

VOLUME 1

DIVISION 00 - PROCUREMENT AND CONTRACTING REQUIREMENTS

000100	TABLE OF CONTENTS
	BID FORM
007343	WAGE RATE REQUIREMENTS

DIVISION 01 - GENERAL REQUIREMENTS

011000	SUMMARY
012000	PRICE AND PAYMENT PROCEDURES
012500	SUBSTITUTION PROCEDURES
012600	CONTRACT MODIFICATION PROCEDURES
013100	PROJECT MANAGEMENT AND COORDINATION
013115	COMMUNICATION
013119	PROJECT MEETINGS
013216	CONSTRUCTION PROGRESS SCHEDULE
013300	SUBMITTAL PROCEDURES
	CONSENT FOR THE RELEASE OF ELECTRONIC MEDIA
014000	QUALITY REQUIREMENTS
015000	TEMPORARY FACILITIES & CONTROLS
015713	TEMPORARY EROSION AND SEDIMENT CONTROL
016000	PRODUCT REQUIREMENTS
017000	EXECUTION
017419	CONSTRUCTION WASTE MANAGEMENT & DISPOSAL
017700	CLOSEOUT PROCEDURES

DIVISION 02 – EXISTING CONDITIONS

024119	SELECTIVE DEMOLITION
--------	----------------------

END OF SECTION

PART 1 GENERAL

1.1 SCHEDULE OF PREVAILING WAGE RATES

- A. The most current Schedule of Washington State Prevailing Wage Rates for Cowlitz is included under requirements of these Contract Documents except as amended or superseded by new current Prevailing Wage Rates, Codes, Laws, or other Governing Authorities.

1.2 REQUIREMENTS

- A. In accordance to the Washington Public Works Act, Chapter 39.12 RCW, contractors shall pay employees for each trade or occupation, performing work on this Public Works Project, not less than the minimum, current Prevailing Wage Rate and shall comply in all respects to this Act or other requirements as defined by:

Prevailing Wage Section, ESAC
Department of Labor and Industries
P.O. Box 44540
Olympia, Washington 98504-4540
Tel. (360) 902-5335

- B. Prevailing Wage Rate is defined as the hourly wage, fringe benefits, and overtime in accordance with provisions of the Washington Public Works Act (most current rules and regulations).
 - 1. Contractors must pay a wage-and-fringe benefits package to workers that is equal to or exceeds the prevailing wage & prevailing fringe benefit amounts added together.
 - 2. Contractors must observe overtime, holiday, and Code provisions that are part of the Prevailing Wage Rate.
- C. "Statement of Intent to Pay Prevailing Wages" as approved by Department of Labor and Industry's "industrial statistician" is required to be submitted from Contractor with each Application for Payment and before payment is made.
 - 1. Posting of "Statement of Intent to Pay Prevailing Wages" is required to be posted by Contractor at job site Field Office.
- D. Amount retained will be a percent of each payment, determined by Owner, as sufficient to pay any unpaid wage claims, taxes and costs as well as attorney fees, should a claim against the bond and retainage fund be filed.
 - 1. At conclusion of Project, Contractor shall submit to Owner "Affidavit of Wages Paid" as approved by Department of Industry's "industrial statistician" before Owner will release retainage and interest withheld.
- E. The Department of Labor and Industries requires a fee, to be paid at the time of submittal, for both the Intent to Pay Prevailing Wages forms and the Affidavit of Wages Paid forms. All fees required by the Department of Labor and Industries shall be paid by the Contractor.

- F. Contractor's responsibility to go on line to the LNI web page
<http://www.lni.wa.gov/TradesLicensing/PrevWage/WageRates/LookUp/default.asp> the day
of bid and verify the prevailing wages for Cowlitz County.

END OF SECTION

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Description of the Work.
 - 2. Contract description.
 - 3. Project Contacts.
 - 4. Work by Owner or other.
 - 5. Contractor's use of site and premises.
 - 6. Work sequence.
 - 7. Owner occupancy.
 - 8. Ecological Requirements.
 - 9. Terms and Definitions.
 - 10. Specification conventions.

1.2 DESCRIPTION OF THE WORK

- A. Catlin Elementary School, located at 404 Long Avenue, Kelso Washington, is an existing elementary school. Project scope is to temporarily site at the Catlin Elementary School 5 portable classrooms, 2 portable restroom trailers and gravel parking for 60 vehicles. Temporary site improvements include adding a curb cut driveway entrance off of NW 2nd Avenue and Galloway Avenue and stormwater mitigation. There are no anticipated building use changes at Catlin Elementary School.
- B. Install new temporary electric service to the four classroom portables that were recently setup on playground.
- C. Install new Structured cabling for voice and data systems in accordance with drawings. KSD will provide an updated floor plan for cable drop locations in each room.
- D. Install new Integrated Electronic Communications and Clock network system in accordance with Drawings.
- E. Install new Fire Alarm system in accordance with Drawings.
- F. Contractor shall coordinate with the Cowlitz PUD for Electrical Service connections
- G. Contractor shall obtain appropriate L&I permits and coordinate inspections.
- H. Kelso School District shall pay Cowlitz PUD directly for new Electrical Service connection fees.

1.3 CONTRACT DESCRIPTION

- A. Contract Type: A single prime contract based on Stipulated Price.

1.4 COMPLIANCE WITH PUBLIC WORKS STATUTORY PROVISIONS

- A. Comply with pertinent statutory provisions relating to public works.

1.5 PROJECT CONTACTS

- A. Owner: Kelso School District, 601 Crawford Street, Kelso WA 98626, 360.501.1900.
- B. Architect: Integrus Architecture, 117 S. Main Street, Suite 100, Seattle, WA 98104, 206.628.3137.
- C. Civil Engineer: PBS Vancouver, 415 W 6th St, Suite 601, Vancouver WA 98660, 360.567.2110.
- D. Electrical Engineer: Hultz-BHU, 1111 Fawcett Ave, Suite 100, Tacoma, WA, 98402, 253.365.7221.

1.6 WORK BY OWNER OR OTHERS

- A. Contractor is responsible for scheduling the work, storing such equipment if requested, and coordinating related work in the Contract with installation of NIC and OFOI equipment.
- B. Contractor shall provide all preparatory work necessary for proper installation. Confirm with Owner work to be done.
- C. The Owner will employ a special inspector to perform the special inspections required as indicated on the drawings.

1.7 CONTRACTOR'S USE OF SITE AND PREMISES

- A. Assume full responsibility for the protection and safekeeping of tools, equipment, materials, and products under this Contract, stored on the site.
- B. Assume full responsibility for site security and safety.
- C. Provide access to and from site as required by law and by Owner.
 - 1. Emergency Building Exits During Construction: Keep all exits required by code open during construction period; provide temporary exit signs if exit routes are temporarily altered.
- D. Construction Operations: Limited to areas indicated on Drawings.
 - 1. On-Site work hours: Work shall be only performed during hours allowed by the locality.
 - 2. Noisy and Disruptive Operations (such as Use of Jack Hammers and Other Noisy Equipment): Not allowed in close proximity to existing building during regular hours of operation. Coordinate and schedule such operations with Owner to minimize disruptions.

3. Provide positive means to prevent air-borne dust from dispersing into atmosphere and surrounding environment. Cover stockpiled material with tarps, wet down, and take other measures appropriate to minimize raising dust from construction operations.
- E. Utility Outages and Shutdown:
 1. Coordinate and schedule electrical and other utility outages with Owner.
 2. Outages: Allowed only at previously agreed upon times. In general, schedule outages at times when facility is not being used.
 3. At least one week before scheduled outage, submit Outage Request Plan to Architect/Engineer itemizing the dates, times, and duration of each requested outage.
- F. Sound Level Restrictions: Comply with all applicable state and local laws, ordinances, and regulations relative to noise control. Sound pressure level measured at boundary of Site shall not exceed 60 dBA.
- G. Construction Plan: Before start of construction, provide electronic file of construction plan regarding access to Work, use of Site, and utility outages for acceptance by Owner. After acceptance of plan, construction operations shall comply with accepted plan unless deviations are accepted by Owner in writing.
- H. Keep work and storage areas in a neat, clean and orderly condition at all times. Should it be necessary at any time to move materials or sheds, Contractor shall move same at his expense.
- I. Contractor is responsible for damage to existing property adjacent to the project site and at completion of all work, shall restore/return existing property to its original condition as it was prior to start of project work.
- J. Tobacco products are not permitted on grounds and construction site during the Work of this Contract.

1.8 WORK SEQUENCE

- A. General
 1. Work shall not begin until issuance of Notice to Proceed by Owner.
 2. Contractor must obtain Final approval from Agencies having Jurisdiction prior to achieving Substantial Completion.
- B. Project Schedule
 1. Anticipated Notice of Intent to Award: June 7, 2021
 2. Anticipated Notice to Proceed: June 14, 2021
 - a. Subject to timely action by Contractor.
 3. Commence Work On site: June 21, 2021
 - a. Site and Existing Building accessible: June 21, 2021
 - b. Portable accessible: August 2, 2021
 4. Substantial Completion: August 23, 2021
 5. Final Completion: 60 days after scheduled date of Substantial Completion.

1.9 OWNER OCCUPANCY

- A. Cooperate with Owner to minimize conflict and to facilitate Owner's operations.

- B. Schedule the Work to accommodate Owner occupancy.

1.10 ECOLOGICAL REQUIREMENTS

- A. Conform to Washington State Department of Ecology and with local codes and guidelines regarding pollution control, waste reduction and recycling.
- B. Contractor is responsible for securing applicable environmental control permits from all authorities having jurisdiction over construction practices.

1.11 TERMS AND DEFINITIONS

- A. Contractor will provide all necessary work and supplies.
- B. Contractor to field verify all dimensions per reference drawings provided
- C. Contractor is responsible for all permits required by Federal, State, and Local agencies.
- D. Washington State Prevailing Wage laws apply. All workers must be paid the appropriate prevailing wages.
- E. Submit the required Intent to Pay Prevailing Wage and Affidavit in accordance with WA L&I regulations.
- F. Contractor must have a current Washington Business License and City of Kelso Business License.
- G. Contractor shall ensure all workers have Background checks to work in schools.
- H. Kelso School District retains the right to reject any and all quotations.
- I. The term 'indicated' is a cross reference to details, notes or schedules on the drawings, other paragraphs or schedules in the Project Manual, and similar means of recording requirements in the contract documents.
- J. Where terms such as 'shown,' 'noted,' 'scheduled' and 'specified' are used in lieu of 'indicated,' it is for the purpose of helping the readers accomplish the cross reference and no limitation of location is intended except as specifically noted.
- K. Where not otherwise explained, terms such as 'directed,' 'requested,' 'authorized,' 'selected,' 'approved,' 'required,' 'accepted,' and 'permitted' mean 'directed by the Architect,' 'requested by the Architect,' etc. However, no such implied meaning will be interpreted to extend the Architect's responsibility into the Contractor's area of construction supervision.
- L. The meaning of the word 'approve,' where used in conjunction with Architect's response to submittals, requests, applications, inquiries, reports and claims by Contractor, will be held to limitations of Architect's responsibilities and duties as specified in the Conditions of the Contract. In no case will 'approval' by Architect be interpreted as a release of Contractor from responsibilities to fulfill requirements of the Contract Documents.

- M. The word 'installer' is a person or entity engaged by the Contractor or his subcontractor or sub-subcontractor for the performance of a particular unit of work at the project site, including installation, erection, application and similar required operations. It is a general requirement that Installers be recognized experts in the work they are engaged to perform.
- N. The word 'provide' means to furnish and install.

1.12 SPECIFICATION CONVENTIONS

- A. These Specifications are written in imperative mood and streamlined form. This imperative language is directed to Contractor unless specifically noted otherwise. The words "shall be" are included by inference where a colon (:) is used within sentences or phrases.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

END OF SECTION

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes
 - 1. Schedule of Values.
 - 2. Application for Payment.
 - 3. Defect assessment.

1.2 SCHEDULE OF VALUES

- A. Submit electronic file to of schedule on AIA G703 - Continuation Sheet for G702.
- B. Submit Schedule of Values as electronic file within 15 calendar days after date of Owner Contractor Agreement.
- C. Format: Use Table of Contents of this Project Manual. Identify each line item with number and title of major Specification Section. Also identify, Site mobilization, bonds and insurance.
- D. Provide at least one line item for each listed specification section. Coordinate applicable activities with Section 013216 - Construction Progress Schedule.
- E. Round-off line item amounts to nearest whole dollar.
- F. Include in each line item, amount of Allowances specified in this section. For unit cost Allowances, identify quantities taken from Contract Documents multiplied by unit cost to achieve total for each item.
- G. Include within each line item, direct proportional amount of retainage and Contractor's overhead and profit.
- H. Revise schedule to list approved Change Orders with each Application for Payment.
- I. Identify "Separately Funded Work" and amounts.
- J. List separate line items for General, Mechanical, Electrical Equipment close-out (which includes Operation and Maintenance manuals) and include the dollar amount equal to 2% of each portion of the contract.
- K. For each unit of work where payment requests will be made on account of materials or equipment purchased/fabricated/delivered but not yet installed, show "separate line items" for "order and receive" and "installation" of that unit of work.

- L. Show line items of indirect costs, and margins of actual costs, only to extent such items will be individually listed in payment requests. In general, establish each item in schedule of values (and in payment requests) to be complete with its total expenses and proportionate share of general overhead and profit margin.
- M. Except as otherwise required, major cost items, which are not directly cost of actual work-in-place, such as distinct temporary facilities, may be either shown as line items in schedule of values or distributed as general overhead expense, at Contractor's option.

1.3 APPLICATION FOR PAYMENT

- A. Submit electronic file to of each Application for Payment on AIA G702 - Application and Certificate for Payment and AIA G703 - Continuation Sheet for G702.
- B. Application for Initial Payment: Administrative actions and submittals that must precede or coincide with submittal of first Application for Payment include the following:
 - 1. Statement of Intent to Pay Prevailing Wages on Public Works Contract on form issued by the State of Washington, Department of Labor and Industries.
 - 2. List of subcontractors including phone numbers, business address, and contact person.
 - 3. Schedule of Values.
 - 4. Contractor's Construction Schedule (preliminary if not final).
 - 5. Products list.
 - 6. Schedule of Unit Prices, as applicable.
 - 7. Submittals Schedule (preliminary if not final).
 - 8. Initial progress report.
 - 9. Certificates of insurance and insurance policies.
 - 10. Performance and payment bonds.
 - 11. List of emergency contact information.
 - 12. Other documents as may be required in the Contract Documents.
- C. Draft Payment Application:
 - 1. Submit prior to each application of payment.
 - 2. Prepare the actual payment request after the draft amounts are reviewed and agreed to by the Architect and Owner.
- D. Application for Monthly Payment: Submit on date each month as agreed between Owner and Contractor.
 - 1. Content and Format: Use Schedule of Values for listing items in Application for Payment.
 - 2. Submit updated construction schedule with each Application for Payment.
 - 3. Payment Period: Submit at intervals stipulated in the Agreement.
 - 4. Submit submittals with transmittal letter as specified in Section 013300 - Submittal Procedures.
- E. Substantiating Data: When Architect/Engineer requires substantiating information, submit data justifying dollar amounts in question. Include the following with Application for Payment:
 - 1. Current construction photographs specified in Section 013300 - Submittal Procedures.
 - 2. Partial release of liens from major Subcontractors and vendors.
 - 3. Record Documents as specified in Section 017000 - Execution, for review by Owner, which will be returned to Contractor.
 - 4. Affidavits attesting to off-Site stored products.

5. Construction Progress Schedule, revised and current as specified in Section 013300 - Submittal Procedures.
- F. Contract Retainage Value: The Owner shall pay 95% of the amount due the Contractor on account of progress payments. The remaining 5% of each payment amount shall be held as retainage until Substantial Completion at which time the retained funds will be paid to the Contractor as referenced in General Conditions Article 9 Payments and Completion for additional information. Any remaining funds will be held until final completion and will be paid to the Contractor with the Final Payment.
- G. Application at time of Substantial Completion: Show one hundred percent (100%) completion for portion of the Work claimed as substantially complete.
 1. Include documentation supporting claim that the Work is substantially complete and a statement showing an accounting of changes to the Contract Sum.
 2. Submit documentation that Waste Management goals (017419) have been met.
- H. Application for Final Payment:
 1. Complete and submit accepted documents as required by the General Conditions of the Contract for Construction.

1.4 DEFECT ASSESSMENT

- A. Replace the Work, or portions of the Work, not conforming to specified requirements.
- B. If, in the opinion of Architect/Engineer, it is not practical to remove and replace the Work, Architect/Engineer will direct appropriate remedy or adjust payment.
- C. The defective Work may remain, but unit sum/price will be adjusted to new sum/price at discretion of Owner.
- D. Individual Specification Sections may modify these options or may identify specific formula or percentage sum/price reduction.
- E. Authority of Architect/Engineer to assess defects.
- F. Nonpayment for Rejected Products: Payment will not be made for rejected products for any of the following reasons:
 1. Products wasted or disposed of in a manner that is not acceptable.
 2. Products determined as unacceptable before or after placement.
 3. Products not completely unloaded from transporting vehicle.
 4. Products placed beyond lines and levels of the required Work.
 5. Products remaining on hand after completion of the Work.
 6. Loading, hauling and disposing of rejected products.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

END OF SECTION

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Quality assurance.
- B. Product options.
- C. Product substitution procedures.
- D. Substitution Request Form.

1.2 QUALITY ASSURANCE

- A. Contract is based on products and standards established in Contract Documents without consideration of proposed substitutions.
- B. Products specified define standard of quality, type, function, dimension, appearance, and performance required.
- C. Substitution Proposals: Permitted for specified products except where specified otherwise. Do not substitute products unless substitution has been accepted and approved in writing by Owner.

1.3 DEFINITIONS AND OPTIONS

- A. Performance, Reference Standard, and Descriptive Specifications:
 - 1. Manufacturer is not specified and requirements are specified purely by descriptive requirements, design requirements, performance requirements, reference standards, or codes.
 - 2. Products and options meeting or exceeding specified provisions are accepted.
- B. Open Proprietary Specifications:
 - 1. Products by one or more manufacturers are specified and specification makes provision for substitution requests.
 - 2. Conform to provisions for making substitution request as specified by this Section.
- C. Closed Proprietary Specifications:
 - 1. Products by one or more manufacturers are specified and specification Section does include provision for substitution requests.
 - 2. Provide work as specified. No substitution will be accepted.
- D. Basis-of-Design Specifications:
 - 1. Where a specific manufacturer's product is named and accompanied by the words "basis of design," including make or model number or other designation, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics for purposes of evaluating comparable products of other named manufacturers.

2. Provide either the specified product or a comparable product by one of the other named acceptable manufacturers. Drawings and specifications indicate sizes, profiles, dimensions, and other characteristics that are based on the product named. Comply with Comparable Product definition below. Substitutions will be considered only when Section 012500 Substitution Procedures is referred to.
- E. Comparable Product: Product that is demonstrated and approved through submittal process, or where indicated as a product substitution to have the indicated qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics that equal or exceed those of specified product.

1.4 SUBSTITUTION REQUESTS DURING BIDDING PHASE

- A. Email Substitution Requests to reach Architect's office before 5 p.m. at least 10 working days prior to date for receiving Bids.
 1. Email sschafer@integrusarch.com
 2. Subject: KES Substitution Request Section XXXXXX (provide correct section number)
 3. One substitution request per email.
 4. Complete and include Substitution Request Form provided at end of this section.
- B. Bidders will be notified of unaccepted substitutions by Addendum. No other form of acceptance is valid, including as stated verbally, written, emailed, faxed, or implied in other manner and bidders shall not rely upon any approval not incorporated into the Contract Documents in this manner.

1.5 SUBSTITUTION REQUESTS DURING CONSTRUCTION PHASE

- A. Submit Substitution Requests directly by or through Contractor to Architect.
- B. Substitution Requests following Bid Date will not be considered, except at discretion of Owner and subject to reimbursement for Architect's review. Review fee will apply whether or not substitution request is accepted.
 1. Exception: Substitution Requests may be reviewed in the event of special circumstances beyond Contractor's control. Reason for substitution request must be submitted on the attached Substitution Request Form.
- C. Reasons for consideration of substitutions include:
 1. Unavailability: Specified item has been discontinued; there are no available qualified installers; or lead-time is prohibitive relative to project schedule.
 2. Unsuitability: Subsequent information discloses specified item as unsuitable, inappropriate, unable to perform properly, or to fit designated space.
 3. Regulatory Requirements: Specified item fails to conform to building code interpretations or insurance regulations.
 4. Warranty: Manufacturer or fabricator has declared that specified item is unsuitable for intended use or refuses to certify or warrant performance of specified item for condition of use.
 5. Owner Prerogative: As requested by Owner for reduction of Contract Cost or Contract Time.

- D. Contractor will be notified by Architect on the form provided by the Contractor within two weeks of receipt of request, of decision to accept or reject Substitution Request.

1.6 PRODUCT SUBSTITUTION PROCEDURES

- A. Document each request with complete data, substantiating compliance of proposed substitution with Contract Documents, including:
 - 1. Manufacturer's name and address, product, trade name, model, or catalog number, performance and test data, and reference standards.
 - 2. Itemized point-by-point comparison of proposed substitution with specified product, listing variations in quality, performance, and other pertinent characteristics.
 - 3. Reference to Article and Paragraph numbers in Specification Section.
 - 4. Cost data comparing proposed substitution with specified product and amount of net change to Contract Sum.
 - 5. Changes required in other Work.
 - 6. Availability of maintenance service and source of replacement parts as applicable.
 - 7. Certified test data to show compliance with performance characteristics specified.
 - 8. Samples when applicable or requested.
 - 9. Submit list of at least 3 projects where proposed substitution has been used within past 12 months. Include name, address, and telephone number of Owner and Architect.
 - 10. Other information as necessary to assist Architect/Engineer's evaluation.
- B. A request constitutes a representation that Bidder or Contractor:
 - 1. Has investigated proposed product and determined that it meets or exceeds quality level of specified product.
 - 2. Will provide same warranty for substitution as for specified product.
 - 3. Will coordinate installation and make changes to other Work that may be required for the Work to be complete with no additional cost to Owner.
 - 4. Waives claims for additional costs or time extension that may subsequently become apparent.
 - 5. Will coordinate installation of the accepted substitute, making such changes as may be required for the Work to be complete in all respects.
 - 6. Will reimburse Owner and Architect/Engineer for review or redesign services associated with reapproval by authorities having jurisdiction.
- C. Substitutions will not be considered when they are indicated or implied on Shop Drawing or Product Data submittals without separate written request or when acceptance will require revision to Contract Documents.
- D. Substitution Submittal Procedure:
 - 1. Submit requests for substitutions on form attached to end of this Section (an electronic version of this form is available from the Architect upon request).
 - 2. Submit electronic files of Request for Substitution for consideration. Limit each request to one proposed substitution.
 - 3. Submit only 1 Substitution Request on each Substitution Request Form. Multiple Substitution Requests on a single form will not be accepted.
 - 4. Submit Shop Drawings, Product Data, and certified test results attesting to proposed product equivalence. Burden of proof is on proposer.
 - 5. Architect/Engineer will notify Contractor in writing of decision to accept or reject request.

1.7 UNACCEPTABLE SUBSTITUTIONS

- A. Substitutions not accepted in writing by Architect.
- B. Substitutions that are not submitted on Substitution Request Form or facsimile following this Section.
- C. Substitution Requests that do not provide complete, adequate, or clearly defined information for a thorough and timely evaluation.
- D. Substitutions that, if accepted, will require substantial revisions to Contract Documents.
- E. Substitutions that are shown or implied by shop drawings and other submittals.
- F. Substitutions not accepted by published Addenda during Bidding Period and not accepted in writing by Architect during Construction Period.
- G. Substitutions installed into the Work and not accepted by Architect, constitute non-conforming work and may be rejected by Owner without further discussion or explanation.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

Attachment: Substitution Request Form.

END OF SECTION

SUBSTITUTION REQUEST FORM

TO: _____

PROJECT: _____

SPECIFIED ITEM:

Section	Page	Paragraph	Description
---------	------	-----------	-------------

The undersigned requests consideration of the following:

PROPOSED SUBSTITUTION: _____

Attached data includes product description, specifications, drawings, photographs, performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.

Attached data also includes description of changes to Contract Documents that the proposed substitution will require for its proper installation.

Attach list of at least 3 projects where proposed substitution has been used within past 12 months. Include name, address, and telephone number of Owner and Architect.

The undersigned certifies that the following paragraphs, unless modified by attachments, are correct:

1. The proposed substitution does not affect dimensions shown on Drawings.
2. The undersigned will pay for changes to the building design, including engineering design, detailing and construction costs caused by the requested substitution.
3. The proposed substitution will have no adverse affect on other trades, the construction schedule, or specified warranty requirements.
4. Maintenance and service parts will be locally available for the proposed substitution.

The undersigned further states that the function, appearance and quality of the proposed substitution are equivalent or superior to the specified item.

Submitted by:

Name (Printed)

Signature

noted
Firm Name

late
Address

City, State, Zip

For use by the A/E:

☐ Accepted

☐ Accepted as

☐ Not Accepted

☐ Received too

By

Date

Date

Telephone

Remarks

Attachments:

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Initial Requirements
 - 2. Initiating and Proposing Changes
 - 3. Architect's Supplemental Instructions
 - 4. Documentation of Change in Contract Sum and Contract Time.
 - 5. Approval or Rejection of Proposal
 - 6. Construction Change Directive
 - 7. Change Order
 - 8. Allowance for Overhead and Profit
 - 9. Correlation of Contractor Submittals

1.2 INITIAL REQUIREMENTS

- A. Within 30 days of the Notice to Proceed, the Contractor shall submit a list of all equipment anticipated to be used on the project and whether it is owned or to be rented, using a form acceptable to the Architect and Owner. If during the construction process additional equipment is brought to the Project site, the Contractor shall submit an updated list.
- B. Submit name of individual authorized to receive Change Documents, and to be responsible for informing others in Contractor's employ and to applicable subcontractors of changes to the Work.

1.3 INITIATING AND PROPOSING CHANGES

- A. Proposal Request: Issued by the Architect to the Contractor on the Owner's behalf including a detailed description of proposed change with supplementary or revised Drawings and specifications, a change in Contract Time for executing the change with stipulation of overtime work required and the period of time during which the requested price will be considered valid. Contractor will prepare and submit estimate within seven days.
 - 1. Proposal Requests are for information only. Do not consider them as an instruction (direction) either to stop work in progress or to execute the proposed change.
- B. Contractor Initiated Change Request: Describe proposed change and its full effect on the Work. Include a statement describing reason for the change, and effect on Contract Sum and Contract Time with full documentation and a statement describing effect on Work by separate or other Contractors. Document requested substitutions in accordance with Section 012500 - Substitution Procedures.
 - 1. Contractor is to do no work on the proposed change until the Change Request is formalized by a Construction Change Directive or Change Order.

1.4 ARCHITECT'S SUPPLEMENTAL INSTRUCTIONS (ASI)

- A. The Architect will issue supplemental instructions authorizing minor changes in the Work, not involving adjustment to the Contract Sum or Contract Time, on a form prepared by the Architect. If the Contractor believes a cost is associated with the supplemental instructions, the Contractor is to provide written notice to the Architect within 7 days of receipt of the instructions, outlining all associated costs as outlined in Part 1.5 DOCUMENTATION OF CHANGE IN CONTRACT SUM.

1.5 DOCUMENTATION OF CHANGE IN CONTRACT SUM AND CONTRACT TIME

- A. Change Order Proposal (COP): Submit electronically information required for Architect's evaluation of proposed changes.
- B. Contract Time: No additional funds will be issued or considered payable to the Contractor for time extension claims prior to Substantial Completion; the end of documented Contract Time as specified in the General Conditions AIA A201.
- C. Support each lump sum proposal quotation, and each unit price (not previously established) with sufficient substantiating data.
 - 1. On request, provide additional data to support time and cost computations:
 - a. Labor required.
 - b. Equipment required.
 - c. Products required.
 - 1) Recommended source of purchase and unit cost.
 - 2) Quantities required.
 - d. Taxes, insurance, and bonds.
 - e. Documented credit for work deleted from Contract.
 - f. Overhead and profit.
 - g. Justification for any change in Contract Time.
 - 2. Submit additional substantiating data to support computations, as requested by Architect.
 - 3. Support each proposal for additional costs, and time-and-material work, with documentation, as required for lump-sum proposal. Include additional information:
 - a. Name of Architect or Owner's authorized agent who ordered work, and date of order.
 - b. Dates and times work was performed, and by whom (firm or individual).
 - c. Time record, summary of hours worked, and hourly rates paid.
 - d. Receipts and invoices for:
 - 1) Equipment used, listing dates and times of use.
 - 2) Products used and listing of quantities.
 - 3) Subcontracted work.
 - 4. Document Requests for Substitutions.
 - 5. Statement as to whether overtime work is, or is not, necessary.

1.6 APPROVAL OR REJECTION OF PROPOSAL

- A. When change is initiated by Architect or Owner:
 - 1. Contractor to submit a detailed proposal in writing. Quotation (cost estimate) must be guaranteed for period specified in Proposal Request beginning from signing of proposal. If no period is specified, guarantee quotation for sixty (60) days from signing.
 - 2. Architect and/or Owner will review the proposal and respond in writing with one of the following:
 - a. Request for additional information.
 - b. Approval to be issued by CCD for subsequent inclusion in a Change Order.
 - c. Rejection of the proposal and direction to continue with contracted work.
 - 3. Contractor may not proceed with the proposed changed work until a signed CCD or Change Order is received from the Owner.
- B. When a change proposal is initiated by Contractor:
 - 1. The Architect and/or Owner will review it and respond in writing with one of the following:
 - a. Approve the Contractor's cost proposal;
 - b. Request additional information;
 - c. Reject the proposal.
 - 2. If the Owner responds by approving the Contractor's change proposal, a CCD will be processed.
 - a. If additional information is requested by Owner, respond in writing within fifteen (15) days of Owner's request.
- C. Concurrence of the Building Official:
 - 1. Note that all significant modifications to the Contract Documents reviewed by the AHJ, including Change Orders "approved" by the Architect and Owner, must also be approved by the Building Official.
 - 2. Any significant changes, such as structural changes and life safety modifications, will be submitted for review and approval to the AHJ. Contractor may not proceed with such work until the AHJ has reviewed the change and indicated that it is acceptable.

1.7 CONSTRUCTION CHANGE DIRECTIVE (CCD)

- A. Construction Change Directive:
 - 1. May be issued by Architect with Owner's approval, instructing Contractor to proceed with change in the Work, for subsequent inclusion in a Change Order.
 - 2. Will describe changes in work, and will designate method of determining change in Contract Sum or Contract Time.
- B. Contractor: Promptly execute change to the Work.
- C. Claims for Adjustments to Contract Time or Contract Sum:
 - 1. Burden of proof is upon Contractor to submit data substantiating requested increase of Contract Sum and Contract Time for inclusion into approved Change Order.
 - 2. Submit claims within 30 days after completion of Construction Change Directive. Claims after this time are invalid.

- D. Overhead and Profit for Change to Contract Sum: Conform to provisions of Contract Documents, including the General Conditions.
- E. Prevailing Wages: Limit direct costs for labor, wages, and fringe benefits to amounts indicated by Conditions of the Contract including the General Conditions and prevailing wage rate requirements.

1.8 CHANGE ORDER (CO)

- A. Stipulated Sum Change Order
 - 1. Based on Proposal Request and Contractor's fixed maximum price quotation or Contractor's request for change.
 - 2. Execute Change Order for changes to the Work affecting Contract Sum or Contract Time.
- B. Unit Price Change Order
 - 1. Pre-determined Unit Prices and Quantities: Execute Change Order executed on fixed unit price bases.
 - 2. Unit Costs or Quantities of Units of Work Which are not Pre-Determined: Execute Work under a Construction Change Directive.
 - 3. Changes in Contract Sum or Contract Time: Compute as specified for a Time and Materials Change Order.
- C. Time and Material Change Order
 - 1. Submit itemized account and supporting data after completion of change, within time limits indicated in Conditions of the Contract.
 - 2. Allowable Change to Contract Sum and Contract Time: As determined by Architect under provisions of Contract Documents, including the General Conditions.
 - 3. Maintain detailed records of work done on Time and Material basis. Provide full information required for evaluation of proposed changes, and to substantiate costs for changes in the Work.
- D. Execution of Change Orders: Architect will issue Change Orders for signatures of parties as provided in Conditions of the Contract.

1.9 CORRELATION OF CONTRACTOR SUBMITTALS

- A. Promptly revise Schedule of Values and Application for Payment forms to record each authorized Change Order as separate line item and adjust Contract Sum/Price.
- B. Promptly revise progress schedules and applicable sub-schedules to reflect change in Contract Time and to adjust times for other items of work affected by the change, and resubmit.
- C. Promptly enter changes in Project Record Documents.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Construction Organization.
 - 2. Cooperation and Coordination of Work.
 - 3. Project Coordination and Scheduling Control.
 - 4. Job Site Field Measurements And Templates.
 - 5. Dimensions.
 - 6. Intent of Drawings.
 - 7. Interferences and Right of Way.
 - 8. Notification and Correction of Defective Work.
 - 9. Coordination Utilities.
 - 10. Closeout Coordination.

1.2 GENERAL COORDINATION REQUIREMENTS

- A. Coordinate scheduling, submittals and work identified in the Contract to assure efficient and orderly sequence of installation of construction elements, with provisions for accommodating items to be installed later.
- B. Coordinate work between all Sections of Contract Documents to avoid conflicts and omissions.
- C. Responsibility
 - 1. The Contractor shall be in charge of this Contract and the site, as well as the directing and scheduling of all Work. Contractor shall be on site at all times work of this Contract is in progress. Do not delegate responsibility for coordination to any subcontractor.
 - 2. Anticipate interrelationship of all subcontractors and their relationship with the total Work.
 - 3. Resolve differences or disputes between subcontractors and materials suppliers concerning coordination, interference, or extent of Work between Sections. Contractor's decisions, if consistent with Contract Document requirements, shall be final.
 - 4. Final responsibility for the performance, interface, and completion of the Work and the Project in accordance with the Contract Documents shall be with the Contractor.
- D. Prior to any work beginning on the site, the Contractor shall submit, and receive final approval on:
 - 1. Construction schedule;
 - 2. All required plans, including, but not limited to, safety, demolition, quality control, waste management and indoor air quality.
 - 3. All materials to be used on the project in accordance with Section 013300 - Submittal Procedures.

1.3 SPECIAL COORDINATION

- A. Additional special requirements and conditions apply to the work of this contract. Refer to Section 015000 - Temporary Facilities and Controls, for detailed description of these additional requirements and conditions.
- B. The Owner will require access to the site to perform work related or unrelated to the project. The Contractor shall coordinate with the Owner to accommodate such work within the contract time.

1.4 CONSTRUCTION ORGANIZATION

- A. On-Site Lines Of Authority & Communications: Refer to Section 013115 - Communication.
- B. Intra-Project Communications:
 - 1. Submittals.
 - 2. Reports and records.
 - 3. Recommendations.
 - 4. Coordination drawings.
 - 5. Schedules.
 - 6. Resolution of conflicts.
- C. Construction Mobilization
 - 1. Cooperate with the Owner's Representative in allocation of mobilization areas of the site; for field offices and sheds, for access, traffic and parking facilities.
 - 2. Comply with Architect and Owner's Representative's procedures for intra-project communications.
 - 3. Coordinate field engineering and layout work under instructions of Owner's Representative.
- D. Coordination of Reports/Activities: Coordinate both the procedural timing and the listing (naming and sequencing) of reports/activities required by provisions of this Section and other sections, to afford consistency and logical coordination between submitted reports or lists. Maintain coordination and correlation between separate reports by updating at monthly or shorter time intervals. Distribute each report and updated report to entities involved in the work, including Architect and Owner's Representative. In particular, provide close coordination of Progress Schedule, Schedule of Values (see Section 012000 - Price and Payment Procedures), listing of subcontracts, schedule of submittals, progress reports, and payment requests.
- E. Coordination of Submittals
 - 1. Schedule and coordinate submittals specified in the Contract Documents.
 - 2. Coordinate work of various Sections having interdependent responsibilities for installing, connecting to and placing equipment in service.
 - 3. Coordinate request for substitutions to assure compatibility of space, operating elements, and effect on work of other Sections.
- F. Coordination & Pre-Installation Meetings: Refer to Section 013119 - Project Meetings.
- G. Conservation: Coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water, and materials.

1. Salvage materials and equipment involved in performance of, but not actually incorporated into the Work.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

3.1 COOPERATION & COORDINATION OF WORK

- A. The Contractor is responsible for the coordination of the work of all trades; coordinating the installation of their work and that of all subcontractors to ensure compliance with the Contract Documents and to expedite the progress of the Project. Contractor shall check specifications, addenda, and drawings covering all trades as the work progresses. Contractor shall promptly report to the Architect what they consider omissions, conflicts or points requiring clarification.
- B. Contractor shall prepare and distribute to each entity performing work at project site, a written memorandum of instructions on required coordination activities, including required notices, reports and attendance at meetings.
- C. Enclosure of the Work: The Contractor shall coordinate enclosure of work with required inspections and tests, so as to avoid the necessity of uncovering work for that purpose.
- D. It is the responsibility of the Contractor to ensure that the work of subcontractors complies with Conditions of the Contract, Division 1 - General Requirements, and the work of other Sections related to their own work. No additional payments or time extensions will be authorized for failure on the part of subcontractors to be familiar with and in compliance with the aforementioned specification divisions and sections.
- E. Inclusion of portions of the work under particular divisions of the specifications or sections of the drawings does not in every case conform to the categories of work customarily subcontracted to particular crafts or trades. In such cases, the Contractor shall be responsible to inform bidders, subcontractors, crafts and trades, that work assigned to them is contained in sections other than the usual. In every case, the General Contractor shall be responsible to provide at its cost, all work required in the Contract Documents.
 1. Provide project interface and coordination as required to properly and accurately bring together the several parts, components, systems, and assemblies and as required to complete the Work and the Project.
 2. Provide interface and coordination of all trades, crafts, and subcontracts as required to provide correct and accurate connection of abutting, adjoining, overlapping, and related Work, and provide all anchors, fasteners, accessories, appurtenances, and incidental items as required to complete the Work properly, fully, and correctly in accordance with the Contract Documents.
 3. Provide additional structural components, miscellaneous metal, bracing, blocking, backing, clips, anchors, fasteners, and installation accessories as required to properly anchor, fasten, or attach materials, equipment, and architectural features to the structure.

4. Provide excavation and backfill, trenching and drilling for all trades as required for the installation of their Work.
5. Provide concrete foundations, pads, supports, bases, and grouting for all trades as required for the installation of their Work.
6. Provide caulking, sealing, and flashings as required to completely weatherproof the building and as required to insulate the building thermally and acoustically. Include caulking, sealing, flashings, and related work as required to prevent moisture intrusion, air infiltration, and light leakage.
7. Materials, equipment, component parts, accessories, incidental items, connections, and services required to complete the Work which are not provided by subcontractors shall be provided by the Contractor.

3.2 PROJECT COORDINATION AND SCHEDULING CONTROL

- A. The Contractor shall schedule and coordinate the work of all subcontractors on the project including their use of the site. Responsibility for coordination and close adherence to time schedules rests solely with the Contractor who shall maintain coordination and scheduling control at all times.
- B. Each subcontractor responsible to the Contractor shall cooperate diligently with the Contractor in the execution of their work so as to cause no delay in the completion of the Project. This responsibility includes the completion of all work in a timely manner. All Contractors, Prime Contractor and Subcontractors, shall diligently comply with the following requirements:
 1. Cooperate in planning and layout of the work well in advance of operations.
 2. Inform other contractors of requirements at proper time to prevent delay or revisions.
 3. Be informed on the requirements of other contractors and check own work for conflicts with the work of other contractors.
 4. Insure delivery of materials and performance of work on coordinated schedule with other contractors.
 5. Contractor shall ensure subcontractors and equipment suppliers are responsible for compatibility and completeness of the installation and operation of the equipment in their respective Specification Sections including conformance with code requirements.
 6. Attend Pre-Installation meetings identified in Section 013119.
 7. Contractor shall be represented on the job site by his superintendent at all times when there is construction going on, including the work of his subcontractors, as well as his own.
- C. Changing Subcontractors: The General Contractor shall be responsible for all the additional expenses incurred by changing subcontractors during the course of this project. These additional expenses include, but are not limited to, A/E expenses for duplicate or redundant submittals, requests for information, or any clarifications or revisions that might occur due to the fact that new subcontractor(s) have assumed responsibility for a portion(s) of the Work.

3.3 JOB SITE FIELD MEASUREMENTS AND TEMPLATES

- A. Obtain field measurements required for accurate fabrication and installation of Work included in this Contract. Exact measurements are the Contractor's responsibility.
- B. Contractor shall be responsible for field verifying actual dimensions where "+/-" dimensions are indicated, or the words "field verify."

- C. Furnish or obtain templates, patterns, and setting instructions as required for installation of all Work. Verify all dimensions in the field.

3.4 INTENT OF DRAWINGS

- A. The work of the Contractor and subcontractors shall conform to the intent of the architectural and engineering drawings as reviewed by the Architect. Drawings are partly diagrammatic and do not intend to show in details all features of work. The Contractor shall carefully review the work to be performed by other trades, compare related drawings and shall thoroughly understand the building conditions affecting their work.
- B. All changes required in the work caused by failure to do so shall be at no expense to the Owner.

3.5 INTERFERENCES AND RIGHT-OF-WAY

- A. Make proper provisions to avoid interferences.
- B. Submit conflicts which cannot be resolved by right-of-way to the Architect for direction.

3.6 NOTIFICATION & CORRECTION OF DEFECTIVE WORK

- A. Coordinate the Work of all subcontractors and make certain that, where the work of one trade is dependent upon the work of another trade, the work first installed is properly placed, installed, aligned and finished as specified or required to properly receive subsequent materials applied or attached thereto.
- B. Direct subcontractors to correct defects in substrates they install when subcontractors of subsequent materials have a reasonable and justifiable objection to such surfaces. Promptly notify the Owner's Representative and Architect of any defects or imperfections in preparatory work which will in any way affect satisfactory completion of the work.
- C. Under no condition shall a section of work proceed prior to preparatory work having been completed, cured, dried or otherwise made satisfactory to receive such related work. Do not force subcontractors to apply or install products to improperly finished product.
- D. Correction of defective work shall be the responsibility of the Contractor or subcontractor providing the defective work. Correction of work due to underlying defects shall be the responsibility of the Contractor or subcontractor providing overlying work.

3.7 COORDINATING UTILITIES

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

3.8 CLOSEOUT COORDINATION

- A. General
 - 1. Coordinate completion and cleanup of work by the various trades in preparation for Substantial Completion.
 - 2. After Owner occupancy of premises, coordinate access to site by the various trades involved for correction of defective work and work not in accordance with Contract Documents, to minimize disruption of Owner's activities.
 - 3. Assemble and coordinate closeout submittals.
- B. At completion of Work of each Subcontract, conduct inspection to assure that:
 - 1. Work is acceptable.
 - 2. Temporary facilities and debris have been removed from site.
- C. At Substantial Completion:
 - 1. Conduct inspection and prepare list of work to be completed or corrected.
 - 2. Assist Architect and Owner's Representative in inspection.
 - 3. Supervise correction and completion of Work as established in Architect's inspection reports ("punch lists").
 - 4. Obtain Certificate of Occupancy from governing authorities.
- D. At Final Completion: Assist Architect and Owner's Representative in inspection.

END OF SECTION

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. General Communication.
 - 2. Emergency Communication.
 - 3. Correspondence.
 - 4. Request for Information.
 - 5. Non Compliance Notice.

1.2 GENERAL COMMUNICATION

- A. All telephone and electronic communication and other correspondence shall be between Contractor and Architect, unless otherwise noted below.
- B. Subcontractors are not to contact members of the design team directly unless explicitly agreed to by Contractor, Architect and Owner's Representative. All such contact and discussions are to be documented in writing by the subcontractor and submitted to the Architect and Owner's Representative through the Contractor.
- C. The General Contractor shall transmit problems or questions in writing using a Request for Information (RFI) form.
- D. On-Site Lines of Authority and Communications: Establish on-site lines of authority and communications including attendance at Pre-Construction Meeting and Progress Meetings as required by the Architect and Owner's Representative. All on-site lines of authority and communications shall be established through the Architect.
- E. The Architect and Owner's Representative, will typically be working during the Contractor's normal working hours as defined in Section 011000 - Summary. The Contractor shall anticipate that all communication and weekly construction meetings with these parties will occur between the hours of 8 a.m. and 5 p.m. Monday through Friday throughout the duration of the Project.
- F. No overtime payments will be authorized, or time delays allowed, for the Contractor or subcontractors efforts to communicate with the Architect and Owner's Representative outside of the normal working hours.

1.3 EMERGENCY COMMUNICATION

- A. Provide an Emergency Notification list to the Architect and to the Owner.
 - 1. The Contractor shall provide a list of names, pagers, wireless and traditional telephone numbers of staff who are capable of addressing an emergency issue that may occur outside of Contractor's normal working hours. The persons designated on the list shall be available at the project site within 60 minutes of being contacted. Provide two names for each of the following:
 - a. General Contractor
 - b. Other major subcontractors

2. Submit the list to the Architect 5 working days prior to the Preconstruction Meeting. The Architect will include the same information for design team members and Owner representatives and distribute the list at the Preconstruction Meeting.

1.4 CORRESPONDENCE

- A. All correspondence to and from Contractor will be routed through Architect with a copy to the Owner's Representative.
- B. Include project title and Architect's project number on all correspondence.

1.5 REQUEST FOR INFORMATION (RFI)

- A. It is the Contractor's responsibility to review Contract Documents in a timely manner so that the Architect shall have sufficient time to respond to a Request for Information prior to the start of actual construction of that part of the Work.
- B. When field conditions or Contract Document contents require clarification or verification by the Architect or Architect's sub-consultants, a written RFI is to be submitted as follows:
 1. Identify the nature and location of each clarification/verification using a RFI form. Provide as a minimum the following information:
 - a. Project name and number.
 - b. Date.
 - c. Date response desired.
 - d. RFI number.
 - e. Subject.
 - f. Initiator of the question (individual and firm).
 - g. Indication of costs, if known.
 - h. Location on site.
 - i. Contract drawing reference.
 - j. Contract specification section and paragraph reference.
 - k. Descriptive text.
 - l. Signature of Contractor.
 - m. Attachments, including descriptive drawings, photographs, product data, submittals, dimensions, configurations, and other information needed to clarify request.
 - n. Space for reply on same page as question.
 2. Number each RFI sequentially beginning with number 001 (RFI-001). Only one question per RFI.
 - a. Indicate subject by designation of GEN or CIV, or other easily identifiable discipline abbreviation.
 - b. Single subject matter, 1 item each - architectural, civil, structural, mechanical, electrical or general.
 3. RFI may be hand-delivered or e-mailed depending upon the urgency.
- C. Uses
 1. The RFI form shall be used for interpretation or clarification of the Contract Documents only.
 2. Do not use the RFI form for the following. The Architect will not reply and the RFI will be returned without action.
 - a. Product or material substitutions (See Section 012500 - Substitution Procedures).

- b. Questions relating to construction means, methods, techniques, sequences, procedures, or safety precautions. These are the Contractor's responsibilities exclusively.
 - c. Questions relating to construction schedule, coordination between trades, or division of work among subcontractors. These are Contractor's responsibilities exclusively.
 - d. Questions on contract administration procedural matters, unless they require interpretation or clarifications of the Contract Documents.
 - e. Dimensions or quantities which are shown on the Contract Documents, which can be measured or calculated from the information contained in the Contract Documents where such measurement or calculation is standard construction industry practice.
 - f. Confirmation of interpretations or clarifications previously provided by the Architect.
 - g. The Contractor shall not initiate requests for interpretations or clarifications of the Contract Documents which can be reasonably derived from a review of the Contract Documents.
- D. Route RFI's in same manner as correspondence.
- E. Clarifications may be discussed on-site or by telephone with Architect or Architect's Consultants, with concurrence of the Architect. A summary of these discussions is to be incorporated into a RFI form and submitted as written confirmation, for normal RFI processing.
- F. Reply
 - 1. The Architect will endeavor to reply to all RFI's as promptly as his work schedule allows, and generally no later than 7 working days from the day received. The Architect and/or its sub-consultants will attempt to expedite those RFI's indicated by the Contractor as being critical to the construction schedule.
 - 2. When an RFI involves a complex subject, extensive research or governmental agency contact, the Architect will inform the Contractor that additional time is required to prepare a reply. The Contractor shall cooperate and agree to reasonable additional time.
 - 3. The reply shall be a clarification or an interpretation of the Contract Documents; the reply is not an authorization of change in the Contract Sum or Time.
 - 4. Where Architect's action may affect Contract Time or Contract Sum:
 - a. Notify Architect in writing within 10 days of receipt.
 - b. Conform to Conditions of the Contract for submittal of Change Order Proposal, Section 012600 - Contract Modification Procedures.
- G. On receipt of Architect response to RFI:
 - 1. Update RFI log and promptly distribute RFI response to those affected by response.
 - 2. Review and notify Architect within 7 days if Contractor disagrees with response.
- H. RFI Log: Prepare, maintain, and submit a tabular log of RFIs organized by RFI number. Submit log weekly. Include following:
 - 1. Project Name.
 - 2. Name and address of Contractor.
 - 3. Name and address of Architect.
 - 4. RFI number including those that were dropped and not submitted.
 - 5. RFI description.
 - 6. Date RFI was submitted.

7. Date Architect's response was received.
 8. Identification of related Minor Changes in the Work, Architect's Supplemental Instructions (ASI), Construction Change Directives (CCD), and Proposal Requests, as applicable.
- I. Note: Architect will respond only to requests for interpretation of Contract Documents originating from Contractor. The Contractor shall be deemed to be the author of all RFI's, whether written by him or one of his sub-contractors or suppliers. It is the Contractor's responsibility to ensure that all RFI's are complete and correct in form, and the Contractor shall be the contact for further information or explanation. All replies shall be directed to the Contractor, and it is his responsibility to ensure that the appropriate contractor personnel are copied or informed of the replies.

1.6 NON-COMPLIANCE NOTICE (NCN)

- A. Any work that is identified as "not in compliance" with the Contract Documents, either by oral discussion with the Contractor, or written communication to the Contractor, shall be removed and replaced without cost to the Owner, including removal of additional material necessary to confirm non-compliance. At its option, the Owner may accept written alternative solutions offered by the Contractor and recommended by the Architect. The Contractor shall notify the Architect and Owner in writing immediately following oral discussion or receipt of any written communication if the Contractor believes that the Work in question is in compliance with the Contract Documents. The Architect will make a determination based on the Contract Documents. If the Architect finds the work is in noncompliance, the Architect will issue a written Non-Compliance Notice (NCN). Such notice, when delivered to the Contractor at the work site, shall be deemed sufficient for the purpose of notification. Upon receipt of the NCN, the Contractor shall take immediate action to correct work. Review corrections at progress meetings for closure.
- B. If the Contractor fails to or refuses to comply promptly after the final determination of the appropriate corrective action, the Owner may:
1. Issue an order stopping all or part of the work until satisfactory corrective action has been taken. The Owner will not pay for non-complying work or follow on work until the non-complying work is corrected or replaced. If it becomes necessary to stop work due to non-correction of non-complying work, no delay claim, time extension, or compensation will be granted.
 2. Elect to correct the non-compliant work with his own forces, or those of another contractor, and back charge the Contractor by issuing a deductive Change Order, with appropriate explanation and supporting data, which the Contractor is required to sign. Should the Contractor elect not to sign the deductive Change Order, he will be deemed to be in breach of the contract and the dispute will be subject to the Dispute Resolution Procedures of the General Conditions.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

PART 1 GENERAL

1.1 SUMMARY

- A. This Section specifies administrative and procedural requirements for project meetings, including, but not limited to, the following:
 - 1. Preconstruction meeting.
 - 2. Progress meetings.
 - 3. Coordination meetings.
 - 4. Pre-installation meetings.
 - 5. Project closeout meetings.
 - 6. Owner training meetings.

1.2 PRECONSTRUCTION MEETING

- A. The Architect will schedule a preconstruction conference before starting construction, at a time convenient to the Contractor and the Owner, but no later than 15 days after the Notice to Proceed. The conference will be held at the Project Site or another convenient location as selected by Owner.
- B. Attendance is required of the following:
 - 1. Architect and Architect's consultants.
 - 2. Owner's Representatives.
 - 3. Contractor's Superintendent and Project Manager; Contractor's QC Representative if different individual than the Project Manager.
 - 4. Major Subcontractors.
 - 5. Others, as requested.
- C. Discussion will cover items of significance, including the following:
 - 1. Communication chain and persons authorized to direct changes.
 - 2. Submission of executed bonds and insurance certificates.
 - 3. Submission of list of Subcontractors and preliminary progress schedule per Section 013216 - Construction Progress Schedule.
 - 4. The Work.
 - 5. Construction Team roles.
 - 6. Work hours, sequence, phasing, and occupancy.
 - 7. Special project procedures.
 - 8. Procedures and processing for Application for Payments; Change Orders (CO);
 - 9. Requests for Information (RFI); Architect Supplemental Instructions (ASI); Field decisions; Submittals; and others as appropriate.
 - 10. Project record documents including review of as-builts on a regular basis during construction.
 - 11. Construction facilities, and controls.
 - 12. Temporary utilities.
 - 13. Safety and security procedures.
 - 14. Environmental and noise controls.
 - 15. Housekeeping and site maintenance procedures.
 - 16. Utility shutdowns / Outage Request Form.
 - 17. Site Access and Parking.
 - 18. Equipment deliveries and priorities.

19. Testing Procedures.
 20. Scheduling Progress Meetings.
 21. Schedule Review.
 22. Contractor's Quality Control Program
 23. Hazardous material abatement procedures, if any.
 24. Waste Management Plan
 25. Use of site and premises by Owner and Contractor.
 26. Requirements for start-up of equipment.
 27. Inspection and acceptance of equipment put into service during construction period.
 28. Others, as appropriate.
- D. The Architect will:
1. Conduct the meeting to review contract administration requirements.
 2. Record, produce, and distribute copies of the minutes to the Owner and General Contractor within seven (7) days of the meeting.
- E. The Contractor will:
1. The General Contractor shall be responsible to distribute copies to all other Contractor attendees.

1.3 PROGRESS MEETINGS

- A. For purposes of coordination and scheduling after start of the work, weekly Progress Meetings will be held to enable an orderly review of the construction progress and to provide for systematic discussion and analysis of concerns that may arise relative to execution of the work.
- B. Contractor, and Subcontractors as required, shall incorporate attendance at these meetings as part of the Base Bid of the project – no overtime payments will be authorized for Contractor or Subcontractors to attend weekly Progress Meetings or other special meetings if required.
- C. Meeting Locations: ADA accessible Contractor's project field office or Owner provided meeting room, unless otherwise agreed.
- D. Attendance: Representatives attending meetings are required to be qualified and authorized to act on behalf of their firms. Attendance shall include:
1. Architect and Architect's consultants, as appropriate.
 2. Owner's Representatives.
 3. Contractor's Superintendent, Project Manager, and QC Representative.
 4. Subcontractors, as appropriate.
 5. Suppliers, as appropriate.
 6. Others, as appropriate.
- E. Agenda: Discussion will pertain to items, such as:
1. Attendees; list of attendees and company they represent.
 2. Review and approve minutes of previous meeting; written corrections, additions and/or deletions to previous minutes acknowledged.
 3. Review of Work in Progress: Discussion and field review.
 4. Review Short Interval Schedule.
 5. Review Outages.
 6. Review construction schedule.
 7. Present corrective measures and procedures to regain project schedule, as applicable.

8. Present field observations, problems, and conflicts; discuss concerns pertaining to:
 - a. Civil items.
 - b. Architectural items.
 9. Discuss problems impeding progress schedule.
 10. Planned progress during succeeding work period.
 11. Review Contractor's quality control system; discuss any concerns and corrective measures.
 12. Review submittal schedules and logs, present methods to expedite as required.
 13. Review off-site fabrication.
 14. Review delivery schedules.
 15. Review outstanding RFIs.
 16. Review proposed changes for:
 - a. Effect on construction schedule and on completion date.
 - b. Effect on any other contracts of the project.
 17. Review Change Order Proposal log and finalize prices.
 18. Review draft of Application for Payment (at end of month).
 19. Confirm status of the "as-built" drawings and review required revisions to Project Record Documents; see update requirements specified below.
 20. Confirm status of shop drawing submittals and approvals.
 21. Review project safety.
 22. Review Waste Management Plan.
 23. Review any outstanding Non-Compliance Notices.
 24. Review any other business.
 25. Confirm next meeting date, location and time plus those requested to be in attendance.
- F. Contractor will:
1. Record and distribute the following by e-mail within 2 working days after the meeting: Meeting Minutes, RFI, ASI, Submittal/Shop Drawing and Cost Change logs. Distribution to include all attendees other than those related to the General Contractor's contract. The General Contractor is responsible to distribute copies to all Contractor attendees.
 2. Provide paper copies of the minutes, RFI, ASI, Submittal/Shop Drawing and Cost Change logs to attendees at the next meeting.
 3. Ascertain that work is prosecuted consistently with contract documents and construction schedules.
- G. At Contractor's option, weekly progress meetings can be held integrally with monthly CPM Scheduling meeting specified herein.
- H. Contractor shall be responsible to provide the following at each meeting:
1. Current (and updated if necessary) Short Interval Schedule as specified in Section 013216 - Construction Progress Schedule.
 2. Current (and updated if necessary) submittal schedule.

1.4 COORDINATION MEETINGS

- A. Contractor shall hold weekly coordination meetings with his subcontractors and suppliers as deemed necessary by the Contractor for coordination of the work. Meetings shall be held on site. The Owner and the Architect will be available to attend such meetings upon request. Refer to Section 013100 - Project Management and Coordination for additional information and requirements pertaining to coordination meetings.
- B. The superintendent of the Contractor and prime subcontractors shall review the Contractor's schedule for the first three (3) months of work and thoroughly review the work required by the Contract Documents for that period. The Contractor shall submit Design Clarification Requests, Requests for Information, or any other type of information requests the Contractor may use, for the three (3) month work period during the first month after Notice To Proceed to minimize any conflicts that might occur when mobilization begins.
 - 1. This process shall continue for each three (3) months, or increments of 3 month work segments until the completion of the Project.
- C. Project coordination meetings are in addition to specific meetings held for other purposes, such as regular progress meetings and special pre-installation meetings.
- D. Request representation at each meeting by every trade currently involved in coordination or planning for the construction activities involved.
- E. Record meeting results and distribute copies to Architect and Owner and to others affected by decisions or actions resulting from each meeting..

1.5 PRE-INSTALLATION MEETINGS

- A. General: Prior to commencement of work listed below or as otherwise determined by the Architect or Owner, the General Contractor or his general superintendent, the responsible foremen for the subcontractors performing said work, plus all associated sub-subcontractors, suppliers, fabricators, vendors, and others as appropriate, shall attend a meeting for the purpose of establishing a full understanding of the procedures and requirements for the orderly progress of the designated work.
- B. All subcontractors and major suppliers are required to attend these pre-installation meetings prior to commencing work of their respective specifications Section, or as required by related work in other specification sections. Contractor may elect to group several Sections or Divisions to minimize the number of these meetings.
- C. Require attendance of entities directly affecting, or affected by, work of the Section including Contractor's Project Manager and Superintendent with Lead man performing the work, and/or the appropriate Subcontractors/Suppliers/Fabricators.
- D. Contractor shall notify the Architect and Owner of the Contractor's scheduled pre-installation meeting not less than seven (7) days prior to the scheduled start of any of the work listed below so that the Architect and Owner may attend at their option. All applicable submittals as well as the Subcontractor's safety plan and insurance certificates shall have been submitted to and reviewed by the Architect and Owner prior to scheduling this meeting. Refer to individual technical sections for work requiring pre-installation meetings.

- E. Contractor will record, reproduce and distribute copies of minutes prior to the next meeting or within seven (7) days of each meeting to all meeting participants.

1.6 PROJECT CLOSEOUT MEETINGS

- A. For the purpose of attaining project closeout, commencing immediately following established date of Substantial Completion, Contractor's project manager and superintendent and all subcontractors who have outstanding punch list items associated with their work, or as otherwise requested and including all subcontractors involved in the building systems commissioning process, shall attend weekly closeout meetings which shall be held at the jobsite.
- B. Such meetings shall be held to review and discuss the resolution of all punch list items in order to attain Final Completion. Closeout meetings shall continue on a weekly basis until all punch list items have been resolved and Final Completion is attained.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes:
 - 1. Submittals.
 - 2. Quality assurance.
 - 3. Format for network analysis schedules.
 - 4. Network analysis schedules.
 - 5. Review and evaluation.
 - 6. Updating schedules.
 - 7. Distribution.

1.2 DEFINITIONS

- A. "Day," as used throughout the Contract unless otherwise stated, means "calendar day."
- B. Float: The amount of time between the earliest finish and the latest finish date of an activity or chain of activities on the Critical Path Method (CPM) construction schedule. Float is not for the exclusive use of either the Contractor or the Owner unless otherwise identified in the Contract Documents. Extensions of time for Contract performance will be granted only to the extent that equitable time adjustments to the affected activity or activities exceed the total float time along the affected paths of the currently approved CPM at the time Notice to Proceed was issued for the change.

1.3 SUBMITTALS

- A. All schedule submittals, including schedule updates, will be reviewed jointly by the Owner/Architect and the Contractor. Such review of the Contractor's schedules shall not constitute an approval or acceptance of the Contractor's construction means, methods, or sequencing or its ability to complete the Work in a timely manner. Neither the Owner's nor the Architect's review will relieve the Contractor of the sole responsibility for the accuracy, adequacy, or completeness of the schedule, the logic of the schedule, and/or completion of the Contract requirements in accord with such schedule. Neither Owner's nor Architect's review shall constitute acknowledgment that the relationships between various work items or activity durations are reasonable or appropriate.
- B. Within 10 days after being awarded the Contract, submit proposed preliminary diagram defining planned operations for first 60 days of Work, with general outline for remainder of Work.
- C. Participate in review of preliminary and complete diagrams jointly with Architect/Engineer.
- D. Within 20 days after joint review of proposed preliminary diagram, submit draft of proposed complete network diagram for review. Include written certification that major, mechanical and electrical Subcontractors have reviewed and accepted the proposed schedule.
- E. Submit updated schedules with each Application for Payment.

- F. Submit schedules under transmittal letter form specified in Section 013300 - Submittal Procedures. Submit two hard color copies and an electronic copy.
- G. Schedule Updates:
 - 1. Overall percent complete, projected and actual.
 - 2. Completion progress by listed activity and sub-activity, to within five working days prior to submittal.
 - 3. Changes in Work scope and activities modified since submittal.
 - 4. Delays in submittals or resubmittals, deliveries, or Work.
 - 5. Adjusted or modified sequences of Work.
 - 6. Other identifiable changes.
 - 7. Revised projections of progress and completion.
- H. Narrative Progress Report:
 - 1. Submit with each monthly submission of Progress Schedule.
 - 2. Summary of Work completed during the past period between reports.
 - 3. Work planned during the next period.
 - 4. Explanation of differences between summary of Work completed and Work planned in previously submitted report.
 - 5. Current and anticipated delaying factors and estimated impact on other activities and completion milestones.
 - 6. Corrective action taken or proposed.

1.4 QUALITY ASSURANCE

- A. Scheduler: Contractor's personnel specializing in CPM scheduling with two years' minimum experience in scheduling construction work of complexity comparable to the Project and having use of computer facilities capable of delivering detailed graphic printout within 48 hours of request.
- B. Contractor's Administrative Personnel: two years' minimum experience in using and monitoring CPM schedules on comparable Projects.
- C. Coordination with Subcontractors and Suppliers:
 - 1. The scheduler shall prepare the Project Schedules and their updates in cooperation with major subcontractors and suppliers.
 - 2. In scheduling work of subcontractors and deliveries by suppliers, the Contractor represents that he has agreement regarding the schedule with those supplying materials and performing the work.
- D. Reliance Upon the Reviewed Schedule:
 - 1. The Progress Schedule, as reviewed by the Architect, will be an integral part of the Contract and will establish interim completion dates for the various activities under the Contract.
 - 2. Should any activity on the critical path not be completed within 15 calendar days after the stated scheduled date, the Owner shall have the right to require the Contractor to expedite completion of the activity by whatever means appropriate and necessary, without additional compensation to the Contractor. In addition, Contractor shall submit a "Recovery Schedule" which shall logically demonstrate method or methods Contractor proposes to get back on schedule within thirty (30) days of said date; i.e., additional tradespersons, shifts, work days, or crews.

3. In addition to above, should any activity be 15 days or more behind schedule, the Owner shall have the right to perform the activity or have the activity performed by whatever method the Owner deems appropriate.
4. Costs incurred by the Owner and the Architect in connection with expediting construction activity under this Article shall be the responsibility of the Contractor.
5. It is expressly understood and agreed that failure by the Owner to exercise the option either to order the Contractor to expedite an activity or to expedite the activity by other means shall not be considered to set a precedent for any other activities.

1.5 FORMAT FOR NETWORK ANALYSIS SCHEDULE

- A. Listings: Reading from left to right, in ascending order for each activity. Identify each activity with applicable Specification Section number.
- B. Diagram Sheet Size: minimum 11 x 17 inches.
- C. Scale and Spacing: To allow for notations and revisions.

1.6 NETWORK ANALYSIS SCHEDULES

- A. Prepare analysis diagrams and supporting mathematical analyses using critical path method.
- B. Illustrate order and interdependence of activities and sequence of Work; how start of given activity depends on completion of preceding activities, and how completion of activity may restrain start of subsequent activities.
- C. Illustrate complete sequence of construction by activity, identifying Work of separate stages or floors. Indicate dates for submittals and return of submittals; dates for procurement and delivery of long lead and critical products; and dates for installation and provision for testing. Include legend for symbols and abbreviations used.
- D. Number and Duration of Activities on the Network Analysis:
 1. Treat each trade or type of work as a separate activity or set of activities on the network analysis. Each activity shall be coded for responsibility (Contractor, Owner, Architect, etc.), Subcontractor, Discipline . Each project phase (i.e., 1, 1-A, 2, etc.) shall be scheduled separately.
 2. At a minimum treat each section of the technical specifications as one or more trades or types of work.
 3. Treat submittal, fabrication, delivery, installation, and startup as separate activities for each trade, type of work and item of equipment, including any items procured under any early procurement contracts transferred and/or assigned by Owner, required for performance of Work. The fabrication and delivery activities shall have the appropriate logic ties to submittal/review and construction activities.

4. Submittal and review activities for shop drawings, samples, etc., shall allow reasonable durations for preparation of submittals, submittal review, revisions and re-submittal review. Refer to Section 013300 for specified durations for processing submittals by the Architect and its Consultants, or the Owner and its Consultants, as applicable. Shorter review times for critical submittals may be negotiated on an individual basis. Resubmittals shall have the same review times allotted as the initial submittals. Resubmittal of shop drawings or samples necessitated by required corrections shall not be cause for extension of time. If certain submittals are critical, they shall be so identified at the time of submission to assure priority treatment. The submittal activities shall have the appropriate logic ties to delivery and construction activities.
 5. No activity or task shall be longer than 15 calendar days duration, with shorter durations if they affect other activities. The activities shall show early and late start, early and late finish, and float dates. Break down major tasks into sub-tasks or by area to meet this criteria.
 6. Where activities extend more than 15 days divide activities into logical component activities.
 7. Show on the diagram, as a minimum for each activity, preceding and following event numbers, description of each activity, cost, and activity duration in calendar days.
- E. Mathematical Analysis: Tabulate each activity of detailed network diagrams using calendar dates, and identify for each activity:
1. Preceding and following event numbers.
 2. Activity description.
 3. Estimated duration of activity, in maximum 15-day intervals. Status of critical activities.
 4. Earliest start date.
 5. Earliest finish date.
 6. Actual start date.
 7. Actual finish date.
 8. Latest start date.
 9. Latest finish date.
 10. Total and free float; accrue float time to Owner and to Owner's benefit.
 11. Monetary value of activity, keyed to Schedule of Values.
 12. Percentage of activity completed.
 13. Responsibility.
- F. Required Data: Show complete sequence of construction by activity, indicating critical path of activities, including but not limited to:
1. Date for Notice to Proceed;
 2. Date for Substantial Completion;
 3. Project mobilization;
 4. Operating constraints and sequences specified by Owner;
 5. Shop Drawing, product data, samples, mock-up submittals and reviews, by specification section;
 6. Date for final color selections to not affect the Critical Path;
 7. Provide demolition schedule as indicated in the Construction Documents;
 8. Planned versus actual status for each Work activity;
 9. Material procurement - fabrication, delivery to job site, and installation - of equipment and critical materials;
 10. Fabrication of special material and equipment, its installation and testing;
 11. Utility shutdowns, road closures, etc.;

12. Any intermediate (milestone) completion dates identified in the Contract Documents; include coordination activities as milestones, such as utility tie-ins, outages, Owner furnished items, City inspections, etc.;
 13. Delivery windows for all Owner furnished items. Establish earliest and latest delivery dates in consultation with the manufacturer;
 14. Pre-Installation Meetings;
 15. Contractor transfer of any existing Owner equipment;
 16. Show interrelationships and dependencies including activities of separate contractors;
 17. Long lead items;
 18. Close out activities;
 19. Show Construction Change Directives (CCD) and Change Orders (CO) when they impact the critical path of the schedule;
 20. Punch list;
 21. Punch list corrections.
 22. Final cleanup.
 23. All activities by the Architect that affect progress, required dates for completion, or both, for all and each part of the Work.
- G. Analysis Program: Capable of accepting revised completion dates, and of recomputing of scheduled dates and float (Microsoft Project or approved software).
- H. Required Sorts: List activities in sorts or groups:
1. By preceding Work item or event number from lowest to highest.
 2. By longest float, then in order of early start.
 3. By responsibility in order of earliest possible start date.
 4. In order of latest allowable start dates.
 5. In order of latest allowable finish dates.
 6. Contractor's periodic payment request sorted by Schedule of Values list.
 7. List of basic input data-generating report.
 8. List of activities on critical path.
- I. Prepare subschedules for each stage of Work identified in Section 011000 - Summary.
- J. Coordinate contents with Schedule of Values in Section 013300 - Submittal Procedures.
- 1.7 REVIEW AND EVALUATION
- A. Baseline Schedule: The initial Schedule when reviewed by the Architect and Owner shall be identified as the Baseline Schedule and shall be known as Revision 0. Each subsequent reviewed change to the Schedule shall be as a Revision numbered in sequence (Revision 1, 2, 3, etc.). The Baseline Schedule shall be submitted with no progress percentages applied to activities. The first update shall include the preliminary schedule activities and remaining activities updated as of the second monthly pay request.
- B. Participate in joint review and evaluation of schedules with Architect/Engineer at each submittal.

- C. Evaluate Project status to determine Work behind schedule and Work ahead of schedule.
- D. After review, revise schedules incorporating results of review and resubmit within 10 days.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION

3.1 PRELIMINARY CONSTRUCTION SCHEDULE

- A. Scope of Preliminary Construction Schedule: The Preliminary Progress Schedule shall detail, at a minimum, all work which will be accomplished in the first 60 calendar days following the Notice to Proceed. The general approach of the balance of the work shall be indicated.
- B. Limitation on Construction:
 - 1. Mobilization and submittals can be in process during the review period.
 - 2. No construction work shall be permitted until the Preliminary Construction Schedule is submitted and reviewed.
- C. Initial Progress Payment: The first pay request will be based on the update of the preliminary schedule. This submittal shall be in the form of three (3) copies of a computer plotted timescaled logic diagram, the accompanying Microsoft Project CD, and hard copy computer reports sorted by activity number, early start and total float.

3.2 COMPLETE CONSTRUCTION SCHEDULE

- A. Progress Payments:
 - 1. Shall be withheld in the absence of a reviewed Construction Schedule.
 - 2. No adjustment or extension of time shall be granted for failure to meet the activity dates as shown. Failure to comply with these requirements shall be cause for rejection of any progress payments presented thereafter, until such time as these requirements are met.

3.3 DISTRIBUTION

- A. Copies of reviewed preliminary Construction Schedule and every reviewed revision thereof shall be submitted electronically review by the: Architect, Owner and everyone whose time performance is essential to achieving the progress shown on the schedule. Notification of these updates shall be emailed to all participants with directions to access web site.

3.4 SHORT INTERVAL SCHEDULE

- A. Prepare a 3-week Short Interval ("look-ahead") Schedule for each progress meeting. Show one (1) prior week of actual progress (planned vs actual performance). Forecast two (2) weeks of start and completion dates for each activity, task or event in comparison to the prepared schedule.

1. Activities in the Short Interval Schedule shall relate directly to activities in the Construction Schedule. Each activity shall be coded with the same ID number, specification number, or other reference the contractor uses on the Construction Schedule. The Short Interval Schedule will have more detail, but each of the details must be related to the Construction Schedule coding.
2. Indicate start, on-going, intermittent and completion for each activity, task, or event.
3. The schedule shall show critical path work, as defined by the Construction Schedule that has been affected by any changed conditions authorized through a change order or field order.

B. Distribute paper copies of the Short Interval Schedule to all attendees at each Progress Meeting.

3.5 UPDATES

A. General:

1. The scheduler shall attend all meetings concerning project progress, alleged delays, or time impact.
2. The schedule shall be modified to reflect the original Contract completion date, subject to review by the Owner. Prior to submittal of the schedule update, the Contractor shall submit an advanced worksheet indicating the intended report status. The Owner, Architect and Contractor shall then meet and agree upon the completion status of the work in progress, and any major logic changes proposed by the Contractor.
3. Maintain the Construction Schedule at the project meeting location and update weekly by drawing a line vertically through the corresponding progress of each task on the schedule as of the date of that project meeting. The line shall be in varying colors so that differentiation between weeks is readily apparent.

B. Progress Meetings:

1. Update the reviewed Construction Schedule at each Progress Meeting.
2. Indicate "actual" progress in percent complete for each activity.
3. At each progress meeting discuss the Short Interval Schedule. Any deviation from the planned schedule shall be explained by Contractor, with corrective measures, if necessary, to bring progress of Work back in line with the Contract Completion date.

C. Monthly Update:

1. Contractor shall submit an updated schedule at progress meeting following either one of the following two occurrences:
 - a. Upon completion of a major milestone; or,
 - b. When the actual work completed is more than two (2) weeks behind schedule. Should the schedule show the project completion to be more than two weeks behind, the Contractor shall submit a written explanation and recovery schedule outlining corrective action taken or proposed to bring events back on schedule within a 30 day period.
2. Show changes occurring since previous schedule submission, such as:
 - a. Any major changes in scope, including authorized or Change Orders;
 - b. Contractor reorganization of his work sequence unrelated to changes in scope;
 - c. Activities modified since previous submission;
 - d. Revised projections for progress and completion, as applicable; and
 - e. Any other identifiable changes.

3. Provide narrative report as needed to define:
 - a. Problem areas, anticipated delay, and impact of these on schedule; and
 - b. Corrective action recommended and its effect.
- D. Subcontractor Participation:
 1. Involve all major subcontractors in preparation of the Periodic Updates of the Construction Schedule.
 2. Obtain approval of the schedule from each major subcontractor and submit in writing together with the Periodic Updates of the Construction Schedule.
- E. Change Orders:
 1. Authorized changes to the work shall be included in the schedule network as they occur in the same format and level of detail as contained in the current updated schedule. Enough activities shall be included to adequately describe the work. Code the activities in such a way that they can be identified to the specific Change Order. Insert the Change Order Activities in the network with appropriate logic ties to original network activities.
 2. Utilize the time impact analysis submitted with the change order to demonstrate the effect of delays on the overall project schedule.

3.6 TIME EXTENSIONS

- A. The Contractor shall notify the Owner and Architect in writing within seven (7) days of the event of any event which could delay performance or supplying of any item of the work affecting the critical path. Contractor shall indicate the expected duration of the delay, the anticipated effect of the delay on the Contractor's Construction Schedule, and the action being taken to correct the delay situation.
- B. Extensions of time to the Contractor's Contract may be granted only for delays to activities on the critical path that actually delay the Project Completion beyond the date of Substantial Completion, or for delays to activities that transform that activity onto the critical path, and as a result cause a final completion date beyond the contracted final completion date.
- C. Following receipt of an executed Change Order extending the Contract Time, the activity data and logic relationships shall be incorporated into the current detailed CPM schedule during the next scheduled progress update, as outlined above in Paragraph E "Change Orders" above. In the event the Contractor is entitled to a change in the Contract Time, the adjustment to the contract Time shall be as defined in the General Conditions.

3.7 ABNORMAL INCLEMENT WEATHER

- A. Abnormal Inclement Weather or Unusually Severe Weather: Weather which hinders or prevents work is not a basis for a time extension unless it surpasses in severity the weather reasonably to be expected in the locality at the particular time of year. If a timely notice is filed that a delay was caused by weather sufficiently severe as to entitle additional time, the Contractor is to furnish as promptly as possible thereafter a statement of the portions of the work affected, an explanation as to the reasons work was prevented or hindered by the weather if not readily apparent, the dates on which such portions of work were affected, the total number of days by which the job in its entirety was delayed and any other information which would be of assistance to support the time extension claim such as official weather bureau climatological (www.weather.gov) data for several prior years.

- B. Except for site work which may critically affect the Contract Time, no extension of time will be made for abnormal inclement weather after the principle portions of the Work are sufficiently closed-in (exterior walls up and roof in place) so as to permit any structure, or major portion thereof which is part of the Work, to be adequately heated so as to allow the various trades to perform their work.
- C. If the total calendar days lost due to abnormal inclement weather, from the start of the Work at the Project site by the Contractor until the principle portions of the Work are enclosed, exceeds the total number of days to be expected for the same period, a time extension, if granted, shall only be the number of calendar days needed to equal the excess number of calendar days lost due to such abnormal inclement weather.

END OF SECTION

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes: Administrative and procedural requirements for submittals required for performance of the Work, including the following:
 - 1. Submittal procedures.
 - 2. Construction progress schedules.
 - 3. Proposed product list.
 - 4. Product data.
 - 5. Use of electronic CAD files of Project Drawings.
 - 6. Shop Drawings.
 - 7. Samples.
 - 8. Other submittals.
 - 9. Test reports.
 - 10. Certificates.
 - 11. Manufacturer's instructions.
 - 12. Manufacturer's field reports.
 - 13. Erection Drawings.
 - 14. Construction photographs.
 - 15. Special job-site submittals.
 - 16. Deferred Submittals.
- B. Contractor review.
- C. Architect/Engineer review.
- D. Consent for release of electronic media.

1.2 DEFINITIONS

- A. Action Submittals: Written and graphic information and physical samples that require Architect/Engineer's and Construction Manager's responsive action.
- B. Informational Submittals: Written and graphic information and physical Samples that do not require Architect/Engineer's and Construction Manager's responsive action. Submittals may be rejected for not complying with requirements.

1.3 SUBMITTAL PROCEDURES

- A. Before submittal of shop drawings, brochures, and lists, Contractor shall carefully review same for proper identification, completeness, correctness, dimensions, and technical applicability to the Contract Document requirements and note all corrections, items needing clarification, additional comments, and the like. Upon thorough review and subsequent acceptance by the Contractor, if so accepted, Contractor is to note its approval together with said notes or amendments thereto for compliance with the Contract Documents by suitable stamp, date and the signature of the Contractor or its authorized representative. Submittals will be returned to the Contractor without action by the Architect if the items submitted are not stamped, signed, and identified as approved or approved as noted or other similar language indicating approval by the Contractor, or if the submittal is obviously not thoroughly reviewed.
- B. Submission of shop drawings and samples shall be accompanied by a transmittal letter containing Project name, Contractor's name, number of drawings and samples, titles and other pertinent data.
- C. Many products are specified by one or more named products/manufacturers. In those circumstances where Contractor submits an unnamed, non-prior approved product/manufacturer during this 'shop drawing' phase, said submittal shall be submitted in conformance with Section 012500 - Substitution Procedures.
- D. Coordinate preparation and processing of submittals with performance of construction activities. Transmit each submittal sufficiently in advance of performance of related construction activities to avoid delay.
 - 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
 - 2. Coordinate transmittal of different types of submittals for related elements of the Work so processing will not be delayed by the need to review submittals concurrently for coordination.
 - a. The Contractor shall provide submittals requiring coordination with other submittals to the Architect at one time. The Architect will review submittals as received, provide comments, and return them to the Contractor. If the Contractor did not submit all submittals requiring coordination at the same time, and a later submittal identifies conflicts, the Contractor will be responsible for all costs associated with changes necessary to properly coordinate the installation of the materials.
 - 3. To avoid the need to delay installation as a result of the time required to process submittals, the Contractor shall anticipate the review times noted in this section and anticipate the possibility of a resubmittal or rejected submittal and the effect that action would have on the Project schedule.
 - a. All required submittals shall be initially received by the Architect within 60 days following the Notice to Proceed date, or sooner as required by the following submittal review times, to meet the Construction Schedule need for materials related to the submittals. Submittals received after these time periods shall not be a cause for delay claims to the Project. Architect will not accelerate review time for submittals received after the indicated time periods, regardless of any potential impact to the Contractor's schedule.

- b. Submittals requiring color selection and material selection are interdependent on receiving all submittals at the same time that have such selection requirements. Allow 20 working days from the date of receipt of the last such submittal by the Contractor for the Architect to complete color selections and mail out from the Architect's office.
 - c. Allow 21 working days for submittals requiring Architect consultant review.
 - d. For all other submittals allow 14 working days, after receipt by the Architect, to complete the initial review and mail out from the Architect's office.
 - e. If the Architect must delay processing a submittal to permit coordination with subsequent submittals, the 10 working days will begin upon receipt of the last such coordination submittal from the Contractor.
 - f. If several submittals are provided by the Contractor at the same time, allow 20 working days after receipt by the Architect to complete the initial review and respond. Provide an "Order of Priority List" to the Architect with the submittal.
 - g. If an intermediate submittal is necessary, process the same as the initial submittal.
 - h. Allow 10 working days for reprocessing each submittal after receipt unless noted otherwise.
- E. Place a permanent label or title block on each submittal for identification. Indicate the name of the entity that prepared each submittal on the label or title block. Consecutively number each submittal beginning with the number 001.
 - 1. Provide adequate space for the Contractor's stamp and approval, plus a space approximately 4 by 5 inches each on the label or beside the title block on Shop Drawings to record the Architect's review and approval markings and the action taken.
 - 2. Include the following information on the label or title block for processing and recording action taken.
 - a. Project name and job number.
 - b. Date.
 - c. Name and address of the Architect.
 - d. Name and address of the Contractor, subcontractor, supplier and manufacturer as appropriate.
 - e. Number and title of appropriate Specification Section.
 - f. Drawing number and detail references, as appropriate.
- F. Package each submittal appropriately for transmittal and handling. Transmit each submittal from the Contractor to the Architect using a transmittal form. Submittals received from sources other than the Contractor will be returned through the Contractor without action. Submittals not requested will be returned unprocessed.
 - 1. Address no more than one topic or related topics on a single transmittal (i.e. mechanical items shall not be submitted under same transmittal with electrical items, even though the same Contractor/subcontractor may be responsible for both).
 - 2. Record relevant information, deviations, and requests for data, including minor variations and limitations from the Contract Documents.
 - 3. Shop drawings, product data, samples, and mock-up as required for submissions by the technical specification sections are to be submitted for Architect's review/approval until "No Exception Taken" or "Make Corrections Noted" is obtained. The number of submittals required is noted in parenthesis.
 - a. Shop Drawings: (2) sets; plus one (1) additional set for Structural, Mechanical and Electrical submittals. Or one PDF if transmitted electronically (PDF method preferred).
 - b. Product Data: (2) copies; plus one (1) additional copy for Structural, Mechanical and Electrical submittals. Or one PDF if transmitted electronically (PDF method preferred).

- c. Samples: (3) each.
 - d. Mock-ups: As required by any technical specification section.
 - e. Reference applicable mechanical and electrical technical specifications' sections for additional submittal requirements.
 - 4. Material and Color Submittal: Submit samples of actual colors of materials.
 - 5. Number submittals as follows: Numerical Order, Spec Section and Revision.
 - 6. In the event of the need to "Revise and Resubmit" a submittal, resubmit same in acceptable form/content, clearly identifying deviations from previous submittal content.
- G. Do not transmit submittals directly to Architect's consultants. Architect will review and transmit submittals to consultants for their review.
- H. Prior to submitting transmittals required by Building Code to building code officials and other Authorities Having Jurisdiction (AHJ), transmit submittals to Architect for review and approval.
- I. Maintain copy in project Field Office of each submittal, regardless of status, along with a current Submittal Log,
- 1.4 CONSTRUCTION PROGRESS SCHEDULE SUBMITTALS
- A. Comply with Section 013216 - Construction Progress Schedule
- 1.5 PROPOSED PRODUCT LIST
- A. Within 15 days after date of Notice to Proceed, submit list of major products proposed for use, with name of manufacturer, trade name and model number of each product.
- B. For products specified only by reference standards, indicate manufacturer, trade name, model or catalog designation and reference standards.
- 1.6 PRODUCT DATA
- A. Product Data: Submit to Architect/Engineer for review for assessing conformance with information given and design concept expressed in Contract Documents.
- B. Submit electronic submittals via email as PDF electronic files.
- C. Mark each copy to identify applicable products, models, options and other data. Supplement manufacturers' standard data to provide information specific to this Project.
- D. Indicate product utility and electrical characteristics, utility connection requirements and location of utility outlets for service for functional equipment and appliances.
- 1.7 ELECTRONIC CAD FILES OF PROJECT DRAWINGS
- A. Electronic CAD Files of Project Drawings: May only be used to expedite production of Shop Drawings for the Project. Use for other Projects or purposes is not allowed.
- B. Electronic CAD Files of Project Drawings: Distributed only under the following conditions:

1. Use of files is solely at receiver's risk. Architect/Engineer does not warrant accuracy of files. Receiving files in electronic form does not relieve receiver of responsibilities for measurements, dimensions and quantities set forth in Contract Documents. In the event of ambiguity, discrepancy or conflict between information on electronic media and that in Contract Documents, notify Architect/Engineer of discrepancy and use information in hard-copy Drawings and Specifications.
2. CAD files do not necessarily represent the latest Contract Documents, existing conditions, and as-built conditions. Receiver is responsible for determining and complying with these conditions and for incorporating addenda and modifications.
3. User is responsible for removing information not normally provided on Shop Drawings and removing references to Contract Documents. Shop Drawings submitted with information associated with other trades or with references to Contract Documents will not be reviewed and will be immediately returned.
4. Receiver shall not hold Architect/Engineer responsible for data or file clean-up required to make files usable, nor for error or malfunction in translation, interpretation or use of this electronic information.
5. Receiver shall understand that even though Architect/Engineer has computer virus scanning software to detect presence of computer viruses, there is no guarantee that computer viruses are not present in files or in electronic media.
6. Receiver shall not hold Architect/Engineer responsible for such viruses or their consequences and shall hold Architect/Engineer harmless against costs, losses or damage caused by presence of computer virus in files or media.
7. **The Contractor is to obtain a Consent for Release of Electronic Media per attached form (an electronic version of this form is available upon request). Subcontractors are to obtain this information from the Contractor and their use of the electronic files is subject to the same conditions.**

1.8 SHOP DRAWINGS

- A. Shop Drawings: Submit to Architect/Engineer for assessing conformance with information given and design concept expressed in Contract Documents.
- B. Submit drawings drawn to accurate scale. Shop drawings are not intended to change the design. Do not reproduce Contract documents or copy standard information for use as Shop Drawings. Standard information prepared without specific references to the project is not a Shop Drawing.
- C. Provide fabrication and installation drawings, setting diagrams, schedules, patterns, templates, and similar drawings. Include the following information:
 1. Dimensions.
 2. Identification of products and materials included.
 3. Compliance with specified standards.
 4. Notation of coordination requirements.
 5. Notation of dimensions established by field measurements.
 6. Any deviation from contract drawings or specifications.
 7. Date when review has to be finalized to meet schedule.
- D. Indicate special utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.

- E. When required by individual Specification Sections, provide Shop Drawings signed and sealed by a professional Engineer responsible for designing components shown on Shop Drawings.
 - 1. Include signed and sealed calculations to support design.
 - 2. Submit Shop Drawings and calculations in form suitable for submission to and approval by authorities having jurisdiction.
 - 3. Make revisions and provide additional information when required by authorities having jurisdiction.
- F. All items shown on shop drawings that do not conform to plans and specifications shall be specifically noted as such (flagged) and brought to the Architect's attention. In any case, the Architect's stamp of review shall not include approval of unauthorized changes in the Contract Documents, except where specific written approval is given.
- G. Contractor is responsible for obtaining and distributing required shop drawings to its subcontractors and material suppliers after, as well as before, final review by the Architect. Prints or PDF's of reviewed shop drawings shall be made from approved submittals which carry the Contractor's and Architect's appropriate stamps. Architect/Owner and applicable consultants and AHJ shall retain copies of each shop drawing submittal.
- H. Submit electronic submittals via email as PDF electronic files.

1.9 SAMPLES

- A. Samples: Submit to Architect/Engineer for assessing conformance with information given and design concept expressed in Contract Documents.
- B. Samples for Selection as Specified in Product Sections:
 - 1. Submit to Architect/Engineer for aesthetic, color and finish selection.
 - 2. Submit Samples of finishes, textures and patterns for Architect/Engineer selection.
- C. Submit Samples to illustrate functional and aesthetic characteristics of products, with integral parts and attachment devices. Coordinate Sample submittals for interfacing work.
 - 1. Where variation in color, pattern, texture or other characteristics are inherent in the material, submit not less than four (4) units to show approximate limits of the variations.
- D. Include identification on each Sample, with full Project information.
- E. Submit number of samples specified in individual Specification Sections; Architect/Engineer may retain one sample.
- F. Reviewed Samples, which may be used in the Work, are indicated in individual Specification Sections.
- G. Samples will not be used for testing purposes unless specifically stated in Specification Section.
- H. Unless noted otherwise in the relevant technical section of these specifications, remove all samples and mock-ups from the project site, after review and approval by the Owner and Architect.

1.10 OTHER SUBMITTALS

- A. Closeout Submittals: Comply with Section 017000 - Execution.

1.11 TEST REPORTS

- A. Informational Submittal: Submit reports for Architect/Engineer's knowledge as Contract administrator or for Owner.
- B. Submit test reports for information for assessing conformance with information given and design concept expressed in Contract Documents.

1.12 CERTIFICATES

- A. Informational Submittal: Submit certification by manufacturer, installation/application Subcontractor, or Contractor to Architect/Engineer, in quantities specified for Product Data.
- B. Indicate material or product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.
- C. Certificates may be recent or previous test results on material or product but must be acceptable to Architect/Engineer.

1.13 MANUFACTURER'S INSTRUCTIONS

- A. Informational Submittal: Submit manufacturer's installation instructions for Architect/Engineer's knowledge as Contract administrator or for Owner.
- B. Submit printed instructions for delivery, storage, assembly, installation, startup, adjusting, and finishing, to Architect/Engineer in quantities specified for Product Data.
- C. Indicate special procedures, perimeter conditions requiring special attention, and special environmental criteria required for application or installation.

1.14 MANUFACTURER'S FIELD REPORTS

- A. Informational Submittal: Submit reports for Architect/Engineer's knowledge as Contract administrator or for Owner.
- B. Submit a PDF report within 5 days of observation to Architect/Engineer for information unless it is needed sooner.
- C. Submit reports for information for assessing conformance with information given and design concept expressed in Contract Documents.

1.15 ERECTION DRAWINGS

- A. Informational Submittal: Submit Drawings for Architect/Engineer's knowledge as Contract administrator or for Owner.

- B. Submit Drawings for information assessing conformance with information given and design concept expressed in Contract Documents.
- C. Data indicating inappropriate or unacceptable Work may be subject to action by Architect/Engineer or Owner.

1.16 CONSTRUCTION PHOTOGRAPHS

- A. Provide photographs of Site and construction throughout progress of Work produced by an experienced photographer acceptable to Architect/Engineer.
- B. Submit photographs with Application for Payment.
- C. Take sufficient Site photographs from different directions and sufficient interior photographs indicating relative progress of the Work, 5 days maximum before submitting pay request, to confirm progress.
- D. Identify digital prints with file name. Identify name of Project, contract number, orientation of view, date and time of view and photographer's numbered identification of exposure.
- E. Digital Images: Deliver complete set of digital image electronic files on CD-ROM or other approved media to Architect with project record documents. Identify electronic media with date photographs were taken (not necessary on digital prints). Submit images that have same aspect ratio as sensor, uncropped.
 - 1. Digital Images: Uncompressed JPG or other approved format, produced by a digital camera with minimum sensor size of 4.0 megapixels, and image resolution of not less than 1024 by 768 pixels.

1.17 SPECIAL JOB-SITE SUBMITTALS

- A. Hazardous Chemical Inventory:
 - 1. In order to comply with the State of Washington's Hazard Communication Standard (Chapter 296-800-170 WAC), the Owner requires the Contractor to provide a complete inventory of all potentially hazardous chemicals which the Contractor (including subcontractors) will bring into or produce at the work site. This inventory shall be submitted to the Architect no later than three days prior to the chemicals arrival on site. Specific information for each chemical, in the form of Material Safety Data Sheets (MSDS), and the personal protective equipment required for working with the materials (respirators, special clothing, etc.) shall be included in the submittal.
 - 2. The Contractor shall revise this information as necessary (i.e. when new chemicals are brought onto or produced at the worksite), with updates forwarded to the Architect. A complete and accurate copy of this information shall be immediately available at the Contractor's worksite office for reference by Owner representatives and the Contractor's employees during the Contractor's working hours.
- B. Submit revised inventory monthly or whenever changes are made.

1.18 CONTRACTOR REVIEW

- A. Review for compliance with Contract Documents and approve submittals before transmitting to Architect/Engineer.
- B. Contractor: Responsible for:
 - 1. Determination and verification of materials including manufacturer's catalog numbers.
 - 2. Determination and verification of field measurements and field construction criteria.
 - 3. Checking and coordinating information in submittal with requirements of Work and of Contract Documents.
 - 4. Determination of accuracy and completeness of dimensions and quantities.
 - 5. Confirmation and coordination of dimensions and field conditions at Site.
 - 6. Construction means, techniques, sequences and procedures.
 - 7. Safety precautions.
 - 8. Coordination and performance of Work of all trades.
- C. Stamp, sign or initial and date each submittal to certify compliance with requirements of Contract Documents.
- D. Do not fabricate products or begin Work for which submittals are required until approved submittals have been received from Architect/Engineer.

1.19 ARCHITECT/ENGINEER REVIEW

- A. Do not make "mass submittals" to Architect/Engineer. "Mass submittals" are defined as six or more submittals or items in one day or 20 or more submittals or items in one week. If "mass submittals" are received, Architect/Engineer's review time stated above will be extended as necessary to perform proper review. Architect/Engineer will review "mass submittals" based on priority determined by Architect/Engineer after consultation with Owner and Contractor.
- B. Informational submittals and other similar data are for Architect/Engineer's information, do not require Architect/Engineer's responsive action and will not be reviewed or returned with comment.
- C. Submittals made by Contractor, which are not required by Contract Documents, may be returned without action.
- D. Architect review of submittals does not relieve the Contractor from his responsibilities for conformance with the Contract Documents, proper installation, compliance with applicable codes, or coordination of the Work.
- E. Submittal approval does not authorize changes to Contract requirements unless accompanied by: Change Order, Architect's Supplemental Instruction, Field Order, Substitution Request or Construction Change Directive.
- F. Owner may withhold monies due to Contractor to cover additional costs beyond the second submittal review.
- G. The Architect will stamp each submittal with a uniform, self-explanatory action stamp. The stamp will be marked to indicate the action to be taken.

- H. The Architect will distribute the reviewed submittals to:
1. Architect project file and/or Owner.
 2. AHJ (as required)
 3. Architect sub-consultants.
 4. Contractor.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

END OF SECTION



CONSENT FOR THE RELEASE OF ELECTRONIC MEDIA

Project:		Recipient:	
Architect's Project No.:		Date:	

The Recipient and the Architect hereby approve the release of electronic media as follows:

1. The Recipient agrees, to the fullest extent permitted by law, to indemnify and hold the Architect and its Consultants harmless from any damage, liability, or cost, including reasonable attorney's fees and cost of defense arising from any reuse or modifications of the electronic media by the Recipient or any person or entity which acquires or obtains the electronic media from or through the Recipient. In no event shall the Architect or its Consultants be liable for any loss of profit or any damages.
2. The Architect and Consultants make no warranties, either express or implied, of merchantability and fitness for any particular purpose.
3. Files are recognized to be subject to alteration, degradation, erosion and erasure. The Recipient is advised to check all electronic media for computer viruses before loading the files. The Recipient agrees to indemnify and hold harmless the Architect and its Consultants from and against all claims of any kind put forth by the Recipient or others as a result of inadvertent viruses transmitted with the electronic files.
4. The electronic files are provided as a convenience to the Recipient and are not considered the Contractual Instruments of Service nor considered "Contract Documents" or "Drawings of Record" or "Construction Documents" or "As-Built Drawings."
5. The Architect and Consultants shall be deemed the authors of the transferred media, and will retain all common law, statutory and other reserved rights, in addition to the copyright. Each party shall have the right to alter, modify or delete materials without consequence to the other party, as long as the changes are not attributed to the other party.
6. The information is for use on this project only and not to be used for other purposes.
7. Recipient agrees to compensate Architect and Consultant reasonable costs for preparation of the electronic files as agreed upon.

Approved by Owner:			
Name:		By:	
Date:		Title:	
Approved by Architect:		Accepted by Recipient:	
Name:	Integrus Architecture, P.S.	Name:	
By:		By:	
Title:		Title:	
Date:		Date:	

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Quality control.
- B. Tolerances.
- C. References.
- D. Labeling.
- E. Mockup requirements.
- F. Testing and inspection services.
- G. Manufacturers' field services.

1.2 QUALITY CONTROL

- A. Monitor quality control over suppliers, manufacturers, products, services, Site conditions, and workmanship, to produce Work of specified quality.
- B. Comply with specified standards as the minimum quality for the Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- C. Testing and inspecting services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with the Contract Document requirements.
 - 1. Specific quality-control requirements for individual construction activities are specified in the Sections that specify those activities. Requirements in those Sections may also cover production of standard products.
- D. Perform Work using persons qualified to produce required and specified quality.
- E. Products, materials, and equipment may be subject to inspection by Architect/Engineer and Owner at place of manufacture or fabrication. Such inspections shall not relieve Contractor of complying with requirements of Contract Documents.
- F. Supervise performance of Work in such manner and by such means to ensure that Work, whether completed or in progress, will not be subjected to harmful, dangerous, damaging, or otherwise deleterious exposure during construction period.
- G. Maintain project superintendent continually on Project site for duration of Work of this Contract. Do not engage project superintendent in work other than Work of this Contract.
- H. Comply fully with manufacturers' instructions, including each step in sequence.

1. Should manufacturers' instructions conflict with Contract Documents; request clarification from Architect before proceeding.
- I. Schedule of Tests and Inspections: Prepare a schedule of tests, inspections, and similar quality-control services required by the Contract Documents. Submit schedule within thirty (30) days of date established for the Notice to Proceed.
 1. Distribution: Distribute schedule to Owner, Architect testing agencies, and each party involved in performance of portions of the Work where tests and inspections are required.

1.3 TOLERANCES

- A. Monitor fabrication and installation tolerance control of products to produce acceptable Work. Do not permit tolerances to accumulate.
- B. Comply with manufacturers' recommended tolerances and tolerance requirements in reference standards. When such tolerances conflict with Contract Documents, request clarification from Architect/Engineer before proceeding.
- C. Adjust products to appropriate dimensions; position before securing products in place.
- D. Allow tolerances for thermal expansion and effects of mechanical vibration.

1.4 REFERENCES

- A. For products or workmanship specified by association, trade, or other consensus standards, comply with requirements of standard except when more rigid requirements are specified or are required by applicable codes.
- B. Conform to reference standard by date of issue current as of date of Contract Documents except where specific date is established by code.
- C. Obtain copies of standards and maintain on Site when required by product Specification Sections.
- D. When requirements of indicated reference standards conflict with Contract Documents, request clarification from Architect/Engineer before proceeding.
- E. Neither contractual relationships, duties, or responsibilities of parties in Contract nor those of Architect/Engineer shall be altered from Contract Documents by mention or inference in reference documents.
- F. Abbreviations and Names: Abbreviations and acronyms are frequently used in the Specifications and other Contract Documents to represent the name of a trade association, standards developing organization, authorities having jurisdiction, or other entity in the context of referencing a standard or publication. Where abbreviations and acronyms are used in the Specifications or other Contract Documents, they mean the recognized name of the entities. Refer to Gale Research's "Encyclopedia of Associations" or Columbia Books' "National Trade and Professional Associations of the U.S.," which are available in most libraries or a search engine dedicated to construction industry data such as <http://www.4specs.com> or <http://www.arcata.com>.

1.5 LABELING

- A. Attach label from agency approved by authorities having jurisdiction for products, assemblies, and systems required to be labeled by applicable code.
- B. Label Information: Include manufacturer's or fabricator's identification, approved agency identification, and the following information, as applicable, on each label:
 - 1. Model number.
 - 2. Serial number.
 - 3. Performance characteristics.
- C. Manufacturer's Nameplates, Trademarks, Logos, and Other Identifying Marks on Products: Not allowed on surfaces exposed to view in public areas, interior or exterior.

1.6 MOCK-UP REQUIREMENTS

- A. Tests will be performed under provisions identified in this Section and identified in individual product Specification Sections.
- B. Assemble and erect specified or indicated items with specified or indicated attachment and anchorage devices, flashings, seals, and finishes.
- C. Accepted mockups shall be comparison standard for remaining Work.
- D. Where mockup has been accepted by Architect/Engineer and is specified in product Specification Sections to be removed, remove mockup and clear area when directed to do so by Architect/Engineer.
- E. Mock-ups not meeting the Architect's approval for minimum workmanship quality shall be redone until such approval has been made. Schedule with sufficient lead time to allow proper review time, and re-fabrication if required.
- F. When accepted, mock-ups will demonstrate minimum standard for the Work.

1.7 TESTING AND INSPECTION SERVICES

- A. Owner will employ and pay for specified services of an independent firm to perform testing and inspection.
- B. Independent firm will perform tests, inspections, and other services specified in individual Specification Sections and as required by Architect/Engineer, Owner or authorities having jurisdiction.
 - 1. Laboratory: Authorized to operate at Project location.
 - 2. Laboratory Staff: Maintain full-time specialist on staff to review services.
 - 3. Testing Equipment: Calibrated at reasonable intervals with devices of an accuracy traceable to National Bureau of Standards or accepted values of natural physical constants.
- C. Testing, inspections, and source quality control may occur on or off Project Site. Perform off-Site testing as required by Architect/Engineer or Owner.

- D. Reports shall be submitted by independent firm to Architect/Engineer, Contractor and authorities having jurisdiction, in PDF format indicating observations and results of tests and compliance or noncompliance with Contract Documents.
 - 1. Submit final report indicating correction of Work previously reported as noncompliant.
- E. Concrete test reports shall show time and date samples were taken, specific location of concrete placement, slump, air content, ambient air temperature, concrete temperature, date received by lab, field data submitted by, mix number, delivery ticket number, specified strength requirement, 1-7 day break, 2-28 day breaks, any field cylinder breaks as requested by Special Inspector or Architect, day projected high and low temperatures and weather conditions.
- F. Cooperate with independent firm; furnish samples of materials, design mix, equipment, tools, storage, safe access, and assistance by incidental labor as requested.
 - 1. Notify Architect/Engineer and independent firm 24 hours before expected time for operations requiring services.
 - 2. Make arrangements with independent firm and pay for additional Samples and tests required for Contractor's use.
- G. Employment of testing agency or laboratory shall not relieve Contractor of obligation to perform Work according to requirements of Contract Documents.
- H. The Contractor shall arrange and pay for all inspection and testing required by the Contract Documents except for tests specifically indicated herein as the responsibility of the Owner. The Contractor shall also be responsible for all costs of all inspections and testing including, but not limited to, the following:
 - 1. Re-inspection and/or retesting of Owner provided inspections or testing due to failure.
 - a. Retesting or re-inspection required because of nonconformance with specified or indicated requirements shall be performed by same independent firm on instructions from Architect/Engineer. Payment for retesting or re-inspection will be charged to Contractor by deducting testing charges from Contract Sum/Price.
 - 2. Concrete testing for qualifications of materials and for Contractor's convenience.
 - 3. Testing required because of changes in materials or proportions at the request of the Contractor.
 - 4. Contractor's duties for owner provided inspections and tests, as specified.
- I. Agency Responsibilities:
 - 1. Test Samples of mixes submitted by Contractor.
 - 2. Provide qualified personnel at Site. Cooperate with Architect/Engineer and Contractor in performance of services.
 - 3. Perform indicated sampling and testing of products according to specified standards.
 - 4. Ascertain compliance of materials and mixes with requirements of Contract Documents.
 - 5. Promptly notify Architect/Engineer and Contractor of observed irregularities or nonconformance of Work or products.
 - 6. Perform additional tests required by Architect/Engineer.
 - 7. Attend preconstruction meetings and progress meetings.
- J. Agency Reports: After each test, promptly submit PDF copies of report to Architect/Engineer, Contractor, and authorities having jurisdiction. When requested by Architect/Engineer, provide interpretation of test results. Include the following:
 - 1. Date issued.

2. Project title and number.
3. Name of inspector.
4. Date and time of sampling or inspection.
5. Identification of product and Specification Section.
6. Location in Project.
7. Type of inspection or test.
8. Date of test.
9. Results of tests.
10. Conformance with Contract Documents.

K. Limits on Testing Authority:

1. Agency or laboratory may not release, revoke, alter, or enlarge on requirements of Contract Documents.
2. Agency or laboratory may not approve or accept any portion of the Work.
3. Agency or laboratory may not assume duties of Contractor.
4. Agency or laboratory has no authority to stop the Work.

L. Approved Fabricator Shop Certificate: Special inspection per IBC Section 1704 shall not be required where the work is done on the premises of a fabricator registered and approved by the Building Official to perform such work without special inspection. Provide a certificate from the Building Official which shows the shop approval.

M. Non-Approved Fabricator Special Inspection: The Contractor shall reimburse the Owner for the costs incurred for special inspection of fabrication in a non-approved shop.

1.8 MANUFACTURER'S FIELD SERVICES

- A. When specified in individual Specification Sections, require material or product suppliers or manufacturers to provide qualified staff personnel to observe Site conditions, conditions of surfaces and installation, quality of workmanship, startup of equipment, testing, adjusting, and balancing of equipment and commissioning as applicable, and to initiate instructions when necessary.
- B. Submit qualifications of observer to Architect/Engineer 30 days in advance of required observations. Observer is subject to approval of Architect/Engineer.
- C. Report observations and Site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturer's written instructions.
- D. Refer to Section 013300 - Submittal Procedures, "Manufacturer's Field Reports" Article.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION

3.1 TEST AND INSPECTION LOG

- A. Prepare a record of tests and inspections. Include the following:

1. Date test or inspection was conducted.
2. Description of the Work tested or inspected.
3. Date test or inspection results were transmitted to Architect.
4. Identification of testing agency or special inspector conducting test or inspection.

- B. Maintain log at Project Site. Post changes and modifications as they occur. Provide access to test and inspection log for Architect's reference during normal working hours.

3.2 ACCEPTABLE TESTING AGENCIES

- A. Testing Agency used to be approved by Owner and Architect.

3.3 REPAIR AND PROTECTION

- A. General: On completion of testing, inspecting, sample taking, and similar services, repair damaged construction and restore substrates and finishes.
1. Comply with the Contract Document requirements. See Section 017000 – Execution.
- B. Protect construction exposed by or for quality-control service activities.
- C. Repair and protection are Contractor's responsibility, regardless of the assignment of responsibility for quality-control services.

END OF SECTION

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Temporary Utilities:
 - 1. Protection of Existing Utilities.
 - 2. Temporary Utility Installation.
 - 3. Temporary electricity.
 - 4. Temporary lighting for construction purposes.
 - 5. Temporary heating.
 - 6. Temporary cooling.
 - 7. Temporary ventilation.
 - 8. Communication services.
 - 9. Temporary water service.
 - 10. Temporary sanitary facilities.
- B. Construction Facilities:
 - 1. Field offices and sheds.
 - 2. Vehicular access.
 - 3. Parking.
 - 4. Progress cleaning and waste removal.
 - 5. Project identification.
 - 6. Traffic regulation.
 - 7. Fire-prevention facilities.
- C. Temporary Controls:
 - 1. Barriers.
 - 2. Traffic and Pedestrian Obstructions.
 - 3. Enclosures and fencing.
 - 4. Security.
 - 5. Water control.
 - 6. Dust control.
 - 7. Erosion and sediment control.
 - 8. Noise control.
 - 9. Pest and rodent control.
 - 10. Pollution control.
 - 11. Hazardous Material Spills
- D. Removal of utilities, facilities, and controls.

1.2 PROJECT CONDITIONS

- A. Temporary Utilities: Within 15 calendar days of the Notice to Proceed, the Contractor shall submit to the Architect and Owner a schedule and a location sketch indicating dates for implementation and termination of each temporary utility. At the earliest feasible time, when acceptable to the Owner, change over from use of temporary service to use of permanent service.

- B. Conditions of Use: Keep temporary services and facilities clean and neat in appearance. Operate in a safe and efficient manner. Relocate temporary services and facilities as the Work progresses. Do not overload facilities or permit them to interfere with progress. Take necessary fire-prevention measures. Do not allow hazardous, dangerous, or unsanitary conditions, or public nuisances to develop or persist on site.

1.3 PROTECTION OF EXISTING UTILITIES

- A. Concealed utilities of record are shown on Drawings. These are not necessarily exact with respect to location or completeness.
- B. Notify Owner in writing, on each occasion, of intent to work near or on existing underground utility services or structures that may affect Owner occupied portions of Project Site. Submit procedure for safe and continuous operation of services. Do not proceed prior to approval.
- C. Proceed with sufficient caution to preclude damaging utilities known or unknown. In event unidentified utilities are encountered, promptly notify Owner.
- D. In the event Owner's utilities are damaged during construction, promptly provide temporary services and make repairs to maintain continuity of services at the Contractor's expense.

1.4 TEMPORARY UTILITY INSTALLATION

- A. General: Engage the appropriate local utility company to install temporary service or connect to existing service. Where company provides only part of the service, provide the remainder with matching, compatible materials and equipment. Comply with utility company recommendations.
 - 1. Arrange with company and existing users for a time when service can be interrupted, if necessary, to make connections for temporary services.
 - 2. Provide adequate capacity at each stage of construction. Prior to temporary utility availability, provide trucked-in services.
 - 3. Obtain easements to bring temporary utilities to the site where the Owner's easements cannot be used for that purpose.
 - 4. Use Charges: Cost or use charges for temporary facilities are not chargeable to the Owner. The Owner will not accept cost or use charges as a basis of claims for Change Orders.

1.5 TEMPORARY ELECTRICITY

- A. Provide and pay for power service required from utility source as needed for construction operation.
- B. Temporary Electric Power Service: Provide weatherproof, grounded electric power service and distribution system of sufficient size, capacity and power characteristics during construction period. Include meters, transformers, overload-protected disconnects, automatic ground-fault interrupters and main distribution switchgear.
 - 1. Install electric power service underground, except where overhead services must be used.
 - 2. Power Distribution System: Install wiring overhead and rise vertically where least exposed to damage. Where permitted, wiring circuits not exceeding 125 Volts, ac 20 Ampere rating, and lighting circuits may be nonmetallic sheathed cable where overhead and exposed for surveillance.

- C. Complement existing power service capacity and characteristics as required for construction operations.
- D. Provide power outlets with branch wiring and distribution boxes located as required for construction operations. Provide suitable, flexible power cords as required for portable construction tools and equipment.
- E. Provide main service disconnect and overcurrent protection at convenient location.
- F. Permanent convenience receptacles may be used during construction. Replace any damaged receptacles caused by this use.

1.6 TEMPORARY LIGHTING FOR CONSTRUCTION PURPOSES

- A. Provide and maintain lighting for construction operations to achieve minimum lighting level of 2 watts/sq ft.
- B. Provide and maintain after dark for security purposes.
- C. Provide and maintain HID lighting to interior work areas after dark for security purposes.
- D. Provide branch wiring from power source to distribution boxes with lighting conductors, pigtails, lamps, and the like, for adequate lighting levels.
- E. Maintain lighting and provide routine repairs.
- F. Permanent building lighting may be used during construction with Owner approval. Re-lamp all fixtures used for temporary lighting at substantial completion and provide documentation.

1.7 TEMPORARY HEATING

- A. Provide and pay for heating devices and heat as needed to maintain specified conditions for construction operations.
- B. Enclose building before activating temporary heat according to "Enclosures and Fencing" Article in this Section.
- C. Before operating permanent equipment for temporary heating purposes, verify installation is approved for operation, equipment is lubricated and filters are in place. Provide and pay for operation, maintenance and regular replacement of filters and worn or consumed parts. Replace filters at Substantial Completion.
- D. Where construction is in progress, provide a dust free atmosphere and heating for curing, reducing moisture and humidity and suitable temperatures for installation of specified products unless indicated otherwise in specifications. Maintain minimum ambient temperature of 50 degrees F in areas where construction is in progress unless indicated otherwise in individual product Sections.

- E. Portable Heaters: Electric, non-combustion, forced air fan units complete with controls, acceptable to Owner and Architect. Use of heaters that generate moisture or hazardous fumes are prohibited.

1.8 TEMPORARY COOLING

- A. Existing cooling systems shall not be used during construction.
- B. Provide and pay for cooling devices and cooling as needed to maintain specified conditions for construction operations. Provide separate metering and reimburse Owner for cost of energy used.

1.9 TEMPORARY VENTILATION

- A. Ventilate enclosed areas to achieve curing of materials, to dissipate humidity and to prevent accumulation of dust, fumes, vapors or gases.
- B. When hazardous chemicals, mineral-spirit based paints, adhesives, or other similar materials are used, the Contractor shall exhaust toxic, noxious, or odor producing fumes from the building. Method of exhaust shall ensure safety of building occupants and pedestrians in and around the project site. All existing building supply and return air ductwork within the construction area shall be capped air-tight to prevent distribution of fumes throughout the building.
- C. Replace filters, clean and lubricate system prior to acceptance by Owner.

1.10 COMMUNICATION SERVICES

- A. Provide, maintain and pay for telephone service to field office at time of project mobilization. At each telephone, post a list of important telephone numbers.
 - 1. Police and fire departments.
 - 2. Ambulance service.
 - 3. Contractor's home office.
 - 4. Architect's office.
 - 5. Owner's Office.
 - 6. Principal subcontractors' field and home offices.
 - 7. All site phone lines.
- B. Provide mobile telephone or digital pager for superintendent's use, to be operational and kept on his/her person at all times during working hours under this contract.
- C. Internet Service: Provide, maintain, and pay for broadband Internet service to field office at time of Project mobilization. Provide desktop computer with Microsoft operating system and appropriate office function software, modem and printer.
- D. Maintain email address at Field Office with 24 hour automatic message downloading and notification.

1.11 TEMPORARY WATER SERVICE

- A. Provide and pay for suitable quality water service as needed to maintain specified conditions for construction operations.

- B. Install the temporary water service as soon as practicable to provide for the use of this service by all trades. Provide 3/4 inch hose bibs for temporary water needs as required.
- C. Drinking Water: General Contractor to furnish from a proven safe source for all those connected with the work. Pipe or transport in such manner as to keep it clean and fresh. Serve in single service containers or by sanitary drinking fountains.
- D. Extend branch piping with outlets located so that water is available by hoses with threaded connections. Provide temporary pipe insulation and heat tape to prevent freezing.

1.12 TEMPORARY SANITARY FACILITIES

- A. Provide and maintain required facilities and enclosures. Existing facility use is not permitted. Provide facilities at time of Project mobilization.

1.13 FIELD OFFICES AND SHEDS

- A. Provide Field Office: Weathertight, with lighting, electrical outlets, heating, cooling and ventilating equipment, and equipped with sturdy furniture including: conference table, drawing rack, filing cabinets and drawing display table.
- B. Provide space for Project meetings, with table and chairs to accommodate six persons.
- C. Locate field offices and sheds a minimum distance of 30 feet from existing and new structures.
- D. Construction: Portable or mobile buildings, or buildings constructed with floors raised above ground, securely fixed to foundations with steps and landings at entrance doors.
 - 1. Construction: Structurally sound, secure, weather tight enclosures for office and storage spaces. Maintain during progress of Work; remove enclosures when no longer needed.
 - 2. Thermal Resistance of Floors, Walls and Ceilings: Compatible with occupancy and storage requirements.
 - 3. Exterior Materials: Weather-resistant, finished in color[s] acceptable to Architect/Engineer.
 - 4. Interior Materials in Field Offices: Sheet-type materials for walls and ceilings, prefinished or painted; resilient floors and bases.
 - 5. Lighting for Field Offices: 50 ft-C at desktop height; exterior lighting at entrance doors.
 - 6. Interior Materials in Storage Sheds: As required to provide specified conditions for storage of products.
- E. Environmental Control:
 - 1. Heating, Cooling and Ventilating for Offices: Automatic equipment to maintain comfort conditions.
- F. Storage Areas and Sheds: Size to storage requirements for products of individual Sections, allowing for access and orderly provision for maintenance and inspection of products to suit requirements in Section 016000 - Product Requirements.
- G. Preparation: Fill and grade Sites for temporary structures sloped for drainage away from buildings.
- H. Installation:

1. Install field office spaces ready for occupancy 15 days after date established by Notice to Proceed.
 2. Employee Residential Occupancy: Not allowed on Owner's property.
- I. Maintenance and Cleaning:
1. Weekly janitorial services for field offices; periodic cleaning and maintenance for sheds and storage areas.
 2. Maintain walks free of mud, water, snow and the like.
- J. Removal: At completion of Work remove buildings, foundations, utility services and debris. Restore areas to same or better condition as original condition.

1.14 VEHICULAR ACCESS

- A. Construct temporary access roads from public thoroughfares to serve construction area, of width and load-bearing capacity to accommodate unimpeded traffic for construction purposes.
- B. Construct temporary bridges and culverts to span low areas and allow unimpeded drainage.
- C. Extend and relocate vehicular access as Work progress requires and provide detours as necessary for unimpeded traffic flow.
- D. Locate as approved by Architect/Engineer.
- E. Provide unimpeded access for emergency vehicles. Maintain 20 foot wide driveways with turning space between and around combustible materials.
- F. Provide and maintain access to fire hydrants and control valves free of obstructions.
- G. Provide means of removing mud from vehicle wheels before entering streets to AHJ standards.
- H. Use designated existing on-Site roads for construction traffic.

1.15 PARKING

- A. **Provide** surface parking areas to accommodate construction personnel.
- B. Locate as approved by Architect/Engineer.
- C. If Site space is not adequate, provide additional off-Site parking.
- D. Do not allow heavy vehicles or construction equipment in parking areas.
- E. Do not allow vehicle parking on existing pavement.
- F. Designate one parking space for Architect/Engineer.
- G. Permanent Pavements and Parking Facilities:
 1. Avoid traffic loading beyond paving design capacity. Tracked vehicles are not allowed.
- H. Maintenance:

1. Maintain traffic and parking areas in sound condition free of excavated material, construction equipment, products, mud, snow, ice and the like.
 2. Maintain existing and permanent paved areas used for construction; promptly repair breaks, potholes, low areas, standing water and other deficiencies, to maintain paving and drainage in original condition.
- I. Removal, Repair:
1. Remove temporary materials and construction at Substantial Completion.
 2. Remove underground Work and compacted materials to depth of 2 feet; fill and grade Site as indicated.
 3. Repair facilities damaged by use, to original condition.

1.16 PROGRESS CLEANING AND WASTE REMOVAL

- A. Maintain areas free of waste materials, debris, and rubbish. Maintain Site in clean and orderly condition.
- B. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces and other closed or remote spaces, before enclosing spaces.
- C. Broom and vacuum clean interior areas before starting surface finishing and continue cleaning to eliminate dust.
- D. Collect and remove waste materials, debris, and rubbish from Site weekly and dispose of off-Site. Comply with Section 017419 - Construction Waste Management and Disposal.
- E. Open free-fall chutes are not permitted. Terminate closed chutes into appropriate containers with lids.
- F. Dispose of flammable, hazardous and toxic waste materials on daily bases. Do not permit storage inside buildings.
- G. Provide vehicles to haul materials off site that are constructed and loaded so as to prevent any leaking of materials from the vehicle (RCW 46.61.655). Keep sidewalks, lawns, parking areas and streets clear of all construction materials, debris, gravel, rock and dirt attributed to the General Contractor or the sub-contractors. Clean up these areas on a daily and/or "upon request" basis as determined by the Architect's representative.

1.17 PROJECT IDENTIFICATION

- A. Project Identification Sign:
 1. One painted sign, 32-sq ft area, with bottom at 6 feet aboveground.
 2. Content:
 - a. Project title and name of Owner.
 - b. Names and titles of authorities.
 - c. Names and titles of Architect/Engineer and Consultants.
 - d. Name of Prime Contractor and major Subcontractors.
 3. Graphic Design, Colors, and Style of Lettering: approved by Architect/Engineer.
- B. Project Informational Signs:

1. Painted informational signs of same colors and lettering as Project identification sign or standard products; size lettering for legibility at 100-foot distance.
 2. Provide sign at each field office and storage shed and provide directional signs to direct traffic into and within Site. Relocate as Work progress requires.
 3. No other signs are allowed without Owner's permission except those required by law.
- C. Design sign and structure to withstand 60-mph wind velocity.
- D. Sign Painter: Experienced as professional sign painter for minimum of three years.
- E. Finishes, Painting: Adequate to withstand weathering, fading and chipping for duration of construction.
- F. Sign Materials:
1. Structure and Framing: structurally adequate.
 2. Sign Surfaces: Exterior grade plywood with medium-density overlay, minimum of 3/4 inches thick, standard large sizes to minimize joints.
 3. Paint and Primers: Exterior quality, two coats; sign background of color as selected.
 4. Lettering: Precut vinyl self-adhesive products, white.
- G. Installation:
1. Install Project identification sign within 15 days after date established by Notice to Proceed.
 2. Erect at approved location of high public visibility adjacent to main entrance to Site.
 3. Erect supports and framing on secure foundation, rigidly braced and framed to resist wind loadings.
 4. Install sign surface plumb and level, with butt joints. Anchor securely.
 5. Paint exposed surfaces of sign, supports and framing.
- H. Maintenance: Maintain clean signs and supports; repair deterioration and damage.
- I. Removal: Remove signs, framing, supports and foundations at completion of Project and restore area.
- J. No other signs are allowed without Owner permission except those required by law.

1.18 TRAFFIC REGULATION

- A. Signs, Signals, and Devices:
1. Post-Mounted and Wall-Mounted Traffic Control and Informational Signs: As approved by authorities having jurisdiction.
 2. Traffic Control Signals: As approved by local jurisdictions.
 3. Traffic Cones, Drums, Flares, and Lights: As approved by authorities having jurisdiction.
 4. Flag Person Equipment: As required by authorities having jurisdiction.
- B. Flag Persons: Provide trained and equipped flag persons to regulate traffic when construction operations or traffic encroach on public traffic lanes.
- C. Flares and Lights: Use flares and lights during hours of low visibility to delineate traffic lanes and to guide traffic.

- D. Haul Routes:
 - 1. Consult with authorities having jurisdiction and establish public thoroughfares to be used for haul routes and Site access.
 - 2. Confine construction traffic to designated haul routes.
 - 3. Provide traffic control at critical areas of haul routes to regulate traffic and to minimize interference with public traffic.
- E. Traffic Signs and Signals:
 - 1. Provide signs at approaches to Site and on Site, at crossroads, detours, parking areas, and elsewhere as needed to direct construction and affected public traffic.
 - 2. Provide, operate, and maintain traffic control signals to direct and maintain orderly flow of traffic in areas under Contractor's control and areas affected by Contractor's operations.
 - 3. Relocate signs and signals as Work progresses, to maintain effective traffic control.
- F. Removal:
 - 1. Remove equipment and devices when no longer required.
 - 2. Repair damage caused by installation.
 - 3. Remove post settings to depth of 2 feet, compact and finish to match adjacent grade.

1.19 FIRE-PREVENTION FACILITIES

- A. Establish fire watch for hazardous operations capable of starting fires. Maintain fire watch before, during, and after hazardous operations until threat of fire does not exist.
- B. Standpipes: Install minimum of one standpipe for use during construction before building reaches 40 feet in height.
- C. Portable Fire Extinguishers: NFPA 10; 10-pound capacity, 4A-60B; C UL rating.
 - 1. Provide one fire extinguisher at each stairway on each floor of buildings under construction and demolition.
 - 2. Provide minimum of one fire extinguisher in every construction trailer and storage shed.
 - 3. Provide minimum of one fire extinguisher on roof during roofing operations using heat-producing equipment.

1.20 BARRIERS

- A. Provide barriers to prevent unauthorized entry to construction areas and to protect existing facilities and adjacent properties from damage from construction operations and demolition.
- B. Provide barricades and covered walkways required by authorities having jurisdiction for public rights-of-way.
- C. Protect non-owned vehicular traffic, stored materials, Site, and structures from damage.

1.21 EXISTING TREE AND PLANT PROTECTION

- A. Critical Root Zone: Generally a circular area surrounding a tree, the center of which is the center of the tree trunk and the radius is the distance from the outside of the trunk to any point 12 times the diameter, as measured at 4½ feet from the ground on the low side of the trunk, which point constitutes the circumference of the critical root zone.

- B. Zone of Protection: The area of the critical root zone shall be fenced with no construction related activities allowed within this zone of protection. The restricted activities are, but are not limited to, storage, paving, grading, cutting, filling, travel within, dumping, or spillage of any solid or liquid unless otherwise shown on the Drawings.
- C. During and Post-Construction Requirements:
 - 1. The protective fence shall not be disturbed or removed until all exterior construction has been completed.
 - 2. Water shall be applied periodically until the completion of exterior construction.
 - 3. No rototilling or major soil disturbance shall take place within this zone of protection, before, during, or after the construction.
 - 4. Fertilize deciduous trees as directed by the Landscape Architect every six months during the course of construction and for one year after Final Completion.
 - 5. Prior to Final Completion, prune deciduous trees to remove damaged branches and encourage healthy new growth. Landscape Architect will review complete pruning and direct additional work if it is necessary in his opinion, which work to be done at no additional cost to the Owner.
- D. The Contractor shall protect all trees and other plant types on site from damage until project completion. If any tree or other type of plants are destroyed, disfigured, or damaged so that in Architect's opinion removal is required, Contractor will be assessed damages to include the cost of removal and the cost for replacement of a comparably mature tree or plant including maintenance and a guarantee of replacement if the tree or plant fails to thrive for one full year following Final Completion.
- E. If at any time the Contractor judges that the protection of a tree designated to be saved is incompatible with work required, or if operations necessarily threaten the health of a tree, notify immediately the Architect's representatives and do no further work affecting the tree until a written agreement is reached concerning acceptable procedures.

1.22 TRAFFIC AND PEDESTRIAN OBSTRUCTIONS

- A. Provide signs and/or flagpersons in accordance with WAC 296-155-305 and RCW 47.36.200 for deliveries or operations which obstruct traffic in the street.
- B. Contractor's equipment located on sidewalks or other pedestrian ways shall be suitably barricaded for cane detection as a warning for sight impaired persons. Barricade shall include a horizontal member at a maximum of two feet above the walking surface. Pedestrian traffic will be diverted with appropriate signs, barricades, fences, etc., from any area where contractor equipment or operations may pose a threat to the safety and health of passing pedestrians.

1.23 ENCLOSURES AND FENCING

- A. Construction: approved Contractor's option.
- B. Provide 6-foot-high fence around construction Site; equip with vehicular gates with locks.
 - 1. Post fence with "Danger Hard Hat Area" signs at maximum 50 foot centers.
- C. Exterior Enclosures:

1. Provide temporary insulated, weathertight closure of exterior openings to accommodate acceptable working conditions and protection for products, to allow for temporary heating and maintenance of required ambient temperatures identified in individual Specification Sections, and to prevent entry of unauthorized persons. Provide access doors with self-closing hardware and locks.

1.24 SECURITY

- A. Security Program:
 1. Protect Work on existing premises and Owner's operations from theft, vandalism, and unauthorized entry.
 2. Initiate program at Project mobilization.
 3. Maintain program throughout construction period until directed by Architect/Engineer.

1.25 WATER CONTROL

- A. Grade Site to drain. Maintain excavations free of water. Provide, operate, and maintain necessary pumping equipment.
- B. Protect Site from puddles or running water. Provide water barriers as required to protect Site from soil erosion.

1.26 DUST CONTROL

- A. Execute Work by methods that minimize raising dust from construction operations.
- B. Provide positive means to prevent airborne dust from dispersing into atmosphere.

1.27 EROSION AND SEDIMENT CONTROL

- A. Plan and execute construction by methods to control surface drainage from cuts and fills from borrow and waste disposal areas. Prevent erosion and sedimentation.
- B. Minimize surface area of bare soil exposed at one time.
- C. Provide temporary measures including berms, dikes, drains, and other devices to prevent water flow.
- D. Construct fill and waste areas by selective placement to avoid erosive surface silts and clays.
- E. Periodically inspect earthwork to detect evidence of erosion and sedimentation. Promptly apply corrective measures.

1.28 NOISE CONTROL

- A. Provide methods, means and facilities to minimize noise produced by construction operations to level required by AHJ.

1.29 PEST AND RODENT CONTROL

- A. Provide methods, means, and facilities to prevent rodents from accessing or invading premises.

1.30 POLLUTION CONTROL

- A. Comply with pollution and environmental control requirements of authorities having jurisdiction.
- B. The Contractor shall exercise every reasonable precaution to protect channels, storm drains, and bodies of water from pollution and shall conduct and schedule its operations so as to minimize or avoid muddying and silting of said channels, drains, and waters. Water pollution control work shall consist of constructing those facilities which may be required to provide prevention, control, and abatement of water pollution. Provide a Stormwater Pollution Prevention Plan (SPPP) as required by the Washington State Department of Ecology. Submit for approval to DOE and make corrections required. Pay the permit fee required by DOE.

1.31 HAZARDOUS MATERIALS SPILLS

- A. If hazardous materials are released on the construction premises, a record of type of materials spilled, quantity, containment, cleanup, decontamination and disposal mechanisms used, reports made to regulatory agencies, and records of regulatory agency activity, if any, shall be kept by the Contractor and provided to Architect.
- B. Contractor and all subcontractors shall immediately report all spills of hazardous materials to Architect.
- C. The Contractor shall be responsible for spill containment, regulatory reporting, cleanup, decontamination, and waste disposal which meets WAC 173-340 and 173-303. See Section 017419 - Construction Waste Management, "Dangerous Waste Management," for additional information regarding disposal of hazardous materials.

1.32 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

- A. Remove temporary utilities, equipment, facilities and materials before Substantial Completion inspection.
- B. Remove underground installations to minimum depth of 2 feet. Grade Site as indicated on Drawings.
- C. Clean and repair damage caused by installation or use of temporary Work.
- D. Restore facilities used during construction to original condition. Restore permanent facilities used during construction to specified condition.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

END OF SECTION

GENERAL

1.1 SECTION INCLUDES

- A. Products.
- B. Product delivery requirements.
- C. Product storage and handling requirements.
- D. Product options.
- E. Damaged Products.
- F. General Product Requirements
- G. Equipment electrical characteristics and components.

1.2 PRODUCTS

- A. At minimum, comply with specified requirements and reference standards.
- B. Specified products define standard of quality, type, function, dimension, appearance and performance required.
- C. Furnish products of qualified manufacturers that are suitable for intended use. Furnish products of each type by single manufacturer unless specified otherwise. Confirm that manufacturer's production capacity can provide sufficient product, on time, to meet Project requirements.
- D. Where Specifications include the phrase "as selected from manufacturer's colors, patterns, textures" or a similar phrase, select a product (and manufacturer) that complies with other specified requirements.
 - 1. Standard Range: Where Specifications include the phrase "standard range of colors, patterns, textures" or similar phrase, Architect will select color, pattern, or texture from manufacturer's product line that does not include premium items.
 - 2. Full Range: Where Specifications include the phrase "full range of colors, patterns, textures" or similar phrase, Architect will select color, pattern, or texture from manufacturer's product line that includes both standard and premium items.

1.3 PRODUCT DELIVERY REQUIREMENTS

- A. Schedule delivery of products affecting Progress Schedule critical path to complete project within time of completion stated in the Agreement. Associated cost increases due to failure to meet accelerated delivery schedules and deliveries of long lead time products are responsibility of Contractor.
- B. Coordinate to avoid conflict with work and site conditions. Limit long term site storage, overcrowding of limited storage space, and conflict with available equipment and personnel for handling Products.

- C. Coordinate delivery to limit storage time for Products that are flammable, hazardous, easily damaged, subject to deterioration, or liable for theft or loss.
- D. Transport and handle products according to manufacturer's instructions.
- E. Promptly inspect shipments to ensure products comply with requirements, quantities are correct, and products are undamaged.
- F. Provide equipment and personnel to handle products; use methods to prevent soiling, disfigurement, or damage.

1.4 PRODUCT STORAGE REQUIREMENTS

- A. Store and protect products according to manufacturer's instructions.
- B. Store products with seals and labels intact and legible.
- C. Store sensitive products in weathertight, climate-controlled enclosures in an environment suitable to product.
- D. For exterior storage of fabricated products, place products on sloped supports aboveground.
- E. Provide bonded off-Site storage and protection when Site does not permit on-Site storage or protection.
- F. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.
- G. Store loose granular materials on solid flat surfaces in well-drained area. Prevent mixing with foreign matter.
- H. Provide equipment and personnel to store products; use methods to prevent soiling, disfigurement, or damage.
- I. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

1.5 PRODUCT HANDLING REQUIREMENTS

- A. Provide equipment and personnel necessary to handle Products, including those furnished by Owner, by methods to prevent soiling, damage, or loss of Products and protective packaging.
- B. Provide additional protection during handling as necessary to prevent scraping, marring, and other damage to Products and surrounding surfaces.
- C. Handle Products by methods to prevent bending or overstressing.
- D. Lift heavy components only at designated lifting points.

1.6 DAMAGED PRODUCTS

- A. Promptly remove damaged and deteriorated Products from premises. Replace with new undamaged materials conforming to Contract Documents.

1.7 PRODUCT OPTIONS

- A. Products Specified by Naming One or More Manufacturers with Provision for Substitutions: Submit Request for Substitution for any manufacturer not named, according to Section 012500 - Substitution Procedures.

PART 2 PRODUCTS

2.1 GENERAL PRODUCT REQUIREMENTS

- A. Provide products that comply with the Contract Documents, that are undamaged and, unless otherwise indicated, new at the time of installation.
 - 1. Provide products complete with accessories, trim, finish, safety guards, and other devices and details needed for a complete installation and the intended use and effect.
 - 2. Standard Products: Where available, provide standard products of types which have been produced and used previously and successfully on other projects and in similar application.
 - 3. Color and Appearance Consistency of Finish Materials: All finish materials of their respective kinds, in regards to construction phasing, shall be consistent in color and appearance throughout the total Project and shall be purchased out of one dye lot, production run, batch, etc., as applicable, for the total Project for each respective material.
- B. Additional Requirements: Material and equipment incorporated in to the work:
 - 1. Shall conform to applicable specifications and standards.
 - 2. Shall comply with size, make, type and quality specified or as specifically approved in writing by Architect.
 - 3. Shall be free of ASBESTOS, FORMALDEHYDE and LEAD.
 - 4. Manufactured and Fabricated Products:
 - a. Manufacture like parts of duplicate units to standard sizes and gauges; parts to be interchangeable.
 - b. Two or more items of the same kind to be identical and by same manufacturer (whether furnished under one Section or more).
 - c. Products shall be suitable for service conditions. Adhere to indicated equipment capacities, sizes, and dimensions unless variations are specifically approved in writing.
 - d. Except where field finishing is specified or otherwise required, products and fabricated items shall be pre-finished off-site.
 - e. Do not use materials and equipment for other than designed or specified purposes and uses.

PART 3 EXECUTION - Not Used

END OF SECTION

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes:
 - 1. Field engineering.
 - 2. Project record documents.
 - 3. Execution.
 - 4. Cutting and patching.
 - 5. Special Procedures
 - 6. Protecting installed construction.
- B. Related Sections:
 - 1. Section 019100 – Commissioning; coordination of testing, adjusting and balancing with Owner’s commissioning agent.

1.2 FIELD ENGINEERING

- A. Verify locations of control points prior to starting work.
- B. Verify setbacks and easements; confirm Drawing dimensions and elevations.
- C. Establish elevations, lines, and levels using recognized engineering survey practices.
- D. Submit copy of Site drawing signed by land surveyor certifying elevations and locations of the Work are in conformance with Contract Documents.
- E. Maintain complete and accurate log of control and survey Work as Work progresses.
- F. Protect survey control points prior to starting Site Work; preserve permanent reference points during construction.
- G. Promptly report to Architect/Engineer loss or destruction of reference point or relocation required because of changes in grades or other reasons.
- H. Replace dislocated survey control points based on original survey control. Make no changes without prior written notice to Architect/Engineer.
- I. Comply with requirements of jurisdictional agencies.

1.3 PROJECT RECORD DOCUMENTS

- A. Maintain on Site one set of the following record documents; record actual revisions to the Work:
 - 1. Drawings.
 - 2. Specifications.
 - 3. Addenda.
 - 4. Change Orders and other modifications to the Contract.
 - 5. Reviewed Shop Drawings, product data, and Samples.

6. Manufacturer's instruction for assembly, installation, and adjusting.
- B. Ensure entries are complete and accurate, enabling future reference by Owner.
- C. Store record documents separate from documents used for construction.
- D. Record information concurrent with construction progress, not less than weekly.
- E. Specifications: Legibly mark and record, at each product Section, description of actual products installed, including the following:
 1. Manufacturer's name and product model and number.
 2. Product substitutions or alternates used.
 3. Changes made by Addenda and modifications.
- F. Record Drawings and Shop Drawings: Legibly mark each item to record actual construction as follows:
 1. Include Contract modifications such as Addenda, supplementary instructions, change directives, field orders, minor changes in the Work, and change orders.
 2. Include locations of concealed elements of the Work.
 3. Identify depth of buried utility lines and provide dimensions showing distances from permanent facility components that are parallel to utilities.
 4. Dimension ends, corners, and junctions of buried utilities to permanent facility components using triangulation.
 5. Identify and locate existing buried or concealed items encountered during Project.
 6. Measured depths of foundations in relation to finish floor datum.
 7. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
 8. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.
 9. Field changes of dimension and detail.
 10. Details not on original Drawings.
 11. Provide photographs of congested areas before closed in by Gyp or finishes.
- G. Submit PDF electronic files of marked-up documents to Architect/Engineer before Substantial Completion.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that existing Site conditions and substrate surfaces are acceptable for subsequent Work. Beginning new Work means acceptance of existing conditions.
- B. Verify that existing substrate is capable of structural support or attachment of new Work being applied or attached.
- C. Examine and verify specific conditions described in individual Specification Sections.

- D. Verify that utility services are available with correct characteristics and in correct locations.
- E. Installer's Inspection of Conditions
 - 1. Require Installer of each major unit of work to inspect substrate to receive the work, and conditions under which the work will be performed, and to report (in writing to Contractor) unsatisfactory conditions.
 - 2. Do not proceed with the work until unsatisfactory conditions have been corrected in a manner acceptable to Installer.
- F. Contractor's Inspection. Inspect each item of material or equipment immediately prior to installation, and reject damaged and defective items.

3.2 PREPARATION

- A. Clean substrate surfaces prior to applying next material or substance according to manufacturer's instructions.
- B. Seal cracks or openings of substrate prior to applying next material or substance.
- C. Apply manufacturer-required or -recommended substrate primer, sealer, or conditioner prior to applying new material or substance in contact or bond.

3.3 EXECUTION

- A. Comply with manufacturer's installation instructions, performing each step in sequence. Maintain one set of manufacturer's installation instructions at Project Site during installation and until completion of construction.
- B. When manufacturer's installation instructions conflict with Contract Documents, request clarification from Architect/Engineer before proceeding.
 - 1. Do not omit any preparatory step or installation procedure unless it is:
 - a. Verified with and accepted by Architect in writing.
 - b. Specifically modified or exempted by Contract Documents.
- C. Perform additional requirements that are specified which are greater than the manufacturer's requirements and do not have a deleterious effect on the product being installed.
- D. Verify that field measurements are as indicated on approved Shop Drawings or as instructed by manufacturer.
- E. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, or disfigurement.
 - 1. Secure Work true to line and level and within specified tolerances, or if not specified, industry-recognized tolerances.
 - 2. Physically separate products in place, provide electrical insulation, or provide protective coatings to prevent galvanic action or corrosion between dissimilar metals.
 - 3. Exposed Joints: Provide uniform joint width and arrange to obtain best visual effect. Refer questionable visual-effect choices to Architect/Engineer for final decision.
- F. Allow for expansion of materials and building movement.

- G. Climatic Conditions and Project Status: Install each unit of Work under conditions to ensure best possible results in coordination with entire Project.
 - 1. Isolate each unit of Work from incompatible Work as necessary to prevent deterioration.
 - 2. Coordinate enclosure of Work with required inspections, photographs and tests to minimize necessity of uncovering Work for those purposes.
- H. Clean and perform maintenance on installed Work as frequently as necessary through remainder of construction period. Lubricate operable components as recommended by manufacturer.

3.4 CUTTING AND PATCHING

- A. Employ skilled and experienced installers to perform cutting and patching.
- B. Submit request in advance of cutting or altering elements affecting:
 - 1. Structural integrity of element.
 - 2. Integrity of weather-exposed or moisture-resistant elements.
 - 3. Efficiency, maintenance or safety of element.
 - 4. Visual qualities of sight-exposed elements.
 - 5. Work of Owner or separate contractor.
- C. Execute cutting, fitting, and patching, including excavation and fill 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 nonconforming Work.
 - 4. Remove samples of installed Work for testing.
 - 5. Provide openings in elements of Work for penetrations of mechanical and electrical Work.
- D. Structural Work: Conform to Structural requirements for cutting of structural members. Do no cutting of structural elements that could reduce structural load capacity, deflection ratio, or integrity of structural systems without prior direction from Structural Engineer.
- E. Execute Work by methods to avoid damage to other Work and to provide proper surfaces to receive patching and finishing.
- F. Cut masonry and concrete materials using masonry saw or core drill.
- G. Restore Work with new products according to requirements of Contract Documents.
- H. Fit Work tight to pipes, sleeves, ducts, conduits and other penetrations through surfaces.
- I. Maintain integrity of wall, ceiling, or floor construction; completely seal voids.
- J. At penetrations of fire-rated walls, partitions, ceiling, or floor construction, completely seal voids with material according to Section 078400 - Firestopping, to full thickness of penetrated element.
- K. Refinish surfaces to match adjacent finishes. For continuous surfaces, refinish to nearest intersection; for assembly, refinish entire unit.
- L. Identify hazardous substances or conditions exposed during the Work to Architect/Engineer for decision or remedy.

- M. Leave areas clean and free from debris. Remove spillage, soiling, sealants and overspray from finished surfaces.

3.5 PROTECTING INSTALLED CONSTRUCTION

A. In-Place Protection

1. General

- a. During handling and installation of work at project site, clean and protect work in progress and adjoining work on a basis of perpetual maintenance.
 - b. Clean and perform maintenance on newly installed work as frequently as necessary through remainder of construction period.
 - c. Adjust and lubricate moving components to ensure operability without damaging effects. Contractor is responsible for function, condition and unblemished appearance of all work on Project, and any item or work judged defective by Architect shall be subject to replacement at no additional cost to Owner.
- B. To extent possible through reasonable control and protection methods, supervise performance of work in a manner and by means which will ensure that none of the work, whether completed or in progress, will be subjected to harmful, dangerous, damaging, or otherwise deleterious exposures during construction period.
 - C. Protect installed Work and provide special protection where specified in individual Specification Sections.
 - D. Provide temporary and removable protection for installed products. Control activity in immediate Work area to prevent damage.
 - E. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.
 - F. Use durable sheet materials to protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects.
 - G. Prohibit traffic or storage upon waterproofed or roofed surfaces. When traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.
 - H. Prohibit traffic from landscaped areas.
 - I. Remove protective devices when no longer needed, prior to completion of work

3.6 SPECIAL PROCEDURES

- A. Materials: As specified in product sections; match existing with new products and salvaged products for patching and extending work.
- B. Employ skilled and experienced installer to perform alteration work.
- C. Cut, move, or remove items as necessary for access to alterations and renovation Work. Replace and restore at completion.

- D. Remove unsuitable material not marked for salvage, including rotted wood, corroded metals, and deteriorated masonry and concrete. Replace materials as specified for finished Work.
- E. Remove debris and abandoned items from area and from concealed spaces.
- F. Prepare surface and remove surface finishes to permit installation of new work and finishes.
- G. Close openings in exterior surfaces to protect existing work from weather and extremes of temperature and humidity.
- H. Remove, cut, and patch Work in manner to minimize damage and to permit restoring products and finishes to original condition.
- I. Refinish existing visible surfaces to remain in renovated rooms and spaces, to specified condition for each material, with neat transition to adjacent finishes.
- J. Where new Work abuts or aligns with existing, provide smooth and even transition. Patch Work to match existing adjacent Work in texture and appearance.
- K. When finished surfaces are cut so that smooth transition with new Work is not possible, terminate existing surface along straight line at natural line of division and submit recommendation to Architect for review.
- L. Where change of plane of 1/4 inch or more occurs, submit recommendation for providing smooth transition to Architect for review.
- M. Patch or replace portions of existing surfaces which are damaged, lifted, discolored, or showing other imperfections.
- N. Finish surfaces as specified in individual product sections.

END OF SECTION

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. General Requirement for Recycling and Adaptive Reuse.
 - 2. Construction waste management plan.
 - 3. Construction waste recycling.
 - 4. Construction waste adaptive reuse.

1.2 WASTE MANAGEMENT GOALS

- A. The Owner desires that this project generate the least amount of waste possible and that the Contractor employ processes to minimize the generation of waste due to error, poor planning, breakage, mishandling, contamination, or other factors.
- B. Of the waste material that is generated, as much as economically feasible shall be reused, salvaged, or recycled.
 - 1. Recycle and/or salvage at least 75% of the non-hazardous construction and demolition debris.

1.3 GENERAL REQUIREMENTS FOR RECYCLING AND ADAPTIVE REUSE

- A. The General Contractor shall be responsible for:
 - 1. Sorting, segregating, recycling, and placing designated waste materials into containers, and for disposing of all unacceptable and dangerous wastes as defined below.
 - 2. Furnish waste and recycle collection containers, service those containers, and dispose of solid waste from the project, including unacceptable and dangerous waste.
 - 3. Maintain recycling and adaptive reuse storage and collection area in orderly arrangement with materials clearly separated to eliminate co-mingling of unsuitable materials.
- B. Waste which is disposed of by the General Contractor shall be in accordance with all applicable local, state and federal regulations, including WAC 173-350, Solid Waste Handling Standards, and WAC 173-303, Dangerous Waste Regulations.
 - 1. Onsite recycling bins shall be well marked and easily distinguishable from waste bins. Each recycle bin shall be marked according to its contents.

1.4 PLAN REQUIREMENTS

- A. Develop and implement construction waste management plan as approved by Architect/Engineer and Owner.
- B. Intent:
 - 1. Divert construction, demolition, and land-clearing debris from landfill disposal.
 - 2. Redirect recyclable material back to manufacturing process.
 - 3. Generate cost savings or increase minimal additional cost to Project for waste disposal.

1.5 SUBMITTALS

- A. Section 013300 - Submittal Procedures contains requirements for submittals.
- B. Construction Waste Management Plan: Submit construction waste management plan describing methods and procedures for implementation and monitoring compliance including the following:
 - 1. Transportation company hauling construction waste to waste processing facilities.
 - 2. Recycling and adaptive reuse processing facilities and waste type each facility will accept.
 - 3. Construction waste materials anticipated for recycling and adaptive reuse.
 - 4. On-Site sorting and Site storage methods.
- C. Submit documentation prior to Substantial Completion substantiating construction waste management plan was maintained and goals were achieved.
 - 1. Trash: Quantity by weight deposited in landfills. Include associated fees, transportation costs, container rentals, and taxes for total cost of disposal.
 - 2. Salvaged Material: Quantity by weight with destination for each type of material salvaged for resale, recycling, or adaptive reuse. Include associated fees, transportation costs, container rentals, taxes for total cost of disposal, and reimbursements due to salvage resale.
 - 3. Total Cost: Indicate total cost or savings for implementation of construction waste management plan.

1.6 CONSTRUCTION WASTE MANAGEMENT PLAN

- A. Construction Waste Landfill Diversion: Minimum 75 percent by weight of construction waste materials for duration of Project through resale, recycling, or adaptive reuse.
- B. Implement construction waste management plan at start of construction.
- C. Distribute approved construction waste management plan to Subcontractors and others affected by plan requirements.
- D. Oversee plan implementation, instruct construction personnel for plan compliance, and document plan results.
- E. Dangerous Waste Management:
 - 1. Dangerous waste generated during the project shall be identified, accumulated and disposed in accordance with WAC 173-303. General Contractor generated dangerous waste must be shipped for disposal within 90 days of generation.
 - 2. General Contractor may accumulate dangerous waste in accordance with WAC 173-303 and Washington Department of Ecology Technical Information Memorandum 94-120, Satellite Accumulation (<http://www.ecy.wa.gov/pubs/94120.pdf>). If General Contractor accumulates dangerous waste in greater volume than 55 gal or acutely hazardous waste in greater volume than one quart, General Contractor shall establish and operate a “90-day” accumulation area in accordance with WAC 173-303.

3. General Contractor shall dispose dangerous waste only through vendor(s) approved by owner. General Contractor shall arrange all dangerous waste shipments. Utilization of the vendor and facilities included in the State of Washington Hazardous Waste Disposal contract is authorized. Any other proposed vendor(s) and/or facilities are subject to audit by owner, prior to utilization. General Contractor shall pay for said audits.
- F. Purchase products to prevent waste by:
 1. Ensuring correct quantity of each material is delivered to Site.
 2. Choosing products with minimal or no packaging.
 3. Requiring suppliers to use returnable pallets or containers.
 4. Requiring suppliers to take or buy back rejected or unused items.
- G. Resources for Development of a Waste Management Plan: The following resource is available to assist in developing a waste management plan.
 1. <http://your.kingcounty.gov/solidwaste/greenbuilding/specifications-plans.asp>

1.7 CONSTRUCTION WASTE RECYCLING

- A. Use source separation method or comingling method suitable to sorting and processing method of selected recycling center. Dispose nonrecyclable trash separately into landfill.
- B. Source Separation Method: Recyclable materials separated from trash and sorted into separate bins or containers, identified by waste type, prior to transportation to recycling center.
- C. Comingling Method: Recyclable materials separated from trash and placed in unsorted bins or container for sorting at recycling center.
- D. Materials suggested for recycling include:
 1. Packing materials including paper, cardboard, foam plastic, and sheeting.
 2. Recyclable plastics.
 3. Organic plant debris.
 4. Earth materials.
 5. Native stone and granular fill.
 6. Asphalt and concrete paving.
 7. Wood.
 8. Glass.
 9. Metals.
 10. Gypsum products.
 11. Equipment oil.

1.8 CONSTRUCTION WASTE ADAPTIVE REUSE

- A. Arrange with processing facility for salvage of construction material and processing for reuse. Do not reuse construction materials on-Site.
- B. Materials suggested for adaptive reuse include:
 1. Concrete and crushed concrete.
 2. Masonry units.
 3. Lumber suitable for re-sawing or refinishing.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION

3.1 WASTE MANAGEMENT PLAN IMPLEMENTATION

- A. Manager: Designate an on-site person or persons responsible for instructing workers and overseeing and documenting results of the Waste Management Plan.
- B. Communication: Distribute copies of the Waste Management Plan to job site foreman, each subcontractor, Owner, and Architect.
- C. Instruction: Provide on-site instruction of appropriate separation, handling, and recycling, salvage, reuse, and return methods to be used by all parties at the appropriate stages of the project.
- D. Meetings: Discuss trash/waste management goals and issues at project meetings.
 - 1. Pre-bid meeting.
 - 2. Pre-construction meeting.
 - 3. Regular job-site meetings.

3.2 CONSTRUCTION WASTE COLLECTION

- A. Collect construction waste materials in marked bins or containers and arrange for transportation to recycling centers or adaptive salvage and reuse processing facilities.
- B. Maintain recycling and adaptive reuse storage and collection area in orderly arrangement with materials separated to eliminate co-mingling of materials required to be delivered separately to waste processing facility.
- C. Store construction waste materials to prevent environmental pollution, fire hazards, hazards to persons and property, and contamination of stored materials.
- D. Cover construction waste materials subject to disintegration, evaporation, settling, or runoff to prevent polluting air, water, and soil.

3.3 CONSTRUCTION WASTE DISPOSAL

- A. Deliver construction waste to waste processing facilities. Obtain receipt for deliveries.
- B. Dispose of construction waste not capable of being recycled or adaptively reused by delivery to landfill, incinerator, or other legal disposal facility. Obtain receipt for deliveries.

3.4 SITE MAINTENANCE

- A. Do not use the Owner's waste containers for construction waste.
- B. Dispose daily of flammable, hazardous and toxic waste materials. Dispose of trash and debris in compliance with governing codes, ordinances, regulations and anti-pollution laws.

- C. Locate dumpster(s) at a site designated by the Owner.

END OF SECTION

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes
 - 1. Closeout procedures.
 - 2. Spare parts and maintenance products.
 - 3. Product warranties.
 - 4. Final cleaning.

1.2 CLOSEOUT PROCEDURES

- A. Prerequisites to Substantial Completion: Complete following items before requesting Certification of Substantial Completion, either for entire Work or for portions of Work:
 - 1. Submit maintenance manuals, Project record documents, digital images of construction photographs and other similar final record data in compliance with this Section.
 - 2. Complete facility startup, testing, adjusting, balancing of systems and equipment, demonstrations and instructions to Owner's operating and maintenance personnel as specified in compliance Contract Documents.
 - 3. Conduct inspection to establish basis for request that Work is substantially complete. Create comprehensive list (initial punch list) indicating items to be completed or corrected, value of incomplete or nonconforming Work, reason for being incomplete, and date of anticipated completion for each item. Include copy of list with request for Certificate of Substantial Completion.
 - 4. Obtain and submit releases enabling Owner's full, unrestricted use of Project and access to services and utilities. Include certificate of occupancy, operating certificates, and similar releases from authorities having jurisdiction and utility companies.
 - 5. Insurance: Advise Owner of insurance change-over requirements.
 - 6. Deliver tools, spare parts, extra stocks of material, and similar physical items to Owner.
 - 7. Make final change-over of locks and transmit keys directly to Owner. Advise Owner's personnel of change-over in security provisions.
 - 8. Discontinue or change over and remove temporary facilities and services from Project Site, along with construction tools, mockups, and similar elements.
 - 9. Perform final cleaning according to this Section.
- B. Substantial Completion Inspection:
 - 1. When Contractor considers Work to be substantially complete, submit to Architect/Engineer:
 - a. Written certificate that Work, or designated portion, is substantially complete.
 - b. List of items to be completed or corrected (initial punch list).
 - 2. Within seven days after receipt of request for Substantial Completion, Architect/Engineer will make inspection to determine whether Work or designated portion is substantially complete.
 - 3. Should Architect/Engineer determine that Work is not substantially complete:
 - a. Architect/Engineer will promptly notify Contractor in writing, stating reasons for its opinion.
 - b. Contractor shall remedy deficiencies in Work and send second written request for Substantial Completion to Architect/Engineer.
 - c. Architect/Engineer will re-inspect Work.

- d. Redo and Inspection of Deficient Work: Repeated until Work passes Architect/Engineer's inspection.
 4. When Architect/Engineer finds that Work is substantially complete, Architect/Engineer will:
 - a. Prepare Certificate of Substantial Completion on AIA G704 - Certificate of Substantial Completion, accompanied by Contractor's list of items to be completed or corrected as verified and amended by Architect/Engineer and Owner (final punch list).
 - b. Submit Certificate to Owner and Contractor for their written acceptance of responsibilities assigned to them in Certificate.
 5. After Work is substantially complete, Contractor shall:
 - a. Allow Owner occupancy of Project under provisions stated in Certificate of Substantial Completion.
 - b. Complete Work listed for completion or correction within time period stipulated.
 6. Owner will occupy portions of building as specified in Section 011000 - Summary.
- C. Prerequisites for Final Completion: Complete following items before requesting final acceptance and final payment.
 1. When Contractor considers Work to be complete, submit certification that:
 - a. Contract Documents have been reviewed.
 - b. Work has been examined for compliance with Contract Documents.
 - c. Work has been completed according to Contract Documents.
 - d. Work is completed and ready for final inspection.
 2. Submittals: Submit following:
 - a. Final punch list indicating all items have been completed or corrected.
 - b. Final payment request with final releases and supporting documentation not previously submitted and accepted. Include certificates of insurance for products and completed operations where required.
 - c. Specified warranties, workmanship/maintenance bonds, maintenance agreements, and other similar documents.
 - d. Accounting statement for final changes to Contract Sum.
 - e. Contractor's affidavit of payment of debts and claims on AIA G706 - Contractor's Affidavit of Payment of Debts and Claims.
 - f. Contractor affidavit of release of liens on AIA G706A - Contractor's Affidavit of Release of Liens.
 - g. Consent of surety to final payment on AIA G707 - Consent of Surety to Final Payment Form.
 - h. Other Submittals Not Listed: Submit as required by State and Local agencies, Agreement, and Contracting Requirements.
 3. Perform final cleaning for Contractor-soiled areas according to this Section.
- D. Final Completion Inspection:
 1. Within seven days after receipt of request for final inspection, Architect/Engineer will make inspection to determine whether Work or designated portion is complete.
 2. Should Architect/Engineer consider Work to be incomplete or defective:
 - a. Architect/Engineer will promptly notify Contractor in writing, listing incomplete or defective Work.
 - b. Contractor shall remedy stated deficiencies and send second written request to Architect/Engineer that Work is complete.
 - c. Architect/Engineer will re-inspect Work.
 - d. Redo and Inspection of Deficient Work: Repeated until Work passes Architect/Engineer's inspection.

- E. Following determination that Work is complete, Owner's Representative and Architect will make recommendation to Owner for acceptance of Final Acceptance of Work.
- F. Owner's Representative will issue Final Acceptance letter after determination that requirements for Final Completion have been fulfilled.
- G. Should Owner's Representative and Architect be required to perform more than two reviews for Substantial Completion or Final Completion, due to failure of the Work to conform to completion status claimed by Contractor:
 - 1. Contractor will compensate Owner's Representative and Architect on a time and expense basis at customary hourly rate for each additional review.
 - 2. Compensation will be deducted from Contractor's Final Progress Payment.
 - a.

1.3 SPARE PARTS AND MAINTENANCE PRODUCTS

- A. Furnish spare parts, maintenance, and extra products in quantities specified in individual Specification Sections.
- B. Deliver to place in location as directed by Owner; obtain receipt prior to final payment.

1.4 PRODUCT WARRANTIES

- A. Obtain warranties executed by responsible Subcontractors, suppliers and manufacturers within ten days after completion of applicable item of Work.
- B. Execute and assemble transferable warranty documents from Subcontractors, suppliers, and manufacturers.
- C. Verify documents are in proper form, contain full information and are notarized.
- D. Co-execute submittals when required.
- E. Include table of contents and assemble in three D side ring binder with durable plastic cover. Maintain a PDF copy.
- F. Submit prior to final Application for Payment.
- G. Warranties shall be dated for length of time specified from date of Substantial Completion and will be rejected if dated otherwise.
- H. Time of Submittals:
 - 1. For equipment or component parts of equipment put into service during construction with Owner's permission, submit documents within ten days after acceptance.
 - 2. Make other submittals within ten days after date of Substantial Completion, prior to final Application for Payment.
 - 3. For items of Work for which acceptance is delayed beyond Substantial Completion, submit within ten days after acceptance, listing date of acceptance as beginning of warranty or bond period.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION

3.1 FINAL CLEANING

- A. Execute final cleaning prior to final Project assessment.
 - 1. Employ experienced personnel or professional cleaning firm.
- B. Clean surfaces exposed to view; remove temporary labels, stains, and foreign substances.
- C. Clean Site; sweep paved areas, rake clean landscaped surfaces.
- D. Remove waste and surplus materials, rubbish, and construction facilities from Site.

3.2 FINAL ADJUSTMENT OF ACCOUNTS

- A. Submit final accounting statement to Architect making final adjustments to original Contract Sum.
- B. Indicate Original Contract Sum and determine Total Adjusted Contract Sum from additions and deductions resulting from previous Change Orders, Alternates, Unit prices, and other adjustments.
- C. Deduct previous payments from adjusted Contract Sum to determine Total Contract Sum remaining due.
- D. Architect will prepare final Change Order reflecting approved adjustments to Contract Sum not previously made by other Change Orders.

3.3 FINAL APPLICATION FOR PAYMENT

- A. Submit final Application for Payment in accordance with the Contracting Requirements, and procedures and requirements of Owner, identifying total adjusted Contract Sum, previous payments, and sum remaining due.

END OF SECTION

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Cutting and alterations to accommodate new Work.
 - 2. Removal and disposal of demolished materials.
- B. Related Sections:
 - 1. Section 011000 – Summary.
 - 2. Section 051000 – Temporary Facilities and Controls.

1.2 SUBMITTALS

- A. Project Record Documents: Accurately record actual locations of capped utilities, surface obstructions and abandoned items. Submit this information with the project record documents (as-builts) per Section 017000.
- B. When existing conditions are discovered that differ from what is shown on the construction documents, a description and/or detailed drawings of the actual existing conditions need to be submitted to the Architect/Engineer immediately in a form that clearly shows the differences and locations. Approval will be required to continue work on these areas.

1.3 SITE CONDITIONS

- A. Maintenance of Services: Locate, protect, support, and maintain uninterrupted all utilities, equipment, services, and Owner's property within the limits of the Work.

1.4 PROJECT CONDITIONS

- A. The Contractor is responsible for the safety of his workmen and shall follow all WISHA rules and regulations. The Contractor shall provide respirators when recommended or required.
- B. Conduct demolition to minimize interference with occupied building areas and adjacent buildings that are to remain in operation.
- C. Notify Architect/Engineer immediately if existing conditions differ from shown on construction documents.

PART 2 PRODUCTS

2.1 NOT USED

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine existing portions of work indicated to be demolished before demolition.
- B. Determine where demolition may affect structural integrity or weather resistance of adjacent buildings.
 - 1. Identify measures required to protect buildings from damage.

2. Identify remedial work including patching, repairing, bracing, and other work required to leave buildings in structurally sound and weathertight and watertight condition.
- C. Verify hazardous material abatement is complete before beginning demolition.

3.2 PREPARATION

- A. Call Local Utility Line Information service not less than three working days before performing Work.
 1. Request underground utilities to be located and marked within and surrounding construction areas.
- B. Before beginning selective demolition activities: Provide, erect, and maintain temporary barriers, safety and security devices, including warning signs and lights, and similar measures, for protection of the public, Owner and existing improvements indicated to remain. Erect temporary fences, overhead covers, temporary walkways, enclosed passageways, guard rails, chutes, etc. to protect personnel, construction, equipment and furnishings.
- C. Erect and maintain weatherproof closures for exterior openings.
- D. Protect existing landscaping materials, trees, appurtenances, structures and natural features indicated to remain. Any collateral damage to or destruction of portions of the existing: structure, materials, equipment or systems shall be repaired and/or replaced by the Contractor at his expense.
- E. Provide appropriate temporary signage including signage for exit or building egress.

3.3 DEMOLITION REQUIREMENTS

- A. Perform demolition in an orderly and careful manner. Protect existing supporting structural members and finishes.
- B. Burning:
 1. The use of burning at the project site for the disposal of refuse and debris shall not be permitted. Remove demolished materials from the site except where specifically noted otherwise.
- C. Adjacent Structures and occupants:
 1. Conduct demolition to minimize interference with adjacent structures and occupancies.
 2. Conduct operations with minimum interference to public or private accesses to occupied adjacent structures. Maintain protected egress and access from adjacent structures at all times.
 3. Obtain written permission from adjacent property owners when demolition equipment will traverse, infringe upon or limit access to their property.
- D. Use of Explosives:
 1. Use of explosives shall not be permitted.

3.4 CLEANING AND COMPLETION

- A. The Contractor shall keep work areas cleaned up at all times. Items removed during demolition shall be removed from the site daily. All dirt and debris in the work areas shall be removed daily. Materials that cannot be removed daily shall be stored in areas specified

by the Owner's Representative. All dust shall be removed from existing structures, equipment, piping and other items monthly and at the completion of all work. The use of water will not be permitted when it will result in or create a hazardous or objectionable condition such as ice, flooding and pollution. See Section 017419 - Construction Waste Management for segregation of materials and recycling requirements. Haul away all remaining materials and dispose of legally. Obtain official receipts of quantities and costs and retain for project records. Upon completion of Work, leave areas in clean condition.

END OF SECTION