2. Operating equipment with hours worked, idle, or down for repair.
 3. Work performed each day, giving location, description, and by whom.

4. Test and/or control activities performed with results and references to specifications/drawings requirements. The control phase shall be identified. List of deficiencies noted, along with corrective action.
 5. Quantity of materials received at the site with statement as to acceptability, storage, and reference to specifications/drawing requirements.
 6. Offsite surveillance activities, including actions taken.
 7. Instructions given/received and conflicts in plans and/or specifications.
 8. Any other remarks impacting quality control.
 9. Contractor's verification statement.
- B. These records shall indicate a description of trades working on the project; the number of personnel working; weather conditions encountered; and any delays encountered. These records shall cover both conforming and deficient features and shall include a statement that equipment and materials incorporated in the work and workmanship comply with the contract. The original and one copy of these records in report form shall be furnished to the Owner on a weekly basis within 24 hours after the date covered by the report, except that reports need not be submitted for days on which no work is performed. As a minimum, one report shall be prepared and submitted for every 7 days of no work and on the last day of a no work period. All calendar days shall be accounted for throughout the life of the contract. Reports shall be signed and dated by the CQC Manager. The report from the CQC Manager shall include copies of test reports and copies of reports prepared by all subordinate quality control personnel.

1.16 NOTIFICATION OF NONCOMPLIANCE

- A. The Project Manager will notify the Contractor of any detected noncompliance with the foregoing requirements. The Contractor shall take immediate corrective action after receipt of such notice. Such notice, when delivered to the Contractor at the work site, shall be deemed sufficient for the purpose of notification. If the Contractor fails or refuses to comply promptly, the Project Manager may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to such stop orders shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor.

PART 2. PRODUCTS (NOT USED)

PART 3. EXECUTION (NOT USED)

END OF SECTION

MATERIALS AND EQUIPMENT

PART 1. GENERAL

1.01 DESCRIPTION

- A. Materials and Equipment incorporated into Work shall:
 - 1. Conform to applicable specifications and standards.
 - 2. Comply with size, make, type, and quantity specified, unless otherwise approved in writing.
- B. Manufactured and Fabricated Products:
 - 1. Manufacture like parts of duplicate units to standard size and gauges, and to be interchangeable.
 - 2. Two or more items of same kind shall be identical, and by same Manufacturer.
 - 3. Products shall be suitable for service conditions.
 - 4. Equipment shall comply with capacity, sizes, and dimensions shown or specified, unless otherwise approved in writing.
- C. Do not use materials or equipment for any purpose other than that for which designed or specified.

1.02 RELATED REQUIREMENTS

- A. Section 01010: Summary of Work
- B. Section 01340: Shop Drawing, Product Data and Samples.
- C. Section 01630: Substitution and Product Option
- D. Section 01710: Cleaning

1.03 CONTRACTOR'S OPTIONS

- A. For products specified only by reference standard, select any product meeting standard.
- B. For products specified by naming several products, select any of such products.
- C. For products specified by naming one or more products and "or approved", select any one specified product or submit request for substitution as specified.

1.04 INAPPROPRIATE PRODUCTS AND METHODS

- A. If Contractor believes that any specified product, method, or system is inappropriate for use, he shall, if possible, so notify the Project Manager at least ten (10) working days prior to bid opening, and if not possible, such notice shall be given before performing work in question. If notice of objection is not received within the specified time limits, it will be assumed that Contractor agrees that specified products, methods, and systems are not inappropriate for use.
- B. No asbestos containing materials are to be incorporated into the project. Certification

signed by the General Contractor shall state that Asbestos Containing materials have not been installed under this project. Turn certification in to Project Manager no later than first payment application submittal. Recertify to Owner at substantial completion inspection.

1.05 PRODUCT SUBSTITUTIONS

- A. Refer to Section 01630.

1.06 NUMBER OF PRODUCTS REQUIRED

- A. Whenever in specifications a product is referred to in singular number, such reference shall include as many such products as are shown on Drawings are required to complete the Work.

1.07 PRODUCTS LIST

- A. Submit to Project Manager complete list of major products proposed for use; Specification Section, include proprietary product name, manufacturer's name, and installing Subcontractor's name in accordance with requirement of Section 01340 Shop Drawing, Product Data and Samples.

1.08 MANUFACTURER'S INSTRUCTIONS

- A. Perform work in accordance with Manufacturer's instructions.
- B. Do not omit preparatory or installation procedures required by Manufacturer, unless specifically modified by Contractor Documents.
- C. When Contract Documents require Work to comply with Manufacturer's instruction, obtain and distribute such instructions to parties performing work, including copies to Architect and Project Manager. Maintain one set at job site during installation and until acceptance.
- D. Handle, install, connect, clean, condition, and adjust products in strict accord with such instructions and in conformance with specified requirements.
- E. Should job conditions or specified requirements conflict with Manufacturer's instructions, consult Project Manager for further instructions.
- F. Do not proceed with work without clear instructions.

PART 2. PRODUCTS (NOT USED)

PART 3. EXECUTION (NOT USED)

END OF SECTION

DELIVERY, STORAGE, AND HANDLING

PART 1. GENERAL

1.01 DESCRIPTION OF WORK

- A. Provide for expeditious transportation and delivery of products to project site undamaged, on schedule to avoid delay of the Work.
- B. Providing equipment and personnel at site to unload and handle products in manner to avoid damage to products.
- C. Provide secure storage and protection for products to be incorporated into the Work, and maintenance and protection for products after installation and until completion of the Work.

1.02 DELIVERY

- A. Arrange deliveries of products in accord with construction schedules and in ample time to facilitate inspection prior to installation.
- B. Coordinate deliveries to avoid conflict with work and conditions at site. Contractor deliveries must not conflict with:
 - 1. Work of other Contractors, or Owner.
 - 2. Limitations of storage space.
 - 3. Availability of equipment and personnel for handling products.
 - 4. Owner's use of premises.
- C. Deliver products in undamaged condition in original containers or packaging, with identifying labels intact and legible.
- D. Partial deliveries of component parts of equipment shall be clearly marked to identify equipment, to permit easy accumulation of parts and to facilitate assembly.
- E. Immediately upon delivery, inspect shipment to assure:
 - 1. Product complies with requirements of contract documents and reviewed submittals.
 - 2. Quantities are correct.
 - 3. Containers and packages are intact, labels are legible.
 - 4. Products are protected and undamaged. Minor damages may be repaired, provided finish items are equivalent in all respects to new work.

1.03 PRODUCT HANDLING

- A. Provide equipment and personnel necessary to handle products, including those provided by Owner, by methods to prevent soiling or damage to products or packaging.
- B. Provide additional protection during handling as necessary to prevent scraping, marring, or otherwise damaging products or surrounding surfaces.
- C. Handle products by methods to prevent bending or over-stressing.

- D. Lift heavy components only at designated lifting points.

1.04 STORAGE

- A. Store products immediately on delivery and protect until installed in the Work. Store in accord with manufacturer's instructions, with seals and labels intact and legible.
- B. Store products subject to damage by elements in substantial weather-tight enclosures.
 - 1. Maintain temperatures with ranges required by manufacturer's instructions.
 - 2. Provide humidity control for sensitive products, as required by manufacturer's instructions.
 - 3. Store unpacked products on shelves, in bins, or in neat piles, accessible for inspection.
- C. Exterior Storage
 - 1. Provide substantial platforms, blocking, or skids to support fabricated products 4" above ground, prevent soiling or staining.
 - 2. Cover products, subject to discoloration or deterioration from exposure to elements, with impervious sheet coverings. Avoid use of non-vented plastic or canvas shelters which could create humidity chambers. Provide adequate ventilation to avoid condensation.
 - 3. Store loose granular materials in solid surfaces such as paved areas or provide plywood or sheet materials to prevent mixing with foreign matter.
 - a. Provide surface drainage to prevent flow or ponding of rainwater.
 - b. Prevent mixing of refuse or chemically injurious materials or liquids.
 - 4. Provide exterior storage area within Contractor Secure area.
- D. Arrange storage in manner to provide easy access for inspection.

1.05 MAINTENANCE OF STORAGE

- A. Maintain periodic system of inspection of stored products on scheduled basis to ensure that:
 - 1. State of storage facilities is adequate to provide required conditions.
 - 2. Required environmental conditions are maintained on continuing basis.
 - 3. Surfaces of products exposed to elements are not adversely affected. Any weathering of products, coatings, and finishes is not acceptable under requirements of contract documents.
- B. Mechanical and electrical equipment which requires servicing during long-term storage shall have complete manufacturer's instructions for servicing accompanying each item, with notice of enclosed instructions shown on exterior of package.

1.06 PROTECTION AFTER INSTALLATION

- A. Provide protection of installed products to prevent damage from subsequent operations, usage or vandalism. Remove when no longer needed, prior to completion of work.
- B. Control traffic to prevent damage to equipment and surfaces.

- C. Provide coverings to protect finished surfaces from damage.
 - 1. Cover projections, wall corners, jambs, sills, and soffits of openings, in areas used for traffic and for passage of products in subsequent work.
 - 2. Protect finished floors and stairs from dirt and damage.
 - a. In areas subject to foot traffic, secure heavy paper, sheet goods, and other materials in place.
 - b. For movement of heavy products, lay planking or similar materials in place.
 - c. For storage of product, lay tight wood sheathing in place.
- D. Waterproofed and Roofing Surfaces
 - 1. Prohibit use of surface for traffic and any kind, or for storage of any products.
 - 2. When some activity must take place in order to carry out Contract, obtain recommendations from installer for protection of surface.
 - a. Install recommended protection, remove on completion of that activity.
 - b. Restrict use of adjacent unprotected areas.

1.07 DAMAGED PRODUCTS

- A. Remove damaged or deteriorated materials from the premises. Replace materials which have been damaged.

PART 2. PRODUCTS (NOT USED)

PART 3. EXECUTION (NOT USED)

END OF SECTION

SUBSTITUTION AND PRODUCT OPTION

PART 1. GENERAL

1.01 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.

1.02 DESCRIPTION OF WORK

- A. Contractor's options in selection of products.
- B. Requests for substitution of products.

1.03 RELATED REQUIREMENTS

- A. Section 00100 - Instruction to Proposers.
- B. Section 00700 and 00800 - General Conditions of the Contract for Construction and Supplementary General Conditions to the Contract for Construction.
- C. Section 01340 - Shop Drawings, Product Data and Samples.

1.04 CONTRACTOR'S OPTIONS

- A. Reference to any equipment, material, article, or patented process by trade name, make or catalog number shall be regarded as establishing a standard of quality and characteristics of products that will be satisfactory and shall not be construed as limiting competition.
- B. Whether or not specifically named equipment or material is followed by the term "equivalent" or "equivalent product" or "approved equal", it shall not exclude other manufacturer's equipment or materials from consideration, unless "NO SUBSTITUTIONS" called out in the specification sections. In this usage, the terms "equivalent" and "equal" or "approved equal" are interchangeable though a product or method considered for substitution may be equivalent to a specified product or method without actually being equal, by virtue of performance, appearance, and meeting specified or implied criteria.
- C. No item will be considered for substitution prior to the bid opening. Consequently, the Bidder shall make its own determination if a substituted item will be equivalent to or better than that specified or indicated in regard to quality, workmanship, finish, space requirements, electrical requirements, performance and guarantees or warranties. Any change in bid and/or contract amount due to any subsequent rejection of product found "not equivalent" will not be considered.
- D. After the Notice to Proceed the Contractor shall submit sufficient data in accordance with this Section to establish equality. The Owner's Representative shall be the sole judge of equality and acceptability.
- E. Acceptance of substitute materials will not relieve the Contractor of the responsibility for any changes in the Contractor's own work or in the work of other trades caused by the substitution. Any additional costs resulting from substitutions are the responsibility of the Contractor.

1.05 SUBSTITUTION PROCEDURE

- A. Requests for substitutions of products will be considered only within 90 calendar days after Notice to Proceed. Subsequent requests will be considered only when judged to be in the best interest of the Owner.
- B. Substitutions will not be considered when indicated on shop drawings or product data submittals without separate formal request, when requested directly by subcontractor or supplier, or when acceptance will require substantial revision of Contract Documents.
- C. Substitute products shall not be ordered or delivered without written acceptance.
- D. Submit separate request for each substitution. Document each request with complete data substantiating compliance of proposed substitution with requirements of Contract Documents.
- E. Identify products by specifications section and article numbers. Provide manufacturer's name and address, trade name of product, and model or catalog number. List fabricators and suppliers as appropriate.
- F. Attach product data as specified in Section 01340 and the following:
 - 1. Give itemized comparison of proposed substitution with specified product and listing variations.
 - 2. Give quality and performance comparison between proposed substitution and specified product.
 - 3. List availability of maintenance services and replacement materials.
 - 4. State effect of substitution on construction schedule, and changes required in other work or products.
- G. If no requests for substitutions have been received within time frame stated above, it will be assumed that construction will proceed with equipment, materials and products called for in Contract Documents.

If this is subsequently found not to be the case, the Owner reserves the right to demand that unapproved item be removed and replaced with specified item.

1.06 CONTRACTOR REPRESENTATION

- A. Request for substitution constitutes a representation that Contractor has investigated proposed product and has determined that it is equal to or superior in all respects to specified product.
- B. Contractor shall provide same warranty or bonds for substitution as for specified product.
- C. Contractor shall coordinate installation of accepted substitute, making such changes as may be required for work to be complete in all respects, specifically including any related redesign costs.
- D. Contractor waives claims for additional cost caused by substitution which may subsequently become apparent.

PART 2. PRODUCTS (NOT USED)

PART 3. EXECUTION (NOT USED)

END OF SECTION

(Except for "Substitution Request Form," 1 page)

SUBSTITUTION REQUEST FORM

TO: _____

PROJECT: _____

We hereby submit for your consideration the following product instead of the specified item for the above project:

Section _____ Page _____ Paragraph _____ Specified Item _____

Proposed Substitution: _____

Attach complete Product description, drawings, photographs, performance and test data, and other information necessary for evaluation.

Will changes be required to building design in order to properly install proposed substitution?
Yes _____ No _____ If Yes, explain: (Add second sheet).

Will the undersigned pay for changes to the building design, including engineering and drawing costs, caused by requested substitution? Yes _____ No _____.

What differences exist between proposed substitution and specified item?

Does substitution affect Drawing dimension? Yes _____ No _____ If Yes, explain: (Add second sheet.)

What affect does substitution have on other trades?

Does Manufacturer's warranty of proposed substitution differ from that specified?
Yes _____ No _____ If Yes, explain: (Add second sheet.)

Will substitution affect Progress Schedule? Yes _____ No _____ If Yes, explain: (Add second sheet.)

Will substitution cost more than specified Product? Yes _____ No _____ If Yes, explain: (Add second sheet.)

Do substitutions affect the Commissioning process and checklists included in Division 17? Yes _____ No _____ If any, attach a marked-up copy of the appropriate Checklist(s) from Division 17 for Owner's approval.

Will maintenance and service parts be locally available for substitution? Yes _____ No _____ If Yes, explain: (Add second sheet.)

Submitted by:

Signature: _____

Firm: _____

Address: _____

City: _____

Date: _____

For Owner's Representative's Use Only:

Accepted () Accepted as Noted ()
Not Accepted () Received Too Late ()

By: _____

Date: _____

Remarks: _____

Phone: _____

STARTING OF SYSTEMS

PART 1. GENERAL

1.01 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.

1.02 SECTION INCLUDES

- A. Starting systems.
- B. Demonstration and instructions.
- C. Testing, adjusting, and balancing.

1.03 RELATED SECTIONS

- A. Section 01730 - Operation and Maintenance Data.

1.04 STARTING SYSTEMS

- A. Coordinate schedule for start-up of various equipment and systems.
- B. Notify Owner seven days prior to start-up of each item.
- C. Verify that each piece of equipment or system has been checked for proper lubrication, drive rotation, belt tension, control sequence, or for other conditions which may cause damage.
- D. Verify that tests, meter readings, and specified electrical characteristics agree with those required by the equipment or system manufacturer.
- E. Verify wiring and support components for equipment are complete and tested.
- F. Execute start-up under supervision of applicable manufacturer's representative in accordance with manufacturers' instructions.
- G. When specified in individual specification Sections, require manufacturer to provide authorized representative to be present at site to inspect, check, and approve equipment or system installation prior to start-up, and to supervise placing equipment or system in operation.

1.05 DEMONSTRATION AND INSTRUCTIONS

- A. Demonstrate operation and maintenance of Products to Owner's personnel two weeks prior to date of Substantial Completion.
- B. In a classroom environment located at the Project site, demonstrate, and provide instruction for the Project equipment by a manufacturer's representative who is knowledgeable about the Project.

STARTING OF SYSTEMS

Division 1

Section 01650

- C. For equipment or systems requiring seasonal operation, perform demonstration for other season within nine months.
- D. Utilize operation and maintenance manuals as basis for instruction. Review contents of manual with Owner's personnel in detail to explain all aspects of operation and maintenance.
- E. Demonstrate start-up, operation, control, adjustment, trouble-shooting, servicing, maintenance, and shutdown of each item of equipment at agreed time, at equipment location.
- F. Prepare and insert additional data in operations and maintenance manuals when need for additional data becomes apparent during instruction.
- G. The amount of time required for instruction on each item of equipment and system is that specified in individual sections.

PART 2. PRODUCTS (NOT USED)

PART 3. EXECUTION (NOT USED)

END OF SECTION

PROJECT CLOSE-OUT

PART 1. GENERAL

1.01 GENERAL CONDITIONS

- A. Definitions: Close-out is hereby defined to include general requirements near the end of contract time, in preparation for final acceptance, final payment, normal termination of contract, occupancy by Owner and similar actions evidencing completion of the work. Specific requirements for individual units of work are specified in sections of Division 2 through 28. Time of Close-out is directly related to "Substantial Completion".

1.02 RELATED REQUIREMENTS SPECIFIED ELSEWHERE

- A. Section 00700 General Conditions of the contract for Construction
- B. Section 00800 Supplementary General Conditions to the Contract for Construction
- C. Section 01750: Warranty of Work after Final Payment
- D. Section 01750: Certificate of Compliance

1.03 SUBSTANTIAL COMPLETION

- A. When Contractor considers work substantially complete as defined in contract conditions, he shall submit to the Project Manager:
 - 1. Written notice that work, or designated portion thereof, is substantially complete.
 - 2. List of items to be completed or corrected.
 - 3. Conditional Certificate of Occupancy from governing authorities.
 - 4. Project Records and Contract Record Drawings.
- B. Project Manager will at the mutually agreed time, make inspection to determine completion status.
 - 1. Should Project Manager determine that work is not substantially complete:
 - a. Project Manager will promptly notify Contractor, in writing, giving reasons therefore.
 - b. Contractor will remedy work deficiencies, and send second notice of substantial completion to Project Manager.
 - c. Project Manager will re-inspect work, with his cost and/or expense for such to be the Contractor's responsibility.
 - 2. When Project Manager concurs that work is substantially complete, the Architect will:
 - a. Prepare Certificate of Substantial Completion accompanied with Contractor's list of items to be completed or corrected, as verified and amended by the Project Manager and Architect.
 - b. Submit certificate to Owner and Contractor for their written acceptance of the responsibilities assigned to them in the certificate.

1.04 FINAL INSPECTION

- A. When Contractor considers work complete, he shall submit written certification that:
 - 1. Contract documents have been reviewed.
 - 2. Contractor has inspected work for compliance with contract documents.
 - 3. Work has been completed in accordance with contract documents.
 - 4. Equipment and systems have been tested and operated in presence of Owner's representative and are operational.
 - 5. Copy of substantial completion punch lists stating that each item has been completed or otherwise resolved for acceptance.
- B. Project Manager will, at the mutually agreed time, inspect the work to verify completion status.
 - 1. Should the Project Manager consider work incomplete or defective:
 - a. Project Manager will promptly notify Contractor in writing of any incomplete or defective work.
 - b. Contractor shall immediately remedy deficiencies, and send written certification to Project Manager that work is complete.
 - c. Project Manager will re-inspect work.
 - 2. When Project Manager finds the work acceptable under contract documents, he will request Contractor to make closeout submittals.

1.05 RE-INSPECTION FEES

- A. Should Project Manager and or Engineer be required to make more than one substantial and/or final inspection due to Contractor's failure to correct specified deficiencies, the Contractor shall bear all costs made necessary by such additional inspections.

1.06 SUBMITTALS

- A. Record Drawings
 - 1. Prior to Final Completion of the Project, the Contractor and/or Subcontractors under his direction, shall submit records of changes on prints to Project Manager.
 - 2. Accompany submittal with transmittal letter, to Project Manager, containing:
 - a. Date
 - b. Project title and number
 - c. Contractor's name and address
 - d. Title and number of each record document
 - e. Certification that each document as submitted is complete and accurate.
 - f. Signature of Contractor, or his authorized representative.
 - 3. Provide drawings and special system drawings on CD in AutoCad format.
- B. Project Record Documents
- C. Operating and Maintenance Data
- D. Building Official's Certificate of Occupancy (MUST BE RECEIVED IN TIME TO ALLOW OCCUPANCY ON DATE REQUIRED IN CONTRACT DOCUMENTS).

- E. Warranty of Work after Final Payment Section 01750
- F. Certificate of Compliance Section 01750
- G. AHERA Exclusion document Section 01750
- H. Department of Revenue Tax Clearance Section 01750
- I. Department of Labor Tax Clearance Section 01750
- J. Department of Labor Notice of Completion of Public Works Section 01750
- K. Certificate of Domestic water disinfection.
- L. Evidence of Payments and Release of Liens
 - 1. Contractor's Affidavit of Payment of Debt and Claims.
 - 2. Contractor's Affidavit of Release of Liens including the following:
 - a. Consent of Contractor's Surety to Final Payment.
 - b. Contractor's Release of Waiver of Liens.
 - c. Separate releases of Waivers of Lien for each subcontractor, supplier, and others with lien rights against Owner's property.
- M. Storm Water Pollution Prevention Plan (SWPPP) and associated documents.
 - 1. A copy of the Notice of Intent (NOI) and the plan review location notice shall be posted in the project office on site.
 - 2. A copy of the SWPPP shall be retained in the project office during construction.
 - 3. All records relating to the SWPPP, as well as the Plan, the NOI, and NOT shall be retained by the Contractor and the Municipality of Anchorage for three years after the NOT is issued.
 - 4. Copies of all SWPPP documents are to be delivered to the Municipality of Anchorage and the Anchorage School District upon completion of the project and before final closeout.
- N. Closeout Checklist Section 01750
 - 1. A closeout checklist is provided for convenience in tracking the necessary documentation and deliverables for project closure. This checklist should be updated and submitted with each closeout deliverable.

1.07 FINAL APPLICATION FOR PAYMENT

- A. Follow procedures specified in General and Special Conditions, and also note miscellaneous prerequisites for final payment noted in this section.

PART 2. PRODUCTS (NOT USED)

PART 3. EXECUTION (NOT USED)

END OF SECTION

CLEANING

PART 1. GENERAL

1.01 DESCRIPTION

- A. Execute cleaning, during progress of the work, and at completion of the work.

1.02 DISPOSAL REQUIREMENTS

- A. Conduct cleaning and disposal operations to comply with codes, ordinances, regulations, and anti-pollution laws.

PART 2. PRODUCTS

2.01 MATERIALS

- A. Use only those cleaning materials which will not create hazards to health or property and which will not damage surfaces.

PART 3. EXECUTION

3.01 DURING CONSTRUCTION

- A. Execute periodic cleaning to keep the work, the site, and adjacent areas free from accumulations of waste materials, rubbish, and debris, resulting from construction operations.
- B. Provide on-site containers for the collection of waste materials, debris, and rubbish.
- C. Remove waste materials, debris, and rubbish from the site periodically and dispose of.

3.02 DUST CONTROL

- A. Clean interior spaces prior to the start of finishing painting and continue cleaning on an as-needed basis until painting is finished.
- B. Schedule operations so that dust and other contaminants resulting from cleaning process will not fall on wet or newly coated surfaces.

3.03 FINAL CLEANING

- A. Employ skilled workmen for final cleaning.
- B. Remove grease, mastic, adhesives, dust, dirt, stains, fingerprints, labels, and other foreign materials from sight-exposed interior and exterior surfaces.
- C. Prior to final completion, or Owner occupancy, the Contractor shall conduct an inspection of sight-exposed interior surfaces and all work areas to verify that the entire work is clean.

END OF SECTION

PROJECT RECORD DOCUMENTS

PART 1. GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Maintenance of record documents and samples.
- B. Submittal of record documents and samples.

1.02 RELATED REQUIREMENTS

- A. Section 00700 - General Conditions of the Contract for Construction.
- B. Section 01300 - Submittals.
- C. Section 01340 - Shop Drawings, Product Data and Samples.
- D. Section 01700 - Project Close-Out.
- E. Individual Specifications Sections: Manufacturer's certificates and certificates of inspection.

1.03 MAINTENANCE OF DOCUMENTS AND SAMPLES

- A. In addition to requirements in General Conditions, maintain at the job site for Owner's use one record copy of:
 - 1. Contract Drawings.
 - 2. Specifications.
 - 3. Addenda.
 - 4. Change orders and other modifications to the Contract.
 - 5. Reviewed shop drawings, product data and samples.
 - 6. Field test records.
 - 7. Inspection certificates.
 - 8. Manufacturer's certificates.
 - 9. Request for Information (RFI)
 - 10. Request for Proposal (RFP)
 - 11. Current Construction Network.
- B. Store record documents and samples in the field office apart from the documents used for construction.
- C. Label and file record documents and samples in accordance with Section number listings in Table of Contents of this Project Manual. Label each document "PROJECT RECORD" in neat, large, printed letters.
- D. Maintain record documents in a clean, dry and legible condition. Do not use record documents for construction purposes.

Keep record documents and samples available for inspection by the Project Manager.

1.04 RECORDING

- A. From the copies of Contract Documents to be furnished by Project Manager, the Contractor and/or Subcontractors shall record on a set of clean, new prints each and every change that is made, at time it is made, in red. This includes any changes that are made in partitions, doors, or otherwise in arrangement of construction of buildings as well as a complete record of exact manner in which electrical and mechanical work, piping, etc., are installed. All Change Orders, RFI's, and Information Bulletins shall be incorporated. Dimensions shall be included where necessary to accurately locate piping and other items that will be concealed underground or in finished building that may later be necessary to service.
- B. Contract Drawings: Legibly mark to record actual construction.
 - 1. Horizontal and vertical location of underground utilities and appurtenances referenced to permanent surface improvements.
 - 2. Field changes of dimensions and detail.
 - 3. Changes made by Change Order and other modifications.
 - 4. Details not on original contract drawings.
 - 5. References to related shop drawings and modifications.
- C. Shop Drawings: Maintain as record documents, legibly annotate appropriate drawings to record changes made after review.
- D. Specifications and Addenda: Legibly mark up each section to record:
 - 1. Changes made by Change Order.
 - 2. Manufacturer, trade name and catalog number of each product actually installed, particularly optional items and substitute items.
 - 3. Changes made by addenda and modifications.
 - 4. Other matters not originally specified.
- E. Label each document "PROJECT RECORD" in printed letters.
- F. Keep record documents current. No progress payments will be made until record documents are verified by the Project Manager as being current.
- G. Do not permanently conceal any work until required information has been recorded.
- H. Methodology:
 - 1. Changes to Work are described by source documents, including, but not limited to, Field Directives (FD), Information Bulletins (IB), Requests for Information (RFI), and Requests for Proposals (RFP), and their attachments. (Reference Section 00700, Article 12.)
 - 2. Project Record drawings are to completely and clearly reflect all Changes to Work by graphically showing actual changes to dimensions, locations, materials, assemblies, and other conditions; by graphically deleting conditions replaced by such changes; and by indicating applicable source document's reference number. Such reference number shall not be the sole representation of Changes to Work shown on Project Record drawings.
 - 3. Where A/E furnishes supplemental drawings, Project Record drawings are to show both the A/E's supplemental drawing reference number and the source document's reference number at the affected location.

1.05 SUBMITTAL

- A. Prior to Final Completion of the Project, the Contractor and/or Subcontractors under his direction, shall submit records of changes on prints to Project Manager.
- B. Accompany submittal with transmittal letter, to Project Manager, containing:
 - 1. Date
 - 2. Project title and number
 - 3. Contractor's name and address
 - 4. Title and number of each record document
 - 5. Certification that each document as submitted is complete and accurate.
 - 6. Signature of Contractor, or his authorized representative.

PART 2. PRODUCTS (NOT USED)

PART 3. EXECUTION (NOT USED)

END OF SECTION

OPERATING AND MAINTENANCE DATA

PART 1. GENERAL

1.01 SECTION INCLUDES

- A. Format and content of manuals.
- B. Instruction of Owner's personnel.
- C. Schedule of submittals.

1.02 RELATED SECTIONS

- A. Section 01300 - Submittals
- B. Section 01400 - Quality Control
- C. Section 01410 - Testing Laboratory Services
- D. Section 01420 - Special Inspections
- E. Section 01600 - Material and Equipment
- F. Section 01700 - Contract Close-Out
- G. Section 01750 - Closeout Forms
- H. Individual Specifications Sections: Specific requirements for operation and maintenance data.

1.03 QUALITY ASSURANCE

- A. Prepare instructions and data by personnel experienced in maintenance and operation of described products.

1.04 FORMAT

- A. Prepare data in the form of an instructional manual.
- B. Electronic: Optical Character Recognition (OCR) formatted pdf document.
- C. Cover: Identify each pdf with a title "OPERATION AND MAINTENANCE INSTRUCTIONS"; identify title of Project; identify subject matter of contents.
- D. Provide bookmarked pdf for each separate product and system, with typed description of product and major component parts of equipment.
- E. Text: Manufacturer's printed or typewritten data.
- F. Drawings: Provide with O&M documents.

- G. Contents: Prepare a Table of Contents for each volume, with each Product or System description identified, in three parts as follows:
1. Part 1: Directory, listing names, addresses, and telephone numbers of Architect/Engineer, Contractor, Subcontractors, and major equipment suppliers.
 2. Part 2: Operation and maintenance instructions arranged by and subdivided by specification section. For each category, identify names, addresses, and telephone numbers of Subcontractors and suppliers. Identify the following:
 - a. Significant design criteria.
 - b. List of equipment.
 - c. Parts list for each component.
 - d. Operating instructions.
 - e. Maintenance instructions for equipment and systems.
 - f. Maintenance instructions for finishes, including recommended cleaning methods and materials, and special precautions identifying detrimental agents.
 3. Part 3: Project documents and certificates, including the following:
 - a. Shop drawings and product data.
 - b. Air and water balance reports.
 - c. Certificates.
 - d. Photocopies of warranties and bonds.

1.05 CONTENTS, EACH VOLUME

- A. Table of Contents: Provide title of Project; names, addresses, and telephone numbers of Architect/Engineer, Subconsultants, and Contractor with name of responsible parties; schedule of products and systems, indexed to content of the volume.
- B. For Each Product or System: List names, addresses and telephone numbers of Subcontractors and suppliers, including local source of supplies and replacement parts.
- C. Product Data: Mark each sheet to clearly identify specific products and component parts, and data applicable to installation. Delete inapplicable information.
- D. Drawings: Supplement product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams. Do not use Project Record Documents as maintenance drawings.
- E. Typed Text: As required to supplement product data. Provide logical sequence of instructions for each procedure, incorporating manufacturer's instructions specified in Section 01400.
- F. Warranties and Bonds: Bind in copy of each.

1.06 MANUAL FOR MATERIALS AND FINISHES

- A. Building Products, Applied Materials, and Finishes: Include product data, with catalog number, size, composition, and color and texture designations. (Provide information for re-ordering custom manufactured Products.)

- B. Instructions for Care and Maintenance: Include manufacturer's recommendations for cleaning agents and methods, precautions against detrimental agents and methods, and recommended schedule for cleaning and maintenance.
- C. Moisture Protection and Weather Exposed Products: Include product data listing applicable reference standards, chemical composition, and details of installation. Provide recommendations for inspections, maintenance, and repair.
- D. Additional Requirements: As specified in individual Product specification sections.
- E. Provide a listing in Table of Contents for design data.

1.07 MANUAL FOR EQUIPMENT AND SYSTEMS

- A. Each Item of Equipment and Each System: Include description of unit or system, and component parts. Identify function, normal operating characteristics, and limiting conditions. Include performance curves, with engineering data and tests, and complete nomenclature and model number of replaceable parts.
- B. Panelboard Circuit Directories: Provide electrical service characteristics, controls, and communications; typed.
- C. Include color coded wiring diagrams as installed.
- D. Operating Procedures: Include start-up, break-in, and routine normal operating instructions and sequences. Include regulation, control, stopping, shutdown, and emergency instructions. Include summer, winter, and any special operating instructions.
- E. Maintenance Requirements: Include routine procedures and guide for troubleshooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.
- F. Provide servicing and lubrication schedule, and list of lubricants required.
- G. Include manufacturer's printed operation and maintenance instructions.
- H. Include sequence of operation by controls manufacturer.
- I. Provide original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.
- J. Provide control diagrams by controls manufacturer as installed.
- K. Provide Contractor's coordination drawings, with color-coded piping diagrams as installed.
- L. Provide charts of valve tag numbers, with location and function of each valve, keyed to flow and control diagrams.
- M. Provide list of original manufacturer's spare parts, current prices, and recommended quantities to be maintained in storage.
- N. Include test and balancing reports as specified.
- O. Additional Requirements: As specified in individual Product specification sections.

- P. Provide a listing in Table of Contents for design data, with tabbed (fly sheet indexed) and space for insertion of data.

1.08 MANUALS

- A. Operating and Maintenance Manuals: Submit electronic manual for each identified category.
 - 1. Air Balance Report
 - 2. Building Commissioning Reports
 - 3. Materials and Finishes Manual
 - 4. Equipment and Systems Manual
 - 5. Digital and Pneumatic Controls Manual
 - 6. Fire Systems Manual
- B. Warranty and Special Warranty Manual: Submit electronic manuals.

1.09 INSTRUCTION OF OWNER PERSONNEL

- A. Before final inspection, instruct Owner's designated personnel in operation, adjustment, and maintenance of products, equipment, and systems, at agreed upon times.
- B. For equipment requiring seasonal operation, provide instructions for all seasons
- C. Use operation and maintenance manuals as basis for instruction. Review contents of manual with personnel in detail to explain all aspects of operation and maintenance.
- D. Prepare and insert additional data in Operation and Maintenance Manual when need for such data becomes apparent during instruction.

1.10 SUBMITTALS

- A. Submit copies of preliminary draft or proposed formats and outlines of contents before start of Work. Project Manager will review draft and return copy with comments.
- B. For equipment, or component parts of equipment put into service during construction and operated by Owner, submit advance copy of documents within ten days after acceptance. Include same information within final Operations and Maintenance documents.
- C. Submit draft copy of completed volumes 60 days following acceptance of Project Submittals. Allow 20 days for Architect review and return to Contractor. Provide Contractor resubmittal within 14 days. Allow 14 days for Architect review of resubmittal. Revise content of all document sets as required prior to final submission.
- D. Submit fully approved volumes within 115 days after acceptance of Submittals or 10 days prior to Substantial Completion, whichever occurs first.

PART 2. PRODUCTS (NOT USED)

PART 3. EXECUTION (NOT USED)

END OF SECTION

CLOSEOUT FORMS

PART 1. GENERAL

- 1.01 The following forms are to be submitted by the Contractor prior to final project closeout.
- 1.02 CERTIFICATION OF SUBSTANTIAL COMPLETION
- A. Use Anchorage School District Form 101 attached herein.
- 1.03 CONTRACTOR'S AFFIDAVIT OF PAYMENT OF DEBTS AND CLAIMS
- A. Use Anchorage School District Form 102 attached herein.
- 1.04 RELEASE ON CONTRACTS
- A. Use Anchorage School District Form 103 attached herein.
- 1.05 CONSENT OF SURETY COMPANY TO FINAL PAYMENT
- A. Use Anchorage School District Form 104 attached herein.
- 1.06 CONSENT OF SURETY TO REDUCTION IN OR PARTIAL RELEASE OF RETAINAGE
- A. Use Anchorage School District Form 105 attached herein.
- 1.07 CERTIFICATE OF COMPLIANCE
- A. The Contractor shall submit a notarized Certificate of Compliance, contained in this section, with his application for Final Payment.
- 1.08 WARRANTY OF WORK AFTER FINAL PAYMENT
- A. The Contractor shall furnish to the Owner a notarized Warranty of Work after Final Payment, contained in this section, with his application for Final Payment.
- 1.09 AHERA EXCLUSION DOCUMENT
- A. The Contractor shall furnish to the Owner a signed AHERA Exclusion Document, contained in this section, with his application for Final Payment.
- 1.10 DEPARTMENT OF LABOR NOTICE OF COMPLETION OF PUBLIC WORKS
- A. The Contractor shall furnish to the Owner a Notice of Completion of Public Works form approved by the Department of Labor with his application for Final Payment.
- 1.11 DEPARTMENT OF REVENUE TAX CLEARANCE REQUEST FORM
- A. For projects funded through the Department of Education (debt reimbursement or DEED grants), the Contractor shall furnish to the Owner a Tax Clearance Request Form approved by the Department of Revenue with his application for Final Payment.
- 1.12 DEPARTMENT OF LABOR TAX CLEARANCE REQUEST FORM

- A. For projects funded through the Department of Education (debt reimbursement or DEED grants), the Contractor shall furnish to the Owner a Tax Clearance Request Form approved by the Department of Labor, with his application for Final Payment.

1.13 CLOSEOUT CHECKLIST

- A. The closeout checklist is designed to assist the contractor and project manager in the process of completing the project.

CERTIFICATE OF SUBSTANTIAL COMPLETION

Project: _____ Contract Number: _____

Contractor: _____ Contract Date: _____

Architect: _____ Date of Issuance: _____

Owner: ANCHORAGE SCHOOL DISTRICT
1301 Labar Street
Anchorage, Alaska 99515

Project Description:

The work performed under this contract has been reviewed and found to be substantially complete. The date of Substantial Completion is hereby established as: _____

Definition of Date of Substantial Completion:

The date of substantial completion of the project is the date certified by the Owner when the work is substantially complete in accordance with, and defined in the Contract Documents.

A list of items to be completed or corrected, prepared by the Owner and verified and amended by the Architect is appended hereto. The failure to include any items or such list does not alter the responsibility of the Contractor to complete the project in accordance with the Contract Documents.

The Contractor will complete or correct the work on the list of items appended hereto within 30 days from the date of substantial completion.

The responsibilities of the Owner and the Contractor for maintenance, heat, utilities, and insurance shall be as follows: _____

In reliance upon the certification of the Contractor and the Architect, the Owner hereby accepts the project as substantially complete. In accordance with the Contract Documents, the Owner hereby elects to assume occupancy of _____

_____ at _____ a.m./p.m. on

Owner: **ANCHORAGE SCHOOL DISTRICT**

By: _____ Title: _____ Date: _____

Architect:

By: _____ Title: _____ Date: _____

Contractor:

By: _____ Title: _____ Date: _____

ASD 101 (01/03)

**CONTRACTOR'S AFFIDAVIT OF PAYMENT OF DEBTS AND CLAIMS
ANCHORAGE SCHOOL DISTRICT**

WHEREAS, by the terms of a contract dated _____
Anchorage School District, and

entered into by the _____
for the construction of _____

The undersigned, pursuant to the General Conditions of the Contract for the construction, _____, hereby certifies that, except as listed below, he has paid in full or has otherwise satisfied all obligations for all materials and equipment furnished, for all work, labor, and services performed, and for all known indebtedness and claims against the Contractor for damages arising in any manner in connection with the performance of the Contract referenced above for which the District or his property might in any way be held responsible.

EXCEPTIONS:

IN WITNESS WHEREOF, the seal of the undersigned Contractor have been hereunto set this

day of

, at

By

being first duly sworn, say that I am the agent for and executed the foregoing under authority of said company to do so; that I have read the same, know the contents thereof, and the matters set forth therein are as I truly believe.

By

Subscribed and sworn to before me this _____ day of

, at _____

Notary Public in and for _____

My Commission Expires _____

ASDF Form 102

**RELEASE ON CONTRACT
ANCHORAGE SCHOOL DISTRICT**

WHEREAS, by the terms of a contract dated _____ entered into by the Anchorage School District,

and _____ for the construction of _____

_____, it is provided that:

"Neither the final payment nor the remaining retained percentage shall become due until the Contractor shall provide the Owner (1) with a waiver and release of liens, on the forms provided by the Owner, executed by the Contractor..."

NOW THEREFORE, in consideration of the premises and the payment by the Anchorage School District to the undersigned Contractor of the amounts due under the contract and any changes or modifications thereto, to wit, the sum

of \$ _____ Dollars,

(Numbers)

(In Words)

the undersigned Contractor hereby releases and forever discharges the Anchorage School District including its property, particularly that real property known as:

_____ of the Anchorage School District, of and from all manner of debts, dues and sum or sums of money, accounts, claims, and demands whatsoever, in Law and in equity, under or by virtue of said contract, and warrants good title to all material, supplies and equipment installed or incorporated in the project and all work delivered to the premises, together with all improvements and appurtenances constructed thereon by:

_____ to the Anchorage School District free of any claims, liens or encumbrances. Neither the undersigned nor any person, firm or corporation furnishing material or labor for any work covered by this Contract has any right to a lien upon the premises nor improvement thereon, except:

IN WITNESS WHEREOF, the signature of the undersigned Contractor has been hereunto set this

_____ day of _____, 20__, at _____, Alaska.

Signature: _____

Printed Name: _____

I, _____, being first duly sworn, say that I am the agent for and executed the foregoing under authority of said company to do so; that I have read the same, know the contents thereof, and the matters set forth therein are as I truly believe.

Signature: _____

Subscribed and sworn to before me this _____ day of _____, 20__, at _____, Alaska.

Notary Public in and for _____

My Commission Expires: _____.

ASD Form 103

**CONSENT OF SURETY COMPANY
TO FINAL PAYMENT****PROJECT:** _____ **PROJECT NUMBER:** _____**TO:** Anchorage School District **CONTRACT DATE:** _____**CONTRACTOR:** _____

In accordance with the provisions of the Contract between the Owner and the Contractor as indicated above:

(Surety Company)

on bond of

(Contractor)

hereby approves of the final payment to the Contractor, and agrees that final payment to the Contractor shall not relieve the Surety Company of any of its obligations to **Anchorage School District, Owner** as set forth in said Surety Company's bond. Surety expressly agrees that any and all valid claims of sub-Contractors and all persons supplying labor or materials to the project will be satisfied by Contractor or Surety in a timely manner

IN WITNESS WHEREOF, the Surety Company has hereunto set its hand this

day of _____, 20__.

Name of Surety Company

Attest

Signature of Authorized Representative_____
Title

ASD 104

**CONSENT OF SURETY TO REDUCTION IN OR PARTIAL RELEASE OF RETAINAGE
ANCHORAGE SCHOOL DISTRICT**

PROJECT:

PROJECT NUMBER:

TO: Anchorage School District

CONTRACT DATE:

CONTRACTOR:

In accordance with the provisions of the Contract between the Owner and the Contractor as indicated above,
the:

_____ (Surety Company)

on bond of

_____ (Contractor)

HEREBY APPROVES OF THE REDUCTION IN OR PARTIAL RELEASE OF RETAINAGE to the Contractor
as follows:

The surety agrees that such reduction in or partial release of retainage to the Contractor shall not relieve the
Surety of any of its obligations to **ANCHORAGE SCHOOL DISTRICT, OWNER**

IN WITNESS WHEREOF, the Surety Company has hereunto set its hand this
day of .

Name of Surety Company

Attest

Signature of Authorized Representative

Title

ASDF Form 105

CERTIFICATE OF COMPLIANCE

No final payment shall be made until the Contractor shall file with the Owner, prior to acceptance of the work, a notarized Certification of Compliance in the following form:

The Contractor does hereby certify that all work has been performed and materials supplied in accordance with the Drawings, Specifications and Contract Documents for the above work, and that:

No less than the prevailing rates of wages as ascertained by the governing body of the Contracting Agency has been paid to laborers, workmen and mechanics employed on this work;

There have been no unauthorized substitutions of Subcontractors; nor have any subcontracts been entered into without prior notice having been submitted to the Owner prior to the start of such subcontracted work;

No subcontract was assigned or transferred or performed by any Subcontractor other than the original Subcontractor, without prior notice having been submitted to the Owner together with the names of all Subcontractors;

All claims for material and labor and other paid service performed in connection with these specifications have been paid;

All monies due the State Industrial Accident Fund, the State Unemployment Compensation Trust Fund, the State Tax Commission, Hospital Associations and/or others have been paid.

In WITNESS WHEREOF, the undersigned has signed and sealed this instrument this

_____ day of _____, 20__.

(Firm Name)

(Signature)

(Title)

(Attest)

(SEAL IF BIDDER IS A CORPORATION)

As determined necessary, evidence of compliance may be required to be submitted with and made a part of this Certificate of Compliance.

WARRANTY OF WORK

Prior to Final Payment, the Contractor shall furnish to the Owner a Warranty of Work in the following form:

The Contractor does hereby warrant all work and materials to be in full and complete accordance with the Contract Documents and Agreement between Owner and Contractor, and requirements appertaining thereto; that all work and materials are free from any and all defects and imperfections, and fully suitable for the use and purposes for which each and every part is intended. The Contractor also agrees that, should any defect develop or appear which the Project Manager or Owner's Representative finds was Not caused by improper use, the Contractor shall promptly, upon demand, fully correct, substitute and make good any such defective material without any cost to the Owner and will save the Owner harmless against any claim, demand, loss or damage by reason of any breach of this warranty.

The period of this warranty shall commence on the date of Substantial Completion.

The warranty shall continue to be in full force and effect for the period of one (1) year, except for those items for which a longer period of warranty is specifically stated in the Warranties for work in Technical Sections of the Specifications.

Warranties for work stated in Technical Section shall continue in full force and effect for the respective periods expressly stated.

In WITNESS WHERE, the undersigned has signed and sealed this instrument this

_____ day of _____, 20____.

(Firm Name) _____

(Signature) _____

(Title) _____

(Attest) _____

(SEAL IF BIDDER IS A CORPORATION)

AHERA Exclusion Document

Contractor's Verification of Asbestos-Free Construction

Project: _____ **Project Number:** _____

Contractor: _____ **Date:** _____

To: Anchorage School District
Facilities Coordinator,
AHERA LEA Designated Person

To the best of our knowledge, no asbestos-containing building materials were installed in this project.

Attest: _____
Signature of Authorized Representative

Title

Department of Labor and Workforce Development
Labor Standards and Safety Division
Wage and Hour Administration
www.labor.state.ak.us/lss/lss.htm



- This form must be typed or printed in ink.
- Fill in all blanks or form will be returned for correction (see back).
- Please allow a minimum of 30 working days for processing.

ENTER YOUR FAX # _____
AND LIST YOUR MAILING ADDRESS BELOW

Contractor, company or agency name, address, city, state & ZIP + 4

NOTICE OF COMPLETION OF PUBLIC WORKS

Additional Filing Fee May Be Required

Project Name	Contract #	
Contract awarding agency		
Address		
City	State	ZIP + 4
Contract awarding agency contact person		Phone #
Location and city where work was performed		
DOLWD Project #		
Project Completion Date / /		

Primary contractor (has contract with the public agency)

IF YOU HAVE ALREADY PAID \$5,000 IN FEES FOR THIS PROJECT, OR IF YOU PREVIOUSLY PAID ALL FEES DUE AND DID NOT HAVE ANY INCREASES IN CONTRACT AMOUNTS ENTER "NONE" AND, SKIP TO CERTIFICATION. OTHERWISE, DESCRIBE ADDITIONAL WORK.

Description of additional contract/subcontract work performed	Name of contractor who performed this work	Amount of subcontract
CERTIFICATION: I hereby certify that the above information is correct. Enclosed is the additional filing fee computed at 1% of the total amount of all new contracts on this project, including the contract price of new work performed by the primary contractor not previously reported on the Notice of Work, up to a maximum of \$5,000. I also certify that all contractors who worked on this project complied with prevailing wage requirements as described in AS 36.05.010- .110 and AS 36.10.007- .990.	Total value of additional subcontracts	\$
	Additional value of work performed by primary contractor +	\$
	Amount subject to fee	\$
		Multiply by .01
	Supplemental fee enclosed = ROUND FEES TO NEAREST DOLLAR	\$
For Dept. Use Only		
Amount: _____ Check Number: _____ Cash _____ Received By: _____ Date: _____ Credit Card Confirmation _____ Visa _____ MC _____ Project Name _____ DOLWD Project # _____		
Wage & Hour date-stamped copy of this form will serve as temporary receipt.		
For Dept. Use Only		
T-36 Clearance Approved By _____ Department of Labor and Workforce Development		

D:\ie-temp\Temporary Internet Files\OLKF4\noticecompletionpublicworks.doc

(6/27/03)

How to expedite the processing of your form:

ERRORS THAT CAUSE REJECTION

No fee included or incorrect amount. If total contract amount is less than \$25,000 no filing fee is required. Contract amounts paid to owner/operators with no employees are exempt from the fee. **The maximum total filing fee for any one project is \$5,000.00.**

Missing - Value of work performed by primary contractor.

Missing – The name of each **NEW** subcontractor and the amount of the contract OR the name of existing subcontractors and the amount of any **NEW** work not previously reported on the Notice of Work.

Missing – Notice of Completion of Public Works must be signed by an authorized representative.

FILING INSTRUCTIONS

Additional fees are required for any increase in contract value, unless the maximum fee (\$5,000) has been paid.

If there is not enough space to list all required information on one form, use additional sheets. Please indicate at the top of each sheet "Page 1 of 2", "Page 2 of 2", etc. No other attachments will be accepted.

A Wage and Hour Administration (WH) date-stamped copy of this form will serve as a temporary receipt, while the acceptance of fees is processed. WH will mail or fax the approved copy of this form to the organization provided on the front of this form. Make a copy for your records. This will serve as your notice that the fees paid have been accepted by WH.

For questions call the nearest WH office:

Juneau: (907) 465-4842 Anchorage: (907) 269-4900 Fairbanks: (907) 451-2886

For more forms, see www.labor.state.ak.us/lss/lssforms.htm

Submit the notice and the appropriate filing fee to:

Alaska Department of Labor and Workforce Development
Wage and Hour Administration
3301 Eagle Street, Ste. 301
Anchorage, AK 99503-4149

If no fee is required, you may fax the notice to (907) 269-4915

**Alaska Department of Revenue
TAX CLEARANCE REQUEST FORM**

Applicant's Name: _____

EIN/SSN: _____

Mailing Address: _____

City/State/Zip Code: _____

I hereby authorize the Alaska Department of Revenue to release to

(Name of Department or Agency)

Department's Statute on tax clearance: _____

whose facsimile number or email address is _____.

confirmation that all taxes, penalties and interest due the Department of Revenue have been
paid and that there are no outstanding amounts due.

Signed: _____

Printed Name: _____

Title*: _____

*If tax clearance is being requested on behalf of a corporation/LLC/partnership, must be signed by an
officer/member/partner.

Send completed form by email to the Department of Revenue at DOR.tax.accounting@alaska.gov

DEPARTMENT USE ONLY

- ☐ *The above applicant is current on all taxes, penalties and interest due and
is in good standing with the Alaska Department of Revenue.*
- ☐ *The above applicant is not current on all taxes, penalties and interest due
and is not in good standing with the Alaska Department of Revenue.*

Department of Revenue Representative

Date

*TaxClearanceRequestForm (Rev 2/21)



THE STATE
of **ALASKA**
GOVERNOR MICHAEL J. DUNLEAVY

**Department of Labor and Workforce
Development**

Division of Employment and Training Services
Employment Security Tax

P.O. Box 115509
Juneau, AK 99811-5509
Relay Alaska (in state): (800) 770-8973 or 7.1.1
Relay Alaska (out of state): (800) 770-8255
Toll free: (888) 448-2937
Phone: (907) 465-2787
Fax: (907) 465-2374

Tax Clearance Request Form for Contractors

Date of request: _____

Business name of the contractor a Tax Clearance is being requested for: _____

Business address: _____

Business contact phone number: _____

Federal Identification Number: _____

Alaska Employer Account Number: _____

Specific time period a tax clearance is being requested for (i.e. beginning and ending date of a subcontract agreement):

Subcontract project name: _____

Name and address of the person this Tax Clearance is to be returned to: _____

Comments or additional information: _____

For agency use only:

- ☐ Tax Clearance is granted
☐ Tax Clearance is not granted (please have employer contact the department)
☐ No account on file, liability unknown (please have employer contact the department)
☐ Employer has stated no employees, Tax Clearance not required.

Agency representative signature: _____ Date: _____

Agency representative title: _____

We are an equal opportunity employer/program. Auxiliary aids and services are available upon request to individuals with disabilities. labor.alaska.gov/estax

Rev. 8/2018

Project Title: _____ Project Number: _____

PROJECT CLOSEOUT CHECKLIST	Number Required	Number & Date Delivered
Inspection Documents		
Substantial Completion Inspection Documents	1	
Substantial Completion Punch List	1	
Final Inspection Documents	1	
Final Inspection Punch List	1	
Certificate of Substantial Completion (ASD Form 101)	1	
Contractor Submittals		
As-built drawings to Engineer of Record (Section 01700)	1	
All project record documents (Section 01720)	1	
Maintenance and Operations Manuals – Electronic version – OCR pdf (Section 01730)	1	
Warranty and Special Warranty Manuals (Section 01730)	4	
Certificate of Domestic Water Disinfection (Section 01700)	2	
Warranty of Work (Section 01750)	1	
Certificate of Compliance (Section 01750)	1	
Building Officials Certificate of Mechanical and Electrical Inspection	3	
Building Official's Certificate of Occupancy	3	
Building Official's Certificate of Completion	3	
AHERA Response Action Report (RAR)	1	
AHERA Exclusion Document (Section 00630)	1	
Return school keys to lock shop	1	
Lock Shop Release Form (signed)	1	

Project Title: _____

Project Number: _____

PROJECT CLOSEOUT CHECKLIST	Number Required	Number & Date Delivered
Contractor's Affidavit of Payment of Debts and Claims (ASD Form 102)	1	
Consent of Surety Company to Final Payment (ASD Form 104)	1	
Release on Contract (ASD Form 103)	1	
Consent of Surety to Reduction in/or Partial Release of Retainage (ASD Form 105)	1	
Engineered As-built drawings and special system drawings on reproducible CD's (not zipped)	1	
Engineered As-built drawings and special system drawings on bond/blacklines	2	
Spare Parts deliverables	1	
Copy of Warranty for all items with Extended Warranty	1	
Notice of Completion of Public Works (Section 00630) (Approved DOL Clearance Form)	1	
Dept. of Revenue Tax Clearance Form (Section 00630) (Approved DOR Tax Clearance Form)	1	
Dept. of Labor Tax Clearance Form (Section 00630) (Approved DOL Tax Clearance Form)	1	
Apprenticeship Program - Purchasing release for final payment (projects over \$100,000)		
Final Application and Certificate for Payment (ASD Form 100A-C)	1	
Base Access Pass(s) returned to Visitor Control Center	NA	

Project Manager Signature

Date

END OF SECTION

NARRATIVE

The existing fire alarm system will be replaced with a new fire alarm system according to the information contained in this Request for Proposal.

ARCHITECTURAL

Architectural work is limited to the patch and repair of any finishes disturbed as part of the fire alarm system replacement. Fire alarm system wiring is to be concealed above ceilings. Penetrations through rated walls shall be smoke sealed. Any new access hatches shall match existing types, size, material, and finish.

ELECTRICAL

This is a design-build project to demolish the existing fire alarm system and install a new fire alarm system at Wendler Middle School. The existing fire alarm system and all associated fire alarm control panels, fire alarm booster panels, remote annunciators, notification appliances, initiating devices, interface devices, wiring, and conduit shall be demolished by the contractor unless otherwise noted. A new voice evacuation fire alarm system, as required by the 2021 IFC article 907.2.3, that meets all requirements of the locally adopted building code as amended by the MOA building safety department and as interpreted by the local AHJ shall be provided by the contractor. The contractor shall be responsible for design, permitting, demolition and construction. ASD shall be responsible for cellular service costs from NAPCO and all monitoring service costs of the new fire alarm system from GUARDIAN. The contractor must coordinate with ASD on service requirements and notify ASD 30-days prior to when these services are to be started.

HAZARDOUS MATERIALS

Wendler Middle School was originally constructed in 1959 with major additions occurring in 1965 and 1984, and extensive renovations throughout the school in 2003 which also added on to the original building. Due to the extensive renovation and abatement that reportedly occurred during the 2003 project, materials containing asbestos and/or PCBs are not anticipated to be present in materials likely to be affected by the Wendler Middle School Fire Alarm Replacement Design-Build Project, however, although not anticipated to be present, materials, components, or other devices which contain asbestos and/or PCBs may be present at the school. Other potentially hazardous materials that are assumed to be present at the school include lead-containing materials, mercury-containing materials, ozone depleting substances (ODS), potentially hazardous heat transfer fluids, devices with radioactive components, and components or items which may be classified as a universal waste.

The work of the Wendler Middle School Fire Alarm Replacement Design-Build Project is anticipated to require the removal and disposal of universal waste batteries from affected fire alarm devices, the removal and disposal of universal waste "electronic devices" under recently changed Alaska Department of Environmental Conservation regulations, and the removal and disposal of smoke detection devices which may contain a radioactive source material. This contract requires that a pre-work inspection be performed by qualified persons to seek out and identify any potential asbestos-containing materials, lead-containing materials, mercury-containing materials, PCB-containing materials, ozone depleting substances (ODS), potentially hazardous heat transfer fluids, or other devices with radioactive components which will be affected by the scope of work based on the contractor's choice of means and methods to complete the work. The work must include sampling of these various types of potentially hazardous materials as necessary to ensure persons and the environment are protected from the potential hazards and to satisfy

the laws, regulations, or other requirements of the authority having jurisdiction. Additionally, the work includes associated submittal and documentation requirements, along with other requirements specific to the hazards abatement scope of work which may be more stringent than the laws of the authority having jurisdiction.

END OF SECTION

DEMOLITION

PART 1. GENERAL

1.01 DESCRIPTION OF WORK

- A. The extent of building demolition work is shown on drawings.

1.02 RELATED REQUIREMENTS

- A. Section 01010: Summary of Work.
- B. Section 01045: Cutting and Patching (where required).
- C. Section 01120: Alteration Procedures (where required).

1.03 SUBMITTALS

- A. Submit proposed methods and operations of demolition for review prior to start of work. Include in schedule coordination for shut-off and continuation of utility services as required.

1.04 JOB CONDITIONS

- A. Occupancy: Areas to be demolished are or will be vacated and discontinued in use prior to start of work. However, where applicable other parts of the building project may remain occupied, requiring contractor to conduct demolition to minimize interference with adjacent areas. Maintain protected egress and access at all times.
- B. Conditions of Structures: The Owner assumes no responsibility for actual condition of structures to be demolished.
- C. Conditions existing at the time of inspection for bidding purposes will be maintained by Owner insofar as practicable. However, variations may occur by removal and salvage operations by Owner prior to the start of the demolition work.
- D. Traffic: Conduct demolition operations and removal of debris to ensure minimum interference with adjacent occupied or used facilities.
- E. Protections: Ensure safe passage of persons around area of demolition. Conduct operations to prevent injury to adjacent structures to prevent excess dust and debris from entering occupied areas.
- F. Damages: Promptly repair damages caused to adjacent facilities by demolition operations at no cost to the Owner.
- G. Utility Services: Maintain existing utilities which must remain operational and protect them against damage during demolition operations.

PART 2. PRODUCTS

2.01 SALVABLE MATERIALS

- A. Where the documents indicate a reuse of existing materials or equipment, the Contractor may furnish similar and equal new materials or equipment at his option.

- B. Items to be reused shall be removed, stored, and protected until reuse. Care shall be taken to prevent excessive damage to salvable materials. Items to be reused are shown on the drawings.
- C. Items of salvable value to be removed and not noted to remain the property of the Owner will belong to Contractor, with salvage value of substantial items to be reflected in proposal.
- D. Reuse items may be stored on site in locations as directed by Owner.

PART 3. EXECUTION

3.01 PREPARATION

- A. Pollution Controls: Use temporary enclosures and other suitable methods to limit dust and dirt rising and scattering in air.
- B. Where applicable erect and maintain weatherproof closures for exterior openings.
- C. Protect existing items which are not indicated to be altered, and promptly repair damage caused by demolition operation.
- D. Disconnect, remove, and cap designated utility services. Identify and indicate capping locations on Project Record Documents.

3.02 PERFORMANCE

- A. Demolish in an orderly and careful manner. Where applicable protect existing supporting structural members and adjacent areas not affected by this work.
- B. If applicable voids in concrete floors, caused by demolition, shall be completely filled with grout, similar and equal to "Thoropatch" leaving a smooth and even surface.
- C. Immediately remove demolished materials from site.
- D. Materials for salvage may not be sold on the site.
- E. Do not burn or bury materials on site.
- F. Clean adjacent structures and improvements of dust, dirt, and debris caused by demolition operations, as directed. Return adjacent areas to condition existing prior to the start of work.

END OF SECTION

HAZARDOUS MATERIALS ASSESSMENT

PART 1. GENERAL

1.1. NOTIFICATIONS

- A. Notification of Potential Hazards: Asbestos, lead and other potentially hazardous materials are present in the building that may impact the work of all trades. Regulated air contaminants, including asbestos and lead, are also present in settled and concealed dust in and on architectural, structural, mechanical and electrical components or systems throughout the building. All trades shall coordinate with other trades and conduct their work to prevent worker exposure or site contamination. Refer to Specification Divisions 0, 1 and 2 for specific information concerning disturbing, removing and disposing of these materials and the installation of new materials or components. This notification is provided in accordance with EPA and OSHA requirements.

1.2. SECTION INCLUDES

- A. This section contains the Hazardous Materials Assessment for the project. The Hazardous Materials Assessment is provided for information only, does not contain any specific contractual requirements related to the project or require the submittal of any items, and is subject to the limitations contained in the Assessment.
- B. This section does not apply to or address requirements related to any specific health, safety, or environmental concerns or conditions which may be present at this site.

1.3. CONTRACT DOCUMENTS AND RELATED REQUIREMENTS

- A. Drawings and general provisions of the contract, including general and supplementary conditions and other Division 0, 1, and 2 specifications, apply to the work of this section. The contract documents show or describe the work to be done under the contract including related requirements and conditions impacting the project. Related requirements and conditions include, but are not limited to, applicable codes and regulations, notices and permits, existing site conditions and restrictions on use of the site, security of the site, requirements for partial owner occupancy during the work, coordination with other work and the phasing of the work, among others. In the event the Contractor discovers a conflict in the contract documents and/or requirements, the conflict must be brought to the immediate attention of the Owner for resolution. Whenever there is a conflict or overlap in the requirements, the most stringent shall apply. Any actions taken by the Contractor without authorization from the Owner shall become the sole risk and responsibility of the Contractor. All costs incurred due to such action are also the responsibility of the Contractor.

1.4. RELATED WORK

- A. 02 89 00 – Minor Hazardous Materials Related Work

PART 2. PRODUCTS (NOT USED)

PART 3. EXECUTION (NOT USED)

SEE ATTACHED

In-House Hazardous Materials Assessment

**Anchorage School District,
Wendler Middle School,
Fire Alarm Replacement Design-Build,
2905 Lake Otis Parkway,
Anchorage, Alaska 99508
ASD Project Number: 770011**

Bridging Documents

January 15, 2026

Executive Hazmat Summary:

Under contract to the Anchorage School District (ASD), HTRW, LLC performed an in-house review of the existing hazardous materials-related information for Wendler Middle School located at 2905 Lake Otis Pkwy, Anchorage, AK 99508. No inspections, assessments, surveys, or other similar activities were performed at the site by HTRW, LLC.

The in-house assessment included review of available documentation for the property and subsequent reporting activities. The information available for review included the original construction drawings from 1959, drawings from the major additions in 1965 and 1984, drawings for the 2003 project which extensively renovated the existing building and added additional building areas, various drawings from eighteen other miscellaneous projects, and portions of the AHERA documentation for the school. This information is not included in this limited report but may be requested from the ASD.

Based on the in-house review, there are several categories of common hazardous building materials which may be present at this site which include asbestos-containing materials, lead-containing materials, mercury-containing materials, universal wastes, polychlorinated biphenyls (PCBs), ozone depleting substances (ODS), potentially hazardous heat transfer fluids, devices with radioactive components, and components or items which may be classified as a universal waste. Of these materials, only lead-containing materials, devices with radioactive components, and universal waste batteries and electronics appear likely to be disturbed by the scope of work for the proposed Fire Alarm Replacement Design-Build Project. The disturbance of these materials is incidental to the scope of the work and will only be removed and disposed of as necessary to accommodate the removal of existing components and/or the installation of new components. Other materials, such as asbestos-containing materials, mercury-containing materials, ozone depleting substances (ODS), and potentially hazardous heat transfer fluids may be present at the building, but it is believed that these materials are unlikely to be disturbed by the scope of work for this project.

The following list includes a discussion for materials which appear most likely to be encountered and/or disturbed by this project:

- Many original construction materials from the 1959 and 1965 construction have previously been confirmed to contain asbestos. Similarly, but to a lesser extent, asbestos-containing materials were previously identified in the original construction materials used in the 1984 era. However, based on the existing records, extensive renovation and abatement activities took place throughout the entirety of the school during the 2003 renovations, and it is believed that most of the original construction materials were removed during that project. Although asbestos-containing materials are anticipated to be encountered in isolated areas, there is no apparent work described by the scope of work that appears likely to encounter these materials, such as where construction was not removed, where materials may have been present or damaged inside of inaccessible or difficult to reach locations, under and/or adjacent to fixed cabinetry and other similar components, and other common conditions encountered in buildings having undergone extensive renovation and abatement activities from the early 2000's time period.
- Although less likely, materials installed during the 2003 project, or during other miscellaneous smaller projects since then, may still contain asbestos, and a preconstruction survey of the affected materials based on the contractor's choice of means and methods to complete the work is required to be performed. The assessment must sample all materials that the project will directly disturb, such as gypsum board and/or joint compound where components will be demolished and/or installed, as well as materials that will be indirectly disturbed, such as lay-in ceiling tiles which may need to be moved to perform the work. The following list is provided as an aid to the bidder to determine what materials their sampling scope may entail, however, this is not an exhaustive list and is

only provided for general guidance. Any materials being directly or indirectly disturbed by this project must be sampled in accordance with the contract documents.

- Lay-in ceiling tiles.
- Gypsum board systems (walls, ceilings, soffits, etc.).
- Joint compound on gypsum board systems (walls, ceilings, soffits, etc.).
- Concrete block.
- Grout for concrete block.
- Other miscellaneous materials.
- Lead-containing materials.
 - Lead-containing paints are assumed to be present in the building which will be disturbed by the project which may be regulated by 29 CFR 1926.62 (OSHA's lead in construction regulation). The specifications will require the contractor to test lead-containing waste streams produced by their means and methods, however, no waste streams are anticipated to be classified as a hazardous waste for lead and are assumed to be classified as non-hazardous construction and demolition debris.
 - Paints classified as "lead-based" as defined by 40 CFR 745 are anticipated to be present in this building based on the date of construction. Additionally, portions of this building were constructed prior to 1978 and some or all of those portions may be classified as a child occupied facility in accordance with 40 CFR 745, and therefore, may be regulated by 40 CFR 745. Due to the extensive renovations during the 2003 project and the limited scope of work of the proposed design, it appears unlikely that the work will be regulated by 40 CFR 745, however, it will be up to the contractor to determine if their work will be regulated based on all facts at the time of determination (i.e. after consulting with the ASD has it been determined that kids under the age of 6 may frequently visit some areas of the building, has the contractor's chosen means and methods necessitated the removal of more materials than was anticipated by the hazards abatement designer such that it may exceed the "trigger quantities" in regulation, etc.).
 - Lead-acid batteries are assumed to be present in some equipment and/or components scheduled for demolition. Refer to the discussion on universal wastes below.
- Universal wastes.
 - This project is scheduled to demolish several pieces of equipment, such as the fire alarm control panel, battery boosters, etc. that are assumed to contain a minimum of two batteries per piece of equipment. These batteries are assumed to be of the lead-acid type, however, other types of batteries may also be present in the same or other equipment being demolished by this project. All batteries, regardless of their type, are required to be managed as a universal waste. Should any batteries not be eligible to be managed as a universal waste, then those batteries must be managed as a hazardous waste or other waste class pertinent to the type of battery being disposed of.
 - In addition to the batteries, many electronic devices, components, and equipment are scheduled for demolition by this project. In 2025, Alaska was in the process of transferring the responsibility of the federal hazardous waste regulations often referred to as "RCRA" to the Alaska Department of Environmental Conservation. As part of the rulemaking process, "electronic wastes" were added to the types of wastes eligible to be managed as universal wastes. While it is unclear if local recyclers or handlers of universal waste are setup to receive what is presumed to be much larger quantities of wastes and/or what the current practice is among contractors and building owners, it is required that all waste that may be managed as a universal waste be managed as such. Considering the unknowns, should it be discovered that disposing of the "electronic wastes" as universal wastes is problematic and/or is not yet feasible in the local community, then the electronic wastes may be managed as potentially hazardous wastes which the contractor would then be required to make a hazardous waste determination on.

- Miscellaneous hazardous materials.
 - Devices with radioactive components, such as self-illuminating exit signs and ionization-type smoke detectors, are assumed to be present throughout the school. This project requires the removal and disposal of the existing smoke detection devices which may be of the ionization type. No self-illuminating exit signs are scheduled for disturbance by this project.
 - The existing heating system at the school is assumed to use various types of heat transfer fluids and additives which are assumed to not be classified as a hazardous waste. The heat transfer fluids are not scheduled for disturbance by this project.
- Other considerations.
 - Other potentially hazardous materials may be present at the site, and there may be other health, safety, and environmental considerations which are not a part of this limited report. Examples of these other potentially hazardous materials may include, but are not limited to: wastes classified as Hazardous Wastes, Hazardous Substances, Toxic and Hazardous Substances; Biological Wastes; among others. Examples of other health and safety considerations include, but are not limited to: electrical hazards; fire hazards; hazards from dust, odors, and fumes; scaffolding hazards, among others generally defined in 20 CFR 1910 – General Industry, 29 CFR 1926 – Construction, and other non-specific hazards subject to the General Duty Clause.
 - This limited report identifies those materials defined by this report as common hazardous building materials, however, these materials include only a small portion of the potential health, safety, and environmental hazards which may be present at the site. It is the duty of each employer to analyze each unique situation to determine potential health, safety, or environmental hazards which may be present. Persons performing these analysis may include, but are not limited to: those meeting the OSHA definition of an Authorized Person, Competent Person, or Qualified Person; individuals certified as a Certified Safety Professional, Certified Industrial Hygienist, or Certified Environmental Professional; individuals with academic degrees in Occupational Safety and Health and other closely related degrees.
 - Most sites contain various potentially hazardous materials and workplace hazards, however, this limited report is not intended to identify and characterize each individual material or hazard.

The conclusions and recommendations contained in this limited report are based on professional opinions with regard to the subject matter. These opinions have been arrived at in accordance with currently accepted consulting and industry standards and practices and are subject to the following inherent limitations:

Accuracy of Information: The conclusions, opinions, and recommendations found in this report are based in large part on the results of the laboratory analysis of samples of building materials collected previously at the building and the reports associated with those samples. Should such information provided be found to be inaccurate or unreliable, HTRW, LLC reserves the right to amend or revise its conclusions, opinions, and/or recommendations.

Site Conditions: No onsite assessments or other onsite activities were performed by HTRW, LLC, and the available hazardous materials information for the building may not have included investigation of the entire site and may not be valid throughout all portions of this site. The intent of this limited report was to describe the common hazardous building materials that may be present at the site which may be affected by the proposed Fire Alarm Replacement Design-Build Project at the building. This report was not intended to satisfy any regulatory requirements as they apply to common hazardous building materials, and many common hazardous building materials may not have been identified. This report was not intended to identify all common hazardous building materials that may be present at the building, however, every attempt was made to identify these materials within the budget and scope agreed on with our client and as detailed in this limited report. Homogenous areas of common hazardous building materials may vary from what was previously observed onsite and subsequently described in this report due to limiting factors such as the lack of historical information, paints and surfacing materials, or other concealing components. Although the information in this report may be used as supplemental information to future activities at the building, additional

sampling and investigations must be performed prior to any future maintenance, demolition, or renovation activities.

Evolving Regulatory Landscape: Statutes, regulations, interpretations, court rulings, industry standards, best management practices, among other pertinent factors continuously change and evolve over time, and in many cases may be interpreted differently by different authorities having jurisdiction at local, state, federal, or other levels. The content of this limited report is based on these factors understood to be current at the time of this report and in the locality of where the buildings are located. HTRW, LLC reserves the right to amend or revise the content of this report should any of these factors change.

END OF SECTION

MINOR HAZARDOUS MATERIALS RELATED WORK

PART 1. GENERAL

1.1. NOTIFICATIONS

- A. Notification of Potential Hazards: Asbestos, lead and other potentially hazardous materials are present in the building that may impact the work of all trades. Regulated air contaminants, including asbestos and lead, are also present in settled and concealed dust in and on architectural, structural, mechanical and electrical components or systems throughout the building. All trades shall coordinate with other trades and conduct their work to prevent worker exposure or site contamination. Refer to Specification Divisions 0, 1 and 2 for specific information concerning disturbing, removing and disposing of these materials and the installation of new materials or components. This notification is provided in accordance with EPA and OSHA requirements.

1.2. SECTION INCLUDES

- A. This section applies to work involving the removal, disturbance, transportation, and disposal of minor or incidental quantities of asbestos-containing materials, lead-containing materials (including those related to lead-based paint activities as defined and regulated by 40 CFR 745), mercury-containing materials, universal wastes, PCB-containing materials, equipment with ozone depleting substances, items with radioactive components, and heat transfer fluids in building heating and cooling systems.
- B. This section does not apply to or address requirements related to the removal, disturbance, transportation, and disposal of larger quantities of asbestos-containing materials, lead-containing materials (including those related to lead-based paint activities as defined and regulated by 40 CFR 745), mercury-containing materials, universal wastes, PCB-containing materials, equipment with ozone depleting substances, items with radioactive components, and heat transfer fluids in building heating and cooling systems such as would be found in a renovation or demolition.
- C. This section does not apply to or address requirements related to any other health, safety, or environmental concerns related to other types of materials or conditions which may be present at this site; stored materials or other materials which are not installed building materials or components; contractor supplied or produced wastes; or any other wastes not specifically described as included.

1.3. CONTRACT DOCUMENTS AND RELATED REQUIREMENTS

- A. Drawings and general provisions of the contract, including general and supplementary conditions and other Division 0, 1, and 2 specifications, apply to the work of this section. The contract documents show or describe the work to be done under the contract including related requirements and conditions impacting the project. Related requirements and conditions include, but are not limited to, applicable codes and regulations, notices and permits, existing site conditions and restrictions on use of the site, security of the site, requirements for partial owner occupancy during the work, coordination with other work and the phasing of the work, among others. In the event the Contractor discovers a conflict in the contract documents and/or requirements, the conflict must be brought to the immediate attention of the Owner for resolution. Whenever there is a conflict or overlap in the requirements, the most stringent shall apply. Any actions taken by the Contractor without authorization from the Owner shall become the sole risk and responsibility of the Contractor. All costs incurred due to such action are also the responsibility of the Contractor.

1.4. RELATED WORK

- A. 02 26 00 – Hazardous Materials Assessment

1.5. REFERENCE STANDARDS

- A. The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.
- B. All work under this contract shall be done in strict accordance with all applicable federal, state, and local regulations, standards and codes governing miscellaneous hazardous materials removal work, and any other trade work done in conjunction with the project. All applicable codes, regulations, and standards are adopted into this specification and will have the same force and effect as this specification.
- C. The most recent edition of any relevant regulation, standard, document, or code shall be in effect. Where conflict among the requirements or with these specifications exists, the most stringent requirement(s) shall be utilized.
- D. All related regulations, statutes, public laws, registers, and regulatory guidance are incorporated by reference.
- E. Alaska Administrative Code (AAC)
 - 1. 8 AAC 61 Occupational Safety and Health Division
 - 2. 8 AAC 61.600-790 Asbestos Abatement Certification
 - 3. 8 AAC 61.1010-1190 Occupational Safety and Health Standards
 - 4. 17 AAC 25 Operations, Wheeled Vehicles
 - 5. 18 AAC 60 Solid Waste Management
 - 6. 18 AAC 60.450 Asbestos Disposal Regulations
 - 7. 18 AAC 62 Hazardous Waste
 - 8. 18 AAC 62 Article 11 Standards for Universal Waste Management
 - 9. 18 AAC 70 Water Quality Standards
 - 10. 18 AAC 72 Wastewater Treatment and Disposal
 - 11. 18 AAC 75 Oil and Other Hazardous Substances Pollution Control
 - 12. 18 AAC 85 Radiation Protection
- F. Alaska Statutes (AS)
 - 1. AS Section 18.31 Asbestos
 - 2. AS Section 18.60 Safety
 - 3. AS Section 18.62 Certificates of Fitness
 - 4. AS Section 23.05 Department of Labor and Workforce Development
- G. American National Standards Institute (ANSI)
 - 1. ANSI Z41.1 Personal Protection - Protective Footwear
 - 2. ANSI Z535 Series Safety Alerting Standards
- H. American Society of Safety Professionals (ASSP)
 - 1. ASSP Z9.2 Fundamentals Governing the Design and Operation of Local Exhaust Ventilation Systems
- I. ASTM International (ASTM)
 - 1. ASTM C732 Aging Effects of Artificial Weathering on Latex Sealants
 - 2. ASTM D522/D522M Mandrel Bend Test of Attached Organic Coatings
 - 3. ASTM D2794 Standard Test Method for Resistance of Organic Coatings to the Effects of Rapid Deformation (Impact)
 - 4. ASTM D4397 Standard Specification for Polyethylene Sheeting for Construction, Industrial, and Agricultural Applications
 - 5. ASTM D4801 Standard Specification for Polyethylene Sheeting in Thickness of 0.25 mm (0.010 in.) and Greater
 - 6. ASTM E84 Standard Test Method for Surface Burning Characteristics of Building Materials

7. ASTM E96/E96M Standard Test Methods for Water Vapor Transmission of Materials
 8. ASTM E119 Standard Test Methods for Fire Tests of Building Construction and Materials
 9. ASTM E736/E736M Standard Test Method for Cohesion/Adhesion of Sprayed Fire-Resistive Materials Applied to Structural Members
 10. ASTM E1368 Visual Inspection of Asbestos Abatement Projects
- J. Compressed Gas Association (CGA)
1. CGA G-7 Compressed Air for Human Respiration; 6th Edition
- K. Institute of Environmental Sciences and Technology (IEST)
1. IEST-Recommended Practices-Contaminant Control (IEST-RP-CC-xxxx) Series
- L. International Air Transport Association (IATA)
1. IATA DGR Dangerous Goods Regulations
- M. International Organization for Standardization (ISO)
1. ISO 13.340 Protective Equipment Series Standards
- N. International Safety Equipment Association (ISEA)
1. ANSI/ISEA 101 Limited-Use and Disposable Coveralls—Size and Labeling Requirements
 2. ANSI/ISEA 105 Hand Protection Classification
 3. ANSI/ISEA Z87.1 Occupational and Educational Personal Eye and Face Protection Devices
 4. ANSI/ISEA Z88 Series Respiratory Protection Standards
- O. National Fire Protection Association (NFPA)
1. NFPA 701 Standard Methods of Fire Tests for Flame Propagation of Textiles and Films
 2. NFPA 1990 Standard for Protective Ensembles for Hazardous Materials and CBRN Operations
- P. National Institute for Occupational Safety and Health (NIOSH)
1. NIOSH NMAM NIOSH Manual of Analytical Methods
- Q. Nuclear Regulatory Commission
1. 10 CFR Chapter I Nuclear Regulatory Commission
 2. 10 CFR 20 Standards for Protecting Against Radiation
- R. Underwriters Laboratories (UL)
1. UL 586 Standard for Safety High-Efficiency Particulate, Air Filter Units
- S. United States Army Corps of Engineers (USACE)
1. Engineer Manual EM 385-1-1 Safety and Health Requirements
- T. United States Department of Transportation
1. 49 CFR Subchapter C Hazardous Materials Regulations
 2. 49 CFR 107 Hazardous Materials Program Procedures
 3. 49 CFR 171 General Information, Regulations, and Definitions
 4. 49 CFR 172 Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, and Training Requirements
 5. 49 CFR 173 Shippers - General Requirements for Shipments and Packagings
 6. 49 CFR 178 Specifications for Packagings

7. 49 CFR 179 Specifications for Tank Cars
- U. United States Environmental Protection Agency (EPA)
1. EPA 340/1-90/018 Asbestos/NESHAP Regulated Asbestos Containing Materials Guidance
 2. 40 CFR 61 National Emission Standards for Hazardous Air Pollutants
 3. 40 CFR 61-Subpart A General Provisions
 4. 40 CFR 61-Subpart M National Emission Standard for Asbestos
 5. 40 CFR 82 Protection of Stratospheric Ozone
 6. 40 CFR 124 Procedures for Decisionmaking
 7. 40 CFR Subchapter I Solid Wastes
 8. 40 CFR 260 Hazardous Waste Management System: General
 9. 40 CFR 261 Identification and Listing of Hazardous Waste
 10. 40 CFR 262 Standards Applicable to Generators of Hazardous Waste
 11. 40 CFR 263 Standards Applicable to Transporters of Hazardous Waste
 12. 40 CFR 264 Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
 13. 40 CFR 265 Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
 14. 40 CFR 266 Standards for the Management of Specific Hazardous Wastes and Specific Types of Hazardous Waste Management Facilities
 15. 40 CFR 267 Standards for Owners and Operators of Hazardous Waste Facilities Operating Under a Standardized Permit
 16. 40 CFR 268 Land Disposal Restrictions
 17. 40 CFR 270 EPA Administered Permit Programs: The Hazardous Waste Permit Program
 18. 40 CFR 271 Requirements for Authorization of State Hazardous Waste Programs
 19. 40 CFR 272 Approved State Hazardous Waste Management Programs
 20. 40 CFR 273 Standards for Universal Waste Management
 21. 40 CFR 300 National Oil and Hazardous Substances Pollution Contingency Plan
 22. 40 CFR 302 Designation, Reportable Quantities, and Notification
 23. 40 CFR 745 Lead-Based Paint Poisoning Prevention in Certain Residential Structures
 24. 40 CFR 761 Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions
 25. 40 CFR 763 Asbestos
- V. United States Military Standards
1. MIL-STD-282 Filter Units, Protective Clothing, Gas-Mask Components and Related Products: Performance Test Methods
- W. United States Occupational Safety and Health Administration (OSHA)
1. 29 CFR 1910.120 Appendix B General Description and Discussion of the Levels of Protection and Protective Gear.
 2. 29 CFR 1910 Subpart I Appendix A Nonmandatory Compliance Guidelines for Hazard Assessment and Personal Protective Equipment Selection
 3. 29 CFR 1910.134 Respiratory Protection
 4. 29 CFR 1926 Safety and Health Regulations for Construction
 5. 29 CFR 1926.21 Safety Training and Education
 6. 29 CFR 1926.28 Personal Protective Equipment
 7. 29 CFR 1926.32 Definitions
 8. 29 CFR 1926.51 Sanitation
 9. 29 CFR 1926.53 Ionizing Radiation
 10. 29 CFR 1926.55 Gases, Vapors, Fumes, Dusts, and Mists
 11. 29 CFR 1926.59 Hazard Communication

12. 29 CFR 1926.62 Lead in Construction
13. 29 CFR 1926.65 Hazardous Waste Operations and Emergency Response
14. 29 CFR 1926 Subpart E (Parts 95-107) Personal Protective and Life Saving Equipment
15. 29 CFR 1926.95 Criteria for Personal Protective Equipment
16. 29 CFR 1926.103 Respiratory Protection
17. 29 CFR 1926.200 Accident Prevention Signs and Tags
18. 29 CFR 1926.1101 Asbestos
19. OSHA Publication 3071 Job Hazard Analysis

1.6. DEFINITIONS

- A. Definitions used in this section include those used in Divisions 0, 1, and 2; those defined by the Reference Standards listed above; and the following:
- B. Auxiliary Work
 1. Auxiliary Work is intended to include all work that is not defined as a Major Element by this section. An example of Auxiliary Work includes work such as routing of new mechanical or electrical systems within the Main Work Areas and to areas outside of the Main Work Area(s).
- C. Contractor's Professional Industrial Hygienist (CPIH)
 1. The Contractor's Professional Industrial Hygienist (CPIH) is responsible for all monitoring, inspections, sampling, and testing which is not work required to be performed by the IIHT. The CPIH and CPIH's employer must have no employee or employer relationship which could constitute a conflict of interest.
- D. General Contractor (GC)
 1. General Contractor (GC) means the entity the Owner has entered into agreement with to serve as the overall authority of the construction-related aspects of the contract.
- E. Hazardous Materials
 1. As used in this section, hazardous materials means: asbestos-containing, lead-containing materials, mercury-containing materials, PCB-containing light ballasts and associated contamination, equipment with ozone depleting substances, items with radioactive components, and heat transfer fluids in building heating and cooling systems.
- F. Hazardous Materials Assessment (HMA)
 1. Hazardous Materials Assessment (HMA) means any reports or other existing information related to asbestos-containing materials or other potentially hazardous materials present at the site which is provided prior to the award of the contract.
- G. Hazards Removal Contractor (HRC)
 1. Hazards Removal Contractor (HRC) means the GC or other subcontractor(s) responsible for conducting the work required by this section.
- H. Independent Industrial Hygiene Technician (IIHT)
 1. The Independent Industrial Hygiene Technician IIHT is responsible for conducting all final visual inspections and clearance monitoring required by this section. The IIHT and IIHT's employer must have no employee or employer relationship which could constitute a conflict of interest.
- I. Main Work Area

1. Main Work Area is intended to include area(s) which have defined boundaries where the majority of work is located.

J. Major Element

1. Major Element is intended to include the elements of work which are located within the Main Work Area(s), whose scope is not subject to variations in means or methods, and can generally be identified solely by graphical representation or notation on the contract drawings.

K. Refrigerant Recovery Technician (RRT)

1. Refrigerant Recovery Technician (RRT) means the specialty subcontractor responsible for the removal, recovery, and recharging of ODS from equipment located onsite.

L. Transportation and Disposal Coordinator (TDC)

1. Transportation and Disposal Coordinator (TDC) means the person selected by the GC who is responsible for ensuring compliance with all applicable rules and regulations pertaining to the wastes generated by the work covered by this section.

1.7. QUALITY ASSURANCE

A. General

1. Administrative and supervisory personnel shall, at a minimum, consist of the HRC's Competent Person, the CPIH, and the IIHT. These employees are the GC's representatives responsible for compliance with this section. Non-supervisory personnel must consist of an adequate number of qualified personnel to meet the performance requirements of the project. All personnel must meet required qualifications.
2. Comply with the specific requirements of this contract, and other applicable laws, ordinances, rules, and regulations of federal, state, and local authorities having jurisdiction regarding removing, handling, storing, transporting, and disposal of the hazardous materials covered by this section. Notify the Owner and request resolution of conflicts between regulations and specified requirements before starting work.

B. Responsibilities

1. Owner Responsibilities Prior to Commencement of Work
 - a. The Owner will notify occupants adjacent to the work areas of project dates and requirements for relocation, if needed. Arrangements must be made prior to starting work for relocation of desks, files, equipment, and personal possessions if required to complete the work. The Owner will coordinate utilities use, locations, and other conditions of use with the GC.
2. HRC and GC Responsibility
 - a. The HRC shall assume primary responsibility and liability for compliance with all applicable federal, state, and local regulations related to all aspects of the hazardous materials removal work. The GC shall assume secondary responsibility and liability for their own and their other subcontractor's compliance with all applicable federal, state, and local regulations as it relates to potential hazards associated with the hazardous materials present in the work areas. The HRC and GC are responsible for providing and maintaining required documentation including, but not limited to, training, accreditations, medical exams, medical records, personal protective equipment (PPE), respiratory protection, and respirator fit testing, as required by applicable federal, state, and local regulations and

this section. The HRC and GC must hold the Owner harmless for any Contractor failure to comply with any applicable work, packaging, transporting, disposal, safety, health, or environmental regulations or contract requirements on the part of themselves, their employees, or their subcontractors.

3. TDC Responsibility

- a. The GC must designate, by position and title, one person to act as the TDC who is responsible for ensuring compliance with all applicable federal, state, and local regulations related to the transportation and disposal hazardous materials waste generated by the work covered by this section. The TDC's responsibilities include, but are not limited to, accurate identification and classification of the hazardous materials wastes; determination of proper shipping names; identification of marking, labeling, packaging, and placarding requirements; completion of waste profiles, hazardous waste manifests, PCB manifests, bill of lading, exception and discrepancy reports; and all other transportation and disposal documentation required by this section.

C. Site Conditions

1. The condition of the hazardous materials at the site are described in the HMA, and those conditions were accurate as of the dates of inspection cited in that HMA. Prior to starting work in any area, the HRC and GC must verify the accuracy of the conditions that are presented in the HMA, the hazards abatement design specifications, and the HRC's approved Hazards Abatement Plan (HAP).
2. The building may be occupied and in use during the work. The HRC and GC must coordinate the timing of work with the Owner and other trades to ensure there are no adverse effects to building functions or occupants, and that other performance requirements of the contract are met.

D. Security

1. The HRC and GC are jointly responsible for and must control access to the areas where hazardous materials removal work is being performed and areas where hazardous materials are being stored. Access must be restricted to properly trained and protected persons authorized to be in those areas. Entry into these areas by unauthorized persons must be reported immediately to the Competent Person by anyone observing the entry. The Competent Person must immediately require any unauthorized person to leave the regulated area and then notify the Owner and the GC.

E. Variations in Quantity

1. The estimated quantities of hazardous materials to be removed and/or disturbed are shown in the description of work below. Nothing in this section may be interpreted as limiting the extent of work otherwise required by this contract and related documents. Refer to the HMA for detailed information on the hazardous materials known or assumed to be present at this site.
2. No quantities are provided for the removal and disturbance of lead-containing materials which are incidental to the demolition work (i.e. demolition or surface preparation of walls or other components painted with lead-containing paints). Quantities are provided for metallic lead found in components which can generally be removed intact (e.g. batteries, VTR flashings, sheet lead, etc.). Metallic lead quantities do not include lead-containing solders or lead-containing sealants.
3. The estimated quantities are to be considered a baseline for bidding purposes only and are based on limited assessments of materials located within the project work areas which were made accessible to the designer for use in preparing the hazards

abatement drawings and specifications. The HRC and GC must satisfy themselves of the actual quantities to be removed and disposed of and to conduct that work in accordance with applicable laws of the authorities having jurisdiction. The HRC and GC must document the locations and quantities of hazardous materials removed each day from each work area. Quantities of hazardous materials must match the units used on the hazards abatement specifications. Where, in the opinion of the HRC or GC, the use of alternative units is necessary, those alternative units may be used with preapproval from the Owner. Minor variations (+/- 10 percent) in the quantities of hazardous materials shown on the hazards abatement specifications are considered as having no impact on contract price or the performance requirements of this contract. The HRC and GC must submit unit pricing within their bid for each hazardous materials identified in the specifications in case additional quantities of material in excess of the minor variation stated above are required to be removed or disturbed and disposed of in order to accommodate the work. The unit prices submitted by the HRC and GC are to be used as the cost basis for additional work required under the contract.

F. Preconstruction Conference

1. After the Preconstruction Submittals have been reviewed and approved, a preconstruction meeting must be held with the following parties in attendance at a minimum: the HRC and their Competent Person, the GC, other interested subcontractors, the CPIH, the IIHT, and the Owner. The goals of the preconstruction meeting are to discuss the planned scope, phasing, and overall coordination and execution of the hazardous materials work; to verify that the approved Preconstruction Submittals are still valid; to identify any potential issues with the project scope, timing, or planning as it relates to the hazardous materials scope of work, and to ensure agreement among the parties prior to commencing work. The preconstruction meeting minutes and sign in sheet must be submitted to the Owner within 5 days after the completion of the preconstruction meeting.

G. Stop Work Order

1. If the Owner or representative of a regulatory authority having jurisdiction presents a verbal Stop Work Order, the HRC and GC must immediately stop all hazardous materials removal work and must maintain all work area protections. If a verbal Stop Work Order is issued, the Owner or a representative of a regulatory authority having jurisdiction will follow-up with a written order to the HRC and GC as soon as it is practicable. The HRC and GC must not resume any hazardous materials removal activity until authorized to do so in writing by the Owner or a representative of a regulatory authority having jurisdiction. A Stop Work Order may be issued at any time the Owner or a representative of a regulatory authority having jurisdiction determines hazardous materials removal work conditions/activities are not being performed within the requirements of this specification, the HRC's approved HAP, regulatory requirements, or that an imminent hazard exists to human health or the environment. Work stoppage will continue until conditions have been corrected to the satisfaction of the Owner or the representative of a regulatory authority having jurisdiction. Standby time and costs for corrective actions will be borne by the HRC or GC, including any applicable time or expense incurred by any of the personnel categories stated in the beginning of this paragraph, as a result of the Stop Work Order. The occurrence of any of the following events must be reported immediately by the HRC's Competent Person to the Owner and GC using the most expeditious means (e.g., verbal or telephonic), followed up with written notification to the Owner as soon as practicable. The HRC and GC must immediately stop hazardous materials removal removal/disturbance activities and initiate corrective actions if:

- a. Airborne PCM analysis results outside of the asbestos regulated work area exceeds 0.01 fibers per cubic centimeter or background whichever is higher.
 - b. Mercury vapor concentrations exceed 600 ng/m³ outside of the regulated work area.
 - c. Breach or break in regulated area containment barrier(s).
 - d. Pressure within a Negative Pressure Enclosure falls below -0.02 inch WCG.
 - e. Serious injury/death at the site.
 - f. Fire/safety emergency at the site.
 - g. Respiratory protection system failure.
 - h. Power failure or loss or inadequate use of wetting agent.
 - i. Any visible emissions observed outside the regulated area.
 - j. Failure to follow project specification requirements.
- H. Protection of Existing Work to Remain
 1. The HRC and GC must not damage or cause contamination to existing finishes or other existing elements or areas scheduled to remain at the site. Where such elements or areas are damaged or contaminated as verified by the Owner using visual inspection and/or sample analysis, the HRC and GC must stop work and restore those elements or areas to their original undamaged and uncontaminated condition at no additional cost to the Owner. Once the elements or areas have been restored to the satisfaction of the Owner, the work may proceed.
- I. Monitoring, Inspections, Sampling, and Testing
 1. All sampling required by this section must be performed by qualified persons meeting the minimum requirements of this section.
 2. The CPIH is responsible for conducting all non-clearance monitoring, inspections, sampling, and testing required by this section.
 3. All final visual inspections and clearance air monitoring required by this section must be performed by the IIHT.
 4. All costs related to the monitoring, inspections, sampling, and testing required by this section are to be borne by the HRC and/or GC.
 5. All costs related to additional monitoring, inspections, sampling, and testing exceeding the minimum requirements of this section, including those costs for any failed final visual inspections or clearance air monitoring, must come at no additional cost to the Owner.
 6. The Owner or the representative of a regulatory authority having jurisdiction may observe any monitoring, inspections, sampling, and testing performed under this contract at any time or location at their discretion.
 7. The Owner or the representative of a regulatory authority having jurisdiction may perform additional monitoring, inspections, sampling, and testing at any time or location at their discretion.
- J. Onsite Documentation
 1. The HRC and GC must ensure employees have access to complete copies of the contract documents, the submittal items and other elements required by this section, and to all applicable standards, regulations, codes, and other documents. Electronic format is acceptable except where the contract documents, the submittal items and other elements required by this section, or applicable standards, regulations, codes, or other documents specifically require physical copies to be maintained. Access must be made available at the jobsite at no cost to the employee during normal working hours or at all times work covered by this section is being performed.

1.8. REQUIREMENTS

A. Description of Work

1. The hazardous materials work of this project is anticipated to be minor in nature and incidental to the proposed Wendler Middle School Fire Alarm Replacement Design-Build Project. No onsite hazardous materials assessment was performed for this project, and it is the GC's responsibility to ensure the pre-work inspection requirements of this section are performed prior to any work at the building which may disturb existing materials. A summary of the work is as follows:
 - a. Due to the age of the building and the scope of work for this project, no asbestos-containing materials are anticipated to be encountered or disturbed. However, a pre-work inspection must be performed in accordance with this section. Materials anticipated to be disturbed include lay-in ceiling tiles, gypsum board systems (walls, ceilings, soffits, etc.), joint compound on gypsum board systems (walls, ceilings, soffits, etc.), concrete block, and grout for concrete block, however, additional materials may be encountered. The bid must include costs to collect a minimum of 50 bulk samples for asbestos, and unit pricing for additional sampling must also be included in the bid. Requirements related to qualifications, sample frequency and quantity, recordkeeping, submittals, and other related requirements are found elsewhere in this section.
 - b. Disturbance of lead-containing paints as necessary to accommodate the project, such as for penetrations thru walls, ceilings, cabinetry, or other painted surfaces, or for painting and patching activities. This work may be regulated by 29 CFR 1926.62, however, it is the responsibility of the Contractor to determine the applicability of the regulation to their work and to ensure complete compliance with the requirements of that regulation.
 - c. The work requires the removal and disposal of approximately 6 universal waste batteries from the fire alarm control panel, fire alarm annunciator, and the fire alarm booster panel(s).
 - d. The work requires the removal and disposal of approximately 47 smoke detection devices with potential radioactive components.
 - e. The work requires the removal and disposal of "electronic devices" as defined by Alaska Department of Environmental Conservation. Devices meeting this definition are not specifically quantified but generally include all electronic devices that do not contain other hazardous constituents that are inseparable, such as refrigeration equipment and old cathode-ray televisions, that will be disposed of by this project.
2. The work includes all related submittals, monitoring, inspections, sampling, testing, removal, disturbance, transportation, disposal, recordkeeping, documentation, and other elements as specified herein.

1.9. LISTING OF REQUIRED SUBMITTALS

A. Preconstruction Submittals

1. Pre-work inspections and sampling and analysis plan.
2. The following items must be submitted if the pre-work inspections and sampling identify any asbestos-containing or lead-containing materials which will require disturbance by the project:
 - a. Hazard Abatement Plan (HAP).
 - b. Employee training documentation.
 - c. Competent Person documentation.
 - d. Affidavit of Medical Surveillance, Respiratory Protection, and Training Accreditation.

- e. License and insurance for the HRC.
- f. CPIH documentation.
- g. Testing laboratory documentation.
- h. Documentation of notifications.
- i. TDC documentation.
- j. Waste transporter documentation.
- k. Waste disposal site documentation.

B. Periodic Submittals

- 1. Sampling results.
- 2. Project logs.
- 3. Updates to any of the preconstruction submittals.

C. Closeout Submittals

- 1. Waste transport records.
- 2. Disposal site receipts.
- 3. Updates to any previously submitted submittals.

1.10. DETAILS OF REQUIRED PRECONSTRUCTION SUBMITTALS

A. Pre-work inspections and sampling and analysis plan.

- 1. A plan which details the pre-work inspections which will be performed by the contractor and associated sampling and analysis which will be performed must be submitted prior to the start of work. The plan must be in accordance with EPA recommendations and industry standards. The sampling and analysis plan must include the following general elements:
 - a. Qualifications and accreditations of persons performing the pre-work inspections.
 - b. The location of the sampling activities.
 - c. Existing waste characterization data for the materials to be sampled, if any.
 - d. Sampling rationale and objectives.
 - e. The material to be sampled and constituents of concern.
 - f. Sample selection and collection procedures.
 - g. Sample documentation and shipment.
 - h. Analytical methods to be used and each method's limits of detection, limits of quantification, and reporting units.
 - i. The selected analytical laboratory and their qualifications and accreditations

B. Hazard Abatement Plan (HAP)

- 1. If the pre-work inspections identify any asbestos-containing materials or lead-containing materials that will require disturbance by this project, the contractor must submit a Hazard Abatement Plan (HAP). The HAP must not be combined with other hazard abatement plans and must be prepared and signed by a State-accredited EPA Project Designer for asbestos work and by the HRC and/or GC and their Competent Person for all other work. Provide shop drawings for each affected area and a table of contents for each submittal item, which follows the sequence of requirements in the contract. The plan, at a minimum, must include the proposed means, methods, materials, equipment, and other procedures to be used by the HRC which must include, but not be limited to, the following elements for each of the hazardous material to be removed:

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- a. Procedures for notification of other employers and their employees performing work at the site under this contract, building occupants, and other interested parties or as directed by the Owner.
 - b. A description of each hazardous material to be removed.
 - c. Estimated quantities of each hazardous material to be removed.
 - d. A pre-work sampling plan describing the procedures to be used to identify, sample, and quantify any additional hazardous materials found that will require disturbance.
 - e. Procedures used to identify, execute, and document potential pre-cleaning activities.
 - f. Procedures to ensure the protection of existing work to remain.
 - g. Isolation and protection of existing systems.
 - h. A detailed plan of the safety precautions such as lockout, tagout, tryout, fall protection, and confined space entry procedures and equipment and work procedures to be used during the removal, disturbance, or demolition of each hazardous material to be removed.
 - i. Work area setup to be used for each type of hazardous material to be removed.
 - j. A description of the minimum training requirements for employees for each type of hazardous material to be removed.
 - k. Personal protective equipment to be used for each type of hazardous material to be removed.
 - l. Procedures for the decontamination of personnel for each type of hazardous material to be removed.
 - m. Removal procedures for each type of hazardous material to be removed.
 - n. Procedures to be used for the decontamination of existing building components for each type of hazardous material to be removed.
 - o. Expendable materials to be used during the removal of hazardous materials for each type of hazardous material to be removed.
 - p. Procedures to be used in the event hazardous materials are spilled, leaked, damaged, or otherwise released in a manner resulting in contamination of existing building components.
 - q. Procedures to ensure negative air pressure is maintained within Negative Pressure Enclosures and corrective actions to be taken in the event of equipment failure or other events which may lead to inadequate negative pressure.
 - r. Procedures for supplying, controlling, treating, and discharging water and wastewater.
 - s. Monitoring and sampling to be used for each type of hazardous material to be removed.
 - t. Waste packaging, storage, loadout, decontamination, manifesting, transport, and disposal procedures.
 - u. Procedures to follow in the event additional quantities of hazardous materials are encountered after the start of work.
 - v. Current copies of accreditations relevant to the hazardous materials being removed of the person who prepared the MHRP and their Competent Person.
2. At a minimum, shop drawings must show the following elements:
- a. The locations and extents of each regulated work area.
 - b. Locations of critical barriers.
 - c. Locations of existing systems within and/or adjacent to the regulated work area boundaries to be isolated during the hazardous materials removal activities.
 - d. Location of decontamination area(s).

- e. Location(s) of negative pressure exhaust routing.
- f. Location of make-up air entrance(s) into each regulated work area.
- g. Locations of water supplies and wastewater treatment and discharge area(s).
- h. Locations of monitoring and sampling equipment.
- i. Location(s) of first aid materials.
- j. Location(s) of fire extinguishers.
- k. Emergency egress routes.
- l. Waste loadout route(s).
- m. Location of temporary storage area(s).
- n. The location of copies of all applicable codes, standards, regulations, notices, SDSs, air monitoring results, the HRC's and/or GC's approved work plan, and other pertinent documents.

3. Shop drawings are required only if:

- a. Poured polyurethane gym flooring classified as a hazardous waste for mercury is being removed.
- b. The hazardous materials being removed are required to be performed within a regulated area.
- c. Monitoring and sampling is required due to the type of hazardous material being removed.

C. Employee Training

- 1. All persons involved in asbestos work must have received training required by 29 CFR 1926.1101, 40 CFR 763, 8 AAC 61, and any other applicable state or local regulations.
- 2. Persons performing, designing, directly supervising, or monitoring asbestos abatement work must have a current State of Alaska Asbestos Abatement Certificate of Fitness in accordance with 8 AAC 61.600.
- 3. Submit proof of current accreditation for persons who received training under 40 CFR 763 and submit copies of current State of Alaska Asbestos Abatement Certificates of Fitness. Organize certificates by individual worker, not grouped by type of certification.
- 4. Due to the potential to contact asbestos-containing materials in project areas throughout this site, all personnel performing work at this site are required to have a minimum of "two-hour asbestos awareness training". Proof of this training must be maintained onsite for the duration of the project but is not required to be submitted by this section. Only personnel who are trained and State-accredited as an EPA Worker or EPA Contractor/Supervisor are permitted to disturb asbestos-containing materials.
- 5. All persons involved in the removal of the following hazardous materials must have received training required by 29 CFR 1926.21; 29 CFR 1926.62, 8 AAC 61; 40 CFR 273.16; and any other state or local regulations applicable to the specific hazardous material:
 - a. Removal of intact universal waste mercury-containing lamps, mercury-containing thermostats, or mercury-containing equipment.
 - b. Removal of intact universal waste batteries.
 - c. Removal of intact PCB-containing light ballasts.
 - d. Removal of heat transfer fluids other than those classified as a hazardous waste.
 - e. Removal of intact components with radioactive materials.
 - f. Removal of intact equipment containing ozone depleting substances.
 - g. Removal of lead-containing materials other than those classified as a hazardous waste.

6. In addition to the training required above, all persons involved in the removal and/or cleanup of the following hazardous materials must have received training equivalent to the training in 29 CFR 1926.65(e):
 - a. Poured polyurethane gym flooring classified as a hazardous waste for mercury.
 - b. Non-intact mercury-containing lamps, mercury-containing thermostats, or mercury-containing equipment.
 - c. Non-intact universal waste batteries.
 - d. Heat transfer fluids classified as a hazardous waste.
 - e. Non-intact PCB-containing light ballasts.
 - f. Removal of lead-containing materials classified as a hazardous waste.
7. All persons involved in the removal of non-intact components with radioactive materials or cleanup and removal of components contaminated by radioactive materials must have received training equivalent to the training in 10 CFR 20; 29 CFR 1926.53; and any other applicable state or local regulations.
8. All persons involved in the recovery of ozone depleting substances from equipment must have received training required by 40 CFR 82.161 and any other applicable state or local regulations.
9. All persons who perform the functions of a Hazmat Employee as defined by 49 CFR 171.8 must be trained in accordance with 49 CFR 172 Subpart H.
10. Submit proof of current accreditation for persons who received training required by this section. Organize certificates by individual worker, not grouped by type of certification.
11. Additional training related to health, safety, and environmental issues may be required, and it is the responsibility of the HRC, the HRC's Competent Person, the GC, and the CPIH to identify those additional issues and to recommend training as necessary to ensure compliance with applicable regulations.

D. Competent Person

1. All asbestos work must be performed under the supervision of a Competent Person as defined by 29 CFR 1926.1101 who additionally has documented experience and training including, but not limited to, the administration and supervision of asbestos abatement projects including exposure assessments and monitoring, work practices, abatement methods, protective measures for personnel, setting up and inspecting asbestos abatement work areas, evaluating the integrity of containment barriers, placement and operation of local exhaust systems, ACM generated waste containment and disposal procedures, decontamination unit installation and maintenance requirements, site safety and health requirements, and notification of other employees onsite.
2. All hazardous materials removal work must be performed under the supervision of a Competent Person as defined by 29 CFR 1926.32 and 29 CFR 1926.62 and who additionally meets the employee training requirements of this section.
3. Certify in writing that the proposed Competent Person meets the minimum requirements of this section and submit evidence to support such certification. Examples of acceptable documentation include, but are not limited to, resumes, training documentation, or descriptions of prior experience supervising or performing hazardous materials removal work.

E. Affidavit of Medical Surveillance, Respiratory Protection, and Training Accreditation

1. Provide a written statement certifying that the following records are current and available on request for all persons engaged in hazardous materials work:

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- a. Evidence of training on the contents of 29 CFR 1926.21; 29 CFR 1926.62; 29 CFR 1926.1101; 40 CFR 763, 8 AAC 61, and other related training required by this section and federal, state, or local agencies.
 - b. Evidence of training on the contents of the HRC's written Respiratory Protection Program and the requirements of 29 CFR 1910.134 and its appendices.
 - c. Documentation of medical evaluations and determinations, respirator fit tests, and associated recordkeeping required by 29 CFR 1926.103, 29 CFR 1926.62, 29 CFR 1926.1101, and other regulations required by this section and federal, state, or local agencies.
- F. HRC License and Insurance
 - 1. Submit a copy of the HRC's license issued by the State of Alaska and a copy of their insurance policy, including exclusions, with a letter from their agent stating in plain language the coverage provided and the fact that hazardous materials removal activities are covered by the policy.
- G. Contractor's Professional Industrial Hygienist (CPIH)
 - 1. Submit the following information for the Contractor's Professional Industrial Hygienist (CPIH):
 - a. The name, address, and telephone number of the CPIH.
 - b. Evidence of current training and accreditation as a Building Inspector and Contractor/Supervisor Abatement Worker as described by 40 CFR 763.
 - c. Current State of Alaska Asbestos Abatement Certificate of Fitness in accordance with 8 AAC 61.600.
 - d. Evidence of successful completion of the National Institute of Occupational Safety and Health (NIOSH) 582 course "Sampling and Evaluating Airborne Asbestos Dust" or equivalent.
 - e. If performing onsite analysis of Phase Contrast Microscopy air samples, the CPIH must be currently registered as an Asbestos Analyst and affiliated with a Registered Organization under the American Industrial Hygiene Association (AIHA) Asbestos Analyst Registry (AAR).
 - f. Alternatively, onsite analysis of Phase Contrast Microscopy air samples may be permitted if the CPIH participates as an asbestos analyst in their laboratory's Industrial Hygiene Proficiency Analytical Testing (IHPAT) program and evidence showing their satisfactory performance in the last four rounds of the program is submitted.
 - g. Evidence that the CPIH meets the employee training requirements of this section for each hazardous material affected by the project.
 - h. The CPIH and the HRC and GC must not have an employee/employer relationship or financial relationship which could constitute a conflict of interest.
- H. Testing Laboratory
 - 1. The minimum analytical capabilities required for the hazardous materials work under this contract include:
 - a. National Institute of Occupational Safety and Health (NIOSH) Manual of Analytical Methods (NMAM) Method 7400: Asbestos and Other Fibers by Phase Contrast Microscopy.
 - b. National Institute of Occupational Safety and Health (NIOSH) Manual of Analytical Methods (NMAM) Method 7402: Asbestos by Transmission Electron Microscopy.

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- c. United States Environmental Protection Agency Method 600, R93-116: Determination of Asbestos in Bulk Building Materials by Polarized Light Microscopy.
 - d. United States Environmental Protection Agency "Interim Transmission Electron Microscopy Analytical Methods-Mandatory and Non-Mandatory-and Mandatory Section to Determine Completion of Response Actions" as found in 40 CFR 763, Subpart E, Appendix A.
 - e. Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, EPA publication SW-846, Method 1110A – Corrosivity towards steel.
 - f. Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, EPA publication SW-846, Method 1311 – Toxicity Characteristic Leaching Procedure.
 - g. Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, EPA publication SW-846, Method 6010D – Inductively Coupled Plasma-Atomic Emission Spectrometry.
 - h. Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, EPA publication SW-846, Method 6020B – Inductively Coupled Plasma-Mass Spectrometry.
 - i. Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, EPA publication SW-846, Method 7000B – Flame Atomic Absorption Spectrophotometry.
 - j. Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, EPA publication SW-846, Method 7010 – Graphite Furnace Atomic Absorption Spectrophotometry.
 - k. Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, EPA publication SW-846, Method 7040A – Mercury in Liquid Waste (Manual Cold-Vapor Technique).
 - l. Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, EPA publication SW-846, Method 7471B – Mercury in Solid or Semisolid Waste (Manual Cold-Vapor Technique).
 - m. Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, EPA publication SW-846, Method 9040C – pH Electrometric Measurement.
 - n. NIOSH NMAM 5503 – Polychlorobiphenyls.
 - o. NIOSH NMAM Method 6009 – Mercury, modified to achieve a limit of quantification less than 60 ng/m³.
2. Submit the following information for each testing laboratory:
- a. The name, address, and telephone number of the testing laboratory.
 - b. The testing laboratory's current American Industrial Hygiene Association Laboratory Accreditation Programs (AIHA LAP) certificate of accreditation; scope of accreditation; and the most recent Proficiency Testing Performance Report for the Industrial Hygiene Proficiency Analytical Testing (IHPAT) program showing the testing laboratory as "Proficient" for the "Asbestos Analyte Class" in the "Overall Performance Summary".
 - c. A listing of the testing laboratory's microscopists showing evidence of successful completion of the National Institute of Occupational Safety and Health (NIOSH) 582 course "Sampling and Evaluating Airborne Asbestos Dust" or equivalent; participation in and satisfactory performance under the IHPAT program; and Asbestos Analyst Testing (AAT) Performance Results Report for AAR participants.
 - d. The testing laboratory's current certificate of accreditation and scope of accreditation issued under the National Institute of Standards and Technology (NIST) National Voluntary Laboratory Accreditation Program (NVLAP) for analysis of asbestos in bulk samples and for analysis of

asbestos by Transmission Electron Microscopy in accordance with 40 CFR 763, Subpart E, Appendix A.

- e. The testing laboratory's current American Industrial Hygiene Association Laboratory Accreditation Programs (AIHA LAP) certificate of accreditation; scope of accreditation; and the most recent Proficiency Testing Performance Report for the Industrial Hygiene Proficiency Analytical Testing (IHPAT) program showing the testing laboratory as "Proficient" for the "Metals Analyte Class" in the "Overall Performance Summary".
- f. For laboratories performing TCLP using Method 1311, submit current copies of their certificate of accreditation issued by an accrediting body listed on the National Environmental Laboratory Accreditation Management System maintained by the National Environmental Laboratory Accreditation Program (NELAP).
- g. The testing laboratory's current American Industrial Hygiene Association Laboratory Accreditation Programs (AIHA LAP) certificate of accreditation; scope of accreditation; and the most recent Proficiency Testing Performance Report for the Environmental Lead Proficiency Analytical Testing (ELPAT) program showing the testing laboratory as "Proficient" for the "Paint Analyte Class", "Soil Analyte Class", and "Dust Analyte Class" in the "Overall Performance Summary".
- h. The testing laboratory must be independent of the HRC and GC and must have no employee or employer relationship which could constitute a conflict of interest.

I. Notifications

- 1. Submit copies of notifications to the Alaska Department of Labor required by 8 AAC 61.620 showing approval by the department.
- 2. Submit copies of notifications to the regional EPA authority required by 40 CFR 61 Subpart M. Note this may include more than one notification and may include trades other than the Asbestos Abatement Contractor.
- 3. Submit the EPA identification number for the site. If the site was not already assigned an EPA identification number, the TDC must assist the Owner in obtaining an EPA identification number for the site under the following conditions:
 - a. If the work covered by this section will by itself generate hazardous wastes in excess of the those allowed for a very small quantity generator as defined by 40 CFR 260.10.
 - b. If other hazardous wastes are being generated at the site, and the work covered by this section will generate additional hazardous wastes which when added together is in excess of the those allowed for a very small quantity generator as defined by 40 CFR 260.10.
 - c. If the work covered by this section cannot be performed in accordance with the conditions for exemption for a very small quantity generator defined in 40 CFR 262.14.
 - d. If using the alternative standards for episodic generation found in 40 CFR 262 Subpart L.
 - e. If the work covered by this section will by itself generate universal wastes in excess of the those allowed for a small quantity handler of universal waste as defined by 40 CFR 273.9.
 - f. If other universal wastes are being generated at the site, and the work covered by this section will generate additional universal wastes which when added together is in excess of the those allowed for a small quantity handler of universal waste as defined by 40 CFR 273.9.
 - g. If otherwise required by 40 CFR Subchapter I.
- 4. Submit copies of notifications to the regional EPA authority:

- a. As required by 40 CFR 262.232 for episodic generation as defined by 40 CFR 262.231.
 - b. As required by 40 CFR 273.32 for large quantity handlers of universal waste as defined by 40 CFR 273.9.
 - c. If otherwise required by 40 CFR Subchapter I.
 5. If wastes will cross international boundaries, submit notifications as required by 40 CFR 262 Subpart H and any additional notifications required by the country through which the wastes will be transported.
- J. TDC Documentation
 1. Certify in writing that the proposed TDC meets the minimum requirements of this section and submit evidence to support such certification. Examples of acceptable documentation include, but are not limited to, resumes, training documentation, or descriptions of prior experience supervising or performing hazardous materials removal work.
 2. Submit evidence that the TDC meets the employee training requirements of this section for each hazardous material affected by the project.
 3. The TDC and the GC and/or their subcontractors must not have an employee/employer relationship or financial relationship which could constitute a conflict of interest.
- K. Waste Transporter
 1. Submit written evidence that the transporter is approved to transport asbestos waste in accordance with the requirements of 49 CFR 171, 49 CFR 172, and 49 CFR 173 as well as and all other state and local regulatory agency requirements.
 2. Submit the EPA identification number for each transporter who will transport wastes generated by the work covered by this section which are classified as:
 - a. Hazardous wastes, hazardous materials, or hazardous substances as defined by 40 CFR 261.3 and 49 CFR 171.8.
 - b. PCB wastes as defined by 40 CFR 761.3.
 3. Submit written evidence that the transporter is approved to transport universal wastes in accordance with the requirements of 40 CFR 263 Subpart D.
 4. Submit written evidence that each transporter who transports hazardous wastes, hazardous materials, or hazardous substances as defined by 40 CFR 261.3 and 49 CFR 171.8 is registered in accordance with 49 CFR 107 Subpart G, if required by 49 CFR 107.601.
 5. Submit written evidence that each transporter who transports hazardous wastes, hazardous materials, or hazardous substances as defined by 40 CFR 261.3 and 49 CFR 171.8 has received training in accordance with 49 CFR 172 Subpart H.
- L. Waste Disposal Site
 1. Submit written evidence that the landfill is approved for asbestos disposal by the regional EPA authority and local regulatory agencies along with a certification that the Contractor has consulted with the proposed landfill to determine any specific requirements which may be more stringent than those found within this specification, including if pre-authorization is required.
 2. If the proposed landfill requires pre-authorization to dispose of asbestos wastes, submit copies of those authorizations as evidence of compliance with the landfill's requirements.
 3. Submit the following for each facility which will receive, handle, treat, store, accumulate, dispose of, recycle, or reclaim any of the hazardous wastes generated by the work covered by this section:
 - a. The name, address, and telephone number of the facility.

- b. The EPA identification number.
- 4. Submit the following for each facility which will receive, handle, treat, store, accumulate, dispose of, recycle, or reclaim universal wastes generated by the work covered by this section:
 - a. Certification of the facility's universal waste handler status as a small quantity handler of universal waste, a large quantity handler of universal waste, or a destination facility as defined by 40 CFR 273.9.
- 5. Submit the following for each facility which will receive, handle, treat, store, accumulate, dispose of, recycle, or reclaim hazardous wastes generated by the work covered by this section which meet the definition of hazardous wastes, hazardous materials, or hazardous substances as defined by 40 CFR 261.3 and 49 CFR 171.8; universal wastes as defined by 40 CFR 273.9; and PCB wastes as defined by 40 CFR 761.3:
 - a. Evidence the facility is permitted to receive and manage the types of wastes being disposed of in accordance with 40 CFR 124, 40 CFR 270, and RCRA Subtitle C.
 - b. For PCB wastes, evidence the facility is approved to receive and manage PCB wastes in accordance with TSCA and 40 CFR 761.
 - c. Written approval from the facility stating that they will accept the types of wastes being transported to their facility.
- 6. Submit evidence that each facility which will handle, treat, store, accumulate, dispose of, recycle, or reclaim equipment with radioactive components being disposed of as part of the work covered by this section:
 - a. Is a specific licensee authorized by the NRC to accept such wastes in accordance with 10 CFR Chapter I and their Radioactive Materials License number.

1.11. DETAILS OF REQUIRED PERIODIC SUBMITTALS

A. Sampling Results.

- 1. Submit the following information for all sampling events, regardless of the type of sampling:
 - a. The printed name and signature of the individual who conducted the sampling and their certification names, numbers, and expiration date relevant to the type of sampling performed.
 - b. The date the samples were collected.
 - c. The requested analytical method.
 - d. The sample prefixes, numbers, descriptions, and other unique identifying information.
 - e. Field logs associated with the sampling.
 - f. Drawings showing the locations of all sampling locations.
 - g. Chain of custody documentation for the samples.
 - h. A finalized report from the testing laboratory showing the name and location of the testing laboratory, the dates of analysis, the name of the analysts, the analytical method used, and the results of the analysis for all samples. The finalized report must be signed by the analyst.
- 2. Submit the following additional information for all air sampling events, regardless of the type of sampling:
 - a. Purpose/type of air sample (e.g. personnel, inside or outside work area, baseline, clearance, etc.).

- b. For personnel monitoring, the name of the person being monitored, their work activities, and the type of PPE being worn.
 - c. The type of sampling cassette or media used.
 - d. The locations of samples and activities being performed during the sampling period.
 - e. Sampling pump manufacturer, model number, and serial number.
 - f. Beginning flow rate, end flow rate, and average flow rate (L/min).
 - g. Equipment and equipment identifier (serial number, etc.) used to calibrate flow rates.
 - h. Sample period start time, stop time, and elapsed time (in minutes).
 - i. Total air volume sampled (liters).
 3. Submit the following additional information for all wipe sampling events, regardless of the type of sampling:
 - a. Purpose/type of wipe sample (e.g. inside or outside work area, baseline, clearance, etc.).
 - b. The type of sampling wipes, templates, sample containers, or other media used.
 - c. Lot number and expiration date of wipes used.
 - d. The total area sampled in square feet, square centimeter, or other unit which is capable of being converted to square feet or square centimeter.
 4. Submit the following additional information for all clearance monitoring events:
 - a. Signed and completed final visual inspection forms.
 5. Submit the following additional information for clearance monitoring events conducted after the complete removal of poured polyurethane gym flooring classified as a hazardous waste for mercury:
 - a. Temperature and relative humidity logs collected during the sampling period.
 6. Documentation for all sampling events must be submitted to the Owner within 24 hours of receiving the finalized laboratory results.
- B. Work area inspections and clearances.
 1. Documentation of final visual inspections must:
 - a. Include the time and date of the inspection.
 - b. The name, signature, and the State of Alaska Asbestos Abatement Certificate of Fitness number and expiration date of the IIHT conducting the inspection.
 - c. The name and signature of the IIHT conducting the inspection for non-asbestos-related work.
 - d. The IIHT's client which authorized the inspection.
 - e. The name of the GC, the HRC, and the HRC's Competent Person.
 - f. A written description of the location the inspection is being performed.
 - g. A sketch or drawing of the location the inspection is being performed.
 - h. Indicate whether the work area was satisfactorily cleaned or indicate that the work area was not satisfactorily cleaned.
 - i. If the work area was satisfactorily cleaned, include a statement that the work area is ready for clearance air monitoring.
 - j. If the work area was not satisfactorily cleaned, indicate the deficiencies noted and the recommended corrective actions to be taken.
 - k. If encapsulants are used, and if those encapsulants were tinted, indicate the color which was used to tint the encapsulant and/or what color the encapsulant appears after drying.

- I. Be uniquely labeled or titled so that it can be referenced by other documentation.
 2. Clearance monitoring documentation must:
 - a. Indicate the unique label or title of the satisfactory final visual inspection for the work area.
 - b. Indicate whether encapsulant was used, and if so, indicate whether the encapsulant has tried to the touch.
 - c. Include a statement that the clearance air samples were collected using aggressive means.
 - d. Include all other sampling documentation required by this section.
 3. Documentation for all work area inspections and clearance events must be submitted to the Owner within 24 hours of receiving the finalized laboratory results.
- C. Project Logs.
1. Submit all project logs no later than 24 hours after the end of shift.
 2. The HRC's written daily log must include:
 - a. The date and time the work took place.
 - b. The name and signature of the Competent Person.
 - c. The name of the CPIH and a description of the type(s) of sampling and inspections performed by the CPIH.
 - d. A description of the work being performed.
 - e. A sketch or drawing showing the location of the work being performed.
 - f. The types and quantities of hazardous materials removed.
 3. Regulated area sign-in sheets must include:
 - a. The date and time the work took place.
 - b. The name and signature of the Competent Person.
 - c. A description of where the work is being performed, and if more than one regulated area is present, which regulated area the sign-in sheet applies to.
 - d. The name and signature of each person entering and exiting the regulated work area.
 - e. The State of Alaska Asbestos Abatement Certificate of Fitness number for each person entering and exiting the regulated work area.
 4. Pressure differential recordings for Negative Pressure Enclosures.
- D. Submit updates to the preconstruction submittals generated during the work.
- 1.12. DETAILS OF REQUIRED CLOSEOUT SUBMITTALS
- A. Completed disposal records:
1. All information described in 40 CFR 61.150(d).
 2. For asbestos, disposal site receipts must include:
 - a. The name, address, and telephone number of the disposal site.
 - b. The date and time the asbestos wastes were received by the disposal site operator.
 - c. The name and signature of the disposal site operator's personnel who received the asbestos wastes.
 - d. A unique identifying number which can be traced to a waste shipment record.
 3. The transportation and disposal of any materials classified as a hazardous waste by 40 CFR 261.3 must be documented using EPA Form 8700-22 "Uniform

- Hazardous Waste Manifest" (including, if necessary, EPA Form 8700-22A), or electronic manifest.
4. The transportation and disposal of any materials classified as a PCB waste by 40 CFR 761.3 must be documented using EPA Form 8700-22 "Uniform Hazardous Waste Manifest" (including, if necessary, EPA Form 8700-22A), or electronic manifest, a certificate of disposal in accordance with 40 CFR 761.218, and any additional information if required by 40 CFR 761 Subpart K.
 5. If wastes crossed international boundaries, submit additional waste transport and disposal documentation as required by 40 CFR 262 Subpart H and as required by the country through which the wastes were transported.
 6. Documentation for the disposal of each type of universal waste must include the following:
 - a. The generator name, address, and phone number.
 - b. The transporter name, address, and phone number.
 - c. The name, address, and phone number of the universal waste transfer facility and/or universal waste handler.
 - d. The name, address, and phone number of the destination facility.
 - e. The EPA identification number for each generator, handler, transporter, and destination facility.
 - f. The type of universal waste.
 - g. The date the universal wastes were first removed.
 - h. The quantity of universal waste.
 - i. The date the universal wastes were transferred to another universal waste handler, transporter, transfer facility, or destination facility.
 7. Documentation for the recycling of heat transfer fluids other than those classified as a hazardous waste must include the following:
 - a. The name, address, and phone number of the site where the heat transfer fluids were removed.
 - b. The transporter name, address, and phone number.
 - c. The name, address, and phone number of the transfer facility and/or recycling facility.
 - d. The type of heat transfer fluids.
 - e. The date the heat transfer fluids were first removed.
 - f. The quantity of heat transfer fluids.
 - g. The date the heat transfer fluids were transferred to another transporter, transfer facility, or final recycling facility.
 8. Documentation for the disposal of items with radioactive components waste must include the following:
 - a. The name, address, and phone number of the site where the items with radioactive components were removed.
 - b. The transporter name, address, and phone number.
 - c. The name, address, and phone number of the final destination facility.
 - d. The manufacturer name, model number, serial number, manufacture date, life rating, and date of removal for each item with radioactive components.
 - e. Copies of notifications to the NRC and State Director.
 9. Documentation for the disposal of ozone depleting substances must include the following:
 - a. The name, address, and phone number of the site where the ozone depleting substances were removed.
 - b. The transporter name, address, and phone number.

- c. The name, address, and phone number of the transfer facility and/or final recycling or destruction facility.
 - d. The types of ozone depleting substances removed, to include information on any other substances or contaminants which were present in the ODS that would affect how the ODS is regulated, such as those described in 40 CFR 82 Subpart F Appendix A.
 - e. The date the ozone depleting substances were first removed.
 - f. The quantity of ozone depleting substances.
 - g. The date the ozone depleting substances were transferred to another transporter, transfer facility, and/or final recycling or destruction facility.
 - 10. Documentation for the recycling of metallic lead materials must include the following:
 - a. The name, address, and phone number of the site where the metallic lead materials were removed.
 - b. The transporter name, address, and phone number.
 - c. The name, address, and phone number of the transfer facility and/or recycling facility.
 - d. The type of metallic lead materials.
 - e. The date the metallic lead materials were first removed.
 - f. The quantity of metallic lead materials.
 - g. The date the metallic lead materials were transferred to another transporter, transfer facility, or final recycling facility.
 - 11. If more than one form is used to document the transportation and disposal of any hazardous material, each form must contain a unique identifying number, page number, and total page count.
 - B. In addition to these submittals, the closeout submittals must include all updates to previously submitted information as necessary to ensure the documentation requirements of this section are fulfilled.
- 1.13. PERFORMANCE REQUIREMENTS FOR SUBMITTALS
- A. All types of submittals must be submitted as a "submittal package" with all required documentation for the type of submittal, must be reasonably organized, and must not contain duplicate information or other information not required by this section. Piecemeal submittals, incomplete submittals, disorganized submittals, or submittals containing duplicative or unnecessary information will be rejected without review and returned to the HRC for revision.
 - B. The HRC must provide the initial Preconstruction Submittal package required by this section to the Owner no less than 14 days prior to the planned start of work.
 - C. Periodic Submittals must be provided to the Owner within the timeframes specified for each submittal item. Where no timeframe is provided, the Periodic Submittals must be provided at least weekly.
 - D. The HRC must provide the initial Closeout Submittal package required by this section to the Owner no later than 14 days after demobilization from the site by the HRC.
 - E. The performance requirements for submittals apply to each construction season and phase separately.
 - F. The Owner will provide written acceptance or rejection of all submittals no later than 10 days after receiving the submittals.
 - G. Failure to deliver submittals in accordance with these performance requirements and/or failure to submit any documentation required by this section may result in the withholding of payment until such time a resolution has been reached to the satisfaction of the Owner.

PART 2. PRODUCTS**2.1. GENERAL**

- A. The HRC and GC must provide and maintain a sufficient quantity of materials and equipment required to complete the work of the project. This may include, but is not limited to, HEPA vacuums, scrapers, sprayers, nylon brushes, brooms, disposable mops, rags, sponges, staple guns, shovels, ladders and scaffolding of suitable height and length, fall protection devices, water hoses, airless spray equipment, and any other tools, materials or equipment required to conduct the hazardous materials removal work.
- B. All products used during the work must be used in strict accordance with the manufacturer's instructions.
- C. Store all materials subject to damage off the ground, away from wet or damp surfaces and under cover sufficient enough to prevent damage or contamination.
- D. Flammable and combustible materials must not be stored inside of any structure, and if stored elsewhere onsite, must be stored in a container specifically designed for the storage of such materials.
- E. Provide Ground-Fault Circuit Interrupters (GFCI) for all electrical equipment.
- F. All electrical-related work must be performed by a licensed electrician.

2.2. BACKUP ELECTRICAL SOURCES

- A. Provide at least one backup electrical source, such as a standby or backup generator, independent of the building's electrical systems and any other primary electrical systems established by the GC, which has sufficient capacity and rating to supply the maximum expected electrical demand of all electrical devices required to run continuously during the abatement work, including, but not limited to negative air machines, pressure differential monitoring devices, and other critical systems.

2.3. CHEMICALS

- A. Maintain Safety Data Sheets (SDS) at the jobsite for all hazardous chemicals under OSHA 29 CFR 1926.59 - Hazard Communication and 8 AAC 61.1110 - Additional Hazard Communication Standards.
- B. Solvent must be compatible with replacement materials, must be nonflammable, and must not contain methylene chloride, glycol ether, or halogenated hydrocarbons. Solvents used onsite must have a flash point greater than 140 degrees F.
- C. Chlorinated compounds shall not be used with any product.
- D. Water used for asbestos abatement must be amended using wetting agents or surfactants specifically designed for such use.
- E. All types of encapsulant (bridging, penetrating, lock-down, high-temperature, removal, etc.) must be specifically designed for use in asbestos encapsulation applications, non-flammable, non-combustible, non-toxic, and must be compatible with all replacement products.
- F. Chemical paint strippers must be bio-degradable, capable of removing existing paint layers in one application, be formulated to prevent stain, discoloration, or raising of the substrate materials, and must be acceptable to the Owner.
- G. Neutralizers for paint strippers must be compatible with the substrate and suitable for use with the chemical stripper that has been applied to the surface.

2.4. DANGER SIGNS AND TAPE

- A. Use danger signs and tape which comply with 29 CFR 1926.62(m); 29 CFR 1926.200; 29 CFR 1926.1101(k)(7); and ANSI Z535 series standards.

2.5. DECONTAMINATION AREA

- A. Provide decontamination areas in accordance with 29 CFR 1926.1101(j).

2.6. DISPOSAL CONTAINERS

- A. All disposal containers for asbestos wastes must:
 1. Be leak-tight.
 2. Use a minimum of 6-mil polyethylene.
 3. Be labeled in accordance with 29 CFR 1926.1101(k)(8); 40 CFR 61.149(d)(1) and 40 CFR 61.149(e)(1); 40 CFR 61.150(a)(1); 40 CFR Appendix D to Subpart E of Part 763; and 49 CFR 172.101.
 4. Be weatherproof and must be preprinted on the disposal container or affixed directly to the disposal container.
 5. Meet any additional requirements of the disposal site operator.

2.7. DUCT TAPE

- A. Use commercial grade duct tape which is compatible with existing substrates and materials being used; capable of withstanding the forces encountered during the work, such as for air movement, the weight of weight of water, equipment, personnel, and materials, from punctures, and other expected forces; and that is capable of maintaining bonding strength in wet or dry conditions throughout the temperature extremes expected to be encountered during the work.

2.8. GLOVEBAGS AND GLOVEBOXES

- A. All glovebags must meet or exceed the following minimum specifications:
 1. Must not be larger than 60" x 60".
 2. Must have glove-like appendages through which materials and tools may be handled.
 3. Must be a minimum of 6-mil thick.
 4. Must be seamless at the bottom.
 5. Must be used without modification.
- B. All gloveboxes must meet or exceed the following minimum specifications:
 1. Must have rigid sides and made from metal or other material which can withstand the weight of the materials, tools, and water used during removal.
 2. Must use a minimum of 6-mil thick polyethylene sheeting.
 3. Must have a negative pressure generator capable of maintaining negative pressure in the system.
 4. Must have an air filtration unit attached to the glovebox.
 5. Must be fitted with gloved apertures.
 6. Must have an aperture at the base of the box of adequate size to serve as a bagging outlet for waste asbestos and water.

2.9. HEPA FILTERS

- A. Use only HEPA filters certified as capable of capturing particulates of 0.3 microns with 99.97% efficiency when tested in accordance with UL 586, IEST-RP-CC series, or MIL-STD-282. HEPA filters must be labeled with the certifying organization.
- B. All equipment using HEPA filters must be designed so that all the air drawn into the equipment is expelled through one or more HEPA filters with none of the air leaking past any portion of the equipment prior to passing through the HEPA filters.

2.10. LABELS

- A. Provide labels for each hazardous material waste covered by this section which conform to the requirements of 29 CFR 1926.200; 29 CFR 1926.1101(k)(8); 40 CFR 262.31; 40 CFR 763.95; 49 CFR 172.101; 49 CFR 172 Subpart E, and ANSI Z535 series standards.
- 2.11. LOCAL EXHAUST VENTILATION
- A. Use HEPA-filtered local exhaust ventilation meeting or exceeding the performance requirements of ASSP Z9.2.
 - B. In addition to the above specifications, local exhaust ventilation used for any work involving mercury dust or vapor must be designed specifically for that purpose, have an activated charcoal filter, and at least one HEPA or ULPA filtration stage.
- 2.12. MARKINGS
- A. Provide markings for each hazardous material waste covered by this section which conform to the requirements of 40 CFR 262.32 and 49 CFR 172 Subpart D.
- 2.13. NEGATIVE AIR MACHINES
- A. Use HEPA-filtered negative air machines which are capable of meeting or exceeding the performance requirements for Negative Pressure Enclosure in 29 CFR 1926.1101(g)(5)(i).
 - B. In addition to the above specifications, negative air machines used for any work involving mercury dust or vapor must be designed specifically for that purpose, have an activated charcoal filter, and at least one HEPA or ULPA filtration stage.
- 2.14. PACKAGING
- A. Provide packaging for each hazardous material waste covered by this section which conform to the requirements of 40 CFR 262.30, 40 CFR 761 Subpart D, 49 CFR 173, 49 CFR 178, and 49 CFR 179.
- 2.15. PERSONAL PROTECTIVE EQUIPMENT (PPE)
- A. General
 - 1. Provide and maintain a sufficient quantity of Personal Protective Equipment (PPE) designed to protect the ears, eyes, face, head, body, lungs, and extremities to all employees engaged in hazardous material removal work in accordance with the requirements of 29 CFR 1926.28, 29 CFR 1926.62, 29 CFR 1926.1101, 29 CFR 1926 Subpart E, 29 CFR 1926.95, and other sections of 29 CFR Part 1926 as applicable.
 - 2. Required PPE for persons engaged in hazardous material removal work is anticipated to include, but not be limited to, respiratory protective devices, protective clothing, gloves, protective footwear, eye and face protections, hearing protection, fall protection, protective shields, and barriers. Additional PPE must be provided to persons engaged in hazardous material removal work as necessary to protect those employees due to situations such as: other conditions which may be present at the site, conditions caused as a result of the HRC's choice of means and methods to complete the work, or due to hazards which are incidental to the hazardous material removal work. The HRC must perform an assessment of the potential hazards present for each work task being performed and must provide PPE as necessary to protect employees and others from those hazards. The assessments must be documented in writing and maintained at the work site. The elements of the assessment may include, but are not limited to, those elements described in Appendix B to 29 CFR 1910.120; Appendix B to Subpart I of 29 CFR 1910; OSHA Publication 3071 for Job Hazard Analysis; or in USACE EM 385-1-1.
 - 3. PPE must be of commercial quality, bear the manufacturer's name, and certified to meet or exceed any performance and labeling requirements specified by

applicable regulations. Examples which demonstrate compliance with this requirement include, but are not limited to:

- a. Respirators which are approved for use by NIOSH in accordance with 42 CFR 82 and meet the requirements of ANSI/ISEA Z88 series standards.
- b. Protective ensembles which are certified by NFPA 1990.
- c. Protective clothing meeting the requirements of ANSI/ISEA 101.
- d. Foot protection meeting the requirements of ANSI Z41.1.
- e. Hand protection meeting the requirements of ANSI/ISEA 105.
- f. Eye and face protection meeting the requirements of ANSI/ISEA Z87.1.
- g. Head protection meeting the requirements of ANSI/ISEA Z89.1.
- h. Protective equipment meeting the requirements of ISO 13.340.

B. Provide the Owner or representative of an authority having jurisdiction with at least two complete sets of personal protective equipment as required for entry into and inspection of all areas of the regulated work area.

C. Select and use respiratory protective devices in accordance with 29 CFR 1910.134(d) and 1926.1101(h)(3).

D. Breathing air quality and use must meet the requirements of 29 CFR 1910.134(i).

2.16. PLACARDS

A. Provide placards for each hazardous material waste covered by this section which conform to the requirements of 40 CFR 262.33 and 49 CFR 172 Subpart F.

2.17. POLYETHYLENE SHEETING

A. All polyethylene sheeting used for hazardous material work including, but not limited to, the containment of regulated work areas, construction of decontamination areas, isolation of HVAC systems, as a drop cloth, glovebags, disposal containers and liners, etc. must meet the following minimum requirements:

1. Be 6-mil thick or greater.
2. Must be impermeable.
3. Meet the performance requirements of ASTM E84, ASTM D4397 or ASTM D4801, and NFPA 701.

2.18. PRESSURE DIFFERENTIAL MONITORING DEVICE

A. Provide a pressure differential monitoring device for hazardous material work conducted in Negative Pressure Enclosures. The device must:

1. Be capable of continuous operation.
2. Be capable of measuring pressure differential in a minimum range of +0.25" to - 0.25" of water column.
3. Have a continuous data logging feature which can store measurements in electronic format, record measurements on physical printouts, or both.
4. Be capable of setting alarm setpoints.
5. Have audible and visual alarm or be able to signal these alarms.

2.19. SANITATION SYSTEMS

A. Provide potable water; nonpotable water; toilets; food handling; temporary sleeping quarters; washing facilities; eating and drinking areas; vermin control; and change rooms in accordance with 29 CFR 1926.51, 29 CFR 1926.62. and 29 CFR 1926.1101(j).

2.20. SPILL RESPONSE MATERIALS

A. Provide spill response materials including, but not limited to, containers, adsorbent, shovels, and personal protective equipment. Spill response materials must be available at

all times when hazardous materials are being handled or transported. Spill response materials must be compatible with the type of material being handled.

2.21. VACUUMS

- A. Use vacuums which have been designed with a HEPA filter as the last filtration stage for general hazardous materials work. The vacuum cleaner must be designed so that all the air drawn into the machine is expelled through the HEPA filter with none of the air leaking past it.
- B. Vacuums used for any work involving mercury dust or vapor must be designed specifically for that purpose, have an activated charcoal filter, and at least one HEPA or ULPA filtration stage.
- C. All vacuums must be operated and maintained in accordance with the manufacturer's instructions.

2.22. WARNING SIGNS AND TAPE

- A. Use warning signs and tape which comply with 29 CFR 1926.200; 29 CFR 1926.1101(k)(7); and ANSI Z535 series standards.

PART 3. EXECUTION

3.1. GENERAL

- A. No work covered by this section may commence until all required Preconstruction Submittals have been approved, a preconstruction meeting held, the pre-work inspections have been completed, and a written authorization to proceed with the work is provided by the Owner.
- B. All hazardous materials removal work covered by this section must be performed in accordance with the occupational health and safety regulations of 29 CFR Part 1926, 8 AAC 61, and any other applicable occupational health and safety standards. In addition to these requirements, the following requirements apply to specific hazardous materials:
 - 1. All work involving asbestos must be performed in accordance with 29 CFR 1926.1101, 40 CFR 61 Subpart M, 40 CFR 763, 49 CFR 172 Subpart C, and 18 AAC 60.
 - 2. All work involving universal wastes must be performed in accordance with 40 CFR 273, 18 AAC 60, and 18 AAC 62.
 - 3. All work involving PCB-containing light ballasts must be performed in accordance with 40 CFR 761 and 18 AAC 60.
 - 4. All work involving heat transfer fluids which are not classified as hazardous waste as defined by 40 CFR 261.3 must be performed in accordance with 40 CFR Subchapter I, 18 AAC 60, 18 AAC 72, and 18 AAC 75.
 - 5. All work involving equipment with radioactive components must be performed in accordance with 10 CFR Chapter I, 18 AAC 60 and 18 AAC 85.
 - 6. All work involving ozone depleting substances must be performed in accordance with 40 CFR 82.
 - 7. All work involving hazardous wastes as defined by 40 CFR 261.3 must be performed in accordance with 40 CFR Subchapter I and 18 AAC 62.
 - 8. All work involving lead-containing materials must be performed in accordance with 29 CFR 1926.62 and 18 AAC 60.
- C. All hazardous materials transportation work covered by this section must be performed in accordance with the transportation regulations of 49 CFR Subchapter C and 17 AAC 25.
- D. The disposal of hazardous materials covered by this section must be performed in accordance with the regulations of 10 CFR Chapter I, 40 CFR 82, 40 CFR Subchapter I, 40 CFR 761, 49 CFR Subchapter C, and 17 AAC 25.

- E. Comply with applicable codes and requirements related to fire protection and prevention, emergency egress, first aid, and other similarly related elements.

3.2. PRE-WORK ACTIVITIES

- A. The Contractor must perform the following pre-work inspections and preparations prior to starting any work covered by this section:
 - 1. With the assistance of the Owner, determine if there are any special or unique conditions within the work area, such as controls or equipment which may require access during the hazardous materials removal work by non-contractor personnel, that may necessitate modification or revision of the Contractor's approved HAP.
 - 2. Determine the extents of each individual work area and the work to be performed within those areas, and confirm that the conditions, work areas, and work to take place is in accordance with the Contractor's approved HAP. If materials are identified that may be contacted or disturbed by the work that are not classified as asbestos-containing or non-asbestos-containing in the Hazardous Materials Assessment, the CPIH must collect bulk samples of those materials in accordance with this section.
 - 3. If the HAP or other submittal elements required by this section require modification or revision due to discoveries made during the pre-work inspections and preparations, the Contractor must submit those modifications and/or revisions to the Owner for review and approval prior to starting work.

3.3. PRE-WORK NOTIFICATIONS AND AUTHORIZATIONS

- A. The Contractor must submit a "Notification of Demolition and Renovation" to the EPA Region X NESHAP coordinator at least 10 working days prior to starting the work if required by 40 CFR 61.145. The notification must be updated periodically if the amount of asbestos affected changes by at least 20 percent, if the start or end dates change, or as otherwise required by 40 CFR 61.145(b).
- B. The Contractor must submit notification to, and receive approval from, the Alaska Department of Labor (DOL) in accordance with 8 AAC 61.620(b).
- C. If required by the disposal site, obtain written authorization to dispose of asbestos wastes.

3.4. PRE-CLEANING AND WORK AREA PREPARATION ACTIVITIES

- A. There is no requirement to remove all pre-existing dusts, debris, or components contaminated by the hazardous materials from the site unless noted otherwise and elsewhere in this section or the contract documents, or if it is necessary to complete the work in accordance with this section, or because the HRC or GC determines it to be a more cost-effective means of completing the work.
- B. Work involving the removal of hazardous materials which are intact and not contaminated by other hazardous materials are not required by this section to be cleaned and may be performed with moveable objects in place so long as those moveable objects are protected by at least one layer of 6-mil polyethylene sheeting.
- C. Moveable objects remaining in the work area which the Owner chooses to leave in place must be removed prior to establishing the regulated area unless those objects are contaminated by any hazardous material covered by the work of this section. Contaminated moveable objects which are cleanable and can be decontaminated may be cleaned and removed prior to establishing the regulated area. Noncleanable moveable objects must remain in the regulated area and be removed and disposed of after the regulated area has been established.
- D. Non-moveable objects, fixed objects, and remaining exposed surfaces in the work area which are cleanable must be cleaned using industry standard protocols for the type of hazardous material present prior to establishing the regulated area. Non-moveable objects,

fixed objects, or remaining surfaces which cannot be cleaned using industry standard protocols for the type of hazardous material present must be decontaminated or removed and disposed of after the regulated area has been established.

- E. Objects and surfaces remaining in the work area after the precleaning activities have been completed must be covered and protected using a minimum of 2 layers of polyethylene sheeting and sealed using duct tape, spray adhesive, or other approved method.

3.5. SPECIFIC REQUIREMENTS OF THIS SECTION

- A. All work covered by this section that is performed indoors must be performed within a regulated area using critical barriers as a minimum.
 - 1. Exceptions to this requirement:
 - a. Class IV asbestos work.
 - b. Intact removal of asbestos-containing material.
 - c. Buildings scheduled for complete demolition which will not be reoccupied after abatement and prior to demolition.
 - d. Work classified as small-scale short-duration.
 - e. Isolated glovebag or glovebox work.
- B. Work which includes the removal or disturbance of asbestos-containing roof coatings, cements, and mastics is required by this section to be performed as a Class II asbestos operation.
- C. Reliance on OSHA's "Flooring Settlement Agreement" as justification to reduce the minimum work area protections required by this section is prohibited.
- D. The following materials are classified by this section as a Regulated Asbestos-Containing Material:
 - 1. Asbestos-containing sheet vinyl and its associated mastics and leveling compounds, or any materials contaminated by these items.
 - 2. Loose fill vermiculite insulation.
- E. Negative air machines and local exhaust ventilation must not use any building HVAC systems as a means of transporting air into or out of the regulated areas; must exhaust to the exterior of the building, no less than 30 feet away from building HVAC intakes, and must be exhausted to an area with the least amount of personnel traffic to the greatest extent practicable.
- F. Work conducted adjacent to occupied areas must be obscured from those occupants to the greatest extent practicable.
- G. The HRC must document all work covered by this section they perform on a written daily log.
- H. All regulated work areas must maintain a sign-in sheet to record all persons entering and exiting the regulated work area.
- I. All asbestos-containing wastes removed from the site, including those classified as Category I Non-Friable ACM, Category II Non-Friable ACM, RACM, and materials containing asbestos at a concentration of less than or equal to 1% asbestos must have a waste shipment record and a disposal receipt indicating receipt by the disposal site operator.
- J. Where encapsulants are used, and when the area or components where they are used will not be visible to normal building occupants after the completion of construction, the encapsulant must be tinted with a unique color in a manner which does not obscure underlying substrates.

- K. All hazardous materials covered by this section which are defined as a universal waste by 40 CFR 763.9 must be managed as universal wastes by this project in accordance with 40 CFR 273. "Green-tip" or "eco" fluorescent lamps are required by this section to be managed as a universal waste, regardless of mercury content.
- L. All miscellaneous hazardous materials covered by this section which are defined as an electronic waste by 18 AAC 62.1390 must be managed as universal wastes by this project in accordance with 18 AAC 62 Article 11.
- M. Onsite treatment as defined by 40 CFR 260.10 of any wastes covered by this section is prohibited.
- N. All heat transfer fluids which are removed and will not be reused must be sent to an offsite facility for recycling.
- O. Removal of poured polyurethane gym flooring classified as a hazardous waste for mercury must be performed within a Negative Pressure Enclosure (NPE) which meets or exceeds the specifications for an NPE as defined by 29 CFR 1926.1101(g)(5)(i).
 - 1. Exceptions to this requirement:
 - a. Buildings scheduled for complete demolition which will not be reoccupied after abatement and prior to demolition.
 - b. Isolated removal which can be contained using a glovebag or glovebox.
 - 2. The HRC must maintain a sign-in sheet to record all persons entering and exiting the NPE.
- P. The disturbance of lead-containing materials is subject to regulation by 29 CFR 1926.62, and it is the Contractor's responsibility to review the "trigger tasks" and other requirements of 29 CFR 1926.62 to determine which portions apply, if any, to each unique work task required by this project. The Contractor may elect to have the CPIH collect bulk samples of each affected material to determine if "detectable levels of lead" are present in the material. Any results which indicate lead above the limits of detection must be considered as having "detectable levels of lead" and therefore subject to both the monitoring and testing requirements of this contract. The maximum allowable limit of detection is 60 ppm for the purposes of determining if "detectable levels of lead" are present.
- Q. Miscellaneous hazardous materials must not be stored onsite for more than 90 days and must be received by the destination facility within 180 days of being shipped off site.

3.6. MATERIALS TESTING REQUIREMENTS

- A. Any asbestos materials requiring bulk sampling by this section must meet the following minimum bulk sampling requirements for each homogeneous area:
 - 1. Surfacing materials:
 - a. At least three (3) bulk samples shall be collected from each homogeneous area that is 1,000 square feet or less.
 - b. At least five (5) bulk samples shall be collected from each homogeneous area that is greater than 1,000 square feet but less than or equal to 5,000 square feet.
 - c. At least seven (7) bulk samples shall be collected from each homogeneous area that is greater than 5,000 square feet.
 - d. At least one (1) additional bulk sample for every additional 1,000 square feet of material.
 - 2. Thermal System Insulation (TSI):
 - a. At least three (3) bulk samples shall be collected from each homogeneous area of TSI.

- b. At least one (1) bulk sample from each homogeneous area of patched thermal system insulation if the patched section is less than 6 linear or square feet.
 - c. In a manner sufficient to determine, which must include at least two (2) bulk samples, from each insulated mechanical system where cement or plaster is used on fittings such as tees, elbows, or valves.
 - d. Bulk samples are not required to be collected from any homogeneous area where the accredited inspector has determined that the thermal system insulation is fiberglass, foam glass, rubber, or other non-ACBM.
 - 3. Miscellaneous materials:
 - a. At least two (2) bulk samples shall be collected from each homogeneous area that is less than 500 square feet.
 - b. At least three (3) bulk samples shall be collected from each homogeneous area that is greater than or equal to 500 square feet but less than 1,000 square feet.
 - c. At least five (5) bulk samples shall be collected from each homogeneous area that is greater than 1,000 square feet but less than or equal to 5,000 square feet.
 - d. At least seven (7) bulk samples shall be collected from each homogeneous area that is greater than 5,000 square feet.
 - e. At least one (1) additional bulk sample for every additional 1,000 square feet of material.
 - B. All lead-containing waste streams must be TCLP tested in accordance with 40 CFR 261 to determine disposal requirements. Other hazardous materials which are managed in accordance with this section do not require additional testing.
 - C. Testing of the hazardous materials may become required for reasons encountered during the work, including, but not limited to:
 - 1. Additional miscellaneous hazardous materials covered by this section are generated which have not had a hazardous waste determination or been otherwise characterized prior to their generation.
 - 2. If miscellaneous hazardous materials generated by the work covered by this section cannot be managed as specified herein.
 - 3. There is reason to believe that additional potentially hazardous constituents are present in the miscellaneous hazardous materials covered by this section which have not been previously identified and where the presence of those other constituents would affect the Contractor's ability to properly execute any of the worker protection, packaging, labeling, transportation, disposal, documentation, or other requirements of this section.
 - D. The Owner must be notified immediately, and prior to, any miscellaneous hazardous materials testing being performed on the wastes covered by this section. Such notification must include the following information:
 - 1. The reason why the miscellaneous hazardous materials cannot be managed as specified herein or otherwise require testing.
 - 2. A sampling and analysis plan.
- 3.7. MONITORING
- A. Asbestos
 - 1. General
 - a. For all work covered by this section which requires the establishment of a regulated area, air monitoring must be performed.

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- b. Air monitoring must be performed at all times work covered by this section is being conducted for the duration of the project.
 - c. Air monitoring must be performed by the CPIH.
 - d. The CPIH must submit lab blanks and field blanks in accordance with the requirements of the analytical method being used.
 - e. The quantities and types of air monitoring required by this section are the minimum requirements and apply to each regulated area and each shift separately.
 - f. A reduction of monitoring may be permitted at the discretion of the Owner upon written request from the CPIH. Modifications to any air monitoring procedures required by this section are prohibited unless the Owner issues a written authorization stating their acceptance of the proposed modifications. No modifications are allowed prior to receiving such authorization.
 - g. The minimum air monitoring requirements of this section apply to each regulated area and each shift separately.
 - h. Air monitoring is not required by this section for intact removal of asbestos-containing materials.
 - i. Air samples collected for analysis by NIOSH 7400 must have a sufficient volume of air drawn through the filter media to establish a minimum level of detection of less than 0.01 f/cc.
2. Air monitoring for the purpose of establishing background levels of airborne asbestos concentrations by NIOSH 7400 is not required by this section but may be performed at the discretion of the Contractor.
3. Monitoring of personnel:
- a. Monitoring of personnel must be performed in accordance with 29 CFR 1926.1101.
4. For all interior work, and for exterior work which cannot be performed using non-aggressive means, air monitoring during the work must include:
- a. A minimum of three (3) air samples from within the regulated area boundaries.
 - b. A minimum of three (3) air samples from areas outside of but adjacent to the regulated area boundaries.
 - c. One (1) air sample at the entrance to the regulated area.
 - d. One (1) air sample at the waste loadout area during waste loadout operations.
 - e. One (1) air sample at the approximate location of HEPA exhaust discharge.
5. For exterior work performed using non-aggressive means, air monitoring during the work must include:
- a. A minimum of two (2) air samples from within the regulated area boundaries.
 - b. A minimum of two (2) air samples from areas outside of but adjacent to the regulated area boundaries.
6. For work classified as small-scale short-duration and where the employer has not completed a Negative Exposure Assessment for the work operation in accordance with 29 CFR 1926.1101(f)(2), air monitoring during the work must include:
- a. A minimum of one (1) air sample taken from each of the employee's breathing zone.
 - b. A minimum of two (2) air samples collected directly adjacent to where the removal work is taking place.

B. Non-Asbestos-Containing Materials

1. There are no specific monitoring requirements for work involving the removal of intact and otherwise uncontaminated miscellaneous hazardous materials covered by the work of this section unless noted otherwise. However, monitoring may be performed at the Contractor's discretion for any reason. Such optional monitoring must come at no additional cost to the Owner.
2. Work involving the removal of non-intact or otherwise contaminated miscellaneous hazardous materials covered by the work of this section must include:
 - a. Monitoring of personnel performed in accordance with 10 CFR 20, 29 CFR 1926.55, and 8 AAC 61.
3. Work involving removal of the poured polyurethane gym flooring classified as a hazardous waste for mercury must include:
 - a. Monitoring of personnel performed in accordance with 29 CFR 1926.55 and 8 AAC 61.
 - b. Pre-work sampling to determine ambient mercury vapor concentrations. A minimum of two (2) mercury vapor samples exterior to the building and two (2) samples within the area of removal. The direct reading instrument or sampling and analytical method used must be capable of reporting mercury vapor concentrations below 60 ng/m³. Pre-work sampling must be performed in conditions similar to those typically encountered during normal operations of the facility (e.g. normal ventilation and temperature).
 - c. Monitoring of mercury vapor concentrations using a direct reading instrument at the entrance to the regulated area, waste loadout area during waste loadout operations, and at the approximate location of NPE exhaust discharge. Instruments must be set to alarm at 600 ng/m³. If mercury vapor concentrations exceed the alarm threshold, work must be immediately stopped, and corrective actions must be taken to reduce the concentrations below alarm threshold.
4. Work involving removal of lead-containing materials subject to regulation by 29 CFR 1926.62 must include:
 - a. Monitoring of personnel performed in accordance with 29 CFR 1926.62 and 8 AAC 61.
 - b. Pre-work sampling to determine existing lead in dust concentrations. A minimum of two (2) wipe samples collected within the area of removal and a minimum of two (2) wipe samples collected outside of the area of removal.
5. Where work is being conducted in a facility that meets the definition of a "child occupied facility" as defined by 40 CFR 745.223 but is otherwise not subject to regulation by 40 CFR 745, and the work involves removal of the lead-containing materials subject to regulation by 29 CFR 1926.62, the following monitoring must be performed in addition to other lead-related monitoring requirements of this section:
 - a. Pre-work sampling to determine existing lead in dust concentrations. A minimum of five (5) wipe samples collected within the area of removal and a minimum of five (5) wipe samples collected outside of the area of removal.
6. Wipe samples must be collected from undisturbed surfaces and must be collected from an area typically occupied during normal operations of the facility. Wipe samples must not be collected from the same location as a previous wipe sample.
7. Wipe samples must be of sufficient area to achieve a limit of detection of <10 µg/ft².

8. When required, monitoring must be performed at all times work covered by this section is being conducted for the duration of the work which requires monitoring.
9. Monitoring must be performed by the CPIH.
10. The CPIH must submit lab blanks and field blanks in accordance with the requirements of the analytical method being used.
11. The quantities and types of monitoring required by this section are the minimum requirements and apply to each regulated area and each shift separately.
12. A reduction of monitoring may be permitted at the discretion of the Owner upon written request from the CPIH. Modifications to any monitoring procedures required by this section are prohibited unless the Owner issues a written authorization stating their acceptance of the proposed modifications. No modifications are allowed prior to receiving such authorization.

3.8. WORK AREA INSPECTIONS AND CLEARANCES

A. Asbestos

1. General:

- a. All clearance air monitoring and final visual inspections must be performed by the IIHT.
- b. Final visual inspections must be performed at the completion of all asbestos removal activities, including for intact removal, exterior removal, work classified as small-scale short-duration, and any other work which disturbs and removes any quantity of asbestos from any location of the site.
- c. The final visual inspection must be thorough and performed in accordance with the protocols found in ASTM E1368 and 40 CFR 763 Subpart M.
- d. All final visual inspections and clearance air monitoring must be documented in writing.
- e. Clearance air monitoring is required for all work conducted inside of regulated areas unless noted otherwise by this section.
- f. If the work area requires the use and application of encapsulants of any type, clearance air monitoring may not begin until the applied encapsulant is dry to the touch.
- g. All clearance air monitoring must be performed using aggressive methods as described in Appendix A to 40 CFR 763 Subpart E.
- h. The IIHT must submit lab blanks and field blanks in accordance with the requirements of the analytical method being used.
- i. The quantities and types of air monitoring required by this section are the minimum requirements and apply to each regulated area separately.
- j. Onsite analysis of clearance air samples is prohibited.
- k. Clearance air monitoring is not required by this section for intact removal of asbestos-containing materials or for exterior asbestos removal activities.
- l. If any of the clearance air samples fails clearance criteria, the work area must be recleaned, receive an additional final visual inspection, and clearance air monitoring repeated.
- m. All regulated work areas must retain their status as a regulated work area until the Owner provides written notice that the work area may be deregulated.

2. TEM clearance air monitoring:

- a. Must be performed in accordance with the United States Environmental Protection Agency "Interim Transmission Electron Microscopy Analytical Methods-Mandatory and Non-Mandatory-and Mandatory Section to

Determine Completion of Response Actions” as found in 40 CFR 763, Subpart E, Appendix A.

- b. Is required for all Class I asbestos work requiring the removal of greater than 25 linear feet or 10 square feet of asbestos-containing material.
- c. Is required for all work requiring the removal of greater than 10 square feet of asbestos-containing resilient floor coverings and their associated mastics and leveling compounds, or for the removal of any materials contaminated by these items.
- d. Is required for all other interior work requiring the removal of greater than 160 linear feet or 260 square feet of asbestos-containing material.
- e. Must include a minimum of five (5) clearance air samples from within the regulated area boundaries.
- f. Each TEM clearance air sample collected must meet the pass/fail criteria in 40 CFR 763.90(i)(4). Averaging of the analytical results to achieve passing criteria is prohibited by this section.

3. PCM clearance air monitoring:

- a. Must be performed in accordance with the National Institute of Occupational Safety and Health (NIOSH) Manual of Analytical Methods (NMAM) Method 7400: Asbestos and Other Fibers by Phase Contrast Microscopy.
- b. May be performed for all other interior work which is not required to have TEM clearance air monitoring.
- c. Must include a minimum of five (5) clearance air samples from within the regulated area boundaries.
- d. Each PCM clearance air sample collected must meet the pass/fail criteria in 40 CFR 763.90(i)(5). Reanalysis of failed PCM clearance air samples using NIOSH NMAM TEM Method 7402 for the purposes of determining if passing clearance criteria has been achieved is prohibited by this section.

B. Non-Asbestos-Containing Materials

- 1. All clearance monitoring and final visual inspections must be performed by the IIHT.
- 2. Final visual inspections must be performed at the completion of all miscellaneous hazardous materials removal activities, including for intact removal, exterior removal, and any other work which disturbs and removes any quantity of miscellaneous hazardous material from any location of the site.
- 3. All final visual inspections and clearance monitoring must be documented in writing.
- 4. Clearance monitoring is only required for work involving the complete removal of poured polyurethane gym flooring classified as a hazardous waste for mercury unless noted otherwise. There are no clearance monitoring requirements for work involving the partial removal of poured polyurethane gym flooring classified as a hazardous waste for mercury or for the removal of any other miscellaneous hazardous material covered by this section when the work is performed in accordance with the requirements of this section.
- 5. The IIHT must submit lab blanks and field blanks in accordance with the requirements of the analytical method being used.
- 6. The quantities and types of clearance monitoring required by this section are the minimum requirements and apply to each regulated area separately.
- 7. Onsite analysis of clearance samples is prohibited.
- 8. If any of the clearance samples fails clearance criteria, the work area must be recleaned, receive an additional final visual inspection, and clearance monitoring repeated.

9. All regulated work areas must retain their status as a regulated work area until the Owner provides written notice that the work area may be deregulated.
- C. Work involving complete removal of poured polyurethane gym flooring classified as a hazardous waste for mercury.
1. Clearance monitoring:
 - a. After satisfactory completion of a final visual inspection, the work area must be sealed and ventilation shut off for a period of at least 24 hours prior to starting clearance monitoring.
 - b. Temperatures inside of the removal boundaries must be maintained at a minimum of 70 degrees Fahrenheit or the maximum space design temperature, whichever is greater, for the duration of the sampling period.
 - c. Ventilation of the space within the removal boundaries during the sampling period is prohibited.
 - d. All clearance monitoring samples must be collected simultaneously and in one sampling period.
 - e. All samples must be collected from within a space located 30"-40" above the floor surface.
 - f. A minimum of five (5) mercury vapor samples must be collected from within the removal boundaries for work involving removal of <1,000 square feet. Collect at least one (1) additional sample for each additional 400 square feet of material removed.
 - g. A minimum of two (2) mercury vapor samples must be collected from spaces typically occupied during normal use of the facility near, but outside of, the removal boundaries.
 - h. A minimum of two (2) mercury vapor samples must be collected from the exterior of the building.
 - i. To achieve satisfactory clearance criteria, mercury vapor concentrations for each sample must be less than 60 ng/m³. If ambient exterior mercury vapor concentrations are greater than 60 ng/m³, then satisfactory clearance criteria is achieved when each sample is no greater than 110% of the ambient exterior mercury vapor concentrations.
- D. Work involving removal of lead-containing materials subject to regulation by 29 CFR 1926.62.
1. At the completion of the lead removal activities, a minimum of two (2) wipe samples collected within the area of removal and a minimum of two (2) wipe samples collected outside of the area of removal. To achieve satisfactory clearance criteria, each of the samples collected must be <200 µg/ft² or less than the existing lead in dust concentrations reported by the pre-work samples, whichever is lower.
 2. At the completion of the entire project, a minimum of three (3) wipe samples collected within the area of work for the entire project and a minimum of three (3) wipe samples collected outside of the area of work for the entire project in areas used by workers walking to and from the work area, as a contractor staging area, or other areas which were used by the Contractor during the work. To achieve satisfactory clearance criteria, each of the samples collected must be <10 µg/ft².
- E. Where work is being conducted in a facility that meets the definition of a "child occupied facility" as defined by 40 CFR 745.83 but is otherwise not subject to regulation by 40 CFR 745, and the work involves removal of the lead-containing materials subject to regulation by 29 CFR 1926.62.
1. At the completion of the lead removal activities, a minimum of two (2) wipe samples collected within the area of removal and a minimum of two (2) wipe samples

- collected outside of the area of removal. To achieve satisfactory clearance criteria, each of the samples collected must be $<200 \mu\text{g}/\text{ft}^2$.
2. At the completion of the entire project, clearance monitoring must be performed using the procedures described in 40 CFR 745.227(e)(8). To achieve satisfactory clearance criteria, each of the samples collected must be less than the published Lead Dust Hazard Standards criteria current at the time of completion of the work.
- F. Where work is being conducted in a facility that meets the definition of a "child occupied facility" as defined by 40 CFR 745.83 and is subject to regulation by 40 CFR 745 due to the quantities of lead-based paints being removed.
1. At the completion of the lead removal activities, a minimum of two (2) wipe samples collected within the area of removal and a minimum of two (2) wipe samples collected outside of the area of removal. To achieve satisfactory clearance criteria, each of the samples collected must be $<200 \mu\text{g}/\text{ft}^2$.
 2. At the completion of the entire project, clearance monitoring must be performed using the procedures described in 40 CFR 745.227(e)(8). To achieve satisfactory clearance criteria, each of the samples collected must be less than the published Lead Dust Hazard Standards criteria current at the time of completion of the work.
- 3.9. POST-WORK ACTIVITIES
- A. The HRC must visually inspect areas impacted by their work activities for potential dust, debris, or contamination resulting from their miscellaneous hazardous materials work that may have been concealed after all regulated area protections, equipment, supplies, and other objects within their possession have been removed from those areas. If any dust, debris, or contamination resulting from their miscellaneous hazardous materials work is noted, the HRC must promptly clean up the dust or debris and record those actions on their daily report.
 - B. The GC, HRC, and Owner must perform a final walk-thru of the work areas to inspect for any damage that may have occurred as a result of the HRC's activities at the site.
 - C. The HRC must submit all documentation required by this section for Owner review and approval.
 - D. After the HRC has demobilized from the site and all required submittals approved, then the requirements of this section will have been satisfied and final payment can be made.

END OF SECTION

BASIC ELECTRICAL REQUIREMENTS

PART 1. GENERAL

1.1 NOTIFICATIONS

- A. Notification of Potential Hazards: Asbestos, lead and other potentially hazardous materials are present in the building that may impact the work of all trades. Regulated air contaminants, including asbestos and lead are also present in the settled and concealed dust in and on architectural, structural, mechanical, and electrical components or systems throughout the building. All trades shall coordinate with other trades and conduct their work to prevent worker exposure or site contamination. Refer to Specification Divisions 0, 1 and 2 for specific information concerning disturbing, removing, and disposing of these materials and the installation of new materials or components. This notification is provided in accordance with the EPA and OSHA requirements.

1.2 SUMMARY

- A. This section includes general requirements for electrical installation and is applicable to all Division 26 and 28 Sections.

1.3 SCOPE OF WORK

- A. Provide all labor, equipment, materials, and services required for a complete design, permitting, installation, testing, and startup of all systems denoted on the plans and specifications.
- B. Bring questionable or obscure items, apparent conflicts between plans, specifications, governing codes or utilities regulations to the attention of the Project Manager in writing using the standard Request for Information (RFI) Format.
- C. Existing project conditions can be determined prior to bid of the project by site inspection and review of available as-built drawings. As-built information is available for review at Anchorage School District Plans Room, 1301 Labar St. Anchorage, Alaska 99515.
- D. Coordinate all work with Project Manager.

1.4 PERMITS AND FEES

- A. Submit documents and pay all fees required to obtain permits required by local and state agencies for all work required.
 - 1. Contract drawings and specifications are not final design; they provide the minimum design criteria. Provide shop drawings to detail work as required for Fire Alarm permit and installation as required. Electrical drawings and diagrams are not intended to show all features of work; however, the Contractor shall provide all product necessary for a complete, functional and fully operational Fire Alarm system in accordance with NFPA 70(National Electrical Code), NFPA 72(National Fire Alarm Code) and all municipal requirements.

1.5 ELECTRICAL DRAWINGS AND SYMBOLS

- A. Contract Drawings are not final design drawings. Provide shop drawings to detail work as required for Fire Alarm permit and installation as required.
- B. Electrical drawings are diagrammatic and are not intended to show all features of work. However, the Contractor shall provide products necessary for a complete and operable system in accordance with NFPA 70 (National Electrical Code) and NFPA 72.
- C. Install electrical items that are not dimensioned in a manner to provide symmetrical appearance. Do not scale drawings for exact equipment location. Adjust work to conform to actual conditions for a complete installation.
- D. The drawings and specifications are complementary. Refer to specifications for description outlining products to be provided.
- E. Drawing symbols used for basic materials, equipment, etc., are denoted by industry standard symbols. Special items are denoted by symbol legend or called out on the drawings or specification.

1.6 DEFINITIONS

- A. "BASIS OF DESIGN" - Particular specialized products around which a system was designed. In such cases, the products specified may be critical with regard to physical sizes and performance characteristics. Where variations or substitutions to products are made, the Contractor is solely responsible for resolving all impacts of such a deviation. Approval of a substitution and/or variation request does not relieve the Contractor of responsibility for complying with the design intent.
- B. "CALL OUT" - Products specifically denoted by manufacturer's model and part number, or referenced standards listed on the drawings without further specification. In these cases the Contractor shall provide the products and/or perform in accordance with the references listed.
- C. "EQUAL" - A product, system or installation which:
 - 1. Meets or exceeds all ratings, performance characteristics, standard features and denoted options of specified item.
 - 2. Includes primary characteristics identified in the drawings and specifications.
 - 3. Complies with requirements similar to the "Basis of Design."
 - 4. Is produced by a manufacturer specifically listed as an acceptable manufacturer on the drawings, or in the specifications.
 - 5. Is acceptable and approved to the Architect/Engineer specifically addressed in writing.
- D. "EXPOSED" - Exposed to view after construction is completed.
- E. "FURNISH" - Purchase materials as shown and specified. Deliver to project site at location shown to be installed by supporting crafts.
- F. "INSTALL" - Set in place and connect equipment furnished by others for a complete and ready to use installation.

- G. "PRODUCT" - Term which includes materials, equipment, fixtures, and devices for any tangible item used on the project.
- H. "PROJECT MANAGER" – Individual employed and designated by the Anchorage School District.
- I. "PROVIDE" - Furnish all products, equipment, subcontracts, labor, testing, etc., required and install for a complete ready to use installation.
- J. "SHOP DRAWING" - Detailed, dimensioned working construction drawing drawn to a particular scale adequately showing installation intent, details and coordination of interrelated trades.
- K. "SUBSTITUTION" - A product, system or installation which is not listed as an acceptable manufacturer, but the Contractor warrants meets or exceeds specified equipment denoted in the contract documents. Approval through submittal process is required prior to purchase to establish product or system is "equal".
- L. "WIRING" - Electrical conductors, raceway, devices, connections and associated accessories, or any combination of labor and material thereof in order to provide a complete and operable system.
- M. "WEATHERPROOF" - Electrical equipment noted as weatherproof or "WP" shall be provided with raintight enclosures or device plates as applicable and approved for wet location by listing or label.

1.7 COORDINATION

- A. Exposed Raceways and Cables where specifically allowed shall be routed in such a manner agreeable to the Project Manager. Coordinate all such work prior to installation.
- B. Coordinate the work specified in this Division under the provisions of Division 1.
- C. Obtain written permission from Project Manager prior to cutting, drilling or weakening structural components.

1.8 PAINTING AND REPAIR

- A. All building materials, equipment and existing furniture damaged during the installation of the work shall be repaired or replaced with materials in like kind and quality of the original by skilled labor experienced in that particular building trade.
- B. Items scratched or marred in shipment or installation shall be refinished with touchup paint selected to match installed equipment finish.
- C. Contractor to replace all ceiling tiles or metallic ceiling slats that are damaged during removal and replacement.

1.9 CODES AND STANDARDS

- A. Codes: Perform all work in accordance with all latest legally enacted editions of National, State and Local codes including:
 - 1. NFPA 70 - National Electrical Code (NEC).

2. NFPA 72 - Fire Alarm Design and Installation Requirements.
3. International Building Code (IBC).
4. International Fire Code (IFC).
5. International Mechanical Code (IMC).
6. Accessible and Usable Buildings and Facilities (ICC/ANSI A117.1)

B. Standards: Provide all equipment, materials and installation in conformance with the following latest current publications and standards as applicable:

1. Underwriter's Laboratory (UL).
2. American National Standards Institute - ANSI.
3. American Society of Testing and Materials - ASTM.
4. Institute of Electrical and Electronics Engineers - IEEE.
5. National Electrical Manufacturers' Association - NEMA.
6. National Fire Protection Association - NFPA.
7. National Electrical Contractors Association - NECA

1.10 SUBMITTALS

A. Provide submittals for products or systems specified by call out, equipment list items shown on the drawings and products, equipment or systems described in Division 26 Specifications. Submittals shall comply with all requirements of Division 1 Section 01300. In addition, submittal shall comply with the following:

1. Each submittal copy shall be submitted to ASD through Procore construction management software for their review
 - a. Each submittal shall clearly indicate the job reference.
 - b. Submittals shall be organized in a clear manor.
 - c. Material shall be arranged in ascending numerical order by specification number.
2. Submittal shall provide the following for each item submitted on at a minimum:
 - a. Manufacturer's name, addresses, nearest supplier addresses and phone number.
 - b. Equipment designation and/or model number.
 - c. Submit catalog cuts, printed product data, pamphlets and specification sheets.
 - d. Rough-in data and dimensional aspects.
 - e. Operational features, included options and characteristics.
 - f. Wiring diagrams.
 - g. Shop drawings.
 - 1) Shop drawings submitted to the AHJ shall be compliant with NFPA 72 and local amendments prior to submission. No change orders will be issued for fire marshal review comments.
 - h. Documentation denoting equipment is listed by a third party testing organization acceptable to the authority having jurisdiction.
 - i. All proposed substitutions and deviations from the products or systems specified shall be denoted as such at the beginning of each section. Each deviation shall be specifically itemized for comparison to specified equipment. Submittal approval does not include any deviations not specifically itemized. Substitution submittal approval does not relieve the

Contractor of responsibility for complying with design intent. Unapproved products or installation deviations shall be corrected as described by the Project Manager.

- j. Delete all extraneous material data from submittal which does not apply to equipment specified and/or highlight the specific items which are being submitted on.

- 3. Submittal review is for general design criteria and does not relieve the Contractor from any of the contract requirements.

1.11 QUALITY ASSURANCE

- A. Workmanship is considered important and is subject to approval. National Electrical Contractors Association (NECA) standards of installation will be enforced as a minimum quality level. Employ workmen skilled in the trade and familiar with particular techniques applicable to various sections of work.
- B. Provide all Materials to conform with applicable industry standards and Underwriters Laboratories standards. Whenever possible, similar items shall be supplied by the same manufacturer throughout the project.

1.12 EQUIPMENT SCHEDULES

- A. Fixture and equipment schedules on the drawings denoting capacities, ratings, sizes, etc., shown are the minimum acceptable and may not necessarily correspond with catalog ratings or equipment specified.

1.13 WARRANTY

- A. As required in the general conditions of the contract.
- B. All workmanship, labor and materials shall be warranted for a minimum period of one (1) year from the date of final acceptance.
- C. Warranty work shall be promptly performed at Contractor's sole expense.
- D. Correction of Work: Within one year after the Substantial Completion of the work, any work found to not be in conformance with the Contract Documents will be corrected by the Contractor promptly after written notice from the owner outlining the deficiency. This requirement shall survive the acceptance of the work under this Contract and termination of the contract.

1.14 ELECTRICAL DRAWINGS

- A. Electrical Drawings are diagrammatic and complementary to all other Drawings; not intended to show all features of work. Coordinate with work of other trades to avoid conflicts. Drawings and specifications are complementary, each to the other; what is shown in one is as binding as if called for in both.
- B. Install equipment to provide symmetrical appearance where not dimensioned on drawings. Do not scale drawings for equipment location. Review Contract Documents and adjust work to conform to conditions shown. Data presented on drawings are as accurate as planning can determine. Dimensional accuracy not guaranteed and field verification of dimensions,

locations, and levels to suit field conditions is directed. Provide a complete and satisfactory working fire alarm installation.

1.15 RECORD DRAWINGS

- A. Reference requirements stated in Division 1.
- B. In addition to other requirements, mark up a clean set of drawings as the work progresses, to show the location and routing of all work to include junction boxes and t-tap of initiation circuits.

1.16 CONSTRUCTION, OBSERVATION, INSPECTIONS, AND TESTS

- A. Request construction observation at least 48 hours prior to the covering of any buried or conceal work; pulling of wires and cable; installation of fixtures, or placing of covers over outlets, or panelboards.
- B. Notify state and local inspectors of work progress in accordance with applicable requirements. Submit copies of all inspection reports to Architect/Engineer.
- C. Contractor Inspections: At or near the completion and prior to final acceptance testing the Contractor shall prepare a deficiency list (punch list) of all items that are not in accordance with contract requirements, state or federal regulations, or are not complete. Submit a copy of the deficiency list to the Architect/Engineer prior to the Architect/Engineer conducting a final inspection.

1.17 POWER REQUIREMENTS AND CIRCUIT BREAKERS

- A. Provide power from the nearest available branch circuit panelboard with adequate capacity as required for all new equipment added as a part of the contract unless otherwise noted.
- B. Coordinate and provide the compatible circuit breaker, amperage, size, ratings, lugs and AIC rating for all circuit breakers added in existing panelboards to include lock-on device at each breaker serving fire alarm/DACT equipment

PART 2. PRODUCTS

2.1 MATERIALS AND EQUIPMENT

- A. Materials and Equipment shall be acceptable to the authority having jurisdiction as suitable for the use intended. All electrical equipment shall bear the seal of a nationally recognized testing laboratory for the purpose for which it is installed.

PART 3. EXECUTION

3.1 WORKMANSHIP

- A. All electrical work must be installed in strict accordance with the latest adopted National Electrical Code and Municipality of Anchorage Amendments.

END OF SECTION

BUILDING WIRE AND CABLE

PART 1. GENERAL

1.1 NOTIFICATIONS

- A. Notification of Potential Hazards: Asbestos, lead and other potentially hazardous materials are present in the building that may impact the work of all trades. Regulated air contaminants, including asbestos and lead are also present in the settled and concealed dust in and on architectural, structural, mechanical, and electrical components or systems throughout the building. All trades shall coordinate with other trades and conduct their work to prevent worker exposure or site contamination. Refer to Specification Divisions 0, 1 and 2 for specific information concerning disturbing, removing, and disposing of these materials and the installation of new materials or components. This notification is provided in accordance with the EPA and OSHA requirements.

1.2 SUMMARY

- A. Section includes building wire and cable and wiring connectors and connections.

1.3 REFERENCES

- A. National Electrical Code (NEC).
- B. NECA (National Electrical Contractors Association) - Standard of Installation.
- C. NETA ATS (International Electrical Testing Association) - Acceptance Testing Specifications for Electrical Power Distribution Equipment and Systems.

1.4 SYSTEM DESCRIPTION

- A. Wiring Methods - Provide the following wiring methods for all branch circuits, feeders and fire alarm circuits:
 - 1. Heated indoor locations: XHHW-2 or THHN insulation in raceway.
 - 2. Exterior, wet or other cold locations: XHHW-2 insulation in raceway.
- B. Conductors and cables for special systems not covered by this section are denoted in the associated specification section, drawing reference or as recommended by the system manufacturer whichever is greater.

PART 2. PRODUCTS

2.1 THHN/THWN BUILDING WIRE

- A. Product Description: General purpose single stranded conductor.
- B. Conductor: Class B or C stranded, annealed copper per UL 83 or 1063.
- C. Insulation: Polyvinyl chloride (PVC) sheathed with nylon jacket meeting requirements of UL 83. Sizes 1/0 AWG and larger marked "For CT Use" and be sunlight resistant.
- D. Temperature: THHN 90 degrees C Dry and THWN 75 degrees C Wet.

- E. Voltage: 600 Volts.

2.2 XHHW-2 BUILDING WIRE

- A. Product Description: General purpose single stranded conductor.
- B. Conductor: Class B stranded, annealed copper per UL 44.
- C. Insulation: Crosslinked polyethylene (XLP) per UL 44.
- D. Temperature: 90 degrees C.
- E. Voltage: 600 Volts.

2.3 WIRING CONNECTORS

- A. 8 AWG and smaller
 1. Dry interior areas: Spring wire connectors, pre-insulated "twist-on" rated 105 degrees C per UL 468C. Crimp insulated fork or ring terminals for conductors terminating under screw type terminals, Thomas & Betts Sta-Kon or equal.
 2. Motor connections: Spring wire connectors, pre-insulated "twist-on" rated 105 degrees C per UL 468C. Provide a minimum of 8 wraps of Scotch 33+ electrical tape around conductors and connector to eliminate connector back off.
 3. Wet or exterior: Split bolt and PVC end cap, epoxy filled rated for direct burial per UL 486D.

PART 3. EXECUTION

3.1 EXISTING WORK

- A. Remove abandoned wire and cable, including abandoned wire and cable above accessible ceiling finishes. Patch surfaces where removed cables pass through building finishes.
- B. Disconnect abandoned circuits and remove circuit wire and cable. Remove abandoned boxes when wire and cable servicing boxes is abandoned and removed. Install blank cover for abandoned boxes not removed.
- C. Provide access to existing wiring connections remaining active and requiring access. Modify installation or install access panel.
- D. Extend existing circuits using materials and methods compatible with existing electrical installations, or as specified.
- E. Clean and repair existing wire and cable remaining or where wire and cable is to be reinstalled.

3.2 INSTALLATION

- A. Voltage Drop: Size all branch circuit conductors to provide voltage drop of 3% or less based on the actual field routing and the load served or as denoted on the panel schedule whichever is greater. As a minimum homeruns over 75 ft are to be #10 AWG.

- B. Use conductor not smaller than #12 AWG for power circuits.
- C. Use conductors not smaller than #16 AWG for control circuits.
- D. Provide continuous raceway system for all conductors and cables unless specifically noted otherwise on the drawings or specifications.
- E. Route wire and cable to meet Project conditions.
- F. Route conductors from each system in independent raceway system and not intermixed in the same raceway, enclosure, junction box, wireway, or gutter as another system unless otherwise shown on the plans. Examples of circuits to not be intermixed are 480Y/277 with 208Y/120 Volt circuits, emergency power, line voltage circuits with low voltage wiring, power limited, telecommunication, direct current, etc.
- G. Do not install XHHW-2 conductors when ambient temperatures are below -5 degrees C and THHN/THWN conductors when ambient temperatures are below 0 degrees C.
- H. Provide stranded wire for all fire alarm devices, security devices, connections to motors, transformers and equipment that vibrates or requires flexibility.
- I. Do not terminate more than one conductor per individual branch circuit breakers.
- J. Install wire and cable in accordance with NECA "Standard of Installation."
- K. Neatly train and lace wiring inside boxes, equipment, and panelboards supported with cable ties.
- L. Provide cable supports as recommended by the NEC or cable manufacturer in vertical conduits.
- M. Color code wire and cable and identify each conductor with its circuit number or other designation indicated under provisions of Section 26 05 53.
- N. Special Techniques - Wiring Connections:
 - 1. Perform wiring connections and splices only in accessible outlet or junction boxes.
 - 2. Do not splice feeder conductors unless otherwise noted on the drawings.
 - 3. Make splices, taps, and terminations to carry full ampacity of conductors with no perceptible temperature rise.
 - 4. Clean conductor surfaces before installing lugs and connectors.
 - 5. Strip conductor insulation to the exposed length as recommended by the manufacturer for the connector used.
 - 6. Tape un-insulated conductors and connectors with electrical tape to 150 percent of insulation rating of conductor.
 - 7. Install insulated spring wire connectors with plastic caps or compression when not available for copper conductor splices and taps, 8 AWG and smaller.
 - 8. Where stranded conductors are terminated on screw type terminals install crimp on fork terminals. Do not place bare stranded conductors directly under screws.

3.3 WIRE COLOR

- A. General

1. For wire sizes 10 AWG and smaller, install wire colors in accordance with the following:
 - a. Black and red for single phase circuits at 120/240 volts.
 - b. Black, red, and blue for circuits at 120/208 volts single or three phase.
 - c. Brown, orange and yellow for circuits at 277/480 volts single or three phase.
 2. For wire sizes 8 AWG and larger, identify wire with colored tape at terminals, splices and boxes. Colors are as follows:
 - a. Black and red for single phase circuits at 120/240 volts.
 - b. Black, red, and blue for circuits at 120/208 volts single or three phase.
 - c. Brown, orange and yellow for circuits at 277/480 volts single or three phase.
- B. Neutral Conductors: White. When two or more neutrals are located in one conduit, individually identify each with proper circuit number.
- C. Ground Conductors:
1. For 8 AWG and smaller: Green.
 2. For 6 AWG and larger: Identify with green tape at both ends and visible points including junction boxes.

END OF SECTION

GROUNDING AND BONDING

PART 1. GENERAL

1.1 NOTIFICATIONS

- A. Notification of Potential Hazards: Asbestos, lead and other potentially hazardous materials are present in the building that may impact the work of all trades. Regulated air contaminants, including asbestos and lead are also present in the settled and concealed dust in and on architectural, structural, mechanical, and electrical components or systems throughout the building. All trades shall coordinate with other trades and conduct their work to prevent worker exposure or site contamination. Refer to Specification Divisions 0, 1 and 2 for specific information concerning disturbing, removing, and disposing of these materials and the installation of new materials or components. This notification is provided in accordance with the EPA and OSHA requirements.

1.2 SUMMARY

- A. Section includes:
 - 1. Grounding Conductor.

1.3 REFERENCES

- A. NETA ATS (International Electrical Testing Association) - Acceptance Testing Specifications for Electrical Power Distribution Equipment and Systems.
- B. NFPA 70 (National Fire Protection Association) - National Electrical Code.

1.4 SYSTEM DESCRIPTION

- A. For all new branch circuits provided in this project, provide a conductor type equipment grounding conductor per this specification section.

1.5 SUBMITTALS

- A. None required.

PART 2. PRODUCTS

2.1 GROUND AND BONDING CONDUCTOR

- A. Material: Bare or insulated stranded copper. Use only insulated copper conductor for telecommunication grounding conductors.
- B. Equipment Grounding Conductor: Copper conductor bare or insulated.

PART 3. EXECUTION

3.1 PREPARATION

- A. Remove paint and surface contaminants at connection points.

3.2 EXISTING WORK

- A. Modify existing grounding system to maintain continuity to accommodate renovations.

3.3 GENERAL INSTALLATION

- A. Install grounding and bonding conductors concealed from view except in mechanical and electrical rooms.
- B. Provide raceway for each grounding or bonding conductor. Bond the raceway and conductor together at each ferrous conduit termination with grounding bushings.
- C. Clean each mechanical connection and coat with antioxidant prior to connection.
- D. Equipment Grounding Conductor: Install separate, insulated conductor within each feeder and branch circuit raceway. Terminate each end on suitable lug, bus, or bushing. Provide bond to every electrical box and enclosure.
- E. Provide bonding for each metallic raceway and wireway system to provide continuous electrical continuity. Provide bond to every box and enclosure.
- F. Accomplish grounding of electrical system by using insulated grounding conductor installed with feeders and branch circuit conductors in conduits. Size grounding conductors in accordance with NEC. Install from grounding bus of serving panel to ground bus of served panel, grounding screw of receptacles, lighting fixture housing, threaded screw in light switch and outlet boxes or metal enclosures of service equipment.
- G. Grounding electrical system using continuous metal raceway system enclosing circuit conductors in accordance with NEC.
- H. Permanently attach equipment and grounding conductors prior to energizing equipment.

END OF SECTION

ELECTRICAL HANGERS AND SUPPORTS

PART 1. GENERAL

1.1 NOTIFICATIONS

- A. Notification of Potential Hazards: Asbestos, lead and other potentially hazardous materials are present in the building that may impact the work of all trades. Regulated air contaminants, including asbestos and lead are also present in the settled and concealed dust in and on architectural, structural, mechanical, and electrical components or systems throughout the building. All trades shall coordinate with other trades and conduct their work to prevent worker exposure or site contamination. Refer to Specification Divisions 0, 1 and 2 for specific information concerning disturbing, removing, and disposing of these materials and the installation of new materials or components. This notification is provided in accordance with the EPA and OSHA requirements.

1.2 SUMMARY

- A. Section Includes:
1. Conduit supports.
 2. Formed steel channel.
 3. Spring steel clips.
 4. Equipment bases and supports.
 5. Seismic Restraints.

1.3 REFERENCES

- A. NFPA 70 (National Fire Protection Association) - National Electrical Code.
- B. 2021 IBC (International Building Code).

1.4 SUBMITTALS

- A. Division 1 and Section 26 05 00 – Basic Electrical Requirements.
- B. Submit manufacturers Product Data:
1. Hangers and Supports.
 2. Conduit Straps.
 3. Anchors.
 4. Seismic Shop Drawings.
- C. Manufacturer's Installation Instructions:
1. Hangers and Supports: Submit special procedures and assembly of components.

1.5 DESIGN REQUIREMENTS

- A. Seismic Calculations:

1. Provide shop drawing and calculations for anchorage of electrical equipment and raceway systems. Shop drawings to include anchor bolt description, layout, sizes of materials, specifications and building structure to be used for attachment. Provide shop drawings and calculations sealed by registered structural engineer in the State of Alaska.
2. Seismic support design to resist earthquake forces in accordance with American Society of Civil Engineers standard ACSE/SEI 7-10 as referenced in the 2009 IBC.
3. Total lateral force to be taken as 1.0 times the equipment weight acting in any direction through the equipment center of gravity.
4. Where flexible connections are used between the distribution system and equipment, Shop Drawings and Calculations are not required for:
 - a. Floor mounted equipment weighing 400 pounds or less and mounted no more than 4 feet above floor level.
 - b. Equipment weighing 20 pounds or less.
 - c. Distribution systems weighing less than 5 pounds per foot.

PART 2. PRODUCTS

2.1 CONDUIT SUPPORTS

- A. Hanger Rods: Threaded high tensile strength galvanized carbon steel with free running threads.
- B. Beam Clamps: Malleable Iron, with tapered hole in base and back to accept either bolt or hanger rod. Set screw: hardened steel.
- C. Conduit clamps for trapeze hangers: Galvanized steel, notched to fit trapeze with single bolt to tighten.
- D. Conduit clamps - general purpose: One hole galvanized stamped steel or malleable iron for surface mounted conduits.

2.2 FORMED STEEL CHANNEL AND ACCESSORIES

- A. Product Description: U-channel strut Exterior and Wet Areas – Hot dipped galvanized 12 gauge thick steel. Dry Indoor Areas – Zinc or Cadmium Plated 12 gauge thick steel.
- B. Accessories: Modular to match channel finish and configuration by the same manufacturer.

2.3 SPRING STEEL CLIPS

- A. Product Description: “Caddy” spring steel electrical support systems for each type required (Provide only where concealed in walls or above ceilings).

2.4 MANUFACTURED SEISMIC RESTRAINT SYSTEMS

- A. Product Description: Provide pre-approved manufactured seismic restraint systems for all seismic support. Systems to be Superstrut seismic restraint system pre-approval No. R-0003, Kinline pre-approval No. R-0071, or B-Line pre-approval No. R-0114.

2.5 SEISMIC SUPPORT WIRE AND CABLE

- A. Product Description: #12 gauge ceiling support wire where concealed. Aircraft stainless steel cable where exposed.

2.6 CABLE TIES

- A. Product Description: High strength nylon temperature rated to 185 degrees F. Self locking. Provide plenum rated cable ties where located above ceilings.

PART 3. EXECUTION

3.1 INSTALLATION - HANGERS AND SUPPORTS

A. Anchors and Fasteners:

1. Concrete Structural Elements: Provide expansion anchors and powder actuated anchors.
2. Steel Structural Elements: Provide beam clamps. Provide spring steel clips where concealed.
3. Concrete Surfaces: Provide expansion anchors.
4. Plaster and Gypsum Board Partitions: Provide sheet metal backing installed behind wallboard.
5. Hollow Masonry: Provide toggle bolts.
6. Solid Masonry Walls: Provide expansion anchors.
7. Sheet Metal: Provide sheet metal screws.
8. Wood Elements: Provide wood screws.

B. Supports:

1. Fabricate supports from structural steel or formed steel channel. Install hexagon head bolts to present neat appearance with adequate strength and rigidity.
2. Install spring lock washers under nuts. Double nut all trapeze hanger supports.
3. Install surface mounted cabinets and panelboards with minimum of four anchors.
4. In wet and damp locations install steel channel supports to stand cabinets and panelboards 1 inch off wall.
5. Provide conduit back spacers in all wet or wash down areas.

C. Seismic Bracing:

1. Support and brace all electrical equipment and associated raceways per UBC Zone 4 requirements.
2. Provide manufactured seismic restraint systems.
3. Bracing is not required for individual raceways less than 2.5" inside diameter and conduits hung on hangers so that the top of the conduit is 12 inches or less from the bottom of the support hanger.

D. Support vertical conduit at every floor.

E. Install raceway supports in accordance with NEC and do not exceed 10 feet.

F. Do not support raceways, low voltage pathways, cables, telecommunication pathways or boxes from ceiling suspension wires or suspended ceiling systems. Provide support from building structure independently to allow ceiling removal and replacement without

removal of electrical system. If dedicated support wires are used, wires and wire clips must be painted or color-coded. Exception: Outlet boxes for ceiling mounted light fixtures, speakers and smoke detectors may be mounted in the ceiling system.

- G. Bridge studs top and bottom with channels to support flush-mounted cabinets and panelboards in stud walls.
- H. Provide support for wall mounted emergency lights to electrical box and four independent wall mounted anchors.
- I. Do not fasten supports to pipes, ducts, mechanical equipment, or conduit.
- J. Install multiple conduit runs on common hangers.
- K. Do not drill or cut structural members except where specifically approved.
- L. Replace or repair any fireproofing damaged by the installation of supporting equipment or devices.
- M. Do not penetrate by drilling or screwing into metal roof decking. All penetrations into metal roof decking must be approved by the Project Manager in writing.

3.2 INSTALLATION - EQUIPMENT BASES AND SUPPORTS

- A. Using templates furnished with equipment, install anchor bolts, and accessories for mounting and anchoring of all equipment per manufacturers recommendations and at the four corner points at minimum.
- B. Construct supports of formed steel channel for seismic bracing. Brace and fasten with flanges bolted to structure.

END OF SECTION

RACEWAYS AND BOXES

PART 1. GENERAL

1.1 NOTIFICATIONS

- A. Notification of Potential Hazards: Asbestos, lead and other potentially hazardous materials are present in the building that may impact the work of all trades. Regulated air contaminants, including asbestos and lead are also present in the settled and concealed dust in and on architectural, structural, mechanical, and electrical components or systems throughout the building. All trades shall coordinate with other trades and conduct their work to prevent worker exposure or site contamination. Refer to Specification Divisions 0, 1 and 2 for specific information concerning disturbing, removing, and disposing of these materials and the installation of new materials or components. This notification is provided in accordance with the EPA and OSHA requirements.

1.2 SUMMARY

- A. Section includes:

1. Metal conduit.
2. Flexible metal conduit.
3. Liquidtight metal conduit.
4. Electrical metallic tubing.
5. Surface mounted raceway (SMR).
6. Fittings and conduit bodies.
7. Pull and junction boxes.

1.3 REFERENCES

- A. American National Standards Institute (ANSI):

1. ANSI C80.1 - Rigid Steel Conduit, Zinc Coated.
2. ANSI C80.3 - Electrical Metallic Tubing, Zinc Coated.
3. ANSI C80.5 - Rigid Aluminum Conduit.

- B. American Society for Testing and Materials (ASTM):

1. ASTM A 123 – Specification for Zinc Coatings on Products Fabricated from Rolled, Pressed, and Forged Steel Shapes, Plates, Bars and Strip.

- C. National Electrical Manufacturers Association (NEMA):

1. NEMA FB 1 (National Electrical Manufacturers Association) - Fittings, Cast Metal Boxes, and Conduit Bodies for Conduit and Cable Assemblies.
2. NEMA OS 1 (National Electrical Manufacturers Association) - Sheet-steel Outlet Boxes, Device Boxes, Covers, and Box Supports.
3. NEMA OS 2 (National Electrical Manufacturers Association) - Nonmetallic Outlet Boxes, Device Boxes, Covers and Box Supports.
4. NEMA RN 1 (National Electrical Manufacturers Association) - Polyvinyl Chloride (PVC) Externally Coated Galvanized Rigid Steel Conduit and Intermediate Metal Conduit.
5. NEMA TC 2 (National Electrical Manufacturers Association) - Electrical Plastic Tubing (EPT) and Conduit (EPC-40 and EPC-80).

6. NEMA TC 3 (National Electrical Manufacturers Association) - PVC Fittings for Use with Rigid PVC Conduit and Tubing.
 7. NEMA 250 (National Electrical Manufacturers Association) - Enclosures for Electrical Equipment (1000 Volts Maximum).
- D. National Fire Protection Association (NFPA):
1. NFPA 70 - National Electrical Code.
- E. International Building Code (IBC):
1. IBC Seismic Category C requirements.

1.4 SYSTEM DESCRIPTION

- A. Provide raceway and boxes located as indicated on Drawings, and at other locations required for splices, taps, wire pulling, equipment connections, and compliance with regulatory requirements. Raceway and boxes are shown in approximate locations unless dimensioned. Provide raceway to complete wiring system.
- B. Raceway Minimum Size:
1. Below Grade: Provide 1 inch minimum.
 2. Above Grade or Slab on Grade: Provide $\frac{3}{4}$ inch minimum. Raceway may be reduced to $\frac{1}{2}$ inch for final connection of raceway up to 6 feet for connection to fixture or device where maximum conduit entry size is $\frac{1}{2}$ inch.
- C. Outdoor Above Grade, Damp or Wet Locations:
1. Raceway: Provide rigid steel.
 2. Boxes and Enclosures: Provide weatherproof malleable iron for branch circuit junction and outlet boxes.
 3. Fittings: Provide galvanized malleable iron with gaskets. Provide Myers threaded hubs for all conduit entries into top and side of sheet metal enclosures. Provide gland raintight fittings for electrical metallic tubing.
- D. Concealed Dry Locations:
1. Raceway: Provide electrical metallic tubing. Flexible metal conduit where finished in walls or ceiling spaces that are not accessible otherwise.
 2. Boxes and Enclosures: Provide sheet-metal boxes.
 3. Fittings: Provide cast and steel.
- E. Exposed Dry Locations:
1. Raceway: Mechanical and electrical spaces: Provide electrical metallic tubing. Exposed in non-mechanical spaces: Provide surface mounted raceway (SMR).
 2. Boxes and Enclosures: Provide white factory manufactured boxes by same supplier as the fire alarm devices.
 3. Fittings: Provide cast alloy.
- F. Hazardous Locations (Classified Wiring):
1. Raceway: Provide rigid steel conduit.

2. Boxes and Enclosures: Provide galvanized malleable iron rated Class 1 Division 1, NEMA FB1.

- G. Equipment Connections: Connections to components in suspended ceilings, vibrating equipment or equipment that requires removal for maintenance or replacement: Flexible metal conduit in dry locations and liquidtight flexible metal conduit in damp or wet locations. Maximum 6 feet in length.

1.5 DESIGN REQUIREMENTS

- A. Conduit Minimum Raceway Size: Size all raceways not shown on the drawings to not exceed the percentage fill specified in the NEC Table 1, Chapter 9 using the conduit dimensions of the NEC Table 4, Chapter 9 and conductor properties of the NEC Table 5, Chapter 9. Where specific cable is not listed use major diameter provided by the manufacturer.
- B. Box Minimum Size: Provide all boxes sized and configured per NEC Article 314.
- C. IBC Seismic Design: Provide support to per Seismic Category C requirements.

1.6 SUBMITTALS

- A. Division 1 and Section 26 05 00 – Basic Electrical Requirements.
- B. Product Data: Submit data for products to be provided.
- C. Manufacturer's Installation Instructions: Submit application conditions and limitations of use stipulated by Product testing agency specified under Regulatory Requirements. Include instructions for storage, handling, protection, examination, preparation, and installation of Product.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Protect conduit from corrosion and entrance of debris by storing above grade. Provide appropriate covering.

1.8 COORDINATION

- A. Coordinate mounting heights, orientation and locations of outlets mounted above counters, benches, and backsplashes.
- B. Coordinate layout and installation of raceways and boxes to provide adequate headroom, working clearance and access.

PART 2. PRODUCTS

2.1 METAL CONDUIT

- A. Rigid Steel Conduit: ANSI C80.1, UL 6.
- B. Rigid Aluminum Conduit: ANSI C80.5.
- C. Fittings and Conduit Bodies: NEMA FB 1, UL 514B; Galvanized malleable iron with threaded hubs for all conduit entries. Provide threaded connections and couplings only.

Set Screw and running thread fittings are not permitted. Provide copper free aluminum fittings and conduit bodies with Aluminum Conduit.

- D. Provide bushings at all conduit terminations.

2.2 FLEXIBLE METAL CONDUIT

- A. Product Description: UL 1, galvanized or zinc coated flexible steel construction.
- B. Fittings: NEMA FB 1. Galvanized malleable iron or steel with insulated throats.

2.3 LIQUIDTIGHT FLEXIBLE METAL CONDUIT

- A. Product Description: UL 360, Interlocked steel construction with PVC jacket.
- B. Fittings: NEMA FB 1. Galvanized malleable iron or steel liquidtight.

2.4 ELECTRICAL METALLIC TUBING (EMT)

- A. Product Description: ANSI C80.3, UL 797; galvanized steel tubing.
- B. Fittings and Conduit Bodies: NEMA FB 1; galvanized steel or malleable iron, compression or set screw type. Die cast or pressure cast fittings and locknuts are not permitted.

2.5 SURFACE MOUNTED RACEWAY

- A. Product Description: One piece 1.0 mm low profile steel surface raceway. Ivory finish. Wiremold V700 or approved equal.
- B. Fittings: All bushings, mounting straps, connection covers, elbows, connectors, and boxes to be Wiremold V700 Series or approved equal. Appliance boxes for pull stations, indicating appliances, and door holder boxes to be factory boxes specified.

2.6 DEVICE AND APPLIANCE BOXES

- A. Concealed: Sheet Metal Outlet Boxes: NEMA OS 1, UL514A galvanized steel with plaster ring where applicable.
 - 1. Minimum size 4 inches wide x 4 inches wide x 2-1/8 inch deep.
- B. Surface Box: White factory manufactured fire alarm appliance box for surface mounting of fire alarm devices. 4" square K.O. boxes, Wiremold, cast aluminum or field painted junction boxes not provided from the fire alarm equipment supplier are not acceptable.
 - 1. Interior Locations: Sheet steel factory white sized for installed device.
 - 2. Exterior Locations: Weatherproof Cast box sized for Installed device.
- C. Door Holder: Provide stainless steel cast steel back box from the door holder manufacturer for surface applications.

2.7 PULL AND JUNCTION BOXES

- A. Sheet Metal Boxes: NEMA OS 1, galvanized steel.

- B. Surface Mounted Cast Metal Box: NEMA 250, Type 4; flat-flanged, surface mounted junction box:
 - 1. Material: Galvanized cast iron.
 - 2. Cover: Furnish with ground flange, neoprene gasket, and stainless steel cover screws.
- C. Fiberglass Concrete composite Type 1A Handholes: Die-molded, glass-fiber concrete composite hand holes:
 - 1. Cover: Glass-fiber concrete composite, weatherproof cover with nonskid finish.
 - 2. Cover Legend: "FIRE ALARM".
- 2.8 EXPANSION FITTINGS:
 - A. Galvanized malleable iron, galvanized with grounding bond jumper.
- 2.9 RACEWAY SEALING FITTINGS:
 - A. Galvanized malleable iron, galvanized filled with sealing compound.
 - 1. Class 1 Division 1 boundary lines and isolation of arcing devices use Class 1 Division 1 sealing compound.
- 2.10 BUSHINGS:
 - A. Non-grounding: Threaded impact resistant plastic.
- 2.11 LOCKNUTS:
 - A. Threaded Electro Zinc Plated Steel designed to cut through protective coatings for ground continuity.
- 2.12 WIREWAY:
 - A. Product Description: General purpose type wireway. Size per NEC minimum fill capacity required.
 - B. Knockouts: Field install, no factory knockouts acceptable.
 - C. Cover: Screw cover.
 - D. Fittings and Accessories: Include factory couplings, offsets, elbows, adapters and support straps required for a complete system. Provide internal ground bonding jumper bonded to each section.
- 2.13 FIRE STOP:
 - A. Asbestos-free intumescent fire stopping material capable of expanding up to 10 times when exposed to temperatures 250 degrees F or higher. Material to be rated for fire, smoke and gas stopping in accordance with ASTM E814 and UL 1479.

PART 3. EXECUTION

3.1 EXISTING WORK

- A. Remove exposed abandoned boxes, raceway. Cut raceway flush with walls and floors, and patch surfaces.
- B. Disconnect abandoned outlets and remove devices. Remove abandoned outlets when raceway is abandoned and removed. Install blank cover for abandoned outlets not removed.
- C. Maintain access to existing boxes and other installations remaining active and requiring access. Modify installation or provide access panel.
- D. Extend existing raceway and box installations using materials and methods compatible with existing electrical installations, or as specified.
- E. Clean and repair existing raceway and boxes to remain or to be reinstalled.
- F. Upgrade all raceways and junction boxes that are reused to conform to current code requirements.

3.2 INSTALLATION

- A. Ground and bond raceway and boxes in accordance with Section 26 05 26.
- B. Fasten raceway and box supports to structure and finishes in accordance with Section 26 05 29.
- C. Identify raceway and boxes with origin and destination in accordance with Section 26 05 53.

3.3 RACEWAY INSTALLATION

- A. Provide raceways concealed in construction unless specifically noted otherwise. Do not route conduits on roofs, outside of exterior walls, or surface of interior finished walls unless specifically noted to do so on the plans.
- B. Raceway routing and boxes are shown in approximate locations unless dimensioned. Where raceway routing is not denoted field route to provide complete wiring system.
- C. The drawings do not necessarily show every pull or junction box required. Provide boxes as shown or as necessary to facilitate bend limitations and conductor pulling.
- D. Do not route raceways on floor. Arrange raceway and boxes to maintain a minimum of 6 feet 6 inches of headroom. Install raceways level and square to a tolerance of 1/8" per 10 feet. Route raceways parallel and perpendicular to walls and ceilings for all exposed and concealed areas.
- E. Provide bushing at each raceway termination not installed within an enclosure threaded to the raceway end or connector.
- F. Provide independent raceway system for the entire fire alarm installation.

- G. Provide permanent accessibility to all junction boxes, pull boxes and conduit access fittings.
- H. Arrange raceway supports to prevent misalignment during wiring installation.
- I. Group related raceway; support using conduit rack. Construct rack using steel channel specified in Section 26 05 29; provide space on each for 25 percent additional raceways.
- J. Do not support raceway with wire or perforated pipe straps. Remove wire used for temporary supports
- K. Do not attach raceway to ceiling support wires or other piping systems.
- L. Construct wireway supports from steel channel specified in Section 26 05 29.
- M. Maintain clearance between raceway and piping for maintenance purposes.
- N. Maintain 12 inch clearance between raceway and surfaces with temperatures exceeding 104 degrees F.
- O. Cut conduit square using saw or pipe cutter; de-burr all conduit ends to smooth finish prior to installation.
- P. Bring conduit to shoulder of fittings; fasten securely. Where locknuts are used install with one inside box and one outside with dished part against box.
- Q. Coat non-ferrous conduit threads prior to joining with conductive metallic grease antioxidant.
- R. Install conduit threaded raintight hubs to fasten conduit to sheet metal boxes for all exterior or interior damp or wet locations. Sealing locknuts are not acceptable.
- S. Install no more than equivalent of three 90 degree bends between boxes. Install conduit bodies to make sharp changes in direction, as around beams and corners.
- T. Avoid moisture traps; install junction box with drain fitting at low points in conduit system.
- U. Install fittings and flexible metal conduit to accommodate 3 axis movement where raceway crosses seismic joints.
- V. Install fittings to accommodate expansion and contraction where raceway crosses control and expansion joints.
- W. Install suitable pull string or cord in each empty raceway except sleeves and nipples.
- X. Install suitable caps to protect installed conduit against entrance of dirt and moisture.
- Y. Close ends and unused openings in wireway and surface raceway.
- Z. Do not intermix conductors from separate panelboards or any other system in the same raceway system or junction boxes unless specifically denoted otherwise.

- AA. Provide box barrier for separation of boxes which contain multiple devices and wiring over 150 Volts to ground and more than 300 Volts between conductors into compartments and where normal and emergency power in the same junction box.
- BB. Where conduit penetrates fire-rated walls and floors, provide mechanical fire-stop fittings with UL listed fire rating equal to wall or floor rating, seal opening around conduit with UL listed firestop sealant or intumescent firestop, preserving the fire time rating of the construction.
- CC. Use non-hardening duct seal to satisfy requirement of Article 300-7, NEC for different temperature portions of raceways, including those passing from interior to exterior portions of structure.
- DD. Provide blank covers or plates for all boxes that do not contain devices.
- EE. Provide weatherhead on all raceway stub ups which are outdoors and do not terminate in to equipment.
- FF. Paint all exposed conduits and junction boxes to match existing décor.
- GG. Do not screw to the roof decking without prior specific written approval.

3.4 BOX INSTALLATION

- A. Install wall mounted boxes at elevations to accommodate mounting heights as indicated on Drawings.
- B. Adjust box location up to 6 feet prior to rough-in to accommodate intended purpose.
- C. Install pull boxes and junction boxes above accessible ceilings and in unfinished areas only.
- D. Inaccessible Ceiling Areas: Install outlet and junction boxes no more than 6 inches from ceiling access panel.
- E. Do not install flush mounting box back-to-back in walls; install with minimum 6 inches separation.
- F. Install with minimum 24 inches separation in fire rated walls. Limit penetrations in fire rated walls to 16 square inches each and a maximum total combined penetration area of 100 square inches in any given 100 square feet of wall. Where penetrations are in excess of these requirements provided UL listed fire stop wrap acceptable to Authority having Jurisdiction.
- G. Secure flush mounting box to interior wall and partition studs. Accurately position to allow for surface finish thickness.
- H. Install flush mounting box without damaging wall insulation or reducing its effectiveness.
- I. Install adjustable steel channel fasteners for box support in existing walls.
- J. Do not fasten boxes to ceiling support wires or other piping systems.
- K. Support boxes independently of conduit.

3.5 CLEANING

- A. Clean interior of boxes to remove dust, debris, and other material and clean exposed surfaces and restore finish.

END OF SECTION

ELECTRICAL IDENTIFICATION

PART 1. GENERAL

1.1 NOTIFICATIONS

- A. Notification of Potential Hazards: Asbestos, lead and other potentially hazardous materials are present in the building that may impact the work of all trades. Regulated air contaminants, including asbestos and lead are also present in the settled and concealed dust in and on architectural, structural, mechanical, and electrical components or systems throughout the building. All trades shall coordinate with other trades and conduct their work to prevent worker exposure or site contamination. Refer to Specification Divisions 0, 1 and 2 for specific information concerning disturbing, removing, and disposing of these materials and the installation of new materials or components. This notification is provided in accordance with the EPA and OSHA requirements.

1.2 SUMMARY

- A. Section includes:

1. Nameplates.
2. Labels.
3. Wire markers.
4. Conduit markers.

1.3 ENVIRONMENTAL REQUIREMENTS

- A. Install labels and nameplates only when ambient temperature and humidity conditions for adhesive are within range recommended by manufacturer.

1.4 SUBMITTALS

- A. Division 1 and Section 26 05 00 – Basic Electrical Requirements.
- B. Product Data:
1. Submit manufacturer's catalog literature for each product required.
 2. Submit electrical identification schedule including list of wording, symbols, letter size, color coding, tag number, location, and function.
- C. Manufacturer's Installation Instructions: Indicate installation instructions, special procedures, and installation.

PART 2. PRODUCTS

2.1 NAMEPLATES

- A. Product Description: Laminated three-layer plastic with engraved white letters on red background. Attach to equipment using threaded screws or pop-rivets.
- B. Letter Size:
1. 1/4 inch high letters for identifying individual panel or equipment.

2. 1/8 inch high letters for remaining lines with 1/8 inch spacing between lines.

C. Minimum nameplate size: 1/8 inch thick with a consistent length and height for each type of nameplate wherever installed on the project.

2.2 WIRE MARKERS

A. Power and Lighting Description: Cloth tape type wire markers for all neutrals and Phase conductors.

B. Low Voltage System Description: Machine printed label with unique wire number that is shown on the fire alarm shop drawing.

2.3 LABELS

A. Product Description: Thermal Transfer, 180 DPI self adhesive tape printer. Clear tape with black letters, approximately 3/16" high characters.

2.4 FIRE ALARM CONDUIT AND BOX MARKERS

A. Product Description: Red paint.

PART 3. EXECUTION

3.1 INSTALLATION

A. Install identifying devices after completion of painting.

B. Nameplate Installation:

1. Install nameplate parallel to equipment lines.
2. Secure nameplate with two brass machine screws tapped and threaded to panelboard. Machine screws to not protrude more than 1/16 inch on back side.
3. Secure nameplate to inside surface of door on recessed panelboard in finished locations.
4. Fire Alarm Panels:

a. Provide nameplate for each control panel with the following information:

- 1) Line 1: Unique panel name as shown on the shop drawings.
- 2) Line 2: Identify power circuit number feeding panel.

5. Remote Test Stations:

a. Provide nameplate for each remote test station with the following information:

- 1) Line 1: Description of remote test equipment and location.

C. Wire Marker Installation:

1. Power Circuits: Provide panelboard and circuit number at each pull box, junction box, and termination.

2. Fire Alarm Circuits: Wire number as indicated on schematic and shop drawings at each pull box, junction box, and termination.
3. Color Code: Color code conductors in accordance with 28 31 00 Fire Alarm.

D. Batteries:

1. Label all batteries in FACP and BPS units with install date. Label shall be machine printed label.

E. Paint all fire alarm junction boxes inside and out and raceways with a 6" band 10 ft on center with red paint where installed in concealed accessible location. Where raceway is installed in exposed locations it shall be painted to match the adjacent surface. In mechanical rooms, exposed conduit shall be painted with a 6" band 10 ft on center with red paint.

F. Provide label on telephone conductors at each end denoting FACP lines.

G. Provide label on exterior surface of each initiating device, addressable control relay module and input relay module, denoting the unique device address corresponding to the text annunciator description.

END OF SECTION

MINOR ELECTRICAL DEMOLITION AND EXISTING SYSTEMS

PART 1. GENERAL

1.1 NOTIFICATIONS

- A. Notification of Potential Hazards: Asbestos, lead and other potentially hazardous materials are present in the building that may impact the work of all trades. Regulated air contaminants, including asbestos and lead are also present in the settled and concealed dust in and on architectural, structural, mechanical, and electrical components or systems throughout the building. All trades shall coordinate with other trades and conduct their work to prevent worker exposure or site contamination. Refer to Specification Divisions 0, 1 and 2 for specific information concerning disturbing, removing, and disposing of these materials and the installation of new materials or components. This notification is provided in accordance with the EPA and OSHA requirements.

1.2 SUMMARY

A. Section Includes:

1. Removal of existing electrical equipment, wiring, and conduit in areas to be remodeled; removal of designated construction; dismantling, cutting and alterations for completion of the Work.
2. Disposal of materials.
3. Storage of removed materials.
4. Identification of utilities.
5. Salvaged items.
6. Protection of items to remain as indicated on Drawings.
7. Relocate existing equipment to accommodate construction.

1.3 SUBMITTALS

- A. Shop Drawings: Indicate demolition and removal sequence and location of salvageable items; location and construction of temporary work. Describe demolition removal procedures and schedule.

1.4 COORDINATION

- A. Conduct demolition to minimize interference with adjacent building areas.
- B. Coordinate and sequence demolition so as not to cause shutdown of operation of surrounding areas.
- C. Shut-down Periods:
1. Arrange timing of shut-down periods of in service panels with Project Manager. Do not shut down any utility without prior written approval.
 2. Keep shut-down period to minimum.
 3. Maintain life-safety systems in full operation in occupied facilities.

PART 2. PRODUCTS (NOT USED)

PART 3. EXECUTION

3.1 EXAMINATION

- A. Verify wiring and equipment indicated to be demolished serve only abandoned facilities.

3.2 PREPARATION

- A. Erect, and maintain temporary safeguards, including warning signs and lights, barricades, and similar measures, for protection of the public, Owner, Contractor's employees, and existing improvements to remain.

3.3 DEMOLITION AND EXTENSION OF EXISTING ELECTRICAL WORK

- A. Demolition Drawings are based on casual field observation and existing record documents. Report discrepancies to Project Manager before disturbing existing installation.
- B. Remove exposed abandoned raceways. Cut conduit flush with walls ceilings, floors, and patch surfaces to match adjacent finishes. Cap all abandoned conduit not accessible for demolition.
- C. Remove conduit, wire, boxes, and fastening devices to avoid any interference with new installation.
- D. Remove, relocate, and extend existing installations to accommodate new construction. All reused installations must conform to new specs.
- E. Repair adjacent construction and finishes damaged during demolition and extension work. Ceiling tiles or ceiling slats damaged under normal construction conditions or having voids where junction boxes were removed will be replaced by the contractor.
- F. Protect and retain power to existing active equipment remaining.
- G. Cap abandoned empty conduit at both ends.
- H. Provide stainless steel cover plate for each device box located in non-accessible walls or ceilings which are abandoned in place.
- I. Remove abandoned wiring back to source.
- J. Remove all existing fire alarm conductors. No fire alarm conductors are to be reused.

3.4 EXISTING PANELBOARDS

- A. Ring out circuits in existing panel affected by the Work. Where additional circuits are needed, reuse circuits available for reuse. Install new breakers.
- B. Tag any unused circuits as spare.
- C. Where existing circuits are indicated to be reused, use sensing measuring devices to verify circuits feeding Project area are not in use.
- D. Remove existing wire no longer in use from panel to equipment.

MINOR ELECTRICAL DEMOLITION AND EXISTING SYSTEMS

Division 26
Section 26 05 90

- E. Provide new updated directories where power circuits were modified.

3.5 SALVAGE ITEMS

- A. ASD shall have first right of refusal for all demolished fire alarm devices and panels.
- B. Transport demolished items from site as they are removed and legally dispose according to all applicable guidelines.

3.6 CLEANING AND REPAIR

- A. Repair and clean adjacent construction and finishes damaged during demolition and construction.

END OF SECTION

INSPECTION AND TESTING

PART 1. GENERAL

1.1 NOTIFICATIONS

- A. Notification of Potential Hazards: Asbestos, lead and other potentially hazardous materials are present in the building that may impact the work of all trades. Regulated air contaminants, including asbestos and lead are also present in the settled and concealed dust in and on architectural, structural, mechanical, and electrical components or systems throughout the building. All trades shall coordinate with other trades and conduct their work to prevent worker exposure or site contamination. Refer to Specification Divisions 0, 1 and 2 for specific information concerning disturbing, removing, and disposing of these materials and the installation of new materials or components. This notification is provided in accordance with the EPA and OSHA requirements.

1.2 SUMMARY

- A. Section includes:
 - 1. Fire Alarm System Testing.

1.3 REFERENCES

- A. NFPA 72
- B. NETA ATS – Acceptance Testing Specifications for Electrical Power Distribution Equipment and Systems.
- C. ANSI/IEEE Std 81-1983 Guide for Measuring Earth Resistivity, Ground Impedance, and Earth Surface Potentials of a Ground System.
- D. ANSI/TIA/EIA – 568-B.1 and Addendums, General Cabling System Requirements

1.4 SUBMITTALS

- A. Section 01300 - Submittals and Section 26 05 00 – Basic Electrical Requirements.
- B. Product Data: Submit technical information for each test instrument to include manufacturer, model number, serial number, ratings, accuracy, and National Institute of Standards and Technology (NIST) Traceable calibration certification.

1.5 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: Submit Test Reports per Section 26 60 00.

1.6 COORDINATION

- A. Provide written 72 hours advance notice of all tests to be performed to allow ASD representative to witness.

1.7 REQUIRED TESTING INSTRUMENTS

- A. Sound Level Meter
 - 1. Product Description: Sound Level Meter meeting ANSI S.14a Type 2, Specifications for Sound Level Meters. Capable of A-Weighted measurement.

1.8 TEST INSTRUMENT CALIBRATION

- A. All test equipment shall be in good mechanical and electrical condition.
- B. Provide calibration for each test instrument directly traceable to the National Institute of Standards and Technology (NIST) of higher accuracy than that of the instrument tested.

- C. Provide calibration labels visible on all test equipment. Records, which show date and results of instruments calibrated or tested, shall be kept up-to-date.
- D. Calibrate instruments in accordance with the following frequency schedule:
 - 1. Field instruments: 12 months maximum.
 - 2. Up-to-date instrument calibration instructions and procedures shall be maintained for each test instrument with the equipment.

1.9 MINIMUM REPORT INFORMATION

- A. Report Criteria: After each test, promptly submit one copy of report to ASD. Include information on the ASD report form where included within this specification otherwise provide form with the minimum following information:
 - 1. Date issued.
 - 2. ASD Project title and number.
 - 3. Name and Model of Tester and witnesses.
 - 4. Date and time of sampling or inspection.
 - 5. Identification of product and specifications section.
 - 6. Type of inspection or test.
 - 7. Date of test.
 - 8. Results of tests.
 - 9. Indicate compliance or non-compliance with Contract Documents.
 - 10. Final adjustment setting values where applicable.
- B. Submit copy of all tests performed in the O&M manual.
- C. Submit copy of all tests performed in the O&M Manual, include CDROM electronic copy of all telecommunication test full spectrum plots.

1.10 GENERAL REQUIREMENTS

- A. Request for Tests: Notify Owner Representative and Project Manager a minimum of 72 hours in advance of all tests.
- B. Submit test results within 3 working days of each test and included in the O&M manual. Submit all test data in hard copy and electronic format on CD-ROM.
- C. Provide qualified personnel at site to perform all testing.
- D. Perform specified testing of products in accordance with specified standards or as denoted in this specification whichever is more stringent.
- E. Promptly notify ASD of irregularities or non-conformance of Work or products.
- F. Perform additional tests when test is performed incorrectly, deemed inaccurate, or incorrectly documented.
- G. The Contractor shall provide all forms, instrumentation and test equipment, loads, and other consumables required to demonstrate the systems to ASD's satisfaction.
- H. Perform and submit all testing prior to substantial completion and system acceptance.
- I. Retest all material, cables etc that are disturbed after testing.
- J. Replace and retest all material installed which does not meet or exceed the minimum acceptable limits set forth in this specification in accordance with the contract original requirements at no additional charge to Contract Sum/Price.
- K. ASD Project Manager shall be notified in writing at least 3 days prior to any testing being performed.

PART 2. PRODUCTS (NOT USED)

PART 3. EXECUTION

3.1 FIRE ALARM TESTS

- A. Prior to substantial completion, test system in accordance with NFPA 72. At time of substantial completion for inspection, demonstrate that the system functions according to these specifications for the following outlined tests. Conduct approximately one-half of the system tests with the fire alarm controller operating on battery. After returning controller to normal A.C. operation, log response of charger output current and voltage.
1. Alarm Initiation: Activate each new pull station and automatic detector in the system, and provide a log of response of each device.
 - a. Demonstrate activation of each addressable control relay module and response of connected equipment and systems.
 - b. Fixed temperature heat detectors: Short across the rear terminals of each such detector in the system.
 - c. Combination fixed and rate of rise heat detectors: Subject each detector in the system to a heat source (portable heat lamp or hair dryer) to actuate the rate of rise portion of the combination unit. Replace the entire assembly and retest if the fixed temperature element of the original combination assembly is tripped.
 - d. Area coverage smoke detectors: Test each installed smoke detector in place with the manufacturer's recommended "field test meter" and procedure.
 - e. Duct mounted smoke detectors: Test each installed smoke detector in place. Demonstrate operation of fan shutdown control sequence.
 - f. Measure sound level in each room with calibrated dB meter. Measure voice intelligibility with instrument acceptable to the AHJ. Take measurements at point in room farthest from signal and with all doors closed. Log test results on ASD Fire Alarm Notification Appliances Audio Test Report form.
 - 1) Set Meter to A-Weighted setting
 - 2) Meter must be placed 1.5 meters or 5 feet above floor.
 - 3) Record maximum ambient dBA level. Sound within the occupiable area, from a temporary (less than 60 seconds) or abnormal source shall not be included in measuring maximum ambient sound level.
 - 4) Record minimum dBA level during fire alarm.
 - 5) Record intelligibility level during fire alarm.
 - g. Logs of the above test results to be tabulated for presentation at substantial completion inspection, and copies to be included in operation and maintenance manuals. Use M.O.A. fire alarm acceptance test form and NFPA 72 fire alarm system certification form. Samples of test forms are attached at the end of this section.
 - h. All testing shall be accomplished by U.L. listed service company. Upon completion of testing, issue U.L. certification.
 2. Demonstrate reset, alarm signal silence, and other user-accessible controls at main control panel.
 3. Demonstrate transmission of alarm, trouble, and supervisory signals to remote locations.
 4. System supervision: demonstrate supervision of new circuits by performing the following tests. Provide a log of the system response.

- a. Disconnect the end-of-the-line device in each conventional initiating device circuit and each circuit of alarm signals.
 - b. Disconnect each new addressable device data loop at panel and at device furthest from panel.
 - c. Remove a control cabinet function module to check supervision response.
 - d. Disconnect battery leads from each power supply.
5. Demonstrate release of all door holders through activation of the panic button and fire alarm system.

END OF SECTION

**Anchorage School District
Certification of Installation
for the
Municipality of Anchorage**

Protected Property: _____

Installer Address:

Provider Address:

Telephone: _____

Telephone: _____

Fax: _____

Fax: _____

1. The installer certifies that the installation meets or exceeds the requirements set forth in the following documents:

- a. National Electric Code
- b. National Fire Protection Association Standard 72 (NFPA 72)
- c. Applicable Local Codes and Standards
- d. Manufacturers recommendation
- e. Per the Specification – Project # _____

Signature: _____ **Date:** _____

Representing: _____

2. The Provider of the system certifies that the installation, programming and testing meets or exceeds the requirements set forth in the following documents:

- a. National Fire Protection Association Standard 72 (NFPA 72)
- b. Applicable Local Codes and Standards
- c. Manufacturers recommendations
- d. Per the Specification – Project _____
- e. Customer requests

Signature: _____ **Date:** _____

Representing: _____

EMERGENCY COMMUNICATIONS SYSTEMS
SUPPLEMENTARY RECORD OF INSPECTION AND TESTING (continued)

3. TWO-WAY EMERGENCY COMMUNICATIONS SYSTEMS (continued)

3.3 Elevator Emergency Communications Systems

Number of elevators with stations: _____ Location of central control point: _____

Days and hours when central control point is attended: _____

Location of alternate control point: _____

Days and hours when alternate control point is attended: _____

3.4 Other Two-Way Communications System

Describe: _____

4. TESTING RESULTS

4.1 Control Unit and Related Equipment

Description	Visual Inspection	Functional Test	Comments
Control unit	☐	☐	
Lamps/LEDs/LCDs	☐	☐	
Fuses	☐	☐	
Trouble signals	☐	☐	
Disconnect switches	☐	☐	
Ground fault monitoring	☐	☐	
Supervision	☐	☐	
Local annunciator	☐	☐	
Remote annunciators	☐	☐	
Remote power panels	☐	☐	
Other:	☐	☐	

4.2 Secondary Power

Description	Visual Inspection	Functional Test	Comments
Battery condition	☐	☐	
Load voltage	☐	☐	
Discharge test	☐	☐	
Charger test	☐	☐	
Remote panel batteries	☐	☐	

EMERGENCY COMMUNICATIONS SYSTEMS
SUPPLEMENTARY RECORD OF INSPECTION AND TESTING (continued)

4. TESTING RESULTS (continued)

4.3 Emergency Communications Equipment

Description	Visual Inspection	Functional Test	Comments
Control unit	☐	☐	
Lamps/LEDs/LCDs	☐	☐	
Fuses	☐	☐	
Secondary power supply	☐	☐	
Trouble signals	☐	☐	
Disconnect switches	☐	☐	
Ground fault monitoring	☐	☐	
Panel supervision	☐	☐	
System performance	☐	☐	
System audibility	☐	☐	
System intelligibility	☐	☐	
Other:	☐	☐	

4.4 Mass Notification Equipment

Description	Visual Inspection	Functional Test	Comments
Functional test	☐	☐	
Reset/Power down test	☐	☐	
Fuses	☐	☐	
Primary power supply	☐	☐	
SEPSS power test	☐	☐	
Trouble signals	☐	☐	
Disconnect switches	☐	☐	
Ground fault monitoring	☐	☐	
CCU security mechanism	☐	☐	
Prerecorded message content	☐	☐	
Prerecorded message activation	☐	☐	
Software backup performed	☐	☐	
Test backup software	☐	☐	
Fire alarm to MNS Interface	☐	☐	
MNS to fire alarm interface	☐	☐	
In-building MNS to wide-area MNS	☐	☐	
MNS to direct recipient MNS	☐	☐	

EMERGENCY COMMUNICATIONS SYSTEMS
SUPPLEMENTARY RECORD OF INSPECTION AND TESTING (continued)

4. TESTING RESULTS (continued)

4.4 Mass Notification Equipment (continued)

Description	Visual Inspection	Functional Test	Comments
Sound pressure levels (attach report with locations, values, and weather conditions)	☐	☐	
System intelligibility ☐ CSI ☐ STI (attach report with locations, values, and weather conditions)	☐	☐	
Other:	☐	☐	

4.5 Two-Way Communication Equipment

Description	Visual Inspection	Functional Test	Comments
Phone handsets	☐	☐	
Phone jacks	☐	☐	
Off-hook indicator	☐	☐	
Call-in signal	☐	☐	
System performance	☐	☐	
System audibility	☐	☐	
System intelligibility	☐	☐	
Other:	☐	☐	

See main System Record of Inspection and Testing for additional information, certifications, and approvals.

**INITIATING DEVICE
SUPPLEMENTARY RECORD OF INSPECTION AND TESTING**

*This form is a supplement to the System Record of Inspection and Testing.
It includes an initiating device test record.
This form is to be completed by the system inspection and testing contractor at the time of the inspection and/or test.
It shall be permitted to modify this form as needed to provide a more complete and/or clear record.
Insert N/A in all unused lines.*

Inspection/Test Start Date/Time: _____ Inspection/Test Completion Date/Time: _____
Number of Supplemental Pages Attached: _____

1. PROPERTY INFORMATION

Name of property: _____
Address: _____

2. INITIATING DEVICE TEST RESULTS

Device Type	Address	Location	Test Results

SUPPLEMENTARY RECORD OF INSPECTION AND TESTING (continued)

2. INITIATING DEVICE TEST RESULTS (continued)

[illegible]

See main System Record of Inspection and Testing for additional information, certifications, and approvals.

SUPPLEMENTARY RECORD OF INSPECTION AND TESTING

Insert N/A in all unused lines.

Inspection/Test Start Date/Time: _____ Inspection/Test Completion Date/Time: _____

Number of Supplemental Pages Attached: _____

1. PROPERTY INFORMATION

Name of property: _____

Address: _____

2. INTERFACE COMPONENT TEST RESULTS

[illegible]

SUPPLEMENTARY RECORD OF INSPECTION AND TESTING (continued)

2. INTERFACE COMPONENT TEST RESULTS (continued)

[illegible]

See main System Record of Inspection and Testing for additional information, certifications, and approvals.

ELECTRICAL CLOSEOUT

PART 1. GENERAL

1.1 NOTIFICATIONS

- A. Notification of Potential Hazards: Asbestos, lead and other potentially hazardous materials are present in the building that may impact the work of all trades. Regulated air contaminants, including asbestos and lead are also present in the settled and concealed dust in and on architectural, structural, mechanical, and electrical components or systems throughout the building. All trades shall coordinate with other trades and conduct their work to prevent worker exposure or site contamination. Refer to Specification Divisions 0, 1 and 2 for specific information concerning disturbing, removing, and disposing of these materials and the installation of new materials or components. This notification is provided in accordance with the EPA and OSHA requirements.

1.2 SUMMARY

- A. Section includes:
 - 1. Project close out requirements.
 - 2. Project close out documentation.

1.3 CLOSEOUT SUBMITTALS

- A. Provide project closeout requirements and documentation of the following items:
 - 1. Project Clean Up.
 - 2. Demonstration of Electrical System.
 - 3. O&M Manuals
 - 4. Record Drawings.
 - 5. Site Building Documentation.
 - 6. Fire Alarm Documentation

PART 2. PRODUCTS (NOT USED)

PART 3. EXECUTION

3.1 PROJECT CLEAN UP

- A. Clean-Up - Leave project completely free of debris resulting from electrical work, and leave all electrical items clean.
- B. Repair – Paint to match existing any surfaces damaged during construction. Repair or replace any items damaged during construction.

3.2 DEMONSTRATION OF ELECTRICAL SYSTEM

- A. Electrical Inspection - Provide Owner with Certificate of Occupancy signed by the Inspector having jurisdiction.

- B. During final inspection, conduct an operating test for approval by Architect/Engineer. Demonstrate installation of the contract documents. Should any portion of the installation fail to meet requirements of Contract Documents, repair or replace items failing to meet requirements until items can be demonstrated to comply. Have instruments available for measuring voltage and current values, and for demonstration of continuity, grounds or open circuit conditions. Have personnel available to take measurements and make tests.
- C. Furnish assistant to Architect/Engineer for inspection at any time, as requested, to remove covers, operate machinery, perform continuity tests, and as necessary to demonstrate quality and adequacy.

3.3 OPERATION AND MAINTENANCE MANUALS

- A. Submittals shall comply with provisions of Division 1 and this section. Submit (3) copies of the manual no later than five (5) working days prior to final inspection.
- B. Manuals shall be assembled in three-ring binders. Binders shall be 3" thick or less, and more than one binder shall be used for each set of data if required to prevent overfilling. All information shall be arranged in the same order as the specifications, by equipment list item and by specific drawing call out as applicable, each section to identify equipment and specification number with a heavy paper divider with a protruding tab and label. The first section shall be the index. Shop drawings shall be 11" x 17" and shall be individually folded so they are 8-1/2" x 11" or less and inserted behind the appropriate tabs.
- C. General - Provide the following items as applicable for each product or system:
 - 1. Provide manufacturer's catalog cuts, brochures and descriptive literature. Highlight all applicable data or mark out information not applicable.
 - 2. Narrative/diagrams required describing procedures for start-up, operation, emergency operation and shut down of each system. If a particular sequence is required for operation, provide step by step instructions in chronological order.
 - 3. Outline seasonal adjustments required.
 - 4. Provide manufacturer's recommended preventative maintenance for each product, including time intervals for each task.
 - 5. Provide instructions for all adjustments and minor repairs. Provide troubleshooting information for lighting equipment, motor starters, panelboards, and special systems.
 - 6. Provide all information with regard to warranty and special requirements. Include copy of warranty, name, address and phone number of personnel to contact for warranty service.
 - 7. Provide complete information on all replacement parts. Identify each part by manufacturer and part number (graphically when available).
 - 8. Provide hard copy of each panelboard circuit directory and in excel format.

3.4 TRAINING

- A. Provide training as denoted in Section 28 31 00.

3.5 RECORD DRAWINGS

- A. Contractor shall maintain one set of the contract electrical drawings and specifications and Fire Alarm shop drawings of the most current issue on the job site and progressively record thereon any change in installation from that indicated on the drawings. Final approval will be withheld until drawings marked in a satisfactory manner are delivered to the project manager prior to substantial completion.

1. Mark record drawings with red pencil actual installation that varies from the work originally shown.
2. Include addendum and revisions items made during construction.
3. Erase, white out or "X-out" to clearly convey as actual "as constructed" condition.
4. Provide revised electrical plans with the "as constructed" conditions in electronic format. ASD will provide an Electronic copy of the plans in Autocad format for contractor use.
5. Provide one complete as-built set in paper format and electronic format on CD.

3.6 SITE BUILDING DOCUMENTATION

A. Panelboard Circuit Directory.

1. Provide panel circuit directory installed in each panelboard in accordance with Section 26 05 53.

3.7 FIRE ALARM DOCUMENTATION

- A. Operating manuals covering the installed Life Safety System.
- B. Provide Point to Point as-built wiring diagrams of the entire Life Safety System as installed. This shall include all connected devices with actual addresses and locations of all T-taps. All drawings shall be provided in AutoCAD .DWG format and Adobe .PDF format. One full size, reproducible, paper plot of each sheet shall also be provided. One copy of point-to-point diagram shall be laminated and remain at school site.
- C. All drawings must reflect device address and programmed characteristics as verified in the presence of the engineer and/or the end user unless device addressing is electronically generated, and graphically printed.
- D. Provide the application program listing for the system as installed at the time of acceptance by the Owner and/or Local AHJ (Disk and Hard copy printout).
- E. Provide the name, address and telephone of the Authorized Factory Representative.
- F. Certificate of compliance shall be provided. The certificate shall clearly indicate the installed system complies with all NFPA, ICC/ANSI A117.1 and Factory Mutual Global requirements.
- G. Provide factory software and site-specific programming for the installed system on an Owner-furnished laptop computer at the completion of the project. Provide all software licenses and other requirements to allow future maintenance of the system.

END OF SECTION

SYSTEM RECORD OF COMPLETION

*This form is to be completed by the system installation contractor at the time of system acceptance and approval.
It shall be permitted to modify this form as needed to provide a more complete and/or clear record.
Insert N/A in all unused lines.*

Attach additional sheets, data, or calculations as necessary to provide a complete record.

Form Completion Date: _____ Supplemental Pages Attached: _____

1. PROPERTY INFORMATION

Name of property: _____
Address: _____
Description of property: _____
Name of property representative: _____
Address: _____
Phone: _____ Fax: _____ E-mail: _____

2. INSTALLATION, SERVICE, TESTING, AND MONITORING INFORMATION

Installation contractor: _____
Address: _____
Phone: _____ Fax: _____ E-mail: _____
Service organization: _____
Address: _____
Phone: _____ Fax: _____ E-mail: _____
Testing organization: _____
Address: _____
Phone: _____ Fax: _____ E-mail: _____
Effective date for test and inspection contract: _____
Monitoring organization: _____
Address: _____
Phone: _____ Fax: _____ E-mail: _____
Account number: _____ Phone line 1: _____ Phone line 2: _____
Means of transmission: _____
Entity to which alarms are retransmitted: _____ Phone: _____

3. DOCUMENTATION

On-site location of the required record documents and site-specific software: _____

4. DESCRIPTION OF SYSTEM OR SERVICE

This is a: ☐ New system ☐ Modification to existing system Permit number: _____
NFPA 72 edition: _____

4.1 Control Unit

Manufacturer: _____ Model number: _____

4.2 Software and Firmware

Firmware revision number: _____

4.3 Alarm Verification

☐ This system does not incorporate alarm verification.

Number of devices subject to alarm verification: _____ Alarm verification set for _____ seconds

SYSTEM RECORD OF COMPLETION (continued)

5. SYSTEM POWER

5.1 Control Unit

5.1.1 Primary Power

Input voltage of control panel: _____ Control panel amps: _____

Overcurrent protection: Type: _____ Amps: _____

Branch circuit disconnecting means location: _____ Number: _____

5.1.2 Secondary Power

Type of secondary power: _____

Location, if remote from the plant: _____

Calculated capacity of secondary power to drive the system: _____

In standby mode (hours): _____ In alarm mode (minutes): _____

5.2 Control Unit

☐ This system does not have power extender panels

☐ Power extender panels are listed on supplementary sheet A

6. CIRCUITS AND PATHWAYS

Pathway Type	Dual Pathway	Separate Pathway	Class	Survivability Level
Signaling Line				
Device Power				
Initiating Device				
Notification Appliance				
Other (specify):				

7. REMOTE ANNUNCIATORS

Type	Location

8. INITIATING DEVICES

Type	Quantity	Addressable or Conventional	Alarm or Supervisory	Sensing Technology
Manual Pull Stations				
Smoke Detectors				
Duct Smoke Detectors				
Heat Detectors				
Gas Detectors				
Carbon Monoxide Detectors				
Waterflow Switches				
Tamper Switches				

SYSTEM RECORD OF COMPLETION *(continued)*

9. NOTIFICATION APPLIANCES

Type	Quantity	Description	Connected to a Notification Appliance Circuit (NAC)	Connected to a Signaling Line Circuit (SLC)
Audible				
Visual				
Combination Audible and Visual				

10. SYSTEM CONTROL FUNCTIONS

Type	Quantity
Hold-Open Door Releasing Devices	
HVAC Shutdown	
Fire/Smoke Dampers	
Door Unlocking	
Elevator Recall	
Elevator Shunt Trip	

11. INTERCONNECTED SYSTEMS

- ☐ This system does not have interconnected systems.
☐ Interconnected systems are listed on supplementary sheet _____.

12. CERTIFICATION AND APPROVALS

12.1 System Installation Contractor

This system as specified herein has been installed according to all NFPA standards cited herein.

Signed: _____ Printed name: _____ Date: _____
Organization: _____ Title: _____ Phone: _____

12.2 System Operational Test

This system as specified herein has tested according to all NFPA standards cited herein.

Signed: _____ Printed name: _____ Date: _____
Organization: _____ Title: _____ Phone: _____

12.3 Acceptance Test

Date and time of acceptance test: _____
Installing contractor representative: _____
Testing contractor representative: _____
Property representative: _____
AHJ representative: _____

**EMERGENCY COMMUNICATIONS SYSTEMS
SUPPLEMENTARY RECORD OF COMPLETION**

This form is a supplement to the System Record of Completion. It includes systems and components specific to emergency communications systems.
This form is to be completed by the system installation contractor at the time of system acceptance and approval.
It shall be permitted to modify this form as needed to provide a more complete and/or clear record.
Insert N/A in all unused lines.

Form Completion Date: _____ Number of Supplemental Pages Attached: _____

1. PROPERTY INFORMATION

Name of property: _____

Address: _____

2. DESCRIPTION OF SYSTEM OR SERVICE

☐ Fire alarm with in-building fire emergency voice alarm communications system (EVAC)

☐ Mass notification system

☐ Combination system, with the following components:

☐ Fire alarm ☐ EVACS ☐ MNS ☐ Two-way, in-building, emergency communications system

☐ Other (specify): _____

NFPA 72 edition: _____ Additional description of system(s): _____

2.1 In-Building Fire Emergency Voice Alarm Communications System

Manufacturer: _____ Model number: _____

Number of single voice alarm channels: _____ Number of multiple voice alarm channels: _____

Number of loudspeakers: _____ Number of loudspeaker circuits: _____

Location of amplification and sound processing equipment: _____

Location of paging microphone stations:

Location 1: _____

Location 2: _____

Location 3: _____

2.2 Mass Notification System

2.2.1 System Type:

☐ In-building MNS-combination

☐ In-building MNS ☐ Wide-area MNS ☐ Distributed recipient MNS

☐ Other (specify): _____

**EMERGENCY COMMUNICATIONS SYSTEMS
SUPPLEMENTARY RECORD OF COMPLETION (continued)****2. DESCRIPTION OF SYSTEM OR SERVICE (continued)****2.2.2 System Features:**

- ☐ Combination fire alarm/MNS ☐ MNS autonomous control unit ☐ Wide-area MNS to regional national alerting interface
☐ Local operating console (LOC) ☐ Distributed-recipient MNS (DRMNS) ☐ Wide-area MNS to DRMNS interface
☐ Wide-area MNS to high power loudspeaker array (HPLA) interface ☐ In-building MNS to wide-area MNS interface
☐ Other (specify): _____

2.2.3 MNS Local Operating Consoles

Location 1: _____

Location 2: _____

Location 3: _____

2.2.4 High Power Loudspeaker Arrays

Number of HPLA loudspeaker initiation zones: _____

Location 1: _____

Location 2: _____

Location 3: _____

2.2.5 Mass Notification Devices

Combination fire alarm/MNS visual devices: _____ MNS-only visual devices: _____

Textual signs: _____ Other (describe): _____

Supervision class: _____

2.2.6 Special Hazard Notification

- ☐ This system does not have special suppression predischage notification.
☐ MNS systems DO NOT override notification appliances required to provide special suppression predischage notification.

3. TWO-WAY EMERGENCY COMMUNICATIONS SYSTEMS**3.1 Telephone System**

Number of telephone jacks installed: _____ Number of warden stations installed: _____

Number of telephone handsets stored on site: _____

Type of telephone system installed: ☐ Electrically powered ☐ Sound powered**3.2 Area of Refuge Emergency Communications Systems**

Number of stations: _____ Location of central control point: _____

Days and hours when central control point is attended: _____

Location of alternate control point: _____

Days and hours when alternate control point is attended: _____

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POWER SYSTEMS SUPPLEMENTARY RECORD OF COMPLETION

This form is a supplement to the System Record of Completion. It includes systems and components specific to power systems that incorporate generators, SEPSS systems, remote battery systems, or other complex power systems.

This form is to be completed by the system installation contractor at the time of system acceptance and approval.

It shall be permitted to modify this form as needed to provide a more complete and/or clear record.

Insert N/A in all unused lines.

Form Completion Date: _____ Number of Supplemental Pages Attached: _____

1. PROPERTY INFORMATION

Name of property: _____

Address: _____

2. SYSTEM POWER

2.1 Control Unit

2.1.1 Primary Power

Input voltage of control panel: _____ Control panel amps: _____

Overcurrent protection: Type: _____ Amps: _____

Location (of primary supply panelboard): _____

Disconnecting means location: _____

2.1.2 Engine-Driven Generator

Location of generator: _____

Location of fuel storage: _____ Type of fuel: _____

2.1.3 Stored-Energy Emergency Power Supply Systems

Equipment powered by SEPSS system: _____

Location of SEPSS system: _____

Calculated capacity of SEPSS batteries to drive the system components connected to it:

In standby mode (hours): _____ In alarm mode (minutes): _____

2.1.4 Batteries

Location: _____ Type: _____ Nominal voltage: _____ Amp/hour rating: _____

Calculated capacity of batteries to drive the system:

In standby mode (hours): _____ In alarm mode (minutes): _____

2.2 In-Building Fire Emergency Voice Alarm Communications System or Mass Notification System

2.2.1 Primary Power

Input voltage of EVACS or MNS panel: _____ EVACS or MNS panel amps: _____

Overcurrent protection: Type: _____ Amps: _____

Location (of primary supply panelboard): _____

Disconnecting means location: _____

POWER SYSTEMS
SUPPLEMENTARY RECORD OF COMPLETION (continued)

2. SYSTEM POWER (continued)

2.2.2 Engine-Driven Generator

Location of generator: _____

Location of fuel storage: _____ Type of fuel: _____

2.2.3 Stored-Energy Emergency Power Supply Systems

Equipment powered by SEPSS system: _____

Location of SEPSS system: _____

Calculated capacity of SEPSS batteries to drive the system components connected to it:

In standby mode (hours): _____ In alarm mode (minutes): _____

2.2.4 Batteries

Location: _____ Type: _____ Nominal voltage: _____ Amp/hour rating: _____

Calculated capacity of batteries to drive the system:

In standby mode (hours): _____ In alarm mode (minutes): _____

2.3 Notification Appliance Power Extender Panels

☐ This system does not have power extender panels.

2.3.1 Primary Power

Input voltage of power extender panel(s): _____ Power extender panel amps: _____

Overcurrent protection: Type: _____ Amps: _____

Location (of primary supply panelboard): _____

Disconnecting means location: _____

2.3.2 Engine Driven Generator

Location of generator: _____

Location of fuel storage: _____ Type of fuel: _____

2.3.3 Stored-Energy Emergency Power Supply Systems

Equipment powered by SEPSS system: _____

Location of SEPSS system: _____

Calculated capacity of SEPSS batteries to drive the system components connected to it:

In standby mode (hours): _____ In alarm mode (minutes): _____

2.3.4 Batteries

Location: _____ Type: _____ Nominal voltage: _____ Amp/hour rating: _____

Calculated capacity of batteries to drive the system:

In standby mode (hours): _____ In alarm mode (minutes): _____

POWER SYSTEMS
SUPPLEMENTARY RECORD OF COMPLETION (continued)

2. SYSTEM POWER (continued)

2.4 Supervising Station Transmission Equipment

☐ This system does not use transmission equipment within the building powered by any other source than the alarm system control unit.

2.4.1 Primary Power

Input voltage of shared transmission equipment: _____

Shared transmission equipment panel amps: _____

Overcurrent protection: Type: _____ Amps: _____

Location (of primary supply panelboard): _____

Disconnecting means location: _____

2.4.2 Engine Driven Generator

Location of generator: _____

Location of fuel storage: _____ Type of fuel: _____

2.4.3 Energy Storage Systems

Equipment powered by ESS system: _____

Calculated capacity of ESS batteries to drive the system components connected to it:

In standby mode (hours): _____ In alarm mode (minutes): _____

2.4.4 Batteries

Location: _____ Type: _____ Nominal voltage: _____ Amp/hour rating: _____

Calculated capacity of batteries to drive the system:

In standby mode (hours): _____ In alarm mode (minutes): _____

See Main System Record of Completion for additional information, certifications, and approvals.

NOTIFICATION APPLIANCE POWER PANEL
SUPPLEMENTARY RECORD OF COMPLETION

This form is a supplement to the System Record of Completion. It includes a list of types and locations of notification appliance power extender panels.

This form is to be completed by the system installation contractor at the time of system acceptance and approval.

It shall be permitted to modify this form as needed to provide a more complete and/or clear record.

Insert N/A in all unused lines.

Form Completion Date: _____ Number of Supplemental Pages Attached: _____

1. PROPERTY INFORMATION

Name of property: _____

Address: _____

2. NOTIFICATION APPLIANCE POWER EXTENDER PANELS

[illegible]

See Main System Record of Completion for additional information, certifications, and approvals.

SYSTEM RECORD OF INSPECTION AND TESTING

*This form is to be completed by the system inspection and testing contractor at the time of a system test.
It shall be permitted to modify this form as needed to provide a more complete and/or clear record.
Insert N/A in all unused lines.*

Attach additional sheets, data, or calculations as necessary to provide a complete record.

Inspection/Test Start Date/Time: _____ Inspection/Test Completion Date/Time: _____

Supplemental Form(s) Attached: _____ (yes/no)

1. PROPERTY INFORMATION

Name of property: _____

Address: _____

Description of property: _____

Name of property representative: _____

Address: _____

Phone: _____ Fax: _____ E-mail: _____

2. TESTING AND MONITORING INFORMATION

Testing organization: _____

Address: _____

Phone: _____ Fax: _____ E-mail: _____

Monitoring organization: _____

Address: _____

Phone: _____ Fax: _____ E-mail: _____

Account number: _____ Phone line 1: _____ Phone line 2: _____

Means of transmission: _____

Entity to which alarms are retransmitted: _____ Phone: _____

3. DOCUMENTATION

Onsite location of the required record documents and site-specific software: _____

4. DESCRIPTION OF SYSTEM OR SERVICE

4.1 Control Unit

Manufacturer: _____ Model number: _____

4.2 Software Firmware

Firmware revision number: _____

4.3 System Power

4.3.1 Primary (Main) Power

Nominal voltage: _____ Amps: _____ Location: _____

Overcurrent protection type: _____ Amps: _____ Disconnecting means location: _____

SYSTEM RECORD OF INSPECTION AND TESTING (continued)

4. DESCRIPTION OF SYSTEM OR SERVICE (continued)

4.3.2 Secondary Power

Type: _____ Location: _____

Battery type (if applicable): _____

Calculated capacity of batteries to drive the system:

In standby mode (hours): _____ In alarm mode (minutes): _____

5. NOTIFICATIONS MADE PRIOR TO TESTING

Monitoring organization Contact: _____ Time: _____

Building management Contact: _____ Time: _____

Building occupants Contact: _____ Time: _____

Authority having jurisdiction Contact: _____ Time: _____

Other, if required Contact: _____ Time: _____

6. TESTING RESULTS

6.1 Control Unit and Related Equipment

Description	Visual Inspection	Functional Test	Comments
Control unit	☐	☐	
Lamps/LEDs/LCDs	☐	☐	
Fuses	☐	☐	
Trouble signals	☐	☐	
Disconnect switches	☐	☐	
Ground-fault monitoring	☐	☐	
Supervision	☐	☐	
Local annunciator	☐	☐	
Remote annunciators	☐	☐	
Remote power panels	☐	☐	

6.2 Secondary Power

Description	Visual Inspection	Functional Test	Comments
Battery condition	☐	☐	
Load voltage	☐	☐	
Discharge test	☐	☐	
Charger test	☐	☐	
Remote panel batteries	☐	☐	
Batteries marked with date of manufacture	☐	☐	

SYSTEM RECORD OF INSPECTION AND TESTING (continued)

6. TESTING RESULTS (continued)

6.3 Alarm and Supervisory Alarm Initiating Device

Attach supplementary device test sheets for all initiating devices.

6.4 Notification Appliances

Attach supplementary appliance test sheets for all notification appliances.

6.5 Interface Equipment

Attach supplementary interface component test sheets for all interface components.

Circuit Interface / Signaling Line Circuit Interface / Fire Alarm Control Interface

6.6 Supervising Station Monitoring

Description	Yes	No	Time	Comments
Alarm signal	☐	☐		
Alarm restoration	☐	☐		
Trouble signal	☐	☐		
Trouble restoration	☐	☐		
Supervisory signal	☐	☐		
Supervisory restoration	☐	☐		

6.7 Public Emergency Alarm Reporting System

Description	Yes	No	Time	Comments
Alarm signal	☐	☐		
Alarm restoration	☐	☐		
Trouble signal	☐	☐		
Trouble restoration	☐	☐		
Supervisory signal	☐	☐		
Supervisory restoration	☐	☐		

EMERGENCY COMMUNICATIONS SYSTEMS SUPPLEMENTARY RECORD OF INSPECTION AND TESTING

*This form is a supplement to the System Record of Inspection and Testing.
It includes systems and components specific to emergency communication systems.
This form is to be completed by the system inspection and testing contractor at the time of the inspection and/or test.
It shall be permitted to modify this form as needed to provide a more complete and/or clear record.
Insert N/A in all unused lines.*

Inspection/Test Start Date/Time: _____ Inspection/Test Completion Date/Time: _____

Number of Supplemental Pages Attached: _____

1. PROPERTY INFORMATION

Name of property: _____

Address: _____

2. DESCRIPTION OF SYSTEM OR SERVICE

☐ Fire alarm with in-building fire emergency voice alarm communications system (EVAC)

☐ Mass notification system

☐ Combination system, with the following components:

☐ Fire alarm ☐ EVACS ☐ MNS ☐ Two-way, in-building, emergency communications system

☐ Other (specify): _____

Additional description of system(s): _____

2.1 In-Building Fire Emergency Voice Alarm Communications System

Manufacturer: _____ Model number: _____

Number of single voice alarm channels: _____ Number of multiple voice alarm channels: _____

Number of loudspeakers: _____ Number of loudspeaker circuits: _____

Location of amplification and sound processing equipment: _____

Location of paging microphone stations:

Location 1: _____

Location 2: _____

Location 3: _____

2.2 Mass Notification System

2.2.1 System Type:

☐ In-building MNS—combination

☐ In-building MNS ☐ Wide-area MNS ☐ Distributed recipient MNS

☐ Other (specify): _____

EMERGENCY COMMUNICATIONS SYSTEMS SUPPLEMENTARY RECORD OF INSPECTION AND TESTING *(continued)*

2. DESCRIPTION OF SYSTEM OR SERVICE *(continued)*

2.2.2 System Features:

- ☐ Combination fire alarm/MNS ☐ MNS autonomous control unit ☐ Wide-area MNS to regional national alerting interface
☐ Local operating console (LOC) ☐ Distributed-recipient MNS (DRMNS) ☐ Wide-area MNS to DRMNS interface
☐ Wide-area MNS to high-power loudspeaker array (HPLA) interface ☐ In-building MNS to wide-area MNS interface
☐ Other (specify): _____

2.2.3 MNS Local Operating Consoles

Location 1: _____

Location 2: _____

Location 3: _____

2.2.4 High-Power Loudspeaker Arrays

Number of HPLA loudspeaker initiation zones: _____

Location 1: _____

Location 2: _____

Location 3: _____

2.2.5 Mass Notification Devices

Combination fire alarm/MNS visual devices: _____ MNS-only visual devices: _____

Textual signs: _____ Other (describe): _____

Supervision class: _____

2.2.6 Special Hazard Notification

- ☐ This system does not have special suppression pre-discharge notification
☐ MNS systems DO NOT override notification appliances required to provide special suppression pre-discharge notification

3. TWO-WAY EMERGENCY COMMUNICATION SYSTEMS

3.1 Telephone System

Number of telephone jacks installed: _____ Number of warden stations installed: _____

Number of telephone handsets stored on site: _____

Type of telephone system installed: ☐ Electrically powered ☐ Sound powered

3.2 Area of Refuge Emergency Communications Systems

Number of stations: _____ Location of central control point: _____

Days and hours when central control point is attended: _____

Location of alternate control point: _____

Days and hours when alternate control point is attended: _____

FIRE ALARM

PART 1. GENERAL

1.01 NOTIFICATIONS

- A. Notification of Potential Hazards: Asbestos, lead and other potentially hazardous materials are present in the building that may impact the work of all trades. Regulated air contaminants, including asbestos and lead are also present in the settled and concealed dust in and on architectural, structural, mechanical, and electrical components or systems throughout the building. All trades shall coordinate with other trades and conduct their work to prevent worker exposure or site contamination. Refer to Specification Divisions 0, 1 and 2 for specific information concerning disturbing, removing, and disposing of these materials and the installation of new materials or components. This notification is provided in accordance with the EPA and OSHA requirements.

1.02 SUMMARY

- A. This is a design-build project to demolish the existing fire alarm system and install a new fire alarm system at Wendler Middle School. The existing fire alarm system and all associated fire alarm control panels, fire alarm booster panels, remote annunciators, notification appliances, initiating devices, interface devices, wiring, and conduit shall be demolished by the contractor unless otherwise noted. A new voice evacuation fire alarm system, as required by the 2021 IFC article 907.2.3, that meets all requirements of the locally adopted building code as amended by the MOA building safety department and as interpreted by the local AHJ shall be provided by the contractor. The contractor shall be responsible for design, permitting, demolition and construction. ASD shall be responsible for cellular service costs from NAPCO and all monitoring service costs of the new fire alarm system from GUARDIAN. The contractor must coordinate with ASD on service requirements and notify ASD 30-days prior to when these services are to be started.
- B. The fire alarm devices on the demolition drawings where identified from the existing fire alarm system as-built drawings and a non-destructive visual inspection of the building. If there are additional fire alarm devices found by the Contractor connected to the existing fire alarm system that are not shown on the demolition drawings, the Contractor is required to identify those devices, notify the owner of them, and demolish the devices and all associated conduit and wiring at no additional cost to the owner.
- C. The Fire Alarm / Life Safety System supplied under this specification shall be a microprocessor-based network system with voice evacuation. All Control Panel Assemblies and connected Field Appliances shall be both designed and manufactured by the same company, and shall be tested and cross-listed as compatible to ensure that a fully functioning Life Safety System is designed and installed.
- D. Section includes fire alarm control panels, DACT, cellular communicator, audio annunciation and control, remote annunciation, microphones, amplifiers, speakers, manual fire alarm stations, automatic smoke and heat detectors, fire alarm signaling appliances, and auxiliary fire alarm equipment and power and signal wire and cable.
- E. Edwards System Technology (EST) model EST4 shall be the design basis of the fire alarm system for standard of installation requirements and quality level of equipment. No other substitutions allowed.

1.03 REFERENCES

- A. The equipment and installation shall comply with the current provisions of the following standards:
 - 1. National Electric Code, Article 760.
 - 2. National Fire Protection Association Standards:
 - a. NFPA72 - National Fire Alarm Code.
 - b. NFPA101 - Life Safety Code.
 - 3. Local and State Building Codes.
 - 4. Local Authorities Having Jurisdiction.
 - 5. Underwriters Laboratories Inc.
 - 6. Factory Mutual
- B. The system and all components shall be listed by Underwriters Laboratories Inc. for use in fire protective signaling system under the following standards as applicable:
 - 1. UL 864/UOJZ, APOU Control Units for Fire Protective Signaling Systems.
 - 2. UL 268 - Smoke Detectors for Fire Protective Signaling Systems.
 - 3. UL 268A - Smoke Detectors for Duct Applications.
 - 4. UL 217 - Smoke Detectors Single Station.
 - 5. UL 521 - Heat Detectors for Fire Protective Signaling Systems.
 - 6. UL 228 - Door Holders for Fire Protective Signaling Systems.
 - 7. UL 464 - Audible Signaling Appliances.
 - 8. UL 1638 - Visual Signaling Appliances.
 - 9. UL 38 - Manually Activated Signaling Boxes.
 - 10. UL 346 - Waterflow Indicators for Fire Protective Signaling Systems.
 - 11. UL 1971 - Standard for Signaling Devices for the Hearing Impaired.
 - 12. UL 1481 - Power Supplies for Fire Protective Signaling Systems.
 - 13. UL 1480 - Speakers for Fire Alarm, Emergency, and Commercial and Professional Use.
 - 14. UL1633 - Digital Alarm Communicator System Units.
 - 15. UL1638 - Signaling Appliance - Private Mode Emergency and General Utility Signaling.
- C. Americans with Disabilities Act (ADA).
- D. International Standards Organization (ISO)
 - 1. ISO-9000
 - 2. ISO-9001

1.04 SYSTEM DESCRIPTION

- A. Fire Alarm System: Contractor designed and installed, microprocessor controlled manual and automatic fire alarm system with individually addressable initiating devices. The Contractor shall design and install the fire alarm and smoke detection system in accordance with the requirements of these specifications, NFPA 72, NFPA 101, ANSI A17.1, and the ADAG. The number and location of panels and devices required shall be determined solely by the Contractor to comply with the requirements of these specifications and the above referenced codes. The Contractor shall modify the fire alarm system device locations as required due to ASD plan review comments, AHJ plan

review requirements, AHJ inspector requirements and changes in actual architectural, structural, or mechanical construction methods at no cost to the Owner.

- B. System Supervision: Provide electrically-supervised class B, addressable fire alarm system with fault tolerant supervised signaling line circuits and notification appliance circuits. Occurrence of single ground or open condition in signaling line circuit or notification appliance circuit places circuit in TROUBLE mode. Component or power supply failure places system in TROUBLE mode. Provide class A connection between FACP and remote annunciator.
- C. Alarm Sequence of Operation: Actuation of manual fire alarm station or automatic initiating device causes system to enter ALARM, which includes the following operations:
 - 1. Sound and display local fire alarm notification appliances with ANSI S3.41 compliant temporal signal and synchronized flash.
 - a. The following audio messages and actions shall occur simultaneously:
 - 1) An evacuation message shall be sounded in all interior zones. It is the intent of this message that to advise occupants hearing this message that they are near danger and should leave the building via the nearest exit in accordance with the school evacuation plan.
 - 2. Provide selective paging to each zone. In addition to the message/channels detailed above, a dedicated page channel shall be capable of simultaneously providing live voice instructions without interrupting any of the messages listed above shall be provided.
 - 3. Transmit signal to building automation system.
 - 4. Transmit signal to security system.
 - 5. Transmit alarm signal to activate the digital alarm communicator.
 - 6. Activate emergency shutoffs for gas and fuel supplies.
 - 7. Indicate location and address of device in alarm on fire alarm control panel and on remote text annunciator panel.
 - 8. Record the time, date and location of the alarm in the fire alarm panels' accessible history database.
 - 9. Transmit signal for closure of all fire/smoke dampers and shutdown of all building supply and return air fans as indicated on the drawings.
 - 10. Transmit signal to release all door hold open devices.
- D. Alarm Reset: Key-accessible RESET function resets alarm system out of ALARM if alarm has cleared.
- E. Trouble Sequence of Operation: System trouble, including grounding or open circuit of signaling line or notification appliance circuits, or power or system failure causes system to enter TROUBLE mode, including the following operations:
 - 1. Activate visual and audible trouble alarm by device at the fire alarm panel.
 - 2. Activate visual and audible trouble alarm by device at remote text annunciator panel.
 - 3. Manual ACKNOWLEDGE function at control panel silences audible trouble alarm; visual alarm is displayed until initiating trouble is cleared.
 - 4. Record the time, date and location of the trouble condition in the panel's accessible history database.
 - 5. Transmit trouble signal to activate digital alarm communicator.

- F. Drill Sequence of Operation: ASD fire alarm drill sequence shall test initiation, notification and transmission of fire alarm and shall be coordinated with the remote monitoring company by ASD.
- G. Sprinkler System Water Flow Sequence of Operation: Water flow in sprinkler system shall cause the fire alarm control panel to enter the alarm state.
- H. Sprinkler System Valve Tamper Sequence of Operation: Activation of sprinkler valve tamper switch shall cause the fire alarm control panel to display a supervisory trouble indicator.
- I. Lamp Test: Manual LAMP TEST function causes each indicator lamp/LED at the fire alarm control panel to illuminate.
- J. The system shall be 100% field-programmable for additions and deletions, and shall be capable of being expanded and field-programmed at any time from the fire alarm control panel with a plug-in programmer or from a laptop PC, without returning the devices or operating system to the factory for program change. Programming may include, but shall not be limited to, changing the personality/function of an intelligent addressable device to meet changes in building layout or environment. All system changes shall be verified by the Manufacturer's Representative.
- K. The system shall be capable of detecting the electrical location of each intelligent addressable device, including smoke and heat detectors, duct detectors, pull stations, and control/monitor modules. It shall be possible to display the intelligent device map on a PC.
- L. The fire alarm control panel shall report and identify the failure of any device connected to the system, a device removed from a signaling line or notification appliance circuit, or a transmitting device component failure while all other line devices on the channel shall continue to function. The control panel shall report failures by specific channel and address number and permanently record the event including time and date on the system database.
- M. Addressable control relays connected to the system shall be continuously monitored for proper state and position of contacts. Incorrect positions shall be automatically corrected by command from the control panel. If control relay fails to respond to the corrective command; the trouble signal shall sound, and the panel shall identify and permanently record the location of the fault. The control panel shall also monitor addressable control relays for proper state (position) after the system has commanded the relay to operate. Failure of the control relay to operate (change state) shall cause the panel to generate a trouble signal, identify and permanently record the location of the fault.

1.05 ASD SPECIFIC FIRE ALARM SYSTEM REQUIREMENTS

- A. General Requirements:
 - 1. The location of the main fire alarm control panel shall be in the same location as the demolished main fire alarm control panel, with easy access for controlling fire alarm drills and monitoring the system.
 - 2. Provide a text based remote annunciator and remote microphone at the main entry doors. The annunciator location is to be coordinated with the fire marshal and additional annunciators may be required if more than one set of doors is considered to be main entrances.

3. Provide remote microphone in main office to be used by the office staff and/or school principal during a 'lockdown' event. The exact location of the office remote microphone shall be coordinated with the AHJ and ASD. It shall be located in the main office area such that it is on the rear egress path from the office and is not behind a locked door.
4. The fire alarm panel, remote microphone and remote annunciator panel shall be recessed into the wall where possible. The panels shall have working and code clearances.
5. The enclosures used for the system shall be flanged for recessed mounting and non-flanged for surface mounting.
6. Printer is NOT required.
7. The fire alarm system to be Class B (Style 4).

B. Detection Devices:

1. Smoke detection is not to be provided in corridors, hallways, classrooms, offices, etc. unless noted below to be provided or specifically required by governing code, the International Fire Code or MOA amendment.
2. Provide all detection requirements in accordance with NFPA 72 and manufacturers recommendations.
3. Provide photoelectric detection in chemical preparation areas in science rooms.
4. Provide combination photoelectric heat detector in public/student restrooms for middle schools and high schools. Activation of detectors in the restrooms to have verification to assess the alarm by timeout override at the main panel. This activation is a supervisory signal pre-alarm. (Verification details and permission to be coordinated with the fire marshal for each site.)
5. Provide fixed temperature heat detectors with addressable relay to provide coverage in each boiler room.
6. Provide fixed temperature heat detectors for area coverage with addressable relays to provide coverage at each kiln room or location.
7. Provide fixed temperature heat detectors on ceiling within 5ft of all ranges.
8. Provide smoke detector coverage at the main control panel and sub-panel locations.
9. Provide photoelectric smoke detector for area coverage at each room with laminator installed.
10. Provide photoelectric smoke detector in each storage room.
11. Provide heat detectors in mechanical spaces.
12. Provide photoelectric detection in each electrical room. This is not required where panels are located in occupied spaces.
13. Provide smoke detection at each elevator lobby on each floor and elevator equipment room with recall monitored contacts wired back to the elevator equipment room for elevator recall.
14. Provide heat detectors in any sprinklered elevator hoistways or machine rooms, with shunt trip functions as required by code. While these areas will most likely not be sprinklered, coordination needs to be done with the mechanical engineer and architect in case they are required.
15. Provide duct mounted smoke detector on the return of each air handling unit over 2000 CFM or as required by the International Mechanical Code.
16. Provide duct mounted smoke detector within 5 ft each fire smoke damper to close the damper when smoke is detected. The fire smoke damper must also close when the unit is not running if the smoke detector cannot accurately detect smoke with no air flow. Locate the detector to provide sensing inside the duct with no inlets or outlets between the duct detector and the damper.

C. Notifications Devices:

1. Provide complete notification system per NFPA 72 and ADA requirements.
2. For voice evacuation systems, use speakers and speakers strobes to meet audibility requirements.
3. Speakers, Strobes and Speaker/Strobes to be red finish with white FIRE lettering or white finish with red FIRE lettering.
4. Provide wet rated strobes in showers.
5. Provide Speaker/Strobe in every freezer cooler mounted above the door.
6. Design the system for minimum allowable sound dispersion. Use strobe only devices at locations that can be changed to Speaker/strobes if the sound dB/intelligibility is not adequate. The system spare capacity in each circuit shall be adequate for replacing every strobe on each circuit with a speaker/strobe at the same strobe intensity plus 20% spare for future devices.
7. Provide Speaker/Strobe in each storage room greater than 8ft by 8ft or 64 sq ft.
8. Exterior Horn/Strobe above each main entrance door on exterior of building.

D. Manual Stations:

1. Provide manual pull station with sound deterrent cover at each exit door.

E. Monitoring:

1. Provide monitoring of the kitchen hood fire suppression system.
2. Flow alarm signal to be sent to Guardian.
3. New Fire alarm system DACT to be connected to the FA Cellular Communicator for remote monitoring. ASD shall be responsible for cellular service costs from NAPCO and all monitoring service costs of the new fire alarm system from GUARDIAN. The contractor must coordinate with ASD on service requirements and notify ASD 30-days prior to when these services are to be started.
4. Existing Intrusion Detection System DACT to be connected to the IDS Cellular Communicator for remote monitoring. ASD shall be responsible for cellular service costs from NAPCO and all monitoring service costs of the new fire alarm system from GUARDIAN. The contractor must coordinate with ASD on service requirements and notify ASD 30-days prior to when these services are to be started.

F. Contractor Coordination with NAPCO:

1. The contractor needs to provide the Radio ID # for all of the cell communicators to the ASD Project Manager for ASD to activate prior to wiring the cell communicators in. The systems utilizing the cell communicators should be programmed with the Guardian account and receiver information. See "Contractor Coordination with Guardian" below.

G. Contractor Coordination with GUARDIAN:

1. In preparation for the upcoming new systems, Guardian Security will need the following before putting a new account online.
 - a. Call into Guardian Service Department – and speak with Fale for account creation. 907-274-5275 Ext:2 – Monday through Friday 8-5.
 - 1) An account will then be created but not activated yet. This is only to create a space for testing signals and history to go.

- b. A call into Dispatch to put system in test when they are ready to test all zones. 907-277-1975 – this is ONLY to put the schools in test – both account numbers will be needed. Installers should expect to give their name, business name, and phone number during this process.
- c. Once in test, a signal from each zone should come in as it should during time of actual activation. Burgs should transmit as burgs, fire zones as fire, troubles as troubles, so on and so forth. Tamper and trouble signals DO NOT COUNT unless the zone description will read TAMPER or TROUBLE.
 - 1) Testing is ideally is done in one motion, so that Fale does not have to scroll through hundreds of lines in search for a particular zone.
- d. Zone list should be submitted after testing is complete (Falepau.penisoni@gssiak.com 907-646-8416) – Guardian does not enter in a zone list until all zones have tested in and confirmed by Fale. Any zone that does NOT test in will be omitted until it communicates in the correct manner.
 - 1) Zone numbers, descriptions and types are all we need. Ex: Zone 1 – Burglary - Room 203 Door – we do not need programmed codes or any other information.
 - 2) Test timer for the school should be listed. Is it scheduled to test every day? Every week?
 - 3) Panel Type should be listed.
- e. An email should be sent to Fale asking for the new account (number) to be activated. This will not happen unless written request is received – this is when billing starts.
 - 1) If there is an old account to be cancelled or be left unmonitored, it should be noted in that activation request as well. Billing will stop for that account once that request has been processed.
- f. Communication between the installers and Fale is paramount. They should speak with her regarding concerns or delays – speaking with dispatch while convenient – will only involve people that are not trained in this process and could cause delays in correct processing

H. Special Items:

- 1. In Schools with “OpenPath” access control system, confirm there is an existing “PANIC BUTTON” connected to the “OpenPath” system and an “OpenPath” output signal for “DOOR HOLDER EMERGENCY SHUT” is programed and wired to the existing fire alarm system. If “DOOR HOLDER EMERGENCY SHUT” wiring and programing is existing, remove and salvage this wiring for reconnection to new fire alarm system. If “DOOR HOLDER EMERGENCY SHUT” wiring or program is not existing, provide new wiring and program from existing “OpenPath” system as required.
- 2. In Schools with no existing “OpenPath” system, provide new “DOOR HOLDER EMERGENCY SHUT” red mushroom pushbutton in the main office with wiring directly to the new fire alarm system such that when pushed, all magnetic door holders are released.

3. Provide fire alarm power supply for and fire alarm system control all existing magnetic door hold opens. The door hold opens are only required to have smoke detection where the Architectural Plans denote they are needed such as in fire walls and smoke partitions. See Updated 2018 IBC Architectural Code Study.
4. Provide Mega Stoppers Model 7500H for manual pull station sound deterrent covers.
5. The Contractor shall limit the maximum of t-taps per SLC circuit to 10 or less. All T-taps must be in a gutter directly above or directly adjacent to the fire panel. All T-taps must be made using "finger safe" terminal strips attached to the back of the gutter. Wiring from t-taps to field devices shall be labeled with a description of the building area served by that tap."

I. Mounting Heights:

1. New Construction:
 - a. Manual Pull Stations – 46" center line
 - b. Strobes and Speaker/Strobes – 80" to the bottom
2. Renovation/Remodel Construction:
 - a. Manual Pull Stations – 42"-46" to the top of the operating handle
 - b. Strobes and Speaker/Strobes – 80" – 96" to the lens of the strobe.
 - c. The mounting is a range to allow greater use of existing raceways and junction boxes. The height of devices within any given room to be consistent for all devices.

1.06 SUBMITTALS

- A. Provide submittals in accordance with Division 1, ASD Section 01300 Submittals and the following requirements:
1. Audio (Speaker) Notification Appliance Circuits – Interior
 - a. Without the use of any other broadcasting systems the fire alarm system shall be designed for interior building audibility level of 15 dBA-fast over ambient condition and intelligibility. Intelligibility shall be designed to maintain Common Intelligibility Standard (CIS) rating of 0.7 or Sound Transmission Index of 0.5 in all areas designated on the drawings to have intelligible audio.
 - b. Provide dB loss calculations for all audio (speaker) notification appliance circuits. Circuits shall be designed for no more than 0.5 db loss based on lump-sum load method.
 2. Provide quantity of shop drawings and submittal information required in Division 1 if denoted; otherwise provide a minimum of three complete sets.
 3. Submittal to ASD and Factory Mutual shall be done AFTER drawings have been reviewed and approved by the AHJ.
 4. Shop Drawings:
 - a. The Shop Drawings shall be reproduced electronically from a Master Copy supplied in digital format. Electronic copy of the Contract Drawings will be available at no charge to use as base plan for generation of electronic submittal. Scale of floor plans on Shop Drawings shall match Contract Drawings.

- b. All text on the drawings shall be legible without magnification when the shop drawings are reduced to 11" x 17".
 - c. Provide 1/8" scale floor plans with all new fire alarm control and auxiliary panels, field devices, raceway and conductor routing, quantities and connection requirements for every component.
 - d. Provide point to point system wiring diagrams showing interconnection of all devices.
 - e. Provide a riser diagram showing all devices on each audio NAC, 24VDC NAC, SLC, and auxiliary circuit connected to the fire alarm control panel. Individual device addresses and room numbers on riser diagram are not required for initial shop drawing submittal but shall be provided on the as-built drawings.
 - f. Provide calculations to support battery size selection. Provide voltage drop calculations for each SLC and 24VDC NAC circuit. Provide dB loss calculations for each audio NAC circuit. Show the voltage drop at the furthest notification appliance from the control panel. All calculations shall be shown on the shop drawings.
 - g. Provide a fire alarm system functional matrix that illustrates alarm input/output events in association with initiation devices. Matrix summary shall include system supervisory and trouble output functions.
5. Device Names: All device names that are displayed on the LCD text annunciators in the fire alarm panel and remote text annunciator panel shall be approved by the Owner. The Contractor shall submit an electronic copy of a device list in Microsoft® Excel® spreadsheet format that includes all addressable points controlled or monitored by the system, along with associated room names and directional or zone description (i.e. S. Wing or Zone 1). The Owner's Representatives shall review this list and make any necessary revisions, which shall be programmed into the system at no additional cost to the Owner.
6. Submit to AHJ: Submit drawings to Fire Marshal the AHJ for review and written approval. Coordinate all modifications required.
7. Submit 3 copies for ASD to submit to Factory Mutual Insurance Company: Submit specifications, shop drawings and equipment nomenclature review and written approval. Once ASD has submitted the appropriate documentation allow a minimum of 2 weeks for review by Factory Mutual Insurance Company.
- a. Drawings, specifications, equipment nomenclature, etc. shall be submitted by ASD for review (allow 2 weeks for review) to:

Factory Mutual Insurance Company
Key Center, 601 – 108th Ave. N.E., Suite 1400
Bellevue, WA 98004-5515
T: 425 455-5333 F: 425 454-7847

FM Global may be contacted for input during detail design when requirements are not clear. FM Global will retain one copy of all submittal material.

Contractor is not responsible for cost associated with transportation of FM global representative or inspection performed by FM global representative.

Equipment shall be Factory Mutual Research approved where applicable.

Final acceptance by FM Global is subject to field examination and testing. Testing shall be performed by the installing contractor and witnessed by FM Global as needed. The contractor shall document tests on appropriate forms (such as the Contractor's material and Test Certificate for sprinkler systems and underground piping), and submit the forms to the owner and to FM Global at the completion of their work.

8. Product Data: Submit catalog data showing electrical characteristics and connection requirements.
9. Test Reports: Indicate procedures and results for specified field testing and inspection. Submit sample test reports, including serial number of dB sound meter used for audible testing.
10. Conduit demolition shop drawings shall be provided by the Contractor for ASD review and approval prior to starting demolition. These shop drawings shall show all existing conduit to be reused, all existing conduit to be demolished, and all existing conduit to be abandoned in place based on the contractor's initial field investigation. A field copy of the approved conduit demolition shop drawing shall remain on site and shall be redlined with any changes made in the field. All field changes shall be approved by ASD representative. The contractor shall submit a scanned version of the field redlines and an as-built digital AutoCAD copy of the conduit demolition shop drawings to ASD at the end of the project accompanying and in the same format as the as-built fire alarm system shop drawings.
11. Conduit installation shop drawings shall be provided by the Contractor for ASD review and approval prior to starting new work. These shop drawings shall show all existing conduit to be reused and all new conduit to be installed. They shall identify the fire alarm circuit conductors to be routed through each conduit. Determination of existing conduit to be reused and routing of new conduit to be installed shall be based off an initial field investigation by the contractor to their best ability. Where new conduit is proposed in an exposed location it shall be specifically noted and must be approved by ASD as the only feasible option. A field copy of the approved conduit installation shop drawing shall remain on site and shall be redlined with any changes made in the field. All field changes shall be approved by ASD representative. The contractor shall submit a scanned version of the field redlines and an as-built digital AutoCAD copy of the conduit installation shop drawings to ASD at the end of the project accompanying and in the same format as the as-built fire alarm system shop drawings.

1.07 CLOSEOUT SUBMITTALS

- A. Operating manuals covering the installed Life Safety System.
- B. Provide Point to Point as-built wiring diagrams of the entire Life Safety System as installed. This shall include all connected devices with actual addresses and locations of all T-taps. All drawings shall be provided in AutoCAD .DWG format. Paper plots of each sheet shall also be provided. One copy of point-to-point diagram shall be laminated and remain at school site.
- C. All drawings must reflect device address and programmed characteristics as verified in the presence of the engineer and/or the end user unless device addressing is electronically generated, and graphically printed.
- D. Provide the application program listing for the system as installed at the time of acceptance by the Owner and/or Local AHJ (Disk and Hard copy printout).
- E. Provide the name, address and telephone of the Authorized Factory Representative.

- F. Certificate of compliance shall be provided. The certificate shall clearly indicate the installed system complies with all NFPA, ADA and Factory Mutual Global requirements. Include a completed copy of the NFPA 72 Inspection and Testing Form and the completed application for the UL type 72 certificate.
- G. Provide factory software and site-specific programming for the installed system on an Owner-furnished laptop computer at the completion of the project. Provide all software licenses and other requirements to allow future maintenance of the system.

1.08 QUALIFICATIONS

- A. The installation of the system shall conform the State of Alaska requirements and supervised by a representative with a current State Fire Alarm License.
- B. Manufacturer: The Manufacturer shall be a nationally recognized company specializing in fire alarm systems. This organization shall employ factory trained and NICET certified technicians, and shall maintain a service organization within the state of Alaska. The Manufacturer and service organization shall have a minimum of 5 years experience in the fire protective signaling systems industry.
- C. Installer: The installation organization shall be a company specializing in the installation of fire alarm systems and certified by the manufacturer of the submitted system. This organization shall have a minimum of 5 years experience with installation of fire protective signaling systems. Installation of the system shall be 100% field checked by a factory trained and authorized NICET Level III technician certified in the installed Fire Alarm System Program.
- D. The Installer supplying final check-out, contractual service and testing, shall be Listed and Authorized by UL to provide services for alarm system Certification as a means of identifying compliance with applicable NFPA Standards.

1.09 WARRANTY

- A. Warranty all materials, installation and workmanship for one (1) year from date of acceptance.
- B. A copy of the manufacturers' warranty shall be provided with close-out documentation and included with the operation and installation manuals.

1.10 SYSTEM STARTUP, OWNER'S INSTRUCTIONS, COMMISSIONING

- A. System startup shall be performed by a Factory Trained and Authorized System Distributor. Certain functions of the Systems Startup Procedure may be performed by a contractor under the direction of the Factory Trained and Authorized System Distributor.
- B. Provide 100% system test and document per NFPA 72 requirements.
- C. Owners' Instructions and Operation Manuals, specific for this project, shall be provided to the Building Operations Staff prior to acceptance. A "Generic" or "Typical" Owners' Instruction and Operation Manual shall not be acceptable to fulfill this requirement.
- D. Commissioning of the installed system shall be performed by the Factory Trained and Authorized System Distributor in the presence of the Local AHJ, the Owner's Representative, and a Representative of FM Global.

1.11 EQUIPMENT AND MATERIAL GENERAL REQUIREMENTS

- A. Buildings intercom system shall not be connected to the fire alarm system. All equipment furnished for this project shall be new and unused. All components and systems shall be designed for uninterrupted duty. All equipment, materials, accessories, devices, and other facilities covered by this specification or noted on contract drawings and installation specifications shall be the best suited for the intended use and shall be provided by a single manufacturer. If any of the equipment provided under this Specification is provided by different manufacturers, then that equipment shall be recognized as compatible by both manufacturers, and "Listed" as such by Underwriters' Laboratories.

PART 2. PRODUCTS

2.01 Fire Alarm Control Panel

- A. Edwards #EST4 microprocessor-controlled, addressable panel with modular construction in wall-mounted enclosure.
- B. Power Supply: Adequate to serve control panel modules, remote microphones, speakers, initiating devices, notification appliances, remote annunciators, door holders, fire/smoke dampers, relays, duct smoke detectors, DACTs etc. plus 25 percent spare capacity to allow for future system load growth. Include battery-operated emergency power supply with capacity for operating system in standby mode for 24 hours followed by alarm mode for 15 minutes. Size battery capacity to allow for a 25 percent growth of the system load while complying with the above requirements.
- C. Signaling Line Circuits: Class B, Style 4, signaling line circuit with capacity sufficient for all initiating devices connected to the circuit plus 25 percent spare capacity to allow for future load growth.
- D. Notification Appliance Circuits: Class B, Style Y, notification appliance circuit complying with ANSI S3.41 with capacity sufficient for all notification appliances connected to the circuit plus 25 percent spare capacity to allow for future load growth.
- E. 24 VDC Notification Appliance circuits:
 - 1. Notification appliance circuits shall utilize a "voltage boost" circuit to insure FACP terminal voltage never drops below 22.5VDC even under low battery conditions.
 - 2. Notification appliance circuits shall have a minimum circuit output rating of 3 amps @ 24 VDC
 - 3. 24VDC NACs shall be polarized and provide both strobe synchronization and a horn silence signals on a single pair of wires.
- F. Audio Notification Appliance Circuits:
 - 1. Audio notification appliance circuits shall be polarized and have a minimum circuit output rating 35 watts @ 70V audio.
- G. Audio Amplifiers:
 - 1. Each audio power amplifier shall have integral audio signal de-multiplexers, allowing the amplifier to select any one of eight digitized audio channels as directed by system programming.

2. Audio amplifiers shall be power limited and protected from short circuits conditions on the audio circuit wiring. Each amplifier output shall provide a selectable 25/70 Vrms output, suitable for connection to emergency speakers.
 3. To enhance system survivability in the event of a total loss of audio data communications, all amplifiers shall default to the local "EVAC" tone generator channel. If the local panel has an alarm condition, then all amplifiers will sound the EVAC message on their speaker circuits. In the event of a loss of the fully digitized, multiplexed audio riser data, the audio amplifiers shall automatically default to an internally generated alarm tone which shall sound a 3-3-3 temporal pattern.
 4. Provide a standby audio amplifier that shall automatically sense the failure of a primary amplifier, and automatically program themselves to select and demultiplex the same audio information channel of the failed primary amplifier, and fully replace the function of the failed amplifier.
 5. Amplifiers shall also include a 24 VDC notification appliance circuit rated at 24Vdc @ 3.5A for connection of visible (strobe) appliances. This circuit shall be fully programmable.
 6. Provide as minimum, one twenty (20) watt audio amplifier per paging zone. Initial amplifier loading shall not exceed 80% in order to allow for future system expansion. Calculations shall assume each speaker is connected at one (1) watt.
 7. Audio amplifiers shall be EDWARDS 3-ZA series devices.
- H. Control Relays: Provide sufficient addressable control relays to provide accessory functions specified and required by the drawings
- I. Added special components:
1. Provide bypass and supervision relays at minimum:
 - a. Disable Audible bypass
 - b. Door release bypass
 - c. Fan shut down bypass
 - d. Sprinkler tamper bypass
 - e. Alarm supervision to UL listed Cellular Communicator or DACT
 - f. Trouble supervision to UL listed Cellular Communicator or DACT
 2. Provide Control User interface switches to control the bypass supervision features described above.
 3. The contractor shall limit the maximum of T-taps per SLC circuit to 10 or less. All T-taps must be in a gutter directly above or directly adjacent to the fire panel. All T-taps must be made using "finger safe" terminal strips attached to the back of the gutter. Wiring from T-taps to field devices shall be labeled with a description of the building area served by that tap.
- J. Enclosure
1. Provide custom enclosure with surface trim to house the control panel and batteries.
- K. Panel LCD Display:
1. The display shall be a 24-line by 40-character backlit alpha-numeric graphical LCD display. The 960 character display shall show up to eight simultaneous active points with the highest priority events on the top.

2. The following status functions shall be annunciated by the display:
 - a. The current Date and Time.
 - b. A Custom System Title (2 lines X 40 characters) for up to eight simultaneous events.
 - c. A summary total of the Alarm History of the system.

L. Reports via the Panel LCD display:

1. Provide detailed status of individual system components. The system shall be able to report the following information on a per intelligent device basis:
 - a. Device Serial Number
 - b. Device Address
 - c. Device Type
 - d. Current Detector Sensitivity Values and the Extent of Environmental Compensation.
 - e. Any of 32 possible trouble codes to specifically diagnose faults.
2. The system shall provide a report that gives a sensitivity listing of all detectors that have less than 75% environmental compensation remaining.
3. The system shall provide a report that gives a listing of the sensitivity of all of the detectors on any given panel in the system, or any given SLC loop within any given panel.
4. The system shall provide a report that gives a chronological listing of system events.
5. The system shall provide a listing of all of the firmware revision listings for all of the installed network components in the system.

M. Fire Alarm System Operations Interface:

1. SDC Card - The Signature Device Card (SDC) shall be the interface between the Fire Alarm Control Panel and the Signature Series Detectors and Modules.
2. The associated controller, through the SDC, shall provide the ability to set the sensitivity and alarm verification of each of the individual intelligent detectors on the circuit. It shall be possible to automatically set the sensitivity of individual intelligent detectors during day and night periods.
3. It shall be possible for the SDC to address all intelligent devices connected to it without having to set switches at the individual devices.
4. It shall be possible to obtain a mapping report of all devices connected to the circuit for confirmation of "as-built" wiring. The map shall show physical wiring of T-Taps, device types, and the panel addresses of devices connected to the circuit. The SDC shall be capable of reporting unexpected additional device addresses and changes to the wiring in the data circuit. A specific trouble shall be reported for any off-normal non-alarm condition.

N. Audio Annunciation and Control

1. Provide a master one-way emergency audio control unit as part of the main fire alarm control panel. The emergency audio control shall contain a paging microphone and shall be capable of generating and delivering multi-channel audio messages simultaneously over copper and/or fiber media to remote parts of the facility.
2. All audio messages and live pages shall originate at the one-way audio control unit. The one-way audio control unit shall store up to two (2) minutes of pre-

recorded audio messages digitally as WAV files. These messages shall be automatically directed to various areas in a facility under program control. The unit shall have the capacity to store up to 200 individual audio messages and to simultaneously play back seven (7) different messages in addition to live page message.

3. During non-alarm conditions, the control unit shall continuously distribute a default audio message to all amplifiers, providing total audio path supervision. To enhance system survivability, each remote FACP cabinet containing an amplifier shall play the default audio message in the event of a fire AND a control network system failure.
4. The one-way emergency audio control shall provide control switches to direct live paging messages as follows:
 - a. "All Call" to direct the page messages to all areas in the facility, overriding all other messages and tones.
 - b. "Page to Evacuation Area" to direct the message to the evacuation area(s), overriding all other messages and tones.
 - c. "Page to Alert Area" to direct page messages to the area(s) receiving the alert message and tones, overriding all other messages and tones.
 - d. "Page to Balance Building" to direct page messages to the areas) in the facility NOT receiving either the evacuation area or alert area messages.
5. The system shall automatically deliver a preannounce tone of 1000 Hz for three seconds when the emergency operator presses the microphone PTT key. A 'ready to page' LED shall flash during the preannounce phase, and turn steady when the system is ready for the user's page delivery. The system shall include a page deactivation timer which activates for 3 seconds when the emergency user release the microphone talk key. Should the user subsequently press the microphone key during the deactivation period a page can be delivered immediately. Should the timer complete its cycle the system shall automatically restore emergency signaling and any subsequent paging will be preceded by the pre-announce tone. A VU display shall indicate voice level to the emergency operator.
6. The one-way audio control unit shall be capable of supporting up to 64 remote microphone inputs and a line level audio input.
7. The fire alarm control panels shall support remote cabinets with zoned amplifiers to receive, amplify and distribute messages through speakers over supervised circuits.
8. The master one-way emergency audio control unit shall be an EDWARDS 4-PMI.

O. Off Premises Communications

1. The new FA system shall provide off premises communications capability using a Cellular Communicator connected to a Digital Alarm Communications Transmitter (DACT) for sending system events from the fire alarm system to multiple Central Monitoring Station (CMS) receivers over a Cellular network.
 - a. DACT - Edwards #EST3-MODCOM shall be provided with the EST4 panel and shall be programmed to communicate CONTACT ID protocol through the Cellular Communicator.
 - b. FA Cellular Communicator – NACPO #SLE-MAX2-CFBPS shall be provided with all cabling and accessories required for a complete installation. The FA cellular communicator shall be provided with an integral power supply such that it can be remote from the Fire alarm

panel as necessary such that adequate cellular signal strength is achieved.

- 1) Contractor shall test cellular signal strength in proposed location to verify it is adequate and provide ASD with testing results prior to installation of cellular communicator. Notify ASD prior to testing such ASD may witness test.
 - c. Provide fire alarm input relay connected to "OUT1" form C contact on cellular communicator and program as a supervisory alarm.
2. The existing Intrusion Detection System (IDS) existing off premises communications shall be upgraded with a new Cellular Communicator connected to existing IDS Digital Alarm Communications Transmitter (DACT) for sending system events from the existing IDS to multiple Central Monitoring Station (CMS) receivers over a Cellular network.
- a. DACT – The existing MA3000 NAPCO panel shall remain as the IDS DACT and shall be connected to the new IDS Cellular Communicator.
 - b. IDS Cellular Communicator – NACPO #SLE-MAX2-CFBPS shall be provided with all cabling and accessories required for a complete installation. The IDS cellular communicator shall be provided with an integral power supply such that it can be remote from the IDS DACT panel as necessary such that adequate cellular signal strength is achieved.
- 1) Contractor shall test cellular signal strength in proposed location to verify it is adequate and provide ASD with testing results prior to installation of cellular communicator. Notify ASD prior to testing such ASD may witness test.
 - c. Provide new IDS input relay and wiring connected to "OUT1" form C contact on the IDS cellular communicator and program as a supervisory alarm.

2.02 REMOTE TEXT ANNUNCIATORS

- A. Provide remote text annunciator with 4 feature LEDs for "Normal", "Alarm", "Supervisory", and "Trouble". Provide two push-button switches for "Back" and "Next/Acknowledge".
 1. Provide at minimum a 6-slot Edwards remote annunciator EST #4-6ANN semi recessed-mounted cabinet with enamel finish, plexiglass window, and EST #4-ANNCPU control board.
- B. LED Display/Control Module.
 1. Provide an LED display screen for display of fire alarm system status and user interface text. EST #4-LCDANN mounted in the remote annunciator enclosure and connected to the control board.
 2. A modular series of switches and LED indicators shall be available to customize the remote annunciator/remote microphone operation in accordance with this specification. The LED/Switch EST Control Display modules shall be EDWARDS 4-24x series devices.

C. Remote Microphone

1. Remote microphones shall be included in all remote annunciators.
2. The remote microphone shall facilitate live page announcements over the FACP system from locations distant from the FACP.
3. The remote microphone shall feature a Push-to-Talk switch; local and remote page active LEDs, and a trouble LED.
4. The remote microphone shall operate on filtered-regulated 24 VDC power derived from the panel power supply. Power shall be supplied directly from the FACP or listed auxiliary power supply, ensuring a reliable and monitored power source.
5. The remote microphone shall be an EST #4-MIC and shall be provided with EST #4-ANNAUDEL communication card connected to the #4-ANNCPU card.

2.03 REMOTE BOOSTER POWER SUPPLY

- A. Install Remote NAC Power Supplies (boosters) as required per the shop drawings, to minimize NAC voltage drops.
- B. Booster power supply shall be capable of a total output of 10 amps.
- C. Batteries provided shall be sized to meet the same power supply performance requirements as the main FACP, as detailed elsewhere in this specification.
- D. All AC power connections shall be to the building's designated dedicated emergency electrical power circuit. The power circuit disconnect means shall be clearly labeled FIRE ALARM CIRCUIT CONTROL and shall have a red marking. The location of the circuit disconnect shall be labeled permanently inside the each remote NAC power supply the disconnect serves.
- E. The remote NAC power supplies shall be EDWARDS model APS series devices .
- F. All remote NAC power supplies shall be shown on final annunciator map.

2.04 INITIATING DEVICES

- A. Manual Station: Surface or Semi-flush mounted, double action (single-stage) addressable manual pull station. EST #SIGA-278.
 1. For surface-mount applications, install pull station on EST #276B-RSB red surface backbox.
 2. Vandal-Resistant Pull Station Cover: UL listed polycarbonate pull station cover with integral 100dB horn and internal 9-Volt battery power supply. Covers for both flush-mounted and surface-mounted pull stations shall be provided as required to match the installation (i.e. flush covers for flush pull stations). STI "Stopper II" series or approved equal. Provide covers on all pull stations in gymnasiums, multi-purpose rooms, and other areas shown on the Drawings.
- B. Smoke Detector: Addressable, photoelectric type with adjustable sensitivity, plug-in base, and visual indication of detector actuation, suitable for mounting on 4 inch outlet box. EST #SIGA-OSD.
- C. Multisensor Smoke and Heat Detector: Addressable detector with three sensing technologies (photoelectric, heat, rate-of rise), capable of processing information from

each sensor separately and applying a filtering algorithm for optimum detection accuracy. EST #SIGA-OSHD.

D. Heat Detector:

1. Addressable, fixed temperature, rated 135° F. EST #SIGA-HFS.
2. Non-addressable, fixed temperature, rated 194° F. EST #284B, monitored by #SIGA-CT1 input module mounted at least 4 feet below the ceiling level and within sight of the Heat Detector.

E. Detector Mounting Bases

1. Standard Base: Provide standard detector mounting bases with trim skirt, suitable for mounting on 1-gang, 3½" or 4" octagon box and 4" square box. The base shall contain no electronics and support all Signature Series detector types. EST #SIGA-SB4.
2. Relay Base: Provide relay detector mounting bases suitable for mounting on North American 1-gang, 3½" or 4" octagon box and 4" square box. The relay base shall support all Signature Series detector types and shall have a supervised bi-stable relay that is selectable for normally open or normally closed operation. EST #SIGA-RB. Provide EST #SIGA-RB4 standard base with trim skirt for installations on 4" square boxes.

F. Duct Mounted Smoke Detector

1. Provide EST #SIGA-SDH Intelligent Duct Smoke Detector housing standard detector mounting base such that the SIGA-LED remote LED is supported, with duct sampling tubes extending the width of duct, and visual indication of detector activation EST #SIGA-LED. Provide for variations in duct air velocity between 300 and 4000 feet per minute. Use EST #SD-VTK to verify air velocity prior to installation of sampling tubes.
2. Provide EST #SIGA-OSD addressable photoelectric smoke detector installed in duct detector housing mounting base.
3. Provide with EST #SIGA-LED remote visual indicator for each duct detector. Where duct detector is in fan room, mount SIGA-LED adjacent to the entry door to room 48 inches aff. Where multiple duct detectors are in a room, collocate all remote visual indicators. Where duct detector is located above an accessible ceiling, locate SIGA-LED on the wall directly below the duct detector 12 inches below ceiling or 7 feet aff. Provide label on each SIGA-LED indicating duct detector it is connected to.
4. Provide new gasketed access panel upstream of each duct mounted smoke detector and located such that test smoke can be added to the air stream for testing of the duct detector sampling tubes and initiating device. Label access panel "DUCT DETECTOR XXXX TESTING ACCESS PANEL" where the XXXX matches the duct detector ID.
5. During AHJ acceptance testing this access location shall be used. The contractor shall make all modifications to the duct detector installation and testing access point as required for a successful test at no additional cost to the owner.

G. Projected Beam Smoke Detector: UL 268 listed, microprocessor based, addressable, temperature compensated projected beam type smoke detector with alignment LEDs, automatic gain control sensitivity adjustment, adjustable optics, auxiliary contacts, normal, trouble and alarm indicators. EST #6424. Provide with EST #RTS451 remote test station.

2.05 INTELLIGENT MODULES

- A. A control relay/transponder shall be installed where building services (i.e. fan shutdown, door holder or release, etc.) are to be automatically controlled by the fire alarm system during a fire emergency. The control relay shall be of a type that only consumes power momentarily while transferring from the deenergized to the energized state or back again. The command to change state shall come from the control panel in accordance with the system program. The control relay shall be condition (deenergized or energized) supervised, and its condition shall be confirmed and corrected, if necessary, during each polling cycle. The control relay/transponder shall be capable of operating on the same communication channel with initiating devices/transponders so that it can be located within 3 feet of the building service device it is controlling as required by NFPA 101-Life Safety Code while its integrity is being monitored from the control panel. The address code of the control relay transponder shall be field selectable and changeable in the same manner as for other transponders. The control relay/ transponder type code shall be factory preset and not be field changeable.

1. Control Relay Module: EST #SIGA-CR
2. Input Module: EST #CT1 or #CT2

2.06 NOTIFICATION APPLIANCES

- A. All appliances shall be U.L. Listed for Fire Protective Service.
- B. All strobe appliances or combination appliances with strobes shall be capable of providing the "Equivalent Facilitation" that is allowed under the Americans with Disabilities Act Accessibilities Guidelines (ADAAG), and shall be UL 1971, and ULC S526 Listed.
- C. All appliances shall be of the same manufacturer as the Fire Alarm Control Panel specified to assure absolute compatibility between the appliances and the control panels, and to assure that the application of the appliances is done in accordance with the single manufacturer's instructions.
- D. Any appliances that do not meet the above requirements, and are submitted for use must show written proof of their compatibility for the purposes intended. Such proof shall be in the form of documentation from all manufacturers that clearly states that their equipment (as submitted) is 100% compatible with each other for the purposes intended.
- E. Initial settings for all devices with field-selectable speaker and strobe outputs shall be determined by the NICET system designer during the shop drawing process.
- F. Indoor Devices:
1. All indoor surface-mounted devices shall be mounted on the Manufacturer's white backbox. EST Genesis Series #27193-16 or #G4B .
 2. Speakers
 - a. Wall speaker: EST Genesis Series #G4F-S7.
 - b. Ceiling speaker: EST Genesis Series #GCF-S7.
 - c. Device shall have white plastic housing with red "FIRE" marking, in-out screw terminals for wiring, and shall be designed to mount on a single-gang electrical box.
 - d. Speaker shall be configurable for ¼, ½, 1, or 2 watt operation with switches that remain visible even after the unit is installed..

3. Speaker/Strobes

- a. Wall speaker/strobe: EST Genesis Series #G4F-S7VM.
- b. Ceiling speaker/strobe: EST Genesis Series #GCF-S7VM or GC-S7VMH.
- c. Device shall have white plastic housing with red "FIRE" marking, in-out screw terminals for wiring, and shall be designed to mount on a single-gang electrical box.
- d. Units speaker shall be configurable for ¼, ½, 1, or 2 watt operation with switches that remain visible even after the unit is installed.
- e. Wall mounted unit's strobe shall be field-selectable to provide 15, 30 75, or 110 candela synchronized flash outputs.
- f. Ceiling mounted unit's strobe shall be field-selectable to provide either 15, 30 75, or 95 candela synchronized flash outputs or 95, 115, 150, 177 candela synchronized flash output, depending on device illumination required for specific location.

4. Strobes

- a. Wall strobe: EST Genesis Series #G1F-VM.
- b. Device shall have white plastic housing with red "FIRE" marking, in-out screw terminals for wiring, and shall be designed to mount on a single-gang electrical box.
- c. The strobe shall be field-selectable to provide 15, 30 75, or 110 candela synchronized flash outputs.

5. Medium Power Speaker

- a. Speaker: EST HyperSpike Series TCPA-10 #90215A-801-05-L.
- b. Wall Mount Bracket: EST #72377B-801.
- c. Dual Speaker Adapter: EST #72378B-801.
- d. Device shall have red plastic housing, in-out screw terminals for wiring, and shall be furnished with the EST wall mounting bracket.
- e. Speaker shall have 90 degree wide acoustical beam.
- f. Speaker shall be configurable for ½, 1, 1.5, 2, or 3 watt operation at 25V, 4, 8, 12, 16, or 24 watt operation at 70V and 8, 16, 24, 32, or 45 watt operation at 100V.

G. Indoor Wet Location Devices

- 1. All Indoor Wet Location surface-mounted devices shall be mounted on the Manufacturer's white backbox. EST #74347U.
 - a. SpeakerEST #WG4WN-S.
 - b. Device shall have white plastic housing, in-out screw terminals for wiring, and shall be designed to mount on a 2-gang electrical box.
 - c. Units speaker shall be configurable for ¼, ½, 1, or 2 watt operation with switches that remain visible even after the unit is installed.
 - d. Wall mounted unit's
- 2. Speaker/Strobes
 - a. EST #WG4RF-SVMHC

- b. Device shall have white plastic weather proof housing, in-out screw terminals for wiring, and shall be designed to mount on a 2-gang electrical box.
- c. Provide #74347U white weatherproof backbox for surface-mount applications.

H. Outdoor Devices

- 1. All outdoor surface-mounted devices shall be mounted on the Manufacturer's white backbox. EST #757A-WBW.
- 2. Horns
 - a. EST #757-1A-TW.
 - b. Device shall have white plastic housing, in-out screw terminals for wiring, and shall be designed to mount on a 2-gang electrical box.
 - c. Horn shall be selectable for high (98 dBA) or low (94 dBA) temporal output. Selection of low or high output shall be reversible.
- 3. Strobes
 - a. EST #405-xA-TW, where "x" is the candela rating of the strobe, as determined by the NICET system designer during the shop drawing process.
 - b. Device shall have white plastic housing, in-out screw terminals for wiring, and shall be designed to mount on a 2-gang electrical box. Provide #LKW-1R "FIRE" lens marking kit.
 - c. Provide #757A-WBW white weatherproof backbox for surface-mount applications.
- 4. Horn/Strobes
 - a. EST #757-xA-TW, where "x" is the candela rating of the strobe, as determined by the NICET system designer during the shop drawing process.
 - b. Device shall have white plastic housing, in-out screw terminals for wiring, and shall be designed to mount on a 2-gang electrical box. Provide #LKW-1R "FIRE" lens marking kit.
 - c. Provide #757A-WBW white weatherproof backbox for surface-mount applications.
- 5. Sprinkler Bell
 - a. Reconnect existing bell as required.

2.07 DOOR HOLDERS

- A. Re use existing door holders. Provide power supply to power all new or replaced door holders. Provide power connection to 120 V primary source and overcurrent protection.

2.08 ANCILLARY DEVICES

- A. Remote Relays

1. Ancillary devices submitted for use must have written proof of their compatibility for the purposes intended. Such proof shall be in the form of documentation from all manufacturers that clearly states that their equipment (as submitted) is 100% compatible with each other for the purposes intended.
2. Provide remote control relays connected to supervised ancillary circuits for control of fans, dampers, door releases, etc. Relay contact ratings shall be DPDT and rated for 10 amperes at 115 Vac. A single relay may be energized from a voltage source of 24 Vdc, 24 Vac, 115 Vac, or 230 Vac. A red LED shall indicate the relay is energized. A metal enclosure shall be provided.
3. Provide remote control relays connected to supervised ancillary circuits for control of fans, dampers, door releases, etc. Relay contact ratings shall be SPDT and rated for 10 amperes at 115 Vac. A single relay may be energized from a voltage source of 24 Vdc, 24 Vac, 115 Vac, or 230 Vac. A red LED shall indicate the relay is energized. A metal enclosure shall be provided.

B. Magnetic Door Release Pushbutton:

1. Full guard red push button, momentary contacts. Provide with 1 spare set of N.O. Contacts.
2. Install in factory steel enclosure.
3. Square D ZB4BA46 AND XAPG19100 or equal.

C. Smoke Detector Guard: 16-gauge steel louvered guard with tamperproof fasteners and white baked powder coat enamel finish. Guard shall be specifically UL Listed for use with the installed smoke detector. Guard shall not affect smoke detector sensitivity or reduce detector spacing. Where surface conduits and backboxes are installed, provide an extension ring with conduit knockout. Extension ring shall be UL listed for use with the installed smoke detector and detector guard. EST #SIGA-DG or #SIGA-DGS (surface-mount).

D. Provide steel wire guards or clear polycarbonate protective covers from the product manufacturer for devices where noted on the drawings and in the gymnasiums and multi-purpose rooms. Cover shall be listed for use with the installed device if applicable.

E. Wire guards located in gymnasium are to be from the manufacturer American Time and must be sized accordingly to the device it is protecting.

2.09 Surge Suppression Devices

- A. The system shall utilize the following electrical surge protection devices to prevent damage and nuisance alarms caused by nearby lightning strikes, stray currents, or voltage transients.
- B. On the AC Input of all fire alarm panels, remote power supplies and HPSA sites: Transtector ACO100BWN3, Leviton OEM-120EFI, EFI HWM-120, Ditek DTK-120HW or DTK-120/240 CM. **AC Surge protectors shall be installed at the electrical panel board feeding the fire alarm equipment.** Excess lead length shall be trimmed. The branch circuit conductor shall be formed into a 5-10 turn 1" diameter tie-wrapped coil just downstream of the suppressor connection.

2.10 FLOW SWITCH MONITOR

- A. Connect to and monitor all existing flow switches with one CT module address per flow switch. Do not combine more than 1 flow switch per address.

2.11 TAMPER SWITCH

- A. Connect and monitor all existing tamper switches one CT module address per tamper switch. Do not combine more than 1 tamper switch per address.

2.12 CONDUCTORS

- A. Product Description: Provide conductors of the sizes and types as recommended by the system manufacturer.
- B. Fire alarm circuit conductors have insulation color or code as follows:
 - 1. Power Branch Circuit Conductors: Black, red, white.
 - 2. Initiating Device Circuit: Black, red.
 - 3. Detector Power Supply: Violet, brown.
 - 4. Signal Device Circuit: Blue (positive), white (negative).
 - 5. Door Release: Gray, gray.
 - 6. Speaker: Black, red.

2.13 SYSTEM MAP

- A. On wall beside each fire alarm panel and text annunciator provide a system map under clear 1/8" plexiglass with black metal frame permanently screwed to the wall with 4 screws around the perimeter of the map.
- B. Map to denote locations of all panels, annunciator, zone or building description locations (i.e. Zone 1 or N. Wing), device address and room numbers that correlate with text display on panel to locate system event.
 - 1. All SLC devices shall be shown on drawings with full address and room name/number location indicated on drawings.
- C. Orientate each map consistent with location the map is installed. Provide call denoting "YOU ARE HERE" at the installation point for each map.
- D. The map shall be color-coded for clarity.
 - 1. SLC devices shall be red.
 - 2. Building background shall be black.
- E. The final layout to be approved prior to final printing.
- F. Provide legend denoting all devices shown on the system map.
- G. Show all electrical panels servicing Fire Alarm equipment.

2.14 SPARE PARTS

- A. Quantities of spare parts listed below shall be provided per site, not per project. Provide the following spare parts delivered to the owner at the time of training:
 - 1. Automatic activation devices – Two (2) percent of the installed quantity of each type, no less than two pieces each.

2. Manual fire alarm stations - Two (2) percent of the installed quantity of each type, no less than two pieces each.
3. Audible and visual devices - Two (2) percent of the installed quantity of each type, no less than two pieces each.
4. Keys – A minimum of three (3) sets of keys shall be provided and appropriately identified.

PART 3. EXECUTION

3.01 EXISTING WORK

- A. Existing fire alarm system to remain operational during the new system installation up to new system completion and certification when facility is occupied by students and staff or provide fire watch 24hrs a day, seven days a week.
- B. Upon certification of the new system remove the all abandoned accessible raceways, all wiring, all control and auxiliary panels from the existing system.
- C. Remove exposed abandoned fire alarm wiring, including abandoned wiring above accessible ceiling finishes.
- D. Disconnect and remove abandoned fire alarm equipment. See section 02050 for salvage requirements.

3.02 INSTALLATION

- A. All wiring shall be in a dedicated raceway system separate from any other system wiring. Use metal raceways where concealed, surface metal raceway where exposed. Provide minimum 8-inch wire tails at each device box and 50-inch wire tails at the fire alarm control panel.
- B. Make conduit and wiring connections to door release devices, sprinkler water flow switches, sprinkler valve tamper switches, fire/smoke dampers, and other items as shown on the drawings or required by NFPA 72. Note that not all valve tamper switches and flow switches may be shown on the drawings. The Contractor is responsible to field coordinate all tamper and flow switch locations and connect all switches to the fire alarm system.
- C. The Contractor is responsible to field coordinate the final location of all initiating devices and notification appliances to comply with the requirements of NFPA 72. Any initiating devices or notification appliances that are not installed in accordance with NFPA 72 shall be relocated to comply with the requirements of NFPA 72 at no cost to the Owner.
- D. Adjust each detector location to maintain required clearance from air supply or return diffusers.
- E. Coordinate location of duct detectors for the latest code requirements on the return air side of the units. Install duct detectors per manufactures recommendations.
- F. Field locate remote visual indicators and test/reset stations for duct detectors in an accessible location. Test/reset stations shall be accessible without the use of a ladder or step stool.

- G. Install control relays concealed where possible and within 3 ft of the controlled device, a maximum of 72" above finished floor, and a minimum of 3ft below ceilings.
- H. Provide 1" conduit from FACP to the Fire Alarm Cellular Communicator and provide all wiring as required for the primary telephone connection, secondary telephone connection, power from FACP, FACP supervisory alarm, and Cellular Communicator status signal. All wiring shall be terminated to allow remote monitoring of system using CONTACT ID protocols. Coordinate numbers, codes and requirements and program into the system.
- I. Detectors shall not be installed until after the construction clean up of all trades is complete and final. Protective dust covers shall be installed on all detectors prior to final clean-up. Detectors that have been installed without dust covers prior to final clean-up shall be replaced at no cost to the Owner.
- J. Install engraved plastic nameplates in accordance with Section 26 05 53.
- K. Label all initiating devices in accordance with Section 26 05 53.
- L. Program the system to identify each device with the submitted and approved designation in the LCD annunciators on both the control panel and remote text annunciator.
- M. The Contractor shall provide all additional wiring and programming of the existing NAPCO Security panel to remove its function as the fire alarm DACT at no additional cost to the owner.
 - 1. Contractor shall submit shop drawing to ASD showing all proposed wiring modifications for ASD review, comment and approval.
 - 2. All modifications to the existing Security System programming shall be approved by ASD.
 - 3. The Contractor shall contact the ASD Project Manager prior to wiring to the Security System and programming the Security System.
- N. The Contractor shall provide all additional wiring and programming of the existing Building Automation System (BAS) at no additional cost to the owner.
 - 1. Contractor shall submit shop drawing to ASD showing all proposed BAS wiring modifications for ASD review, comment and approval.
 - 2. All modifications to the existing BAS programming shall be approved by ASD.
 - 3. The Contractor shall contact the ASD Project Manager prior to wiring to the BAS and programming the BAS.
- O. Devices with ground screws shall be bonded with grounding pigtail to device back box.
- P. Wiring shall be point to point, device to device, without splice. Pull through J-boxes where conductors are not terminated. Failure to comply with this specification will result in Contractor replacing conductors without compensation and at no added cost to the Owner.
 - 1. Terminal strips are acceptable for SLC circuits only.
 - 2. Box fill capacity, including terminal strip, must not be exceeded.
 - 3. Terminal strips must be securely fastened to back of box. Double-sided self-adhesive tape shall not be used.

4. Terminate conductors per Section 26 05 19, BUILDING WIRE AND CABLE. (Install crimp type fork terminals on stranded conductors.)
 5. Terminal strips must be accessible.
 6. Label ends of conductors landed on terminal strip.
- Q. Provide lock-on device on each circuit breaker feeding the fire alarm control equipment. Label circuit breaker in red denoting "FIRE ALARM CIRCUIT". Label panelboard with a red placard installed per 26 05 53 denoting "FIRE ALARM BREAKER". The circuit assignment and panel location shall be permanently identified on all fire alarm control equipment.
- R. Adjust installation of door holders for correct mating of plates for silent operation and full door support.

3.03 FIELD QUALITY CONTROL AND TESTING

- A. Provide complete testing of the security access control and alarm monitoring system in accordance with Section 26 08 00.
- B. The facility will not be accepted as substantially complete until the fire alarm system has been tested and demonstrated to the Owner's authorized representative as 100 percent complete and fully functional, a completed NFPA 72 Inspection and Testing form is submitted.

3.04 DEMONSTRATION AND TRAINING

- A. The Manufacturer's Representative shall be responsible for an on-site demonstration of the operation of the system and initial staff training.
- B. Furnish eight (8) hours of instruction in the operation, maintenance, and troubleshooting of all equipment, provided at the project site with manufacturer's representative with the Owner's personnel.

END OF SECTION