



January 8, 2018

**PROJECT MANUAL**

**City of Weatherford Utility Building  
Renovations**

917 Eureka St.  
Weatherford, Texas 76086

August 29, 2017  
PROJECT NO. 17-1004.00

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OWNER	City of Weatherford 917 Eureka Street Weatherford, TX 76086 P 817.598.4000
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ARCHITECT	Elements of Architecture, Inc. 1201 6 <sup>th</sup> Avenue, Suite 100 Fort Worth, TX 76104 P 817.333.2880
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MEP	Torres Engineering Services, Inc. 8237 Delafield Dr. Fort Worth, TX 76131 P 682.556.0848
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January 8, 2018

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**ADVERTISEMENT FOR BIDS**

**1.01 GENERAL**

- A. The Owner of this Project is:  
City of Weatherford  
917 Eureka Street  
Weatherford, Texas 76086  
817.598.4000
- B. The Architect for this Project is:  
Elements of Architecture, Inc.  
1201 6<sup>th</sup> Avenue, Suite 100  
Fort Worth, Texas 76104
- C. General Contractors are invited to submit a Bid for the construction of the Utility Building Renovations, located at 917 Eureka St, Weatherford, Texas 76086.
- D. The Work of this project is generally described as: renovations of approximately 2570 s.f. of existing space for service center offices, break room, equipment rooms, and conference room.
- E. Bids must be on a stipulated sum basis.
- F. The Owner will receive sealed Bids until 5:00PM local time, February 8, 2018 at the Weatherford Service Center location (project location).
- G. Bidders are required to submit Document 00 4300 - Bid Form Supplements at the time Bids are submitted.
- H. Bids will be opened privately immediately after the time set for submittal.
- I. Bidders are required to state the number of days required to achieve Substantial Completion of the Work. Consideration will be given to the stated time of completion when reviewing Bids submitted.
- J. A Bid Security is not required.
- K. Bids are required to be submitted under a condition of irrevocability for a period of 60 days after submittal.
- L. Submit Bids on the Bid Form provided.
- M. At the time Bidding Documents are issued, Bidders shall submit an executed copy of AIA Document A305, Contractor's Qualification Statement, latest edition.
- N. Refer to Document 00 2113 - Instructions to Bidders for additional information.

**1.02 BIDDING DOCUMENTS**

- A. Bidders may obtain 1 set of Bidding Documents from the office of the Owner at Eureka Street free of charge. An electronic link to the documents will be provided.
- B. Partial sets of Bidding Documents will not be issued.
- C. Bidding Documents will not be issued directly to sub-bidders.
- D. Bidding Documents may be examined at the office of the Owner at the address listed above.

**1.03 EXAMINATION OF SITE**

- A. Bidders and sub-bidders shall contact the following individual to arrange for examination of the site:  
Beverly Laxson (817) 598-4261

**1.04 PRE-BID CONFERENCE**

- A. A pre-bid conference will not be held.

**END OF DOCUMENT**

**DOCUMENT 00 2113**

**INSTRUCTIONS TO BIDDERS**

**1.01 DOCUMENT**

- A. American Institute of Architects Document A701-1997, Instructions to Bidders, forms a part of the Bidding Documents and by reference is incorporated herein as fully as if repeated at length.

**1.02 RELATED REQUIREMENTS**

- A. Section 00 1113 - Advertisement for Bids.

**1.03 SUPPLEMENTS**

- A. The following supplements modify, delete from, or add to the Instructions to Bidders referenced above.
- B. Where provisions of the Instructions to Bidders are modified, unaltered provisions remain in effect.
- C. Article 3 - Bidding Documents:
  - 1. Delete Subparagraph 3.3.2; substitute the following:
    - a. 3.3.2 Substitutions will not be considered prior to award of Contract. Refer to Section 01 6000 - Product Requirements for additional information.
  - 2. Delete Subparagraphs 3.3.3 and 3.3.4.
  - 3. In Subparagraph 3.2.2, change "seven days" to read "three days."
- D. Article 4 - Bidding Procedures:
  - 1. Add Subparagraph 4.1.8:
    - a. 4.1.8 Identify the time of completion on the Bid Form. The date of Substantial Completion in the Owner/Contractor Agreement shall be the time of completion added to the commencement date.
  - 2. Delete the first sentence of Subparagraph 4.2.1; substitute the following:
    - a. 4.2.1 Each Bid shall be accompanied by a Bid Security in an amount equal to 5 percent of the maximum possible Bid amount, consisting of either a certified check or a surety bond, pledging that the Bidder will enter into a contract with the Owner on the terms stated in the Bid and will furnish bonds covering the faithful performance of the contract and payment of obligations arising thereunder.
  - 3. Delete Subparagraph 4.2.2; substitute the following:
    - a. 4.2.2 If a surety bond is submitted, it shall be issued by a surety licensed to conduct business in the State in which the project is located, and shall be written on American Institute of Architects (AIA) Document A310, Bid Bond. The attorney-in-fact who executes the bond on behalf of the surety shall affix to the bond a certified and current copy of the power of attorney.
  - 4. Delete Paragraph 4.2.
- E. Article 5 - Consideration of Bids:
  - 1. Add the following to Subparagraph 5.2.1:
    - a. 5.2.1 The Owner shall have the right to disqualify any Bidder who fails to satisfy the Owner that he is qualified to complete the Work.
  - 2. Add Subparagraph 5.3.3:
    - a. 5.3.3 The Owner requires that work of this contract be completed as quickly as possible. Consideration will be given to the time of completion when reviewing the Bids submitted.

**END OF DOCUMENT**

**DOCUMENT 00 4100**

**BID FORM**

**DATE** \_\_\_\_\_, 2018  
**PROJECT** City of Weatherford Utility Building Renovations  
**PROPOSAL OF** \_\_\_\_\_  
hereinafter called "Bidder", a (corporation) (partnership) (sole proprietorship) (Bidder strike out inapplicable terms)  
**TO** City of Weatherford (hereinafter called "Owner")

The undersigned, in compliance with your Advertisement for Bids, submits the following Bid.

**1.01 REPRESENTATIONS**

- A. Bidder will accept the provisions of the Bidding Documents.
- B. Bidder will enter into and execute a contract with the Owner within 30 days after notification of the acceptance of this Bid.
- C. Bidder will accomplish the Work in accordance with the Construction Documents prepared by Elements of Architecture.

**1.02 TIME OF COMPLETION**

- A. Bidder will achieve Substantial Completion of the Work within the following calendar days after a Notice to Proceed is issued:  
Days (\_\_\_\_\_)

**1.03 BID AMOUNTS**

- A. Base Bid Amount: Bidder proposes to construct this project for the stipulated sum of:  
Dollars (\_\_\_\_\_)
- B. Contractor's Fee: Bidder proposes to construct this project for a fee (the amount of which is included in the guaranteed maximum cost stated above) of:  
Dollars (\_\_\_\_\_)

**1.04 ADDENDA**

- A. Bidder acknowledges receipt of the following Addenda:  
No. \_\_\_\_\_ Dated \_\_\_\_\_, 20\_\_\_\_  
No. \_\_\_\_\_ Dated \_\_\_\_\_, 20\_\_\_\_  
No. \_\_\_\_\_ Dated \_\_\_\_\_, 20\_\_\_\_  
No. \_\_\_\_\_ Dated \_\_\_\_\_, 20\_\_\_\_  
No. \_\_\_\_\_ Dated \_\_\_\_\_, 20\_\_\_\_

Respectfully Submitted,

\_\_\_\_\_  
Firm Name By \_\_\_\_\_  
\_\_\_\_\_  
Street Address Signature

---

City, State and Zip Code

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Title

---

Telephone

Corporations: Affix Corporate Seal

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State in which incorporated

**END OF DOCUMENT**

**DOCUMENT 00 4300**  
**BID FORM SUPPLEMENTS**

**DATE** \_\_\_\_\_, 20\_\_\_\_  
**PROJECT** City of Weatherford Utility Building Renovations  
**SUPPLEMENT TO**  
**PROPOSAL OF** \_\_\_\_\_  
**TO** City of Weatherford (hereinafter called "Owner")

The undersigned, in compliance with your Advertisement for Bids, submits the Supplements to the Bid Form listed below. The information provided shall be considered as an integral part of the Bid Form previously submitted.

These Appendices are as follows:

1. Proposed Subcontractors: Includes the names of Subcontractors and the portions of the Work they will perform.
2. Base Bid Amount Breakdown: Identifies the cost breakdown of the previously submitted Base Bid amount into the portions of the Work requested.

Respectfully submitted,

\_\_\_\_\_  
Firm Name

\_\_\_\_\_  
Name of Officer

\_\_\_\_\_  
Signature of Officer



**PROPOSED SUBCONTRACTORS**

Bidder proposes to use the following Subcontractors for the portions of the Work indicated.

<b>SPECIFICATION SECTION</b>	<b>SUBCONTRACTOR</b>

**BASE BID AMOUNT BREAKDOWN**

The following is a breakdown of the Base Bid Amount into amounts attributable to the portions of the Work indicated. [Contractor's] [Construction Manager's] overhead and profit shall be [included in each item of work.] [included as a separate line item.]

<u>ITEM OF WORK</u>	<u>VALUE</u>
[ ]	\$ _____
[ ]	\$ _____
[ ]	\$ _____
[ ]	\$ _____
[ ]	\$ _____
[ ]	\$ _____
[ ]	\$ _____
[ ]	\$ _____
[ ]	\$ _____
[ ]	\$ _____
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[ ]	\$ _____
[ ]	\$ _____
[ ]	\$ _____
[ ]	\$ _____
[ ]	\$ _____
TOTAL (BASE BID AMOUNT)	\$ _____

**END OF DOCUMENT**

**DOCUMENT 00 7200**  
**GENERAL CONDITIONS**

**1.01 SUMMARY**

- A. Related Documents:
  - 1. Document 00 7300 - Supplementary Conditions.
  - 2. Division 01 - General Requirements.

**1.02 DOCUMENT**

- A. American Institute of Architects (AIA) Document A201-2007, General Conditions of the Contract for Construction, forms a part of this Contract and by reference is incorporated herein as fully as if repeated at length.

**END OF DOCUMENT**

**DOCUMENT 00 7300**

**SUPPLEMENTARY CONDITIONS**

**1.01 SUMMARY**

- A. Related Documents:
  - 1. Document 00 7200 - General Conditions.
  - 2. Division 01 - General Requirements.

**1.02 GENERAL**

- A. The following supplements modify, delete from, or add to the General Conditions referenced above.
- B. Where provisions of the General Conditions are modified, unaltered provisions remain in effect.

**1.03 SUPPLEMENTS**

- A. Article 1 - General Provisions:
  - 1. Add Subparagraph 1.1.9:
    - a. 1.1.8 The term "product" includes materials, systems, and equipment.
  - 2. Add Subparagraph 1.1.10:
    - a. 1.1.9 The term "furnish" means to supply and deliver to Project site, ready for unloading, unpacking, assembly, erection, placement or similar requirements.
  - 3. Add Subparagraph 1.1.11:
    - a. 1.1.10 The term "install" means to unload, unpack, assemble, erect, place, finish, protect, adjust, and clean, or similar requirements.
  - 4. Add Subparagraph 1.1.12:
    - a. 1.1.11 The term "provide" means to furnish and install.
- B. Article 9 - Payments and Completion:
  - 1. Add Subparagraph 9.6.8:
    - a. 9.6.8 Until acceptance of the work, the Owner will retain 10 percent of the amount due the Contractor on account of progress payments. Upon completion of all punchlist and the project, retainage will be released for payment.
- C. Article 10 - Protection of Persons and Property:
  - 1. Add Paragraph 10.3.7:
    - a. 10.3.7 The Contractor shall not knowingly use any materials containing asbestos or other known hazardous materials in the Work.
- D. Article 11 - Insurance and Bonds:
  - 1. In Subparagraph 11.1.1, following the word "located", add "and against whom the Owner has no reasonable objection."
  - 2. Add the following to the end of Subparagraph 11.1.3: "The form of the Certificate of Insurance shall be ACORD Form 25S"
  - 3. Add Subparagraph 11.1.5:
    - a. 11.1.5 Liability insurance shall include all major divisions of coverage and be on a comprehensive basis including:
      - 1) Premises-Operations including X, C and U coverages as applicable.
      - 2) Independent Contractors' Protective.
      - 3) Products and Completed Operations.
      - 4) Personal Injury Liability with Employment Exclusion deleted.
      - 5) Contractual, including specified provision for Contractor's obligation under Paragraph 3.18.
      - 6) Owned, non-owned and hired motor vehicles.
      - 7) Broad Form Property Damage including Completed Operations."
  - 4. Add Subparagraph 11.1.6:
    - a. 11.1.6 The insurance required by Subparagraph 11.1.1 shall be written for not less than the following limits or those required by law, whichever is greater and shall include the following coverages as a minimum:
      - 1) Worker's Compensation:
        - (a) State: Statutory.
        - (b) Applicable Federal: Statutory.

- (c) Employer's Liability: \$1,000,000 per accident; \$1,000,000 per disease, Policy Limit; \$1,000,000 per disease, each employee.
  - 2) Comprehensive or Commercial General Liability including Premises-Operations; Independent Contractors' Protective; Products and Completed Operations; Broad Form Property Damage:
    - (a) Bodily Injury: \$1,000,000 each occurrence; \$1,000,000 aggregate.
    - (b) Property Damage: \$1,000,000 each occurrence; \$1,000,000 aggregate.
    - (c) Products and Completed Operations shall be maintained for 1 year after final payment. Provide evidence of coverage on annual basis.
    - (d) Property Damage Liability: Include X, C and U coverage.
    - (e) Broad Form Property Damage shall include Completed Operations.
  - 3) Contractual Liability:
    - (a) Bodily Injury: \$1,000,000 each occurrence; \$1,000,000 aggregate.
    - (b) Property Damage: \$1,000,000 each occurrence; \$1,000,000 aggregate.
  - 4) Personal Injury, with Employment Exclusion deleted: \$1,000,000 aggregate.
  - 5) Business Automobile Liability including owned, non-owned and hired vehicles:
    - (a) Bodily Injury: \$1,000,000 each person; \$1,000,000 each occurrence.
    - (b) Property Damage: \$1,000,000 each occurrence.
5. Modify the first sentence of Subparagraph 11.3.1 as follows: Delete "Unless otherwise provided, the Owner"; substitute "The Contractor."
  6. Delete Subparagraph 11.4.1; substitute the following:
    - a. 11.4.1 Furnish to Owner performance bond and labor and material payment bond, each equal to the amount of the Contract Sum, with approved surety, covering faithful performance of Contract and payment of obligations incurred in performance of Contract and also for use and benefit of parties who may become entitled to liens under the Contract according to provisions of laws of the State in which the project is located. The form of the bonds shall be acceptable to Owner.
      - 1) The Contractor shall deliver the required bonds to the Owner not later than three days following the date of execution of the Owner-Contractor Agreement, or if the Work is to be commenced prior thereto in response to a letter of intent, the Contractor shall, prior to commencement of the Work, submit evidence satisfactory to the Owner that such bonds will be furnished.
      - 2) The Contractor shall require the attorney-in-fact who executes the required bonds on behalf of the surety to affix thereto a certified and current copy of the power of attorney.
- E. Article 13 - Miscellaneous Provisions:
1. Add Paragraph 13.8:
    - a. 13.8 Equal Opportunity:
      - 13.8.1 The Contractor and Subcontractors shall not discriminate against any employee or applicant for employment because of race, religion, color, sex, or national origin. The Contractor shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, religion, color, sex, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the policies of nondiscrimination.
      - 13.8.2 The Contractor and Subcontractors shall, in all solicitations or advertisements for employees placed by them or on their behalf, state that all qualified applicants will receive consideration for employment without regard to race, religion, color, sex, or national origin.

**END OF DOCUMENT**

## SECTION 01 1000

### SUMMARY

#### PART 1 - GENERAL

##### 1.01 PROJECT

- A. Project Name: City of Weatherford Utility Building Renovations
- B. Owner's Name: City of Weatherford  
917 Eureka Street  
Weatherford, Texas 76086
- C. Architect's Name: Elements of Architecture, Inc.  
1201 6<sup>th</sup> Avenue. Suite 100  
Fort Worth, Texas 76104
- D. Work of this Project is described as: Renovations of approximately 2570 s.f. of existing space for service center offices, break room, equipment rooms, and conference room. Work includes general construction, plumbing, HVAC, and electrical.
- E. The Project will be constructed under a single contract.

##### 1.02 WORK BY OTHERS

- A. Owner may award separate contracts.

##### 1.03 OWNER OCCUPANCY

- A. Owner intends to occupy the Project during construction as stated in the Agreement as the contract completion date.
- B. Cooperate with Owner to minimize conflict and to facilitate Owner's operations.
- C. Schedule the Work to accommodate Owner occupancy.

##### 1.04 CONTRACTOR USE OF SITE AND PREMISES

- A. Construction Operations: Limited to areas noted on Drawings.
- B. Arrange use of site and premises to allow:
  - 1. Owner Occupancy.
  - 2. Work by others.
  - 3. Work by Owner.
- 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.
  - 2. Do not obstruct roadways, sidewalks, or other public ways without permit.
- D. Verify access and use of the facility and parking with the Owner. Coordinate all activities for minimal interruptions to the Owner's operations during construction.

**PART 2 - PRODUCTS - NOT USED.**

**PART 3 - EXECUTION - NOT USED.**

**END OF SECTION**

## SECTION 01 2000

### PRICE AND PAYMENT PROCEDURES

#### PART 1 - GENERAL

##### 1.01 SECTION INCLUDES

- A. Procedures for preparation and submittal of applications for progress payments.
- B. Documentation of changes in Contract Price and Contract Time.
- C. Change procedures.
- D. Correlation of Contractor submittals based on changes.
- E. Procedures for preparation and submittal of application for final payment.

##### 1.02 RELATED REQUIREMENTS

- A. Section 00 5000 - Contracting Forms and Supplements: Forms to be used.
- B. Document 00 5200 - Agreement Form: Contract Price, retainages, payment period, monetary values of unit prices.
- C. Document 00 7200 - General Conditions and Document 00 7300 - Supplementary Conditions: Additional requirements for progress payments, final payment, changes in the Work.
- D. Document 00 7300 - Supplementary Conditions: Percentage allowances for Contractor's overhead and profit.

##### 1.03 SCHEDULE OF VALUES

- A. Electronic media printout including equivalent information will be considered in lieu of standard form specified; submit sample to Architect for approval.
- B. Forms filled out by hand will not be accepted.
- C. Submit Schedule of Values in duplicate within 15 days after date of Owner-Contractor Agreement.
- D. Format: Utilize the Table of Contents of this Project Manual. Identify each line item with number and title of the specification Section. Identify site mobilization.
- E. Include in each line item, the amount of Allowances specified in this section. For unit cost Allowances, identify quantities taken from Contract Documents multiplied by the unit cost to achieve the total for the item.
- F. Include separately from each line item, a direct proportional amount of Contractor's overhead and profit.
- G. Revise schedule to list approved Change Orders, with each Application For Payment.

##### 1.04 APPLICATIONS FOR PROGRESS PAYMENTS

- A. Payment Period: Submit at intervals stipulated in the Agreement.
- B. Electronic media printout including equivalent information will be considered in lieu of standard form specified; submit sample to Architect for approval.
- C. Forms filled out by hand will not be accepted.
- D. For each item, provide a column for listing each of the following:
  - 1. Item Number.
  - 2. Description of work.
  - 3. Scheduled Values.
  - 4. Previous Applications.

5. Work in Place and Stored Materials under this Application.
  6. Authorized Change Orders.
  7. Total Completed and Stored to Date of Application.
  8. Percentage of Completion.
  9. Balance to Finish.
  10. Retainage.
- E. Execute certification by signature of authorized officer.
  - F. Use data from approved Schedule of Values. Provide dollar value in each column for each line item for portion of work performed and for stored products.
  - G. List each authorized Change Order as a separate line item, listing Change Order number and dollar amount as for an original item of Work.
  - H. Submit three copies of each Application for Payment.
  - I. Include the following with the application:
    1. Transmittal letter as specified for Submittals in Section 01 3000.
    2. Construction progress schedule, revised and current as specified in Section 01 3000.
  - J. When Architect requires substantiating information, submit data justifying dollar amounts in question. Provide one copy of data with cover letter for each copy of submittal. Show application number and date, and line item by number and description.

#### **1.05 MODIFICATION PROCEDURES**

- A. Submit name of the individual authorized to receive change documents and who will be responsible for informing others in Contractor's employ or subcontractors of changes to the Contract Documents.
- B. For minor changes not involving an adjustment to the Contract Price or Contract Time, Architect will issue instructions directly to Contractor.
- C. For other required changes, Architect will issue a document signed by Owner instructing Contractor to proceed with the change, for subsequent inclusion in a Change Order.
  1. The document will describe the required changes and will designate method of determining any change in Contract Price or Contract Time.
  2. Promptly execute the change.
- D. For changes for which advance pricing is desired, Architect will issue a document that includes a detailed description of a proposed change with supplementary or revised drawings and specifications, a change in Contract Time for executing the change with a stipulation of any overtime work required and the period of time during which the requested price will be considered valid. Contractor shall prepare and submit a fixed price quotation within 3 days.
- E. Contractor may propose a change by submitting a request for change to Architect, describing the proposed change and its full effect on the Work, with a statement describing the reason for the change, and the effect on the Contract Price and Contract Time with full documentation and a statement describing the effect on Work by separate or other contractors. Document any requested substitutions in accordance with Section 01 6000.
- F. Computation of Change in Contract Amount: As specified in the Agreement and Conditions of the Contract.
  1. For change requested by Architect for work falling under a fixed price contract, the amount will be based on Contractor's price quotation.
  2. For change requested by Contractor, the amount will be based on the Contractor's request for a Change Order as approved by Architect.
  3. For change ordered by Architect without a quotation from Contractor, the amount will be determined by Architect based on the Contractor's substantiation of costs as specified for Time and Material work.



- G. Substantiation of Costs: Provide full information required for evaluation.
  - 1. On request, provide following data:
    - a. Quantities of products, labor, and equipment.
    - b. Taxes, insurance, and bonds.
    - c. Overhead and profit.
    - d. Justification for any change in Contract Time.
    - e. Credit for deletions from Contract, similarly documented.
  - 2. Support each claim for additional costs with additional information:
    - a. Origin and date of claim.
    - b. Dates and times work was performed, and by whom.
    - c. Time records and wage rates paid.
    - d. Invoices and receipts for products, equipment, and subcontracts, similarly documented.
  - 3. For Time and Material work, submit itemized account and supporting data after completion of change, within time limits indicated in the Conditions of the Contract.
- H. Execution of Change Orders: Architect will issue Change Orders for signatures of parties as provided in the Conditions of the Contract.
- I. After execution of Change Order, promptly revise Schedule of Values and Application for Payment forms to record each authorized Change Order as a separate line item and adjust the Contract Price.
- J. Promptly revise progress schedules to reflect any change in Contract Time, revise sub-schedules to adjust times for other items of work affected by the change, and resubmit.
- K. Promptly enter changes in Project Record Documents.

**1.06 APPLICATION FOR FINAL PAYMENT**

- A. Prepare Application for Final Payment as specified for progress payments, identifying total adjusted Contract Price, previous payments, and sum remaining due.
- B. Application for Final Payment will not be considered until the following have been accomplished:
  - 1. All closeout procedures specified in Section 01 7000.

**PART 2 - PRODUCTS - NOT USED**

**PART 3 - EXECUTION - NOT USED**

**END OF SECTION**

## SECTION 01 2100

### ALLOWANCES

#### PART 1 - GENERAL

##### 1.01 SUMMARY

- A. Section Includes:
  - 1. Cash allowances.
  - 2. Contingency allowance.
- B. Related Sections
  - 1. Section 01 2900 - Payment Procedures.
  - 2. Section 01 3216 - Construction Progress Schedules.
  - 3. Individual specification sections.
- C. Include in Contract Sum cash allowances specified in individual sections.
- D. Designate in Construction Progress Schedule specified in Section 01 3216 delivery dates for products under each allowance.
- E. Designate in Schedule of Values specified in Section 01 2900 quantities of materials specified under unit cost allowances.

##### 1.02 CASH ALLOWANCES

- A. General:
  - 1. Purchase products under each allowance as directed by Architect.
  - 2. Amount of allowance includes:
    - a. Net cost of product, less any applicable trade discounts.
    - b. Delivery to site.
    - c. Applicable taxes.
    - d. Labor required under allowance, only when labor is specified to be included in allowance.
  - 3. In addition to amounts of allowances, include in Contract Sum, Contractor's costs for:
    - a. Handling at site, including unloading, uncrating, and storing.
    - b. Protection from elements and from damage.
    - c. Labor required for installation and finishing, except where installation is specified to be part of allowance.
    - d. Other expenses required to complete installation.
    - e. Overhead and profit.
- B. Selection of Products:
  - 1. Architect's Duties:
    - a. Consult with Contractor in consideration of products and suppliers.
    - b. Make selection; designate products to be used.
    - c. Prepare Change Orders.
  - 2. Contractor's Duties:
    - a. Assist Architect in determining:
      - 1) Supplier or installer, as applicable.
      - 2) Cost, delivered and unloaded at site.
    - b. Obtain proposals from suppliers when requested by Architect.
    - c. Notify Architect of any effect anticipated by selection of product or supplier under consideration on construction schedule or contract sum.
    - d. On notification of selection, enter into purchase agreement with designated supplier.
- C. Delivery:
  - 1. Contractor's Duties:
    - a. Arrange for delivery and unloading.
    - b. Promptly inspect products for damage or defects.
    - c. Submit any claims for transportation damage.
- D. Installation: Comply with requirements of referenced specification section.
- E. Adjustment of Costs:

1. Should actual purchase cost be more or less than specified amount of allowance, Contract Sum will be adjusted by Change Order equal to amount of difference.
2. Amount of Change Order will recognize any changes in handling costs at site, labor, installation costs, overhead, profit, and other expenses caused by selection under allowance.
3. For products specified under unit cost allowance, unit cost shall apply to quantity listed in Schedule of Values.
4. Submit invoices or other data to substantiate quantity actually used.
5. Submit any claims for additional costs at site or other expenses caused by selection under allowances, prior to execution of work. Failure to do so will constitute waiver of claims for additional costs.

### **1.03 CONTINGENCY ALLOWANCE**

- A. Contractor's costs for products, delivery, installation, labor, insurance, payroll, taxes, bonding, equipment rental, overhead and profit will be included in Change Orders authorizing expenditure of funds from this Contingency Allowance.
- B. Funds will be drawn from Contingency Allowance only by Change Order.
- C. At closeout of Contract, funds remaining in Contingency Allowance will be credited to Owner by Change Order.

**PART 2 - PRODUCTS - NOT USED**

**PART 3 - EXECUTION - NOT USED**

**END OF SECTION**

**SECTION 01 2200**

**UNIT PRICES**

**PART 1 - GENERAL**

**1.01 SUMMARY**

- A. Section Includes:
  - 1. Measurement.
  - 2. Payment.
- B. Related Sections:
  - 1. Individual specification sections.

**1.02 UNIT PRICES**

- A. Provide unit prices for items listed, for inclusion in Contract, guaranteed to apply for duration of Project as basis for additions to or deductions from Contract Sum.
- B. Take measurements and compute quantities.
- C. Quantities and measurements indicated are for Contract purposes only. Actual quantities and measurements supplied or placed in the Work will determine payment.
- D. Payment includes full compensation for all required labor, Products, tools, equipment, plant, transportation, services, and incidentals, and for erection, application, or installation of an item of the Work.
- E. Adjustments to Contract Sum will be made by Change Order based on net cumulative change for each item of the Work.

**PART 2 - PRODUCTS - NOT USED**

**PART 3 - EXECUTION - NOT USED**

**END OF SECTION**

**SECTION 01 2500**  
**SUBSTITUTION PROCEDURES**

**PART 1 - GENERAL**

**1.01 SUMMARY**

- A. Section Includes:
  - 1. Product Substitution Procedures.

**1.02 GENERAL**

- A. Definition: Proposal by Contractor to use manufacturer, product, material, or system different from one required in Contract Documents.
- B. Do not substitute Products unless a substitution request has been approved.
- C. Substitutions during Bidding: Refer to Instructions to Bidders.
- D. Owner will consider substitution requests within 30days after award of Contract. After initial 30 day period, substitutions requests will be considered only due to non-availability of a specified Product through no fault of Contractor.
- E. In case of non-availability of a specified Product notify Owner in writing as soon as non-availability becomes apparent.

**1.03 SUBSTITUTION REQUESTS**

- A. Submit substitution requests on form provided.
- B. Document specified product and proposed substitution with complete data, including:
  - 1. Product identification, including name and address of manufacturer.
  - 2. Product description, performance and test data, and reference standards.
  - 3. Sample, if requested.
  - 4. Description of any anticipated effect that acceptance of proposed substitution will have on Progress Schedule, construction methods, or other items of Work.
  - 5. Description of any differences between specified product and proposed substitution.
  - 6. Difference in cost between specified product and proposed substitution.
- C. Burden of proof for substantiating compliance of proposed substitution with Contract Document requirements remains with Contractor
- D. A request constitutes a representation that the Contractor:
  - 1. Has investigated the proposed Product and determined that it meets or exceeds the quality level of the specified Product.
  - 2. Will provide the same warranty for the substitution as for the 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 reimburse Owner for design services associated with re-approval by authorities or revisions to Contract Documents to accommodate the substitution.
- E. Substitutions will not be considered if:
  - 1. They are indicated or implied on Shop Drawings or other submittals without submittal of a substitution request.
  - 2. Approval will require substantial revision of Contract Documents without additional compensation to Architect.
- F. Submit electronically in Adobe PDF format.
- G. Owner will notify Contractor of approval or rejection of each Substitution Request.

**PART 2 - PRODUCTS - NOT USED**

**PART 3 - EXECUTION - NOT USED**

**END OF SECTION**

**SUBSTITUTION REQUEST FORM**

DATE: \_\_\_\_\_

TO: \_\_\_\_\_

ATTENTION: \_\_\_\_\_

PROJECT: \_\_\_\_\_

We submit for your consideration the following product as a substitution for the specified product:

Section No.	Paragraph	Specified Product
_____	_____	_____

Proposed Substitution: \_\_\_\_\_

\_\_\_\_\_

Reason for Substitution: \_\_\_\_\_

\_\_\_\_\_

Product Data:

Attach complete technical data for both the specified product and the proposed substitution. Include information on changes to Contract Documents that the proposed substitution will require for its proper installation.

Samples:

Attached       Will be furnished upon request

Does the substitution affect dimensions shown on Drawings?

No       Yes (explain) \_\_\_\_\_

\_\_\_\_\_

Effects of proposed substitution on other Work:

\_\_\_\_\_

\_\_\_\_\_

Differences between proposed substitution and specified Product:

\_\_\_\_\_

\_\_\_\_\_

Manufacturer's warranties of the proposed substitution are:

Same       Different (explain) \_\_\_\_\_  
\_\_\_\_\_

Maintenance service and spare parts are available for proposed substitution from:

\_\_\_\_\_  
\_\_\_\_\_

Previous installations where proposed substitution may be seen:

Project: \_\_\_\_\_ Project: \_\_\_\_\_  
Owner: \_\_\_\_\_ Owner: \_\_\_\_\_  
Architect: \_\_\_\_\_ Architect: \_\_\_\_\_  
Date Installed: \_\_\_\_\_ Date Installed: \_\_\_\_\_

Cost savings to be realized by Owner, if proposed substitution is approved:

\_\_\_\_\_

Change to Contract Time, if proposed substitution is approved:

No Change       Add \_\_\_\_\_ days       Deduct \_\_\_\_\_ days

Submittal constitutes a representation that Contractor has read and agrees to the provisions of Section 01 2500.

Submitted by Contractor:

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Firm

For Use by Architect:

Based on the information supplied by the Contractor, the Architect has reviewed the proposed substitution on the basis of design concept of the Work and conformance with information given in Contract Documents.

Approved       Approved as Noted       Rejected

Submit Additional Information: \_\_\_\_\_  
\_\_\_\_\_

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

## SECTION 01 2600

### CONTRACT MODIFICATION PROCEDURES

#### GENERAL

##### 1.01 SUMMARY

- A. Section Includes:
  - 1. Supplemental Instructions.
  - 2. Proposal Requests.
  - 3. Contractor proposed changes.
  - 4. Construction Change Directives.
  - 5. Change Orders.
- B. Related Sections:
  - 1. Section 01 6000 - Product Requirements.

##### 1.02 CHANGE PROCEDURES

- A. Architect's Supplemental Instructions:
  - 1. Format: AIA Document G710 - Architect's Supplemental Instructions.
  - 2. Architect will advise of minor changes in Work not involving an adjustment to Contract Sum or Contract Time as authorized by the Conditions of the Contract.
- B. Proposal Requests:
  - 1. Format: AIA Document G709 - Proposal Request.
  - 2. Architect may issue a Proposal Request that includes a detailed description of a proposed change with supplemental or revised Drawings and specifications.
  - 3. Prepare and submit an estimate of any change to Contract Sum or Contract Time within 7 days after receipt. Include:
    - a. Quantities and unit costs, with total cost or credit to Owner. If requested, furnish documentation of quantities.
    - b. Taxes, delivery charges, equipment rentals, and trade discounts as applicable.
    - c. If change in Contract Time is involved, provide updated Progress Schedule.
  - 4. Do not stop work or initiate changes in response to a Proposal Request. If approved, Architect will prepare and issue a Change Order.
  - 5. Submit one copy. Submit electronically in Adobe PDF format.
- C. Contractor Proposed Changes:
  - 1. Format: Contractor's standard.
  - 2. Contractor may propose a change by submitting request for change to Owner.
  - 3. Describe proposed change, reason for change, its full effect on Work, and any change to Contract Sum or Contract Time. Include:
    - a. Quantities and unit costs, with total cost or credit to Owner. If requested, furnish documentation of quantities.
    - b. Taxes, delivery charges, equipment rentals, and trade discounts as applicable.
    - c. If change in Contract Time is involved, provide updated Progress Schedule.
  - 4. Document any required substitutions in accordance with Section 01 6000.
  - 5. Submit one copy. Submit electronically in Adobe PDF format.
- D. Construction Change Directive:
  - 1. Architect may issue a directive, signed by Owner, instructing Contractor to proceed with a change for subsequent inclusion in a Change Order.
  - 2. Documentation will describe changes in Work and designate method of determining any change to Contract Sum or Contract Time. Promptly execute change.
- E. Change Orders:
  - 1. Format: AIA Document G701 - Change Order.
  - 2. Execution: Architect will issue Change Orders for signature of parties as provided in Conditions of the Contract. Submit one copy. Submit electronically in Adobe PDF format.



**PART 2 - PRODUCTS - NOT USED**

**PART 3 - EXECUTION - NOT USED**

**END OF SECTION**

**SECTION 01 2613**  
**REQUESTS FOR INFORMATION**

**PART 1 - GENERAL**

**1.01 SUMMARY**

- A. Section Includes:
  - 1. Requests for Information (RFI's).
- B. Related Sections:
  - 1. Section 01 2500 - Substitution Procedures.
  - 2. Section 01 2600 - Contract Modification Procedures.
  - 3. Section 01 3300 - Submittal Procedures.
  - 4. Section 01 7700 - Closeout Procedures.

**1.02 GENERAL**

- A. Request for Information (RFI): Request from Contractor seeking interpretation or clarification of Contract Documents not involving Substitutions or changes to Contract Sum or Contract Time.
- B. RFI's constitute a request for information only.
- C. Do not submit RFI's:
  - 1. To request approval of Substitutions; refer to Section 01 2500.
  - 2. To request changes known to include changes to Contract Sum or Contract Time; refer to Section 01 2600.
  - 3. To request approval of submittals; refer to Section 01 3300.
  - 4. To submit Project Record Documents; refer to Section 01 7700.

**1.03 SUBMITTAL**

- A. Submit RFI's on Contractor's standard form.
- B. Include on each RFI:
  - 1. Name of Contractor.
  - 2. Project name.
  - 3. Date submitted.
  - 4. Sequential RFI number.
  - 5. Applicable Drawing sheet and detail numbers or Specification Section numbers.
  - 6. Date when response information is required to avoid impact on Construction Schedule and Construction Cost.
- C. Review and sign RFI's submitted by Subcontractors, Sub-Subcontractors, or Suppliers prior to submittal to Architect.
- D. Maintain log of RFI's showing RFI number and current status of each RFI.
- E. When RFI's require submittal of drawings, follow submittal procedures specified for Shop Drawings in Section 01 3300.
- F. Submit one copy. Submit electronically in Adobe PDF format.
- G. Allow minimum 7days for review and response to each RFI.

**PART 2 - PRODUCTS - NOT USED**

**PART 3 - EXECUTION - NOT USED**

**END OF SECTION**

**SECTION 01 2900**  
**PAYMENT PROCEDURES**

**PART 1 - GENERAL**

**1.01 SUMMARY**

- A. Section Includes:
  - 1. Schedule of Values.
  - 2. Applications for Payment.
- B. Related Sections:
  - 1. Section 01 7700 - Closeout Procedures.

**1.02 SCHEDULE OF VALUES**

- A. General:
  - 1. Submit a Schedule of Values to Owner at least 20 days prior to submitting first Application for Payment.
  - 2. Upon request, furnish additional data to support values given that will substantiate their correctness.
  - 3. Approved Schedule of Values will be used as basis for reviewing Contractor's Applications for Payment.
- B. Form and Content:
  - 1. Format: AIA Document G703 - Continuation Sheet of Application and Certification for Payment. Contractor's standard electronic media format.
  - 2. Use Table of Contents of Project Manual as basis of format for listing costs of Work.
  - 3. List installed value of component parts of Work in sufficient detail to serve as basis for computing values for progress payments.
  - 4. Include separate line items for:
    - a. Site mobilization.
    - b. Bonds and insurance.
    - c. Contractor's overhead and profit.
  - 5. For items on which payment will be requested for stored materials, break down value into:
    - a. Cost of materials, delivered and unloaded, with taxes paid.
    - b. Total installed value.
  - 6. For each line item that has a value of more than \$25,000.00 break down costs to list major products or operations under each item.
  - 7. Total of costs listed in Schedule shall equal Contract Sum.
- C. Submit one copy. Submit electronically in Adobe PDF format.
- D. Review and Resubmittal:
  - 1. After initial review by Architect, revise and resubmit if required.
  - 2. Revise and resubmit along with next Application for Payment when a Change Order is issued. List each Change Order as a new line item.

**1.03 APPLICATIONS FOR PAYMENT**

- A. Preparation:
  - 1. Format: AIA Document G702 - Application and Certification for Payment, supported by AIA Document G703 - Continuation Sheet. Contractor's standard electronic media format.
  - 2. Prepare required information in typewritten format or on electronic media format.
  - 3. Use data from reviewed Schedule of Values. Provide dollar value in each column for each line item representing portion of work performed.
  - 4. List each authorized Change Order as a separate line item, listing Change Order number and dollar value.
  - 5. Prepare Application for Final Payment as specified in Section 01 7700.
- B. Waivers of Lien:
  - 1. Along with each Application for Payment, submit waivers of lien from Contractor and each Subcontractor or Sub-subcontractor included on the current month's Application for Payment.
  - 2. Submit partial waivers on each item for amount requested, prior to deduction of retainage.
  - 3. For completed items, submit full or final waiver.

- C. Substantiating Data:
  - 1. When requiring substantiating information, submit data justifying dollar amounts in question.
  - 2. Provide one copy of data with cover letter showing Application number and date, and line item number and description.
- D. Submittal:
  - 1. Submit one copy. One electronic copy in Adobe PDF format of each Application for Payment.
  - 2. Payment period: Submit at intervals stipulated in Owner/Contractor.

**PART 2 - PRODUCTS - NOT USED**

**PART 3 - EXECUTION - NOT USED**

**END OF SECTION**

## **ADMINISTRATIVE REQUIREMENTS**

### **PART 1 - GENERAL**

#### **1.02 SECTION INCLUDES**

- A. Preconstruction meeting.
- B. Site mobilization meeting.
- C. Progress meetings.
- D. Construction progress schedule.
- E. Submittals for review, information, and project closeout.
- F. Submittal procedures.
- G. Project progress photographs

#### **1.03 RELATED REQUIREMENTS**

- A. Section 01 1000 - Summary: Stages of the Work, Work covered by each contract, occupancy requirements.
- B. Section 01 7000 - Execution and Closeout Requirements: Additional coordination requirements.
- C. Section 01 7800 - Closeout Submittals: Project record documents.

#### **1.04 PROJECT COORDINATION**

- A. Project Coordinator: Contractor.
- B. Cooperate with the Project Coordinator in allocation of mobilization areas of site; for field offices and sheds, for access, traffic, and parking facilities.
- C. During construction, coordinate use of site and facilities through the Project Coordinator.
- D. Comply with Project Coordinator's procedures for intra-project communications; submittals, reports and records, schedules, coordination drawings, and recommendations; and resolution of ambiguities and conflicts.
- E. Comply with instructions of the Project Coordinator for use of temporary utilities and construction facilities.
- F. Coordinate field engineering and layout work under instructions of the Project Coordinator.
- G. Make the following types of submittals through the Project Coordinator:
  - 1. Requests for interpretation.
  - 2. Requests for substitution.
  - 3. Shop drawings, product data, and samples.
  - 4. Test and inspection reports.
  - 5. Manufacturer's instructions and field reports.
  - 6. Applications for payment and change order requests.
  - 7. Progress schedules.
  - 8. Coordination drawings.
  - 9. Closeout submittals.

### **PART 2 - PRODUCTS - NOT USED**

## **PART 3 - EXECUTION**

### **3.01 PRECONSTRUCTION MEETING**

- A. Owner will schedule a meeting after Notice of Award.
- B. Attendance Required:
  - 1. Owner.
  - 2. Contractor.
- C. Agenda:
  - 1. Execution of Owner-Contractor Agreement.
  - 2. Submission of executed bonds and insurance certificates.
  - 3. Distribution of Contract Documents.
  - 4. Submission of list of Subcontractors, list of Products, schedule of values, and progress schedule.
  - 5. Designation of personnel representing the parties to Contract.
  - 6. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders, and Contract closeout procedures.
  - 7. Scheduling.
- D. Record minutes and distribute copies within two days after meeting to participants, with two copies to Owner, participants, and those affected by decisions made.

### **3.02 SITE MOBILIZATION MEETING**

- A. Owner will schedule a meeting at the Project site prior to Contractor occupancy.
- B. Attendance Required:
  - 1. Contractor.
  - 2. Owner.
  - 3. Contractor's Superintendent.
  - 4. Major Subcontractors.
- C. Agenda:
  - 1. Use of premises by Owner and Contractor.
  - 2. Owner's requirements and occupancy prior to completion.
  - 3. Construction facilities and controls provided by Owner.
  - 4. Temporary utilities provided by Owner.
  - 5. Survey and building layout.
  - 6. Security and housekeeping procedures.
  - 7. Schedules.
  - 8. Application for payment procedures.
  - 9. Procedures for testing.
  - 10. Procedures for maintaining record documents.
  - 11. Requirements for start-up of equipment.
  - 12. Inspection and acceptance of equipment put into service during construction period.
- D. Record minutes and distribute copies within two days after meeting to participants, with two copies to Owner, participants, and those affected by decisions made.

### **3.03 PROGRESS MEETINGS**

- A. Schedule and administer meetings throughout progress of the Work at maximum monthly intervals.
- B. Attendance Required: Job superintendent, major Subcontractors and suppliers, Owner, Architect, as appropriate to agenda topics for each meeting.
- C. Agenda:
  - 1. Review minutes of previous meetings.
  - 2. Review of Work progress.

3. Field observations, problems, and decisions.
  4. Identification of problems that impede, or will impede, planned progress.
  5. Review of submittals schedule and status of submittals.
  6. Maintenance of progress schedule.
  7. Corrective measures to regain projected schedules.
  8. Planned progress during succeeding work period.
  9. Maintenance of quality and work standards.
  10. Effect of proposed changes on progress schedule and coordination.
  11. Other business relating to Work.
- D. Record minutes and distribute copies within two days after meeting to participants, with two copies to Owner, participants, and those affected by decisions made.

### **3.04 CONSTRUCTION PROGRESS SCHEDULE**

- A. Within 10 days after date of the Agreement, submit preliminary schedule defining planned operations for the first 60 days of Work, with a general outline for remainder of Work.
- B. If preliminary schedule requires revision after review, submit revised schedule within 10 days.
- C. Within 20 days after review of preliminary schedule, submit draft of proposed complete schedule for review.
- D. Include written certification that major contractors have reviewed and accepted proposed schedule.
  1. Within 10 days after joint review, submit complete schedule.
- E. Submit updated schedule with each Application for Payment.

### **3.05 PROGRESS PHOTOGRAPHS**

- A. Submit photographs with each application for payment, taken not more than 3 days prior to submission of application for payment.
- B. Photography Type: Digital; electronic files.
- C. Provide photographs of site and construction throughout progress of Work produced by an experienced photographer, acceptable to Owner.
- D. In addition to periodic, recurring views, take photographs of each of the following events:
  1. Completion of site clearing.
  2. Excavations in progress.
  3. Foundations in progress and upon completion.
  4. Structural framing in progress and upon completion.
  5. Enclosure of building, upon completion.
  6. Final completion, minimum of ten (10) photos.
- E. Views:
  1. Provide non-aerial photographs from four cardinal views at each specified time, until Date of Substantial Completion.
  2. Consult with Owner for instructions on views required.
  3. Provide factual presentation.
  4. Provide correct exposure and focus, high resolution and sharpness, maximum depth of field, and minimum distortion.
- F. Digital Photographs: 24 bit color, minimum resolution of 1024 by 768, in JPG format; provide files unaltered by photo editing software.
  1. Delivery Medium: Via email.
  2. File Naming: Include project identification, date and time of view, and view identification.
  3. PDF File: Assemble all photos into printable pages in PDF format, with 2 to 3 photos per page, each photo labeled with file name; one PDF file per submittal.
  4. Hard Copy: Printed hardcopy (grayscale) of PDF file and point of view sketch.

### **3.06 SUBMITTALS FOR REVIEW**

- A. When the following are specified in individual sections, submit them for review:
  - 1. Product data.
  - 2. Shop drawings.
  - 3. Samples for selection.
  - 4. Samples for verification.
- B. Submit to Owner for review for the limited purpose of checking for conformance with information given and the design concept expressed in the contract documents.
- C. Samples will be reviewed only for aesthetic, color, or finish selection.
- D. After review, provide copies and distribute in accordance with SUBMITTAL PROCEDURES article below and for record documents purposes described in Section 01 7800 - CLOSEOUT SUBMITTALS.

### **3.07 SUBMITTALS FOR INFORMATION**

- A. When the following are specified in individual sections, submit them for information:
  - 1. Design data.
  - 2. Certificates.
  - 3. Test reports.
  - 4. Inspection reports.
  - 5. Manufacturer's instructions.
  - 6. Manufacturer's field reports.
  - 7. Other types indicated.

### **3.08 SUBMITTALS FOR PROJECT CLOSEOUT**

- A. When the following are specified in individual sections, submit them at project closeout:
  - 1. Project record documents.
  - 2. Operation and maintenance data.
  - 3. Warranties.
  - 4. Bonds.
  - 5. Other types as indicated.

### **3.09 NUMBER OF COPIES OF SUBMITTALS**

- A. Documents for Review:
  - 1. Small Size Sheets, Not Larger Than 8-1/2 x 11 inches: Submit the number of copies that Contractor requires, plus two copies that will be retained by Owner.
  - 2. Larger Sheets, Not Larger Than 36 x 48 inches: Submit one reproducible transparency and one opaque reproduction.
- B. Documents for Information: Submit two copies.
- C. Samples: Submit the number specified in individual specification sections; one of which will be retained by Owner.
  - 1. After review, produce duplicates.
  - 2. Retained samples will not be returned to Contractor unless specifically so stated.

### **3.10 SUBMITTAL PROCEDURES**

- A. Transmit each submittal with approved form.
- B. Sequentially number the transmittal form. Revise submittals with original number and a sequential alphabetic suffix.
- C. Identify Project, Contractor, Subcontractor or supplier; pertinent drawing and detail number, and specification section number, as appropriate on each copy.
- D. Apply Contractor's stamp, signed or initialed certifying that review, approval, verification of Products required, field dimensions, adjacent construction Work, and coordination of



- information is in accordance with the requirements of the Work and Contract Documents.
- E. Schedule submittals to expedite the Project, and coordinate submission of related items.
  - F. For each submittal for review, allow 15 days excluding delivery time to and from the Contractor.
  - G. Identify variations from Contract Documents and Product or system limitations that may be detrimental to successful performance of the completed Work.
  - H. Provide space for Contractor and Architect review stamps.
  - I. When revised for resubmission, identify all changes made since previous submission.
  - J. Distribute reviewed submittals as appropriate. Instruct parties to promptly report any inability to comply with requirements.
  - K. Submittals not requested will not be recognized or processed.

**END OF SECTION**

**SECTION 01 3516**  
**ALTERATION PROJECT PROCEDURES**

**PART 1 - GENERAL**

**1.01 SUMMARY**

- A. Section Includes:
  - 1. Patching and extending existing work.
  - 2. Transitions and adjustments.
  - 3. Repair of damaged surfaces.
- B. Related Sections:

**1.02 PROJECT CONDITIONS**

- A. Hazardous Materials: If asbestos, lead-bearing paint, or other suspected hazardous materials are encountered during work of this Contract:
  - 1. Cease work in affected area immediately.
  - 2. Notify Owner and await instructions.
  - 3. Close off affected areas.

**PART 2 - PRODUCTS**

**2.01 MATERIALS**

- A. New Materials:
  - 1. Provide new materials to match existing adjacent materials for closing of openings, repairs, and reconstructions where suitable salvaged materials do not exist, are insufficient in quantity, or where reuse is not permitted.
  - 2. Match existing materials in material, type, size, quality, color, finish, and other attributes.
- B. Reused Materials:
  - 1. Clean and prepare salvaged materials for reuse.
  - 2. Do not use materials with objectionable chips, cracks, splits, dents, scratches, or other defects.
  - 3. Repair operable items to function properly.

**PART 3 - EXECUTION**

**1.01 PREPARATION**

- A. Test materials to be used in repairs for compatibility with existing materials; do not use incompatible materials.
- B. Cut, move, or remove items as necessary for access to alterations and renovation work. Replace and restore upon completion.
- C. Remove, cut, and patch work in manner to minimize damage and to provide means for restoring products and finishes to their original or specified new condition.
- D. Remove unsuitable materials not marked for salvage.
- E. Remove debris and abandoned items from areas of work and from concealed spaces.

**1.02 ALTERATIONS**

- A. Coordinate alterations and renovations to expedite completion.
- B. Install products and finish surfaces as specified in individual sections, or where no specification section exists to match existing.
- C. Refinish visible surfaces to specified condition, with neat transition to adjacent surfaces.
- D. Finish patches to provide uniform color and texture over entire surface, with repairs not discernible from normal viewing distance. If finish cannot be matched, refinish entire surface to nearest intersections.
- E. Where removal of partitions or walls results in adjacent spaces becoming one, rework finished surfaces to smooth plane, without breaks, steps, or bulkheads.

- F. Where new work abuts or aligns with existing, provide smooth and even transition. Where a change in plane of 1/4 inch or more occurs, submit recommendation to Architect for transition.
- G. Where alterations expose mechanical and electrical components that were previously concealed, renovate to be concealed in completed work.
- H. In addition to specified replacement of equipment and fixtures, restore mechanical and electrical systems to full operational condition.
- I. Patch holes in exposed surfaces left by removal of mechanical and electrical components.
- J. Existing Fire-Rated Assemblies:
  - 1. Patch or replace fire protection materials to maintain integrity of fire ratings.
  - 2. Seal penetrations through and perimeter of fire-rated assemblies under provisions of Section 07 8400.

**END OF SECTION**

## SECTION 01 3546

### INDOOR AIR QUALITY MANAGEMENT

#### PART 1 - GENERAL

##### 1.01 SUMMARY

- A. Section Includes:
  - 1. Indoor Air Quality Management Plan.
  - 2. During construction:
    - a. Protection of heating, ventilating, and air conditioning systems.
    - b. Reducing emissions through source control.
    - c. Pathway interruption.
    - d. Housekeeping.
    - e. Scheduling.
  - 3. Before occupancy: Air testing.

##### 1.02 REFERENCES

- A. American Society of Heating, Refrigeration, and Air-Conditioning Engineers (ASHRAE) 52.2 - Method of Testing General Ventilation Air-Cleaning Devices for Removal Efficiency by Particle Size.
- B. Sheet Metal and Air Conditioning Manufacturer's Association International (SMACNA) - IAQ Guidelines for Occupied Buildings Under Construction.
- C. U.S. Green Building Council (USGBC) - Leadership in Energy and Environmental Design (LEED) 2009 - Green Building Rating System for New Construction and Major Renovations.

##### 1.03 SUBMITTALS

- A. Indoor Air Quality Management Plan:
  - 1. Submit Indoor Air Quality Management Plan for review within 14 days after date of Notice to Proceed. Include:
    - a. Procedures for implementing requirements of SMACNA IAQ Guideline.
    - b. Substitution procedures for products that are responsibility of [Contractor] [Construction Manager] and proposed source control implementation measures to minimize building contamination.
    - c. Construction sequencing and storage plans for protection of stored on-site or installed absorptive materials against moisture absorption and contamination.
    - d. Filter media change schedule and Product Data for filters including MERV ratings.
    - e. Name and phone number of [Contractor's] [Construction Manager's] personnel responsible for instructing workers and overseeing and documenting results of Indoor Air Quality Management Plan.
  - 2. Submit one copy. Submit electronically in Adobe PDF format.
  - 3. If required, revise and resubmit plan within ten days after receipt of comments.
  - 4. Distribute copies of approved Indoor Air Quality Management Plan to concerned parties.
- B. Photographs: Document indoor air quality management measures with date-stamped photographs including protection of ducts, on-site storage, and protection of installed absorptive materials.
- C. Indoor Air Quality Testing Report showing results of air quality testing.

##### 1.04 QUALITY ASSURANCE

- A. Review and discuss Indoor Air Quality Management Plan implementation and progress at Preconstruction Conference and Progress Meetings.

##### 1.05 DELIVERY, STORAGE AND HANDLING

- A. Designate specific storage areas to facilitate protection of stored absorptive materials.
- B. Clearly identify storage area. Keep clean and orderly; prevent contamination of materials.
- C. Monitor storage areas for contamination; correct problems and implement preventative measures.

##### 1.06 TRAINING

- A. Provide training of indoor air quality management methods to be used at appropriate stages of Project.

- B. Require participation of all subcontractors.

## **PART 2 - PRODUCTS - NOT USED**

## **PART 3 - EXECUTION**

### **1.01 IMPLEMENTATION - DURING CONSTRUCTION**

- A. Meet or exceed SMACNA minimum requirements for heating, ventilating, and air conditioning system protection, source control, pathway interruption, housekeeping, and scheduling.
- B. Protect stored on-site or installed absorptive materials from moisture damage and volatile organic compound contamination through construction sequencing and proper storage.
- C. If air handlers are used during construction, use filtration media with Minimum Efficiency Reporting Value (MERV) of 8 per ASHRAE 52.2.
- D. Replace filtration media just prior to occupancy.
- E. Heating, Ventilating, and Air Conditioning System Protection:
  - 1. Keep duct systems including supply air, return air, and exhaust air and associated equipment including air handlers, variable air volume boxes, silencers, fans, and filter boxes, clean and uncontaminated.
  - 2. Seal taps and open ends not actively being worked on with plastic and tape.
  - 3. Provide 1 inch polyester filter media over return and exhaust air inlets during construction and until Substantial Completion.
  - 4. Ensure that temporary and permanent filters are in place and openings are closed before running fans.
  - 5. Protect existing heating, ventilating, and air conditioning systems with 1 inch polyester media installed over outside air intakes. Change out filter media on intakes to minimize pressure drops. Provide frequent filter change out to keep filter pressure drop at existing fan-coils below approximately 0.30 inch s.p.
- F. Source Control:
  - 1. For temporary and ancillary materials used in construction, follow requirements of similar products to minimize indoor air quality impacts.
  - 2. Use nontoxic formulations and implement other control measures to minimize building contamination.
- G. Pathway Interruption: Isolate areas where work is being performed to prevent contamination of clean [and occupied] spaces.
- H. Housekeeping:
  - 1. Implement cleaning activities concentrating on heating, ventilating, and air conditioning systems and building space to remove contaminants prior to occupancy.
  - 2. Protect materials from weather and store in clean area prior to unpacking..
  - 3. Clean coils, air filters, and fans before performing testing and balancing.
  - 4. Provide temporary walkoff mats at entry points to construction areas; replace or clean daily.
- I. Scheduling:
  - 1. Sequence construction activities to reduce absorption of and volatile organic compounds by materials.
  - 2. Complete applications of wet and odorous materials before installing absorptive materials.

### **1.02 IMPLEMENTATION - BEFORE OCCUPANCY**

- A. Conduct air testing in accordance with LEED Credit EQ 3.2.
- B. Replace filtration media after final cleaning.
- C. Complete air testing and balancing prior to beginning baseline air testing.

**END OF SECTION**

**SECTION 01 4000**  
**QUALITY REQUIREMENTS**

**PART 1 - GENERAL**

**1.01 SECTION INCLUDES**

- A. Mock-ups.
- B. Control of installation.
- C. Tolerances.
- D. Testing and inspection services.
- E. Manufacturers' field services.

**1.02 RELATED REQUIREMENTS**

- A. Section 01 3000 - Administrative Requirements: Submittal procedures.
- B. Section 01 6000 - Product Requirements: Requirements for material and product quality.

**1.03 REFERENCE STANDARDS**

- A. ASTM C1021 - Standard Practice for Laboratories Engaged in Testing of Building Sealants; 2008.
- B. ASTM C1077 - Standard Practice for Laboratories Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Laboratory Evaluation; 2011.
- C. ASTM C1093 - Standard Practice for Accreditation of Testing Agencies for Masonry; 2009.
- D. ASTM E329 - Standard Specification for Agencies Engaged Construction Inspection and/or Testing; 2011.
- E. ASTM E543 - Standard Specification for Agencies Performing Nondestructive Testing; 2009.

**1.04 SUBMITTALS**

- A. Design Data: Submit for Architect's knowledge as contract administrator for the limited purpose of assessing conformance with information given and the design concept expressed in the contract documents, or for Owner's information.
- B. Test Reports: After each test/inspection, promptly submit two copies of report to Architect and to Contractor.
  - 1. Include:
    - a. Date issued.
    - b. Project title and number.
    - c. Name of inspector.
    - d. Date and time of sampling or inspection.
    - e. Identification of product and specifications section.
    - f. Location in the Project.
    - g. Type of test/inspection.
    - h. Date of test/inspection.
    - i. Results of test/inspection.
    - j. Conformance with Contract Documents.
    - k. When requested by Architect, provide interpretation of results.
- C. Certificates: When specified in individual specification sections, submit certification by the manufacturer and Contractor or installation/application subcontractor to Architect, in quantities specified for Product Data.
  - 1. Indicate material or product conforms to or exceeds specified requirements. Submit

supporting reference data, affidavits, and certifications as appropriate.

- D. Manufacturer's Instructions: When specified in individual specification sections, submit printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing, for the Owner's information. Indicate special procedures, perimeter conditions requiring special attention, and special environmental criteria required for application or installation.
- E. Manufacturer's Field Reports: Submit reports for Architect's benefit as contract administrator or for Owner.
  - 1. Submit for information for the limited purpose of assessing conformance with information given and the design concept expressed in the contract documents.
- F. Erection Drawings: Submit drawings for Architect's benefit as contract administrator or for Owner.
  - 1. Submit for information for the limited purpose of assessing conformance with information given and the design concept expressed in the contract documents.

### **1.05 TESTING AND INSPECTION AGENCIES**

- A. Owner will employ services of an independent testing agency to perform certain specified testing; payment for cost of services will be derived from allowance specified in Section 01 2100; see Section 01 2100 and applicable sections for description of services included in allowance.
- B. Contractor shall employ and pay for services of an independent testing agency to perform other specified testing.
- C. Employment of agency in no way relieves Contractor of obligation to perform Work in accordance with requirements of Contract Documents.
- D. Contractor Employed Agency:
  - 1. Testing agency: Comply with requirements of ASTM E329, ASTM E543, ASTM C1021, ASTM C1077, and ASTM C1093.
  - 2. Laboratory: Authorized to operate in Texas.

## **PART 2 - MATERIALS - NOT USED**

## **PART 3 - EXECUTION**

### **3.01 CONTROL OF INSTALLATION**

- A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce Work of specified quality.
- B. Comply with manufacturers' instructions, including each step in sequence.
- C. Should manufacturers' instructions conflict with Contract Documents, request clarification from Architect before proceeding.
- D. Comply with specified standards as minimum quality for the Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- E. Have Work performed by persons qualified to produce required and specified quality.
- F. Verify that field measurements are as indicated on shop drawings or as instructed by the manufacturer.
- G. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, and disfigurement.

### **3.02 MOCK-UPS**

- A. Tests will be performed under provisions identified in this section and identified in the respective product specification sections.

- B. Assemble and erect specified items with specified attachment and anchorage devices, flashings, seals, and finishes.
- C. Accepted mock-ups shall be a comparison standard for the remaining Work.
- D. Where mock-up has been accepted by Architect and is specified in product specification sections to be removed, remove mock-up and clear area when directed to do so.

### **3.03 TOLERANCES**

- A. Monitor fabrication and installation tolerance control of products to produce acceptable Work. Do not permit tolerances to accumulate.
- B. Comply with manufacturers' tolerances. Should manufacturers' tolerances conflict with Contract Documents, request clarification from Architect before proceeding.
- C. Adjust products to appropriate dimensions; position before securing products in place.

### **3.04 TESTING AND INSPECTION**

- A. See individual specification sections for testing required.
- B. Testing Agency Duties:
  1. Test samples of mixes submitted by Contractor.
  2. Provide qualified personnel at site. Cooperate with Architect and Contractor in performance of services.
  3. Perform specified sampling and testing of products in accordance with specified standards.
  4. Ascertain compliance of materials and mixes with requirements of Contract Documents.
  5. Promptly notify Architect and Contractor of observed irregularities or non-conformance of Work or products.
  6. Perform additional tests and inspections required by Architect.
  7. Submit reports of all tests/inspections specified.
- C. Limits on Testing/Inspection Agency Authority:
  1. Agency may not release, revoke, alter, or enlarge on requirements of Contract Documents.
  2. Agency may not approve or accept any portion of the Work.
  3. Agency may not assume any duties of Contractor.
  4. Agency has no authority to stop the Work.
- D. Contractor Responsibilities:
  1. Deliver to agency at designated location, adequate samples of materials proposed to be used that require testing, along with proposed mix designs.
  2. Cooperate with laboratory personnel, and provide access to the Work and to manufacturers' facilities.
  3. Provide incidental labor and facilities:
    - a. To provide access to Work to be tested/inspected.
    - b. To obtain and handle samples at the site or at source of Products to be tested/inspected.
    - c. To facilitate tests/inspections.
    - d. To provide storage and curing of test samples.
  4. Notify Architect and laboratory 24 hours prior to expected time for operations requiring testing/inspection services.
  5. Employ services of an independent qualified testing laboratory and pay for additional samples, tests, and inspections required by Contractor beyond specified requirements.
  6. Arrange with Owner's agency and pay for additional samples, tests, and inspections required by Contractor beyond specified requirements.
- E. Re-testing required because of non-conformance to specified requirements shall be performed by the same agency on instructions by Architect.



- F. Re-testing required because of non-conformance to specified requirements shall be paid for by Contractor.

### **3.05 MANUFACTURERS' 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, start-up of equipment, test, adjust and balance of equipment as applicable, and to initiate instructions when necessary.
- B. Report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.

### **3.06 DEFECT ASSESSMENT**

- A. Replace Work or portions of the Work not conforming to specified requirements.
- B. If, in the opinion of Architect, it is not practical to remove and replace the Work, Architect will direct an appropriate remedy or adjust payment.

**END OF SECTION**

## SECTION 01 4523

### TESTING AND INSPECTION SERVICES

#### PART 1 - GENERAL

##### 1.01 SUMMARY

- A. Section Includes:
  - 1. Laboratory selection and payment.
  - 2. Laboratory duties.
  - 3. Contractor's responsibilities.
- B. Related Sections: Individual specifications sections contain specific tests and inspections to be performed.

##### 1.02 REFERENCES

- A. ASTM International (ASTM):
  - 1. C1077 - Standard Practice for Laboratories Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Laboratory Evaluation.
  - 2. D3666 - Standard Specification for Minimum Requirements for Agencies Testing and Inspecting Road and Paving Materials.
  - 3. D3740 - Standard Practice for Minimum Requirements for Agencies Engaged in the Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction.
  - 4. E329 - Standard Specification for Agencies Engaged in Construction Inspection and/or Testing.
  - 5. E543 - Standard Specification for Agencies Performing Nondestructive Testing.

##### 1.03 QUALITY ASSURANCE

- A. Contractor shall employ and pay for services of an independent testing laboratory to perform specified testing and inspection.
- B. Employment of Testing Laboratory shall in no way relieve Contractor of his obligations to perform work in accordance with Contract Documents.
- C. Refer to the Conditions of the Contract for provisions related to special inspections and testing.
- D. Qualifications of Laboratory:
  - 1. Meet requirements of ASTM [C1077] [D3666] [D3740] [E329] [and] [E543].
  - 2. Authorized to operate in State in which project is located.

##### 1.04 LABORATORY DUTIES

- A. Cooperate with Owner and Contractor provide qualified personnel after due notice.
- B. Perform specified inspections, sampling, and testing of materials and methods of construction:
  - 1. Comply with specified standards.
  - 2. Ascertain compliance or noncompliance of materials with requirements of Contract Documents.
- C. Promptly notify Owner and Contractor of observed irregularities or deficiencies of Work or products.
- D. Promptly submit written report of each test and inspection; submit one copy electronically in Adobe PDF format to Architect, Owner, and Contractor.
- E. Each report to include:
  - 1. Date issued.
  - 2. Project title and number.
  - 3. Testing Laboratory name, address, and telephone number.
  - 4. Name of Inspector and signature of individual in charge.
  - 5. Date and time of sampling or inspection.
  - 6. Record of temperature and weather conditions.
  - 7. Date of test.
  - 8. Identification of product and specification section.
  - 9. Location of sample or test in project.
  - 10. Type of inspection or test.
  - 11. Results of tests and compliance or noncompliance with Contract Documents.

12. Interpretation of test results when requested by Architect or Contractor.

F. Perform additional tests when required.

G. Laboratory is not authorized to:

1. Release, revoke, alter, or enlarge on requirements of Contract Documents.
2. Approve or accept any portion of work.
3. Perform any duties of Contractor

#### **1.05 CONTRACTOR'S RESPONSIBILITIES**

A. Cooperate with Laboratory personnel, provide access to Work, and to manufacturer's operations.

B. When materials require testing prior to being incorporated into Work, secure and deliver to Laboratory adequate quantities of representative samples of materials proposed to be used.

C. Furnish copies of product test reports as required.

D. Furnish incidental labor and facilities:

1. To provide access to work to be tested.
2. To obtain and handle samples at site or at source of product to be tested.
3. To facilitate inspections and tests.
4. For safe storage and curing of test samples.

E. Notify Laboratory sufficiently in advance of operations to allow for Laboratory assignment of personnel and scheduling of tests.

F. When tests or inspections cannot be performed after such notice, reimburse Owner for Laboratory personnel and travel expenses incurred due to Contractor's negligence.

G. Make arrangements with Laboratory and pay for additional samples and tests required for Contractor's convenience.

**PART 2 - PRODUCTS - NOT USED**

**PART 3 - EXECUTION - NOT USED**

**END OF SECTION**

**SECTION 01 5000**  
**TEMPORARY FACILITIES AND CONTROLS**

**PART 1 - GENERAL**

**1.01 SECTION INCLUDES**

- A. Temporary utilities.
- B. Temporary telecommunications services.
- C. Temporary sanitary facilities.
- D. Security requirements.
- E. Vehicular access and parking.
- F. Waste removal facilities and services.
- G. Project identification sign.
- H. Field offices.

**1.02 TEMPORARY UTILITIES**

- A. Provide and pay for all electrical power, lighting, water, heating and cooling, and ventilation required for construction purposes.
- B. Existing facilities may not be used.
- C. Use trigger-operated nozzles for water hoses, to avoid waste of water.

**1.03 TELECOMMUNICATION SERVICES**

- A. Provide, maintain, and pay for telecommunications services to field office at time of project mobilization.
- B. Telecommunications services shall include:
  - 1. Windows-based personal computer dedicated to project telecommunications, with necessary software and laser printer.
  - 2. Telephone Land Lines: One line, minimum; one handset per line.
  - 3. Internet Connections: Minimum of one; DSL modem or faster.
  - 4. Email: Account/address reserved for project use.

**1.04 TEMPORARY SANITARY FACILITIES**

- A. Provide and maintain required facilities and enclosures. Provide at time of project mobilization.
- B. Maintain daily in clean and sanitary condition.

**1.05 BARRIERS**

- A. Provide barriers to prevent unauthorized entry to construction areas, to prevent access to areas that could be hazardous to workers or the public, to allow for owner's use of site and to protect existing facilities and adjacent properties from damage from construction operations and demolition.
- B. Provide barricades and covered walkways required by governing authorities for public rights-of-way and for public access to existing building.
- C. Provide protection for plants designated to remain. Replace damaged plants.
- D. Protect non-owned vehicular traffic, stored materials, site, and structures from damage.

**1.06 SECURITY**

- A. Provide security and facilities to protect Work, existing facilities, and Owner's operations from unauthorized entry, vandalism, or theft.

#### **1.07 VEHICULAR ACCESS PARKING**

- A. Comply with regulations relating to use of streets and sidewalks, access to emergency facilities, and access for emergency vehicles.
- B. Coordinate access and haul routes with governing authorities and Owner.
- C. Provide and maintain access to fire hydrants, free of obstructions.
- D. Provide means of removing mud from vehicle wheels before entering streets.
- E. Provide temporary parking areas to accommodate construction personnel. When site space is not adequate, provide additional off-site parking.

#### **1.08 WASTE REMOVAL**

- A. Provide waste removal facilities and services as required to maintain the site in clean and orderly condition.
- B. Provide containers with lids. Remove trash from site periodically.
- C. If materials to be recycled or re-used on the project must be stored on-site, provide suitable non-combustible containers; locate containers holding flammable material outside the structure unless otherwise approved by the authorities having jurisdiction.
- D. Open free-fall chutes are not permitted. Terminate closed chutes into appropriate containers with lids.

#### **1.09 PROJECT IDENTIFICATION**

- A. Provide project identification sign of design, construction, and location approved by Owner.
- B. No other signs are allowed without Owner permission except those required by law.

#### **1.10 FIELD OFFICES**

- A. Office: Weathertight, with lighting, electrical outlets, heating, cooling equipment, and equipped with sturdy furniture, drawing rack and drawing display table.
- B. Provide space for Project meetings, with table and chairs to accommodate 6 persons.
- C. Coordinate with Owner on location.

#### **1.11 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS**

- A. Remove temporary utilities, equipment, facilities, materials, prior to Substantial Completion inspection.
- B. Remove underground installations to a minimum depth of 2 feet. Grade site as indicated.
- C. Clean and repair damage caused by installation or use of temporary work.

### **PART 2 - PRODUCTS - NOT USED**

### **PART 3 - EXECUTION - NOT USED**

**END OF SECTION**

**SECTION 01 6000**  
**PRODUCT REQUIREMENTS**

**PART 1 - GENERAL**

**1.01 SECTION INCLUDES**

- A. General product requirements.
- B. Transportation, handling, storage and protection.
- C. Product option requirements.
- D. Substitution limitations and procedures.
- E. Maintenance materials, including extra materials, spare parts, tools, and software.

**1.02 RELATED REQUIREMENTS**

- A. Document 00 2113 - Instructions to Bidders: Product options and substitution procedures prior to bid date.
- B. Section 01 4000 - Quality Requirements: Product quality monitoring.

**1.03 SUBMITTALS**

- A. Product Data Submittals: Submit manufacturer's standard published data. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information specific to this Project.
- B. Shop Drawing Submittals: Prepared specifically for this Project; indicate utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.
- C. Sample Submittals: Illustrate functional and aesthetic characteristics of the product, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.
  - 1. For selection from standard finishes, submit samples of the full range of the manufacturer's standard colors, textures, and patterns.

**PART 2 - PRODUCTS**

**2.01 NEW PRODUCTS**

- A. Provide new products unless specifically required or permitted by the Contract Documents.
- B. Do not use products having any of the following characteristics:
  - 1. Made using or containing CFC's or HCFC's.
  - 2. Made of wood from newly cut old growth timber.
  - 3. Specific Product Categories: Provide regionally-sourced products as specified elsewhere.

**2.02 PRODUCT OPTIONS**

- A. Products Specified by Reference Standards or by Description Only: Use any product meeting those standards or description.
- B. Products Specified by Naming One or More Manufacturers: Use a product of one of the manufacturers named and meeting specifications, no options or substitutions allowed.
- C. Products Specified by Naming One or More Manufacturers with a Provision for Substitutions: Submit a request for substitution for any manufacturer not named.

**2.03 MAINTENANCE MATERIALS**

- A. Furnish extra materials, spare parts, tools, and software of types and in quantities specified in individual specification sections.
- B. Deliver to Project site; obtain receipt prior to final payment.

## **PART 3 - EXECUTION**

### **3.01 SUBSTITUTION PROCEDURES**

- A. Instructions to Bidders specify time restrictions for submitting requests for substitutions during the bidding period. Comply with requirements specified in this section.
- B. Requests will be considered for substitutions only within 15 days after date of Agreement.
- C. Substitutions may be considered when a product becomes unavailable through no fault of the Contractor.
- D. Document each request with complete data substantiating compliance of proposed substitution with Contract Documents.
- E. A request for substitution constitutes a representation that the submitter:
  - 1. Has investigated proposed product and determined that it meets or exceeds the quality level of the specified product.
  - 2. Will provide the same warranty for the substitution as for the 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 reimburse Owner and Architect for review or redesign services associated with re-approval by authorities.
- F. 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 the Contract Documents.
- G. Substitution Submittal Procedure:
  - 1. Bond: As directed by Owner, and as indicated on the drawings, and in accordance with the approved Mock-up.
  - 2. Mortar Joints: Concave.
  - 3. Submit three copies of request for substitution for consideration. Limit each request to one proposed substitution.
  - 4. Submit shop drawings, product data, and certified test results attesting to the proposed product equivalence. Burden of proof is on proposer.
  - 5. The Architect will notify Contractor in writing of decision to accept or reject request.

### **3.02 TRANSPORTATION AND HANDLING**

- A. Coordinate schedule of product delivery to designated prepared areas in order to minimize site storage time and potential damage to stored materials.
- B. Transport and handle products in accordance with manufacturer's instructions.
- C. Transport materials in covered trucks to prevent contamination of product and littering of surrounding areas.
- D. Promptly inspect shipments to ensure that products comply with requirements, quantities are correct, and products are undamaged.
- E. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage.
- F. Arrange for the return of packing materials, such as wood pallets, where economically feasible.

### **3.03 STORAGE AND PROTECTION**

- A. Designate receiving/storage areas for incoming products so that they are delivered according to installation schedule and placed convenient to work area in order to minimize waste due to excessive materials handling and misapplication.
- B. Store and protect products in accordance with manufacturers' instructions.

- C. Store with seals and labels intact and legible.
- D. Store sensitive products in weather tight, climate controlled, enclosures in an environment favorable to product.
- E. For exterior storage of fabricated products, place on sloped supports above ground.
- 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 a well-drained area. Prevent mixing with foreign matter.
- H. Prevent contact with material that may cause corrosion, discoloration, or staining.
- I. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
- J. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

**END OF SECTION**



**SECTION 01 7000**  
**EXECUTION AND CLOSEOUT REQUIREMENTS**

**PART 1 - GENERAL**

**1.01 SECTION INCLUDES**

- A. Examination, preparation, and general installation procedures.
- B. Cutting and patching.
- C. Laying out the work.
- D. Cleaning and protection.
- E. Starting of systems and equipment.
- F. Demonstration and instruction of Owner personnel.
- G. Closeout procedures, except payment procedures.
- H. General requirements for maintenance service.

**1.02 REFERENCE STANDARDS**

- A. NFPA 241 - Standard for Safeguarding Construction, Alteration, and Demolition Operations; 2004.

**1.03 SUBMITTALS**

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Cutting and Patching: Submit written request in advance of cutting or alteration that affects:
  - 1. Structural integrity of any element of Project.
  - 2. Integrity of weather exposed or moisture resistant element.
  - 3. Efficiency, maintenance, or safety of any operational element.
  - 4. Visual qualities of sight exposed elements.
  - 5. Work of Owner or separate Contractor.

**1.04 QUALIFICATIONS**

Not Used

**1.05 PROJECT CONDITIONS**

- A. Ventilate enclosed areas to assist cure of materials, to dissipate humidity, and to prevent accumulation of dust, fumes, vapors, or gases.
- B. Noise Control: Provide methods, means, and facilities to minimize noise produced by construction operations.
  - 1. At All Times: Excessively noisy tools and operations will not be tolerated inside the building at any time of day; excessively noisy includes jackhammers.
  - 2. Outdoors: Limit conduct of especially noisy exterior work to the hours of 8 am to 5 pm.
  - 3. Indoors: Limit conduct of especially noisy interior work to the hours of 6 pm to 7 am.
- C. Pest and Rodent Control: Provide methods, means, and facilities to prevent pests and insects from damaging the work.
- D. Pollution Control: Provide methods, means, and facilities to prevent contamination of soil, water, and atmosphere from discharge of noxious, toxic substances, and pollutants produced by construction operations. Comply with federal, state, and local regulations.

**1.06 COORDINATION**

- A. Coordinate scheduling, submittals, and work of the various sections of the Project Manual to ensure efficient and orderly sequence of installation of interdependent construction elements, with provisions for accommodating items installed later.

- B. Notify affected utility companies and comply with their requirements.
- C. Verify that utility requirements and characteristics of new operating equipment are compatible with building utilities. Coordinate work of various sections having interdependent responsibilities for installing, connecting to, and placing in service, such equipment.
- D. Coordinate space requirements, supports, and installation of mechanical and electrical work that are indicated diagrammatically on Drawings. Follow routing shown for pipes, ducts, and conduit, as closely as practicable; place runs parallel with lines of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.
- E. In finished areas except as otherwise indicated, conceal pipes, ducts, and wiring within the construction. Coordinate locations of fixtures and outlets with finish elements.
- F. Coordinate completion and clean-up of work of separate sections.
- G. After Owner occupancy of premises, coordinate access to site for correction of defective work and work not in accordance with Contract Documents, to minimize disruption of Owner's activities.

## **PART 2 - PRODUCTS**

### **2.01 PATCHING MATERIALS**

- A. New Materials: As specified in product sections; match existing products and work for patching and extending work.
- B. Type and Quality of Existing Products: Determine by inspecting and testing products where necessary, referring to existing work as a standard.
- C. Product Substitution: For any proposed change in materials, submit request for substitution described in Section 01 6000.

## **PART 3 - EXECUTION**

### **3.01 EXAMINATION**

- A. Verify that existing site conditions and substrate surfaces are acceptable for subsequent work. Start of 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. Take field measurements before confirming product orders or beginning fabrication, to minimize waste due to over-ordering or misfabrication.
- E. Verify that utility services are available, of the correct characteristics, and in the correct locations.
- F. Prior to Cutting: Examine existing conditions prior to commencing work, including elements subject to damage or movement during cutting and patching. After uncovering existing work, assess conditions affecting performance of work. Beginning of cutting or patching means acceptance of existing conditions.

### **3.02 PREPARATION**

- A. Clean substrate surfaces prior to applying next material or substance.
- 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 any new material or substance in contact or bond.

### **3.03 LAYING OUT THE WORK**

- A. Verify locations of survey control points prior to starting work.
- B. Promptly notify Owner of any discrepancies discovered.

- C. Contractor shall locate and protect survey control and reference points.
- D. Protect survey control points prior to starting site work; preserve permanent reference points during construction.
- E. Promptly report to Owner the loss or destruction of any reference point or relocation required because of changes in grades or other reasons.
- F. Replace dislocated survey control points based on original survey control. Make no changes without prior written notice to Owner.
- G. Utilize recognized engineering survey practices.
- H. Periodically verify layouts by same means.

### **3.04 GENERAL INSTALLATION REQUIREMENTS**

- A. In addition to compliance with regulatory requirements, conduct construction operations in compliance with NFPA 241, including applicable recommendations in Appendix A.
- B. Install products as specified in individual sections, in accordance with manufacturer's instructions and recommendations, and so as to avoid waste due to necessity for replacement.
- C. Make vertical elements plumb and horizontal elements level, unless otherwise indicated.
- D. Install equipment and fittings plumb and level, neatly aligned with adjacent vertical and horizontal lines, unless otherwise indicated.
- E. Make consistent texture on surfaces, with seamless transitions, unless otherwise indicated.
- F. Make neat transitions between different surfaces, maintaining texture and appearance.

### **3.05 CUTTING AND PATCHING**

- A. Whenever possible, execute the work by methods that avoid cutting or patching.
- B. Perform whatever cutting and patching is necessary to:
  1. Complete the work.
  2. Fit products together to integrate with other work.
  3. Provide openings for penetration of mechanical, electrical, and other services.
  4. Match work that has been cut to adjacent work.
  5. Repair areas adjacent to cuts to required condition.
  6. Repair new work damaged by subsequent work.
  7. Remove samples of installed work for testing when requested.
  8. Remove and replace defective and non-conforming work.
- C. Execute work by methods that avoid damage to other work and that will provide appropriate surfaces to receive patching and finishing. In existing work, minimize damage and restore to original condition.
- D. Employ original installer to perform cutting for weather exposed and moisture resistant elements, and sight exposed surfaces.
- E. Cut rigid materials using masonry saw or core drill. Pneumatic tools not allowed without prior approval.
- F. Restore work with new products in accordance with requirements of Contract Documents.
- G. Fit work air tight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
- H. At penetrations of fire rated walls, partitions, ceiling, or floor construction, completely seal voids with fire rated material in accordance with Section 07 8400, to full thickness of the penetrated element.
- I. Patching:
  1. Finish patched surfaces to match finish that existed prior to patching. On continuous surfaces, refinish to nearest intersection or natural break. For an assembly, refinish entire unit.

2. Match color, texture, and appearance.
3. Repair patched surfaces that are damaged, lifted, discolored, or showing other imperfections due to patching work. If defects are due to condition of substrate, repair substrate prior to repairing finish.

### **3.06 PROGRESS CLEANING**

- A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.
- B. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, prior to enclosing the space.
- C. Broom and vacuum clean interior areas prior to start of surface finishing, and continue cleaning to eliminate dust.
- D. Collect and remove waste materials, debris, and trash/rubbish from site periodically and dispose off-site; do not burn or bury.

### **3.07 PROTECTION OF INSTALLED WORK**

- A. Protect installed work from damage by construction operations.
- B. Provide special protection where specified in individual specification sections.
- C. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.
- D. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.
- E. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.
- F. Prohibit traffic or storage upon waterproofed or roofed surfaces. If traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.
- G. Remove protective coverings when no longer needed; reuse or recycle plastic coverings if possible.

### **3.08 SYSTEM STARTUP**

- A. Coordinate schedule for start-up of various equipment and systems.
- B. Verify that each piece of equipment or system has been checked for proper lubrication, drive rotation, belt tension, control sequence, and for conditions that may cause damage.
- C. Verify tests, meter readings, and specified electrical characteristics agree with those required by the equipment or system manufacturer.
- D. Verify that wiring and support components for equipment are complete and tested.
- E. Execute start-up under supervision of applicable Contractor personnel and manufacturer's representative in accordance with manufacturers' instructions.
- F. When specified in individual specification Sections, require manufacturer to provide authorized representative to be present at site to inspect, check, and approve equipment or system installation prior to start-up, and to supervise placing equipment or system in operation.
- G. Submit a written report that equipment or system has been properly installed and is functioning correctly.

### **3.09 DEMONSTRATION AND INSTRUCTION**

- A. Demonstrate operation and maintenance of products to Owner's personnel two weeks prior to date of Substantial Completion.
- B. Demonstrate start-up, operation, control, adjustment, trouble-shooting, servicing, maintenance, and shutdown of each item of equipment at scheduled time, at equipment location.

- C. For equipment or systems requiring seasonal operation, perform demonstration for other season within six months.
- D. Provide a qualified person who is knowledgeable about the Project to perform demonstration and instruction of owner personnel.
- E. Utilize operation and maintenance manuals as basis for instruction. Review contents of manual with Owner's personnel in detail to explain all aspects of operation and maintenance.
- F. Prepare and insert additional data in operations and maintenance manuals when need for additional data becomes apparent during instruction.
- G. The amount of time required for instruction on each item of equipment and system is that specified in individual sections.

### **3.10 ADJUSTING**

- A. Adjust operating products and equipment to ensure smooth and unhindered operation.

### **3.11 FINAL CLEANING**

- A. Execute final cleaning prior to final project assessment.
- B. Use cleaning materials that are nonhazardous.
- C. Clean interior and exterior glass, surfaces exposed to view; remove temporary labels, stains and foreign substances, polish transparent and glossy surfaces, vacuum carpeted and soft surfaces.
- D. Remove all labels that are not permanent. Do not paint or otherwise cover fire test labels or nameplates on mechanical and electrical equipment.
- E. Clean equipment and fixtures to a sanitary condition with cleaning materials appropriate to the surface and material being cleaned.
- F. Clean filters of operating equipment.
- G. Clean debris from roofs, gutters, downspouts, and drainage systems.
- H. Clean site; sweep paved areas, rake clean landscaped surfaces.
- I. Remove waste, surplus materials, trash/rubbish, and construction facilities from the site; dispose of in legal manner; do not burn or bury.

### **3.12 CLOSEOUT PROCEDURES**

- A. Make submittals that are required by governing or other authorities.
  - 1. Provide copies to Owner.
- B. Notify Owner when work is considered ready for Substantial Completion.
- C. Submit written certification that Contract Documents have been reviewed, work has been inspected, and that work is complete in accordance with Contract Documents and ready for Architect's review.
- D. Correct items of work listed in executed Certificates of Substantial Completion and comply with requirements for access to Owner-occupied areas.
- E. Notify Owner when work is considered finally complete.
- F. Complete items of work determined by Owner's final inspection.

### **3.13 MAINTENANCE**

- A. Provide service and maintenance of components indicated in specification sections.
- B. Maintenance Period: As indicated in specification sections or, if not indicated, not less than one year from the Date of Substantial Completion or the length of the specified warranty, whichever is longer.

- C. Examine system components at a frequency consistent with reliable operation. Clean, adjust, and lubricate as required.
- D. Include systematic examination, adjustment, and lubrication of components. Repair or replace parts whenever required. Use parts produced by the manufacturer of the original component.
- E. Maintenance service shall not be assigned or transferred to any agent or subcontractor without prior written consent of the Owner.

**END OF SECTION**

**SECTION 01 7329**  
**CUTTING AND PATCHING**

**PART 1 - GENERAL**

**1.01 SUMMARY**

- A. Section Includes:
  - 1. Requirements and limitations for cutting and patching of work.
- B. Related sections:
  - 1. Section 01 2500 - Substitution Procedures.

**1.02 SUBMITTALS**

- A. Submit written request in advance of executing cutting or alteration that affects:
  - 1. Work of Owner or separate contractor.
  - 2. Structural integrity of project.
  - 3. Integrity or effectiveness of weather exposed or moisture resistant elements or systems.
  - 4. Efficiency, operational life, maintenance, or safety of operational elements.
  - 5. Visual qualities of sight exposed elements.
- B. Include in Request:
  - 1. Identification of project.
  - 2. Description of work affected.
  - 3. Necessity for cutting or patching.
  - 4. Effect of cutting or patching on work of Owner or separate contractor, or on structural, weatherproof, or visual integrity of project.
  - 5. Description of proposed work:
    - a. Scope of cutting and patching.
    - b. Subcontractor and trades to execute work.
    - c. Products proposed to be used.
    - d. Extent of refinishing.
  - 6. Alternate to cutting and patching.
  - 7. Cost proposal, if applicable.
  - 8. Written permission of any separate contractor whose work will be affected.
- C. If conditions of work or schedule necessitate a change of material from that originally installed, submit substitution request in accordance with Section 01 2500.

**PART 2 - PRODUCTS - NOT USED**

**PART 3 - EXECUTION**

**3.01 PREPARATION**

- A. Examine existing conditions of work, including elements subject to movement or damage during cutting and patching.
- B. After uncovering work, examine conditions affecting installation of new products or performance of work.
- C. Provide protection for other portions of project.
- D. Provide protection from elements.

**3.02 CUTTING AND PATCHING**

- A. Execute cutting to include excavating, fitting, and patching of Work required to:
  - 1. Make several parts fit properly.
  - 2. Uncover work to provide for installation of ill-timed work.
  - 3. Remove and replace defective work.
  - 4. Remove and replace work not conforming to requirements of Contract Documents.
  - 5. Provide routine penetrations of nonstructural surfaces for installation of piping and electrical conduit.
- B. Execute fitting and adjustment of products to provide finished installation to comply with specified tolerances, and finishes.

- C. Execute cutting and demolition by methods that will prevent damage to other work, and will provide proper surfaces to receive installation of repairs and new work.
- D. Execute excavating and backfilling by methods that will prevent damage to other Work, and will prevent settlement.
- E. Employ original installer or fabricator to perform cutting and patching for:
  - 1. Weather exposed or moisture resistant elements.
  - 2. Sight exposed finished surfaces.
- F. Restore work that has been cut or removed; install new products to provide completed Work in accordance with requirements of Contract Documents.
- G. Refinish entire surfaces as necessary to provide an even finish:
  - 1. Continuous surfaces: To nearest intersections.
  - 2. Assembly: Refinish entirely.

**END OF SECTION**



## SECTION 01 7419

### CONSTRUCTION WASTE MANAGEMENT

#### PART 1 - GENERAL

##### 1.01 SUMMARY

- A. Section Includes:
  - 1. Construction waste management goals, plan, and records.

##### 1.02 WASTE MANAGEMENT GOALS

- A. Reuse, salvage, or recycle non-hazardous waste materials.
- B. Minimize waste sent to landfills and incinerators.
- C. Prioritize non-hazardous construction waste management in following order:
  - 1. Reduce amount of waste generated.
  - 2. Reuse material through on-site reuse or off-site salvaging, including sale or donation.
  - 3. Recycle material including diverting materials for secondary uses whenever economically feasible.
  - 4. Dispose of materials with no practical use or economic benefit at landfill.
- D. Divert minimum 75 percent of construction waste by weight (in tons) or volume (in cubic yards) from landfills and incinerators.
- E. Calculations may be performed using weight or volume but must be consistent throughout Project.

##### 1.03 WASTE MANAGEMENT

- A. Pro-actively manage construction and demolition waste:
  - 1. Practice efficient waste management when sizing, cutting, and installing products.
  - 2. Use all reasonable means to divert construction [and demolition] waste from landfills and incinerators, and to facilitate recycling and reuse.
  - 3. Return unused products and overages to supplier, or donate to non-profit group.
  - 4. Carefully install products; avoid removal of ill-timed and poorly installed products.
  - 5. Use centralized cutting areas to facilitate waste collection.
  - 6. Deliver, store, and handle products to prevent damage.
- B. Require subcontractors and suppliers to participate in waste management efforts.
- C. Construction waste includes:
  - 1. Products from demolition and removal, excluding [abatement waste,] excavated soil, and land-clearing debris.
  - 2. Excess and unusable construction products.
  - 3. Packaging materials for construction products.
  - 4. Other materials generated during construction process but not incorporated into the Work.
- D. Give consideration to:
  - 1. Availability of viable recycling markets.
  - 2. Condition of materials.
  - 3. Ability to provide material in suitable condition and in quantities acceptable to available markets.
  - 4. Time constraints imposed by internal project completion mandates.
- E. Be responsible for implementation of special programs involving rebates and similar incentives related to recycling of waste.
- F. Revenues and other savings obtained for salvage and recycling accrue to Contractor.
- G. Ensure that firms and facilities used for recycling, reuse, and disposal have legal permits for intended uses.

##### 1.04 SUBMITTALS

- A. Waste Management Plan:
  - 1. Submit waste management plan within ten days after Notice to Proceed and prior to initiating site preparation.
  - 2. Include:

- a. Name of individual on Contractor's staff responsible for waste prevention and management.
  - b. Actions proposed to reduce solid waste generation and achieve waste management goal.
  - c. Description of proposed methods for recycling and reuse of materials generated, including areas and equipment for processing, sorting, and temporary storage.
  - d. Estimated types and quantities of waste to be generated.
  - e. Name of landfills and incinerators to be used.
  - f. Identification of local and regional reuse programs that will accept waste materials.
  - g. List of waste materials to be salvaged for resale, salvaged and reused, or recycled. Identify recycling facilities to be used.
  - h. Identification of materials that cannot be recycled or reused, with justification.
- 3. Submit one copy. Submit electronically in Adobe PDF format.
  - 4. If required, revise and resubmit plan within ten days after receipt of comments.
  - 5. Distribute copies of approved Waste Management Plan to concerned parties.
  - 6. Update Waste Management Plan periodically through duration of Project to reflect changed conditions.

### **1.05 QUALITY ASSURANCE**

- A. Review and discuss waste management plan implementation and progress at Preconstruction Conference and Progress Meetings.

### **1.06 DELIVERY, STORAGE AND HANDLING**

- A. Designate separate areas to facilitate separation of materials for potential recycling, salvage, reuse and return.
- B. Clearly identify areas and receptacles.
- C. Keep storage areas and receptacles clean and orderly; prevent contamination of materials.
- D. Monitor storage areas; correct problems and implement preventative measures.

## **PART 2 - PRODUCTS - NOT USED**

## **PART 3 - EXECUTION**

### **3.01 WASTE COLLECTION**

- A. Provide containers and storage areas to facilitate waste management, clearly identified.
- B. Handle recyclable materials to prevent contamination by incompatible products and materials.
- C. Separate materials by:
  - 1. Placing into marked separate containers, then transporting to recycling facility.
  - 2. Placing into single container, then transporting to recycling facility for separation.

### **3.02 DISPOSAL**

- A. Dispose of nonhazardous waste materials that cannot be reused, recycled, or salvaged at licensed landfill or incinerator.
- B. Handle, store, and dispose of hazardous wastes in accordance with applicable codes, ordinances, rules, and regulations.

**END OF SECTION**

**SECTION 01 7700**  
**CLOSEOUT PROCEDURES**

**PART 1 - GENERAL**

**1.01 SUMMARY**

- A. Section Includes:
  - 1. Closeout procedures.
  - 2. Final cleaning.
  - 3. Adjusting.
  - 4. Project record documents.
  - 5. Operation and maintenance data.
  - 6. Warranties.
  - 7. Spare parts and maintenance materials.
  - 8. Starting of systems.
  - 9. Demonstration and instructions.

**1.02 CLOSEOUT PROCEDURES**

- A. Final Inspection:
  - 1. Submit written certification that Contract Documents have been reviewed, Work has been inspected, and that Work is complete in accordance with the Contract Documents and ready for Owner's inspection.
  - 2. If Architect performs inspection due to failure of Work to comply with claims of status of completion made by Contractor, Owner will compensate Architect for such additional services and will deduct the amount of such compensation from final payment to Contractor.
- B. Submit final Application for Payment showing original Contract Sum, adjustments, previous payments, retainage withheld from previous payments, and sum remaining due.
- C. Closeout Submittals:
  - 1. Evidence of compliance with requirements of governing authorities.
  - 2. Certificate of Occupancy.
  - 3. Project Record Documents.
  - 4. Operation and Maintenance Data.
  - 5. Warranties.
  - 6. Keys and keying schedule.
  - 7. Spare parts and maintenance materials.
  - 8. Evidence of payment of Subcontractors and suppliers.
  - 9. Final lien waiver.
  - 10. Certificate of insurance for products and completed operations.
  - 11. Consent of Surety to final payment.
  - 12. Sustainable Design Submittals.
- D. Owner will occupy all portions of the building as specified in Section 01 1100.

**1.03 FINAL CLEANING**

- A. Execute final cleaning prior to final inspection.
- B. Clean surfaces exposed to view:
  - 1. Clean glass.
  - 2. Remove temporary labels, stains and foreign substances.
  - 3. Polish transparent and glossy surfaces.
  - 4. Vacuum carpeted surfaces; damp mop hard surface flooring.
- C. Clean equipment and fixtures to a sanitary condition.
- D. Clean or replace filters of operating equipment.
- E. Clean debris from roofs and drainage systems.
- F. Clean site; sweep paved areas, rake clean landscaped surfaces.
- G. Remove waste and surplus materials, rubbish, and construction facilities from the site.

#### **1.04 ADJUSTING**

- A. Adjust operating Products and equipment to ensure smooth and unhindered operation.

#### **1.05 PROJECT RECORD DOCUMENTS**

- A. Maintain following record documents on site; 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. Material Safety Data Sheets.
- B. Store Record Documents separate from documents used for construction.
- C. Record information concurrent with construction progress.
- D. Make entries neatly and accurately.
- E. Label each set or volume with title "PROJECT RECORD DOCUMENTS", project title, and description of contents.
  - 1. Organize contents according to Project Manual table of contents.
  - 2. Provide table of contents for each volume.
- F. Drawings: Mark each item to record actual construction including:
  - 1. Measured depths of foundations in relation to finish floor datum.
  - 2. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
  - 3. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.
  - 4. Field changes of dimension and detail.
  - 5. Details not on original Drawings.
- G. Specifications: Mark 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 utilized.
  - 3. Changes made by Addenda and Modifications.
- H. Shop Drawings: Mark each item to record actual construction including:
  - 1. Field changes of dimension and detail.
  - 2. Details not on original Shop Drawings.
- I. Submit one copy. Submit electronically in Adobe PDF format.

#### **1.06 OPERATION AND MAINTENANCE DATA**

- A. Identify as "OPERATION AND MAINTENANCE INSTRUCTIONS" and title of project.
- B. Contents:
  - 1. Directory: List names, addresses, and telephone numbers of Architect, Contractor, Subcontractors, and major equipment suppliers.
  - 2. Operation and maintenance instructions: Arranged by system and subdivided by specification section. For each category, identify names, addresses, and telephone numbers of Subcontractors and suppliers. Identify the following:
    - a. Significant design criteria.
    - b. List of equipment.
    - c. Parts list for each component.
    - d. Operating instructions.
    - e. Maintenance instructions for equipment and systems.
    - f. Maintenance instructions for special finishes, including recommended cleaning methods and materials and special precautions identifying detrimental agents.
  - 3. Project documents and certificates including:
    - a. Shop drawings and product data.
    - b. HVAC balance reports.
    - c. Certificates.
    - d. Copies of warranties and bonds.

- C. Submittal:
  - 1. Submit one copy. Submit electronically in Adobe PDF format at least 15 days prior to final inspection.
  - 2. Owner will notify [Contractor of any required revisions after final inspection.
  - 3. Revise content of documents as required prior to final submittal.
  - 4. Submit one copy. Submit revised documents electronically in Adobe PDF format within 10 days after final inspection.

#### **1.07 WARRANTIES**

- A. Execute and assemble documents from Subcontractors, suppliers, and manufacturers.
- B. Include Table of Contents.
- C. Submit one copy. Submit electronically in Adobe PDF format along with final Application for Payment.
- D. For items of Work delayed beyond date of Substantial Completion, provide updated submittal within 10 days after acceptance, listing date of acceptance as start of warranty period.

#### **1.08 SPARE PARTS AND MAINTENANCE MATERIALS**

- A. Provide products, spare parts, maintenance and extra materials in quantities specified in individual specification Sections.
- B. Deliver to Project site in location as directed; obtain receipt prior to final payment.

#### **1.09 STARTING OF SYSTEMS**

- A. Notify Owner at least seven days prior to startup of each system or piece of equipment.
- B. Prior to beginning startup verify that:
  - 1. Lubrication has been performed.
  - 2. Drive rotation, belt tension, control sequences, tests, meter readings, and electrical characteristics are within manufacturer's requirements.
  - 3. Utility connections and support components are complete and tested.
- C. Execute start-up under supervision of applicable manufacturer's representative or Contractor's personnel in accordance with manufacturers' instructions.
- D. When specified in individual specification Sections, require manufacturer to provide authorized representative to be present at site to inspect, check, and approve equipment or system installation prior to startup, and to supervise placing equipment or system in operation.
- E. Submit written report that equipment or system has been properly installed and is functioning correctly.

#### **1.10 DEMONSTRATION AND INSTRUCTIONS**

- A. Demonstrate operation and maintenance of Products to Owner's personnel two weeks prior to date of Substantial Completion.
- B. For equipment or systems requiring seasonal operation, perform demonstration for other season within six months.
- C. Utilize Operation and Maintenance Manuals as basis for instruction. Review contents of manual with Owners' personnel in detail to explain all aspects of operation and maintenance.
- D. Demonstrate startup, operation, control, adjustment, troubleshooting, servicing, maintenance, and shutdown of each item of equipment at agreed upon times, at equipment location.
- E. Prepare and insert additional data in Operation and Maintenance Manuals when need for additional data becomes apparent during instruction.

#### **PART 2 - PRODUCTS - NOT USED**

#### **PART 3 - EXECUTION - NOT USED**

**END OF SECTION**