

# Project Manual

for

## Union County Health Department Renovations Maynardville, Tennessee

June 21, 2024



SECTION 00 01 07 - SEALS PAGE

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END OF SECTION 00 01 07

PROJECT MANUAL

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End of Section 00 01 15

SECTION 00 11 16 - INVITATION TO BID

1.0 PROJECT

Union County Health Department Renovations  
4335 Maynardville Hwy.  
Maynardville, Tennessee 37807

2.0 ARCHITECT

Benefield Richters Co., Inc.  
902 N. Central Street  
Knoxville, Tennessee 37917  
attn: Amy Sherrill, RA  
asherrill@benefieldrichters.com  
865.637.7009

3.0 PROJECT DESCRIPTION

The project consists of renovations to a single story, 5,600 sf building, an existing medical clinic. Work includes miscellaneous interior renovations (partitions, doors, casework, finishes, mechanical and electrical), reroofing, driveway improvements and new exterior drive-through canopy.

4.0 PRE-BID WALKTHROUGH

A mandatory pre-bid walkthrough will be held on site, Thursday July 11<sup>th</sup> at 2:00 pm.

5.0 BID

Bids are invited from licensed General Contractors for the Work on the above referenced project. Bids will be received at the office of Union County Finance Department. Bids may be mailed or hand delivered to the following address:

Finance Department  
Union County  
300 Main Street  
Maynardville, Tennessee 37807

Bids will be received until 2:00 pm on Tuesday July 30<sup>th</sup>.

Bids will be publicly opened immediately following deadline.

6.0 DOCUMENTS

Bid documents may be examined at the office of the Architect, location as noted above, the Go-DBE website, and Builder's Exchange of Tennessee (BXTN).

Electronic copies in .pdf format may be obtained from the Architect at no cost. Bidders will be responsible for arranging and paying for any hard copy prints desired.

End of Section 00 11 16

SECTION 00 21 13 - INSTRUCTIONS TO BIDDERS

1.1 SUBMISSION OF BID

- A Each Bid shall be hand delivered or mailed to the County Finance Department, 300 Main Street, Maynardville, Tennessee 37807. The cover page shall be addressed to the Owner and be plainly marked on the outside as a Bid for the “Union County Health Department Renovations”. The first page of the bid shall have the following plainly marked:
  - 1 Bidder's name, address, Contractor’s license number, license classification, and expiration date thereof, and
  - 2 Plumbing, HVAC, and electrical subcontractor’s name, license number, license classification, and expiration date.
- B Bids must be prepared on the forms provided by the Architect. Blank spaces for Bid prices must be filled in, in ink or typewritten, and the Bid Form must be fully completed and executed when submitted. Only one copy of the Bid Form is required. A conditional or qualified Bid will not be accepted.

1.2 EXAMINATION OF BIDDING DOCUMENTS

- A Bidders shall examine the bidding documents carefully, and not later than three (3) days prior to the date for receipt of bids, shall make written request to the Architect for clarification or correction of any ambiguity, inconsistency, or error therein which it may have discovered.
- B Clarifications or corrections shall be issued as Addendum. Only written clarifications or corrections by Addendum shall be binding. Bidder shall not rely upon a clarification or correction given by any other method.
- C Bidders must satisfy themselves of the accuracy of the estimated quantities in the Bid by examination of the site and a review of the drawings and specifications, including Addenda. After Bids have been submitted, the Bidder shall not assert that there was a misunderstanding concerning the quantities of the work or of the nature of the work to be done.

1.3 EXAMINATION OF PROJECT SITE AND CONDITIONS

- A Each Bidder is responsible for inspecting the site and for reading and being thoroughly familiar with the Contract Documents. Bidders shall verify existing conditions, dimensions, utility locations, and other relevant issues. The failure or omission of any Bidder to do any of the foregoing shall in no way relieve a Bidder from any obligation in respect to its Bid.

1.4 SUBSTITUTIONS

- A Bidder represents that the Bid is based upon the materials and equipment described in the bidding documents. Substitutions may be submitted to the Architect for approval at least five days prior to Bid date, and in accordance with Division 1 of the Specification.

1.5 REJECTION OF BIDS

- A Failure to deposit Bid at the designated location prior to the required time and date, or failure to

list the required information noted above shall be considered a violation, and the Bid will not be opened or considered.

B The Owner may waive any informalities or minor defects or reject any and all Bids.

**1.6 WITHDRAWAL OF BIDS**

A Any Bid may be withdrawn prior to the scheduled time for the opening of Bids or authorized postponement thereof. Any Bid received after the time and date specified will not be considered. No Bidder may withdraw a Bid within 60 days after the actual date of the opening. Should there be reasons why the Contract cannot be awarded within this specified period, the time may be extended by mutual agreement between the Owner and the Bidder.

**1.7 BID DOCUMENTS**

A Bid Form

B Bid Bond

C Schedule of Values (Preliminary)

D Construction Schedule (Preliminary)

**1.8 SUBMISSION OF POST-BID INFORMATION**

A The Owner may make such investigations as are deemed necessary to determine the ability of the Bidder to perform the Work, and the Bidder shall furnish to the Owner all such information and data for this purpose as the Owner may request.

B The Owner reserves the right to reject any Bid if the evidence submitted by, or investigation of, such Bidder fails to satisfy the Owner that such Bidder is properly qualified to carry out the obligations of the Agreement and to complete the Work contemplated therein.

**1.9 CONTRACT FORM**

A The Contract between the Owner and the Contractor will be written on the form as stated in Section 00 52 00.

**1.10 BONDS**

A Provide a Bid Bond in the amount of five (5) percent of the Base Bid.

B Successful Bidder shall provide a Performance Bond in the amount of 100 percent of the Contract price, with a corporate surety approved by the Owner. Attorneys-in-fact who sign bonds must file with each bond a certified and effective dated copy of their power of attorney.

**1.11 EXECUTION OF THE CONTRACT**

A The successful Bidder will be required to execute the Agreement within five (5) calendar days from the date when Notice of Award is delivered. The Notice of Award shall be accompanied by the necessary Agreement and bond forms. In case of failure of the Bidder to execute the Agreement, the Owner may consider the Bidder in default, in which case the Owner shall retain the right to execute a new Agreement with a new Contractor.

- B The Owner, within ten (10) days of receipt of acceptable Performance Bond and executed Agreement, shall sign the Agreement and return an executed duplicate of the Agreement to the Contractor. Should the Owner not execute the Agreement within ten days, the Bidder may, by written notice, withdraw the signed Agreement. Such notice of withdrawal shall be effective upon receipt of the Notice by the Owner.
- C The Notice to Proceed shall be issued by approximately 45 days. Should there be reasons why the Notice to Proceed cannot be issued within such period, the time may be extended by mutual agreement between the Owner and Contractor. If the Notice to Proceed has not been issued immediately, or within the period mutually agreed upon, the Contractor may terminate the Agreement without further liability on the part of either party.
- D Applicable laws, ordinances, and the rules and regulations of authorities having jurisdiction over construction of the Project apply to the contract throughout.
- E The successful Bidder will supply the names and addresses of major material suppliers and subcontractors when required to do so by the Owner.

End of Section 00 21 13



SECTION 00 41 00 - BID FORM

TO: Finance Department
Union County
300 Main Street
Maynardville, Tennessee 37807

FROM (company name)
(address)

PROPOSAL FOR Union County Health Department Renovations
4335 Maynardville Hwy.
Maynardville, Tennessee 37807

The Bidder acknowledges in submitting this Bid that:

- 1. This Bidder has received, read, and understands the Bidding Documents, and this Bid is made in accordance therewith.
2. This Bidder has visited the site and become familiar with the local conditions under which the work is to be performed and has correlated all observations with the requirements of the Bidding Documents.
3. This Bidder has received the following addenda:
Addendum No. \_\_\_\_\_, dated
Addendum No. \_\_\_\_\_, dated
4. The required Bid Bond, in the amount of five percent (5%) of the total amount Bid, is attached.
5. The required preliminary Schedule of Values and Construction Schedule are attached.
6. The person who signs this Bid on behalf of the Bidder is required to be legally empowered to bind the Bidder to a Contract.
7. Failure to complete this Bid Form or to provide required attachments may be cause for rejection of the Bid.
8. Bidder understand and agrees that the lump sum bid price includes all taxes such as sales, use, excise, licenses, etc. now or hereafter imposed by federal, state or other government agencies upon the equipment, labor, and materials specified, and that all said taxes shall be paid by the Contractor.
9. The Bidder agrees to:
A. Honor this bid for a period of 60 days following the date of the scheduled opening of Bids.
B. Enter into and execute a contract, based on this Bid, and to furnish bonds and certificates of insurance as required.
C. Achieve substantial completion
Part A (Immunization Grant) by November 26, 2024.
Part B (ARP Grant) by: \_\_\_\_\_

- D. Accept the conditions for liquidated damages in the amount of Five Hundred Dollars (\$500) per calendar day.

**BASE BID:**

The Bidder agrees to complete the work of the base bid for this project for the lump sum of (show amount in both words and figures):

\$ \_\_\_\_\_  
\_\_\_\_\_ dollars

**ALTERNATES:**

Alternate #1: Add casework to Exam Rooms #106 & #108.

\$ \_\_\_\_\_  
\_\_\_\_\_ dollars

Alternate #2: Add casework in Break Room #122.

\$ \_\_\_\_\_  
\_\_\_\_\_ dollars

Alternate #3: New Driveway.

\$ \_\_\_\_\_  
\_\_\_\_\_ dollars

Alternate #4: Add interior signage package.

\$ \_\_\_\_\_  
\_\_\_\_\_ dollars

If written notice of the acceptance of this Bid is mailed, telegraphed, or delivered to the undersigned within 60 days after the date of opening of Bids or anytime thereafter before this Bid is withdrawn, the Undersigned will, within five (5) calendar days after the date of delivery of such notice, execute, and deliver AIA Document A101, 2017 Edition and furnish a Performance Bond in accordance with the Specifications and Bid as accepted.

Respectfully Submitted:

\_\_\_\_\_  
Authorized Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Type or print Name and Title

\_\_\_\_\_  
Bidder Company

\_\_\_\_\_  
Address

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

- ATTACHMENTS:
- Bid Bond
  - Schedule of Values (preliminary)
  - Construction Schedule (preliminary outline)

END OF BID FORM

SCHEDULE OF VALUES

Bidder shall fill in the value for each indicated division. Values shall include overhead and profit allocated for each cost. General Conditions shall include those items that are significant to stand alone, such as insurance, building permit, mobilization, site office, supervision, etc.

Do not include alternates in values.

Schedule Part A: Immunization Grant

Division 01 - General Conditions.....	\$ _____	.00
Division 02 - Demolition.....	\$ _____	.00
Division 03 - Concrete .....	\$ _____	.00
Division 04 - Masonry.....	\$ _____	.00
Division 05 - Steel.....	\$ _____	.00
Division 06 - Carpentry.....	\$ _____	.00
Division 07 - Thermal and Moisture Protection.....	\$ _____	.00
Division 08 - Doors and Windows.....	\$ _____	.00
Division 09 - Finishes .....	\$ _____	.00
Division 10 - Specialties.....	\$ _____	.00
Division 22 - Plumbing .....	\$ _____	.00
Division 23 - HVAC .....	\$ _____	.00
Division 26 - Electrical.....	\$ _____	.00
Division 27 - Communications.....	\$ _____	.00
Division 28 - Electronic Safety and Security .....	\$ _____	.00
Division 31 - Earthwork.....	\$ _____	.00
Division 32 - Exterior Improvements.....	\$ _____	.00
SubTotal.....	\$ _____	.00

**Union County Health Department Renovations**

**Issue Date: 06.21.2024**

Schedule Part B: APR Grant

Division 01 - General Conditions.....	\$ _____	.00
Division 02 - Demolition.....	\$ _____	.00
Division 03 - Concrete .....	\$ _____	.00
Division 04 - Masonry.....	\$ _____	.00
Division 05 - Steel.....	\$ _____	.00
Division 06 - Carpentry.....	\$ _____	.00
Division 07 - Thermal and Moisture Protection .....	\$ _____	.00
Division 08 - Doors and Windows .....	\$ _____	.00
Division 09 - Finishes .....	\$ _____	.00
Division 10 - Specialties.....	\$ _____	.00
Division 22 – Plumbing.....	\$ _____	.00
Division 23 - HVAC .....	\$ _____	.00
Division 26 - Electrical.....	\$ _____	.00
Division 27 - Communications.....	\$ _____	.00
 SubTotal .....	\$ _____	.00
 Total Part A and Part B.....	\$ _____	.00

END OF SCHEDULE OF VALUES

SECTION 00 52 00 - CONTRACT:

The Contract Form will be AIA Document A101, 2017 Edition, "Standard Form of Agreement Between Owner and Contractor where the basis of payment is a Stipulated Sum".

End of Section 00 52 00

SECTION 00 61 00- BONDS AND CERTIFICATES

1.0 BID BOND

1.1 Include with Bid Form, a Bid Bond. Use AIA Document A310 - 2010 Edition, "Bid Bond".

1.2 Bid Bond shall be for 5% of Bid.

2.0 PERFORMANCE BOND

2.1 Use AIA Document A312 - 2010 Edition, "Performance Bond".

2.2 Bond shall be for 100% of Construction Contract.

End of Section 00 61 00

SECTION 00 72 00 - GENERAL CONDITIONS

- 1.0 The "General Condition of the Contract for Construction", Document A201 of the American Institute of Architects, 2017 edition, as modified as follows, hereinafter referred to as the AIA General Conditions, are hereby made a part of this specification.
- 2.0 Where any article of the AIA General Conditions is amended herein, the AIA General Conditions provisions of such article shall remain in effect. The supplemental provisions of such article shall be considered as added thereto. Where any such article is amended, voided, or superseded hereby, the provisions of such article not specifically amended, voided, or superseded shall remain in effect.
- 3.0 Where any part of the Contract between and Owner and Contractor conflicts with an article or paragraph of the AIA General Conditions, the Contract for construction shall supersede or amend the AIA General Conditions.
- 4.0 The General Conditions govern all sections of the specifications and are as binding as if repeated therein.

End of Section 00 72 00



SECTION 00 73 00 SUPPLEMENTARY CONDITIONS

PART 1 – GENERAL

1.1 GENERAL

- A The following Supplementary Conditions contain modifications to the AIA General Conditions in the form of additions, deletions, and substitutions. Where any part of the AIA General Conditions is so modified by the Supplementary Conditions, the unaltered provisions shall remain in effect.

PART 2 - MODIFICATIONS

2.1 “1.4 INTERPRETATION”

- A Add the following paragraph:

1.4.1 Whether or not the word "all" is used in the specifications, coverage is intended to be complete, except where partial coverage is specifically and expressly noted. In all cases where an item is referred to in the singular number, it is intended that the reference shall apply to as many such items as are required to complete the work.

- B Add the following paragraph:

1.4.2 If there is any conflict within or between any of the Contract Documents involving the quality or quantity of work required, it is the intention of the Contract that the work of highest quality or greatest quantity shown or specified shall be furnished.

- C Add the following paragraph:

1.4.3 In case of discrepancies and/or conflicts between the Contract Documents, precedence of the various documents shall be as follows:

- a The Agreement.
- b the Supplementary Conditions
- c the General Conditions
- d Specifications
- e the Drawings.

- D Add the following paragraph:

1.4.4 Discrepancies and/or conflicts shall be submitted in writing to the Architect for clarification before the Contractor's bid is submitted. Submit at least ten days before bids are to be opened, so that an Addendum may be issued if necessary. Should discrepancies and/or conflicts be discovered after the work has been started, the Contractor must report same to the Architect immediately and no work connected with the discrepancies and/or conflicts shall be started; or if started, work shall be stopped immediately until the Architect clarifies the issue. The Architect shall decide which of the conflicting requirements will govern and the Contractor shall perform the Work at no additional cost and/or time to the Owner in accordance with the Architect’s decision.

2.2 “7.3 CONSTRUCTION CHANGE DIRECTIVES”

- A Modify paragraph Subparagraph 7.3.4, the allowance for combined overhead and profit included in the total cost to the Owner shall be based on the following schedule:
  - 1. For the Contractor, for work performed by the Contractor's own forces, 15% of the cost.
  - 2. For the Contractor, for work performed by the Contractor's subcontractor, 5% of the amount due the subcontractor.
  - 3. For each Subcontractor or Sub-subcontractor involved, for work performed by that subcontractor's or sub-subcontractor’s own forces, 15% of the cost.
  - 4. For each Subcontractor involved, for work performed by that subcontractor's own forces, 15% of the cost.
  - 5. Cost to which overhead and profit is to be applied shall be determined in accordance with subparagraph 7.3.4.
  - 6. Proposals shall be accompanied by a complete itemization of costs including labor, materials, and subcontracts. Labor and material shall be itemized in the manner prescribed above. Where major cost items are subcontracts, they shall be itemized also. In no case will a change involving more than \$100 be approved without such itemization.

2.3 “9.3 APPLICATIONS FOR PAYMENT”

- A Paragraph 9.3.1, add the following:
  - 9.3.1.1 Each application for payment shall be accompanied by duly executed waivers of mechanics and materialmen’s liens and claims, in form and substance satisfactory to the owner and the owner’s construction lender.
- B Add the following:
  - 9.3.4 Until the work is 50 percent complete, the owner shall pay 90% of the amount due the contractor on account of progress payments. at the time the work is 50 percent complete and thereafter, the architect may authorize remaining partial payments to be paid in full.

2.4 “11.1 CONTRACTOR’S INSURANCE AND BONDS

- A Add the following:
  - 11.1.2, the Contractor shall maintain the following insurance limits:
 

1	Comprehensive General Liability:	\$1,000,000 per occurrence \$2,000,000 aggregate
2	Umbrella	\$5,000,000
3	Automobile	\$1,000,000 per occurrence
4	Workman’s Compensation	as required by state law

END OF SECTION 00 73 00

SECTION 01 10 00 - SUMMARY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 WORK COVERED BY CONTRACT DOCUMENTS

- A Project Location: 4335 Maynardville Hwy., Maynardville, Tennessee
- B Owner: Union County
  - 1 Owner's Representative: Mayor Jason Bailey
- C Architect: The Benefield Richters Company, Inc.
- D The Work consists of the following:
  - 1 Renovations to a 5,600 sf, single-story office building and related site work.
  - 2 Major systems include site utilities; grading and paving; exterior drive-through canopy; interior demolition; interior partition layout; doors and hardware; millwork; finishes; plumbing; HVAC; and electrical.

1.3 TYPE OF CONTRACTS

- A Project will be constructed under a single prime contract. The contract value will be broken out, Part A and Part B, to align with pay application sums.
- B The Owner reserves the right to perform selected work under separate contract.

1.4 WORK PHASES

- A General: The Work is being funded under two separate grant programs.
  - 1 The grants have separate deadlines.
  - 2 Separate pay applications will be required for work under the separate grants.
- B Part A – Immunization Grant. Work included in this funding includes site work (alternate #3); exterior drive-through canopy; exterior door #115C; and rework of Pharmacy #119, including demolition, finishes, and associated mechanical and electrical.
  - 1 Work under the Immunization Grant shall be completed and billed prior to December 31, 2024.
- C Part B – ARP Grant. Work included in this funding includes all work not included under the Immunization Grant.
  - 1 Work under the Immunization Grant shall be completed and billed prior to June 30, 2026.
- D General Contractor will coordinate with the Owner the sequence of work operations to minimize impact on operations.
  - 1 Work on the Pharmacy Room #119 will need to be completed prior to commencing work on Lab #123

1.5 USE OF PREMISES

- A General: Contractor shall have limited use of the site for construction operations during the construction period. Normal operation hours are:
  - 1 8am – 4:30pm, Monday through Friday every week and
  - 2 Evening of second Monday of each month.
  
- B Contractor will be able to work during hours that the facility is open.
  - 1 Dust barriers, partitions and safety barriers shall be utilized to protect ongoing operations and users.
  - 2 Operations generating loud noise shall be limited to times the facility is not in use.
  - 3 Upon completion of requisite HIPAA forms, Contractor will have access to facility during evenings and weekends.
  
- C Access to the site is through a single driveway. Driveway shall be kept clear and accessible for use by the facilities staff and patients during working hours. The rear parking lot will be available to the Contractor for staging of construction. Contractor shall be responsible for repair of any damage caused by their use to the driveway or parking lot during construction.

1.6 WORK UNDER OTHER CONTRACTS

- A Cooperate fully with separate contractors so work on those contracts may be carried out smoothly, without interfering with or delaying work under this Contract. Coordinate the Work of this Contract with work performed under separate contracts.
  
- B Future Work: The Owner reserves the right to perform certain aspects of the work under separate contract, including but limited to the following:
  - 1 IT wiring installation and hookup.
  - 2 Phone system installation.
  - 3 Furnishings and Appliances.

1.7 SPECIFICATION FORMATS AND CONVENTIONS

- A Specification Format: The Specifications are organized into Divisions and Sections using the 16-division format and CSI/CSC's "MasterFormat" numbering system.
  - 1 Section Identification: The Specifications use section numbers and titles to help cross-referencing in the Contract Documents. Sections in the Project Manual are in numeric sequence; however, the sequence is incomplete. Consult the table of contents at the beginning of the Project Manual to determine numbers and names of sections in the Contract Documents.
  
- B Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:
  - 1 Abbreviated Language: Language used in the Specifications and other Contract Documents is abbreviated. Words and meanings shall be interpreted as appropriate. Words implied, but not stated, shall be inferred as the sense requires. Singular words shall be interpreted as plural, and plural words shall be interpreted as singular where applicable as the context of the Contract Documents indicates.
  - 2 Imperative mood and streamlined language are generally used in the Specifications.

Requirements expressed in the imperative mood are to be performed by Contractor. Occasionally, the indicative or subjunctive mood may be used in the Section Text for clarity to describe responsibilities that must be fulfilled indirectly by Contractor or by others when so noted.

- a The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.

END OF SECTION 01 10 00

SECTION 01 23 00 – ALTERNATES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

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

1.3 DEFINITIONS

- A Alternate: An amount proposed by bidders and stated on the Bid Form for certain work defined in the Bidding Requirements that may be added to or deducted from the Base Bid amount if Owner decides to accept a corresponding change either in the amount of construction to be completed or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.

- 1 The cost or credit for each alternate is the net addition to or deduction from the Contract Sum to incorporate alternate into the Work. No other adjustments are made to the Contract Sum.
- 2 No time changes shall be made to the Contract substantial completion dates.

1.4 PROCEDURES

- A Coordination: Modify or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project.
  - 1 Include as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated as part of alternate.
- B Notification: Immediately following award of the Contract, notify each party involved, in writing, of the status of each alternate. Indicate if alternates have been accepted, rejected, or deferred for later consideration. Include a complete description of negotiated modifications to alternates.
- C Execute accepted alternates under the same conditions as other work of the Contract.
- D Schedule: A Schedule of Alternates is included at the end of this Section. Specification Sections referenced in schedule contain requirements for materials necessary to achieve the work described under each alternate.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 SCHEDULE OF ALTERNATES

- A     Alternate #1: Add casework in Exam Rooms.
  - 1       Provide an add to the Base Bid for the installation of new casework in Exam Rooms #106 & #108.
  - 2       Work shall consist of:
    - a       Installation of casework and countertop.
    - b       Installation of new sink and faucet with the extension of sanitary sewer and domestic water lines as required to make connections. Work includes any cutting and patching necessary to make sewer and water connections.
    - c       Installation of a duplex outlet, medical grade, above counter, including any cutting and patching necessary to make electrical connection.
  - 3       See architectural drawings, A-101 and A-401.
  
- B     Alternate #2: Add casework in Break Room.
  - 1       Provide an add to the Base Bid for adding an extension to the casework in Break Room #122, including replacing countertop.
  - 2       Work shall consist of:
    - a       Provide and install new casework to extend existing.
    - b       Provide and install new countertop replacing existing. Work includes removing existing countertop, disconnecting and reinstalling plumbing.
    - c       Install new electrical duplex outlet above countertop.
  - 3       See architectural drawings, A-101 and A-402.
  
- C     Alternate #3: New Driveway.
  - 1       Provide an add to the Base Bid for
  - 2       Work shall consist of:
    - a       Perform preparation for and installation of new driveway, including erosion control, grading, paving and curb, and landscaping.
  - 3       See Civil Drawings
  
- D     Alternate #4: Add interior signage package.
  - 1       Provide an add to the Base Bid for providing and installing interior signage package.
  - 2       Work shall consist of:
    - a       Provide and install wall signage, as follows:
      - i       Toilets
      - ii      Offices
      - iii     General
  - 3       See architectural drawing A-401 and A-801.

END OF SECTION 01 23 00

SECTION 01 25 00 - CONTRACT MODIFICATION PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A This Section specifies administrative and procedural requirements for handling and processing Contract modifications.
- B Related Sections include the following:
  - 1 Division 1 Section "Product Requirements" for administrative procedures for handling requests for substitutions made after Contract award.

1.3 PROPOSAL REQUESTS

- A Owner-Initiated Proposal Requests: The Architect will issue a detailed description of proposed changes in the Work that may require adjustment to the Contract Sum or the Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications.
  - 1 Proposal Requests issued by Architect are for information only. Do not consider them instructions either to stop work in progress or to execute the proposed change.
  - 2 Within time specified in Proposal Request after receipt of Proposal Request, submit a quotation estimating cost adjustments to the Contract Sum and the Contract Time necessary to execute the change.
    - a Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
    - b Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
    - c Include an updated Contractor's Construction Schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
- B Contractor-Initiated Proposals: If latent or unforeseen conditions require modifications to the Contract, Contractor may propose changes by submitting a request for a change to Architect.
  - 1 Include a statement outlining reasons for the change and the effect of the change on the Work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and the Contract Time.
  - 2 Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
  - 3 Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
  - 4 Include an updated Contractor's Construction Schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the



Contract Time.

- 5 Comply with requirements in Division 1 Section "Product Requirements" if the proposed change requires substitution of one product or system for product or system specified.

C Proposal Request Form: Use AIA Document G709 for Proposal Requests.

#### 1.4 ALLOWANCES

A Allowance Adjustment: To adjust allowance amounts, base each Change Order proposal on the difference between purchase amount and the allowance, multiplied by final measurement of work-in-place. If applicable, include reasonable allowances for cutting losses, tolerances, mixing wastes, normal product imperfections, and similar margins.

- 1 Include installation costs in purchase amount only where indicated as part of the allowance.
- 2 If requested, prepare explanation and documentation to substantiate distribution of overhead costs and other margins claimed.
- 3 Submit substantiation of a change in scope of work, if any, claimed in Change Orders related to unit-cost allowances.
- 4 Owner reserves the right to establish the quantity of work-in-place by independent quantity survey, measure, or count.

B Submit claims for increased costs because of a change in scope or nature of the allowance described in the Contract Documents, whether for the Purchase Order amount or Contractor's handling, labor, installation, overhead, and profit. Submit claims within 21 days of receipt of the Change Order or Construction Change Directive authorizing work to proceed. Owner will reject claims submitted later than 21 days after such authorization.

- 1 Do not include Contractor's or subcontractor's indirect expense in the Change Order cost amount unless it is clearly shown that the nature or extent of work has changed from what could have been foreseen from information in the Contract Documents.
- 2 No change to Contractor's indirect expense is permitted for selection of higher- or lower-priced materials or systems of the same scope and nature as originally indicated.

#### 1.5 CHANGE ORDER PROCEDURES

A On Owner's approval of a Proposal Request, The Architect will issue a Change Order for signatures of Owner and Contractor on AIA Document G701.

#### 1.6 CONSTRUCTION CHANGE DIRECTIVE

A Construction Change Directive: The Architect may issue a Construction Change Directive on AIA Document G714. Construction Change Directive instructs Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.

- 1 Construction Change Directive contains a complete description of change in the Work and designates method to be followed to determine change in the Contract Sum or the Contract Time.

B Documentation: Maintain detailed records on a time and material basis of work required by the Construction Change Directive.

- 1 After completion of change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.

END OF SECTION 01 25 00

SECTION 01 29 00 - PAYMENT PROCEDURE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A This Section specifies administrative and procedural requirements necessary to prepare and process Applications for Payment.
- B Related Sections include the following:
  - 1 Division 1 Section "Contract Modification Procedures" for administrative procedures for handling changes to the Contract.

1.3 DEFINITIONS

- A Schedule of Values: A statement furnished by Contractor allocating portions of the Contract Sum to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

1.4 SCHEDULE OF VALUES

- A Coordination: Coordinate preparation of the Schedule of Values with preparation of Contractor's Construction Schedule.
  - 1 Submit a preliminary Schedule of Values with Bid. Use form provided under Section 00300 - Bid.
  - 2 Submit final Schedule of Values to Architect at earliest possible date but no later than seven days before the date scheduled for submittal of initial Applications for Payment.
- B Format and Content: Use the Schedule of Values form in Section 00300 for a list of line items to include.
  - 1 Use AIA Form G702 and G703 for format.
  - 2 Due to separate funding sources, the Contractor is required to submit separate Pay Applications for Part A and Part B of the scope of work to align with values described in Contract.
  - 3 Round amounts to nearest whole dollar; total shall equal the Contract Sum.
  - 4 Allowances: Provide a separate line item in the Schedule of Values for each allowance. Show line-item value of unit-cost allowances, as a product of the unit cost, multiplied by measured quantity. Use information indicated in the Contract Documents to determine quantities.
  - 5 Each item in the Schedule of Values and Applications for Payment shall be complete. Include total cost and proportionate share of general overhead and profit for each item.
    - a Temporary facilities and other major cost items that are not direct cost of actual work-in-place may be shown either as separate line items in the Schedule of Values or distributed as general overhead expense, at Contractor's option.
  - 6 List Change Orders as individual line items separate from base fee.

1.5 APPLICATIONS FOR PAYMENT

- A Each Application for Payment shall be consistent with previous applications and payments as certified by Architect and Development Manager and paid for by Owner.
  - 1 Initial Application for Payment, Application for Payment at time of Substantial Completion, and final Application for Payment involve additional requirements.
- B Payment Application Times: The date for each progress payment is indicated in the Agreement between Owner and Contractor. The period of construction Work covered by each Application for Payment is the period indicated in the Agreement.
- C Payment Application Forms: Use AIA Document G702 and AIA Document G703 Continuation Sheets as form for Applications for Payment.
- D Application Preparation: Complete every entry on form. Notarize and execute by a person authorized to sign legal documents on behalf of Contractor.
  - 1 Entries shall match data on the Schedule of Values and Contractor's Construction Schedule. Use updated schedules if revisions were made.
  - 2 Include amounts of Change Orders and Construction Change Directives issued before last day of construction period covered by application.
- E Transmittal: Submit 3 signed and notarized original copies of each Application for Payment to Architect and one copy to Development Manager. One copy shall include waivers of lien and similar attachments if required.
- F Initial Application for Payment: Administrative actions and submittals that must precede or coincide with submittal of first Application for Payment include the following:
  - 1 List of subcontractors.
  - 2 Schedule of Values.
  - 3 Contractor's Construction Schedule (preliminary if not final).
  - 4 Submittals Schedule (preliminary if not final).
  - 5 Copies of building permits.
  - 6 Copies of authorizations and licenses from authorities having jurisdiction for performance of the Work.
  - 7 Certificates of insurance and insurance policies.
  - 9 Performance and payment bonds.
  - 10 Data needed to acquire Owner's insurance.
- G Application for Payment at Substantial Completion: After issuing the Certificate of Substantial Completion, submit an Application for Payment showing 100 percent completion for portion of the Work claimed as substantially complete.
- H Final Payment Application: Submit final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited, to the following:
  - 1 Evidence of completion of Project closeout requirements.
  - 2 Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
  - 3 Updated final statement, accounting for final changes to the Contract Sum.
  - 4 AIA Document G706, "Contractor's Affidavit of Payment of Debts and Claims."
  - 5 AIA Document G706A, "Contractor's Affidavit of Release of Liens."
  - 6 AIA Document G707, "Consent of Surety to Final Payment."
  - 7 Evidence that claims have been settled.

8 Final, liquidated damages settlement statement.

END OF SECTION 01 29 00

SECTION 01 31 00 - PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:
  - 1. General project coordination procedures.
  - 2. Conservation.
  - 3. Project meetings.
- B. Related Sections: The following Sections contain requirements that relate to this Section:
  - 1. Section 01770 - Closeout Procedures for coordinating Contract closeout.

1.3 PROJECT MANAGEMENT AND COORDINATION

- A. Coordination: Coordinate construction operations included in different Sections of the Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations, included in different Sections, that depend on each other for proper installation, connection, and operation.
  - 1. Schedule construction operations in sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
  - 2. Be fully responsible for coordinating actual installed location and interface of Work.
    - a. Prior to beginning work, prepare coordination drawings showing the exact alignment, physical location and configuration of the mechanical, electrical and fire protection installations, and demonstrating to the Contractor's satisfaction that the necessary required clearances exist, that there are no obstructions, and the work can be installed in an orderly appearance.
    - b. The Contractor shall be solely responsible for any costs and delays resulting from the failure to prepare such coordination drawings, or the negligent preparation of such drawings.
    - c. Exact locations and groupings of mechanical, electrical and fire protection fixtures, switches, heads, and outlets shall be coordinated with the Architect before the Work is started. Architect shall be notified immediately if there are conflicts. Work installed in an unapproved manor shall be relocated at the Contractor's expense, if the Architect so directs.
  - 3. Coordinate installation of different components with other contractors to ensure maximum accessibility for required maintenance, service, and repair.
  - 4. Make adequate provisions to accommodate items scheduled for later installation.
  - 5. Where availability of space is limited, coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair of all components, including mechanical and electrical.

1.4 PROJECT MEETINGS

- A. General: Schedule and conduct meetings and conferences at Project site, unless otherwise indicated.
  - 1. Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify Owner and Architect of scheduled meeting dates and times.
  - 2. Agenda: Prepare the meeting agenda. Distribute the agenda to all invited attendees.
  - 3. Minutes: Record significant discussions and agreements achieved. Distribute the meeting minutes to everyone concerned, including Owner and Architect, within 3days of the meeting.
  
- B. Preconstruction Conference: Schedule a preconstruction conference before starting construction, at a time convenient to Owner and Architect, but no later than 15 days after execution of the Agreement. Hold the conference at Project site. Conduct the meeting to review responsibilities and personnel assignments.
  - 1. Attendees: Representatives of Owner, Architect, Contractor, Contractor's superintendent, major subcontractors, and other concerned parties shall attend the conference.
  - 2. Agenda: Discuss items of significance that could affect progress, including the following:
    - a. Tentative construction schedule.
    - b. Phasing.
    - c. Critical work sequencing.
    - d. Designation of responsible personnel.
    - e. Procedures for processing field decisions and Change Orders.
    - f. Procedures for processing Applications for Payment.
    - g. Distribution of the Contract Documents.
    - h. Submittal schedule & procedures.
    - i. Preparation of Record Documents.
    - j. Use of the site.
    - k. Responsibility for temporary facilities and controls.
    - l. Parking availability.
    - m. Office, work, and storage areas.
    - n. Equipment deliveries and priorities.
    - o. First aid.
    - p. Security.
    - q. Progress cleaning.
    - r. Working hours.
  
- C. Progress Meetings: Conduct progress meetings at bi-weekly intervals. Coordinate dates of meetings with preparation of payment requests.
  - 1. Attendees: In addition to representatives of Owner, Architect, and Contractor, the Contractor's superintendent, each subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings.
  - 2. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.
    - a. Contractor's Construction Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's Construction Schedule. Determine how work behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.
    - b. Submittals: Status of submittal log.
    - c. Requests for Information (RFI's): review status of log.
    - d. Change Orders: review status of Change Orders, submitted and anticipated.

- e. Pay Applications: on a monthly basis, review line item request.
- f. Review present and future needs of each entity present, including the following:
  - 1) Interface requirements.
  - 2) Sequence of operations.
  - 3) Deliveries.
  - 4) Off-site fabrication.
  - 5) Access.
  - 6) Site utilization.
  - 7) Temporary facilities and controls.
  - 8) Work hours.
  - 9) Hazards and risks.
  - 10) Progress cleaning.
  - 11) Quality and work standards.
  - 12) Documentation of information for payment requests.
- 3. Reporting: Distribute minutes of the meeting to each party present and to parties who should have been present. Include a brief summary, in narrative form, of progress since the previous meeting and report.
  - a. Schedule Updating: Revise Contractor's Construction Schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with the report of each meeting.

END OF SECTION 01 31 00

SECTION 01 33 00 - SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other miscellaneous submittals.
- B. Related Sections
  - 1. Section 01 17 70 - Closeout.

1.3 DEFINITIONS

- A. Action Submittals: Written and graphic information that requires Architect's and Development Manager's responsive action.
- B. Informational Submittals: Written information that does not require Architect's approval. Submittals may be rejected for not complying with requirements.

1.4 SUBMITTAL PROCEDURES

- A. General:
  - 1. Submittals shall be in electronic form: Adobe PDF format. Hard copies will not be accepted.
  - 2. Material and Color samples, where required, shall be by both hard copy and electronic file.
- B. Construction Documents:
  - 1. Electronic copies of CAD Drawings of the Contract Drawings will be provided by Architect for Contractor's use in preparing submittals.
  - 2. Architect does not warranty the accuracy of the electronic information. Contractor shall be responsible for verifying existing conditions, dimensions, and quantities.
  - 3. Contractor will be required to sign a release of electronic data form releasing the Architect and his consultants from liability.
- C. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
  - 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
  - 2. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.
  - 3. Architect reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- D. Submittals Schedule: Submit schedule no later than with initial request for payment. Schedule shall include complete list of items to be submitted, specification section number, material or subcontractor submitting, and estimated time of submittal.
- E. Processing Time: Allow enough time for submittal review, including time for resubmittals, as follows.



Time for review shall commence on Architect's receipt of submittal.

1. Initial Review: Allow 10 working days for initial review of each submittal. Allow additional time if processing must be delayed to permit coordination with subsequent submittals. Architect will advise Contractor when a submittal being processed must be delayed for coordination.
  2. Concurrent Review: Where concurrent review of submittals by Architect's consultants, Owner, or other parties is required, allow 15 working days for initial review of each submittal.
  3. Direct Transmittal to Consultant: Where the Contract Documents indicate that submittals may be transmitted directly to Architect's consultants, provide duplicate copy of transmittal to Architect. Submittal will be returned to Architect before being returned to Contractor.
  4. If intermediate submittal is necessary, process it in same manner as initial submittal.
  5. Allow 10 working days for processing each resubmittal.
  6. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing.
- F. Identification: Place a permanent label or title block on each submittal for identification.
1. Indicate name of firm or entity that prepared each submittal on label or title block.
  2. Provide a space approximately 4 by 5 inches on label or beside title block to record Contractor's review and approval markings and action taken by Architect.
  3. Include the following information on label for processing and recording action taken:
    - a. Project name.
    - b. Date.
    - c. Name and address of Architect.
    - d. Name and address of Contractor.
    - e. Name and address of subcontractor.
    - f. Name and address of supplier.
    - g. Name of manufacturer.
    - h. Unique identifier, including revision number.
    - i. Number and title of appropriate Specification Section.
    - j. Drawing number and detail references, as appropriate.
    - k. Other necessary identification.
- G. Deviations: Highlight, encircle, or otherwise identify deviations from the Contract Documents on submittals.
- H. Transmittal: Package each submittal individually and appropriately for transmittal and handling. Transmit each submittal using a transmittal form.
1. Include Contractor's certification stating that information submitted complies with requirements of the Contract Documents.
- I. Distribution: Furnish copies of final, approved submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.
- J. Use for Construction: Use only final submittals with mark indicating action taken by Architect in connection with construction.

## PART 2 - PRODUCTS

### 2.1 ACTION SUBMITTALS

- A. General: Prepare and submit Action Submittals required by individual Specification Sections.
- B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.

1. If information must be specially prepared for submittal because standard printed data is not suitable for use, submit as Shop Drawings, not as Product Data.
  2. Mark each copy of each submittal to show which products and options are applicable.
  3. Include the following information, as applicable:
    - a. Manufacturer's written recommendations.
    - b. Manufacturer's product specifications.
    - c. Manufacturer's installation instructions.
    - d. Standard color charts.
    - e. Manufacturer's catalog cuts.
    - f. Wiring diagrams showing factory-installed wiring.
    - g. Printed performance curves.
    - h. Operational range diagrams.
    - i. Mill reports.
    - j. Standard product operating and maintenance manuals.
    - k. Compliance with recognized trade association standards.
    - l. Compliance with recognized testing agency standards.
    - m. Application of testing agency labels and seals.
    - n. Notation of coordination requirements.
- C. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.
1. Preparation: Include the following information, as applicable:
    - a. Dimensions.
    - b. Identification of products.
    - c. Fabrication and installation drawings.
    - d. Roughing-in and setting diagrams.
    - e. Wiring diagrams showing field-installed wiring, including power, signal, and control wiring.
    - f. Shopwork manufacturing instructions.
    - g. Templates and patterns.
    - h. Schedules.
    - i. Design calculations.
    - j. Compliance with specified standards.
    - k. Notation of coordination requirements.
    - l. Notation of dimensions established by field measurement.
  2. Wiring Diagrams: Differentiate between manufacturer-installed and field-installed wiring.
  3. Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches but no larger than 30 by 40 inches.
- D. Samples: Prepare physical units of materials or products, including the following:
1. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available.
  2. Samples for Verification: Submit full-size units or Samples of size indicated, prepared from the same material to be used for the Work, cured and finished in manner specified, and physically identical with the product proposed for use, and that show full range of color and texture variations expected. Samples include, but are not limited to, the following: partial sections of manufactured or fabricated components; small cuts or containers of materials; complete units of repetitively used materials; swatches showing color, texture, and pattern; color range sets; and components used for independent testing and inspection.
  3. Preparation: Mount, display, or package Samples in manner specified to facilitate review of qualities indicated. Prepare Samples to match Architect's sample where so indicated. Attach label on unexposed side that includes the following:
    - a. Generic description of Sample.
    - b. Product name or name of manufacturer.
    - c. Sample source

4. Number of Samples for Initial Selection: Submit one full set of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line.
  5. Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.
- E. Contractor's Construction Schedule: Submit computer generated Gantt chart, indicating critical path. Update schedule and submit with monthly pay requests.
  - F. Application for Payment: Comply with requirements in Division 1 Section "Payment Procedures."
  - G. Schedule of Values: Comply with requirements in Division 1 Section "Payment Procedures."
  - H. Subcontract List: Prepare a written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design. Include the following information in tabular form:
    1. Name, address, and telephone number of entity performing subcontract or supplying products.
    2. Number and title of related Specification Section(s) covered by subcontract.

**2.2 INFORMATIONAL SUBMITTALS**

- A. General: Prepare and submit Informational Submittals required by other Specification Sections.
  1. Certificates and Certifications: Provide a notarized statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.
- B. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, names and addresses of architects and owners, and other information specified.
- C. Product Certificates: Prepare written statements on manufacturer's letterhead certifying that product complies with requirements.
- D. Welding Certificates: Prepare written certification that welding procedures and personnel comply with requirements. Submit record of Welding Procedure Specification (WPS) and Procedure Qualification Record (PQR) on AWS forms. Include names of firms and personnel certified.
- E. Installer Certificates: Prepare written statements on manufacturer's letterhead certifying that Installer complies with requirements and, where required, is authorized for this specific Project.
- F. Manufacturer Certificates: Prepare written statements on manufacturer's letterhead certifying that manufacturer complies with requirements. Include evidence of manufacturing experience where required.
- G. Material Certificates: Prepare written statements on manufacturer's letterhead certifying that material complies with requirements.
- H. Material Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements.
- I. Preconstruction Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of tests performed before installation of product, for compliance with performance requirements.
- J. Compatibility Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of compatibility tests performed before installation of

- product. Include written recommendations for primers and substrate preparation needed for adhesion.
- K. Field Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements.
  - L. Product Test Reports: Prepare written reports indicating current product produced by manufacturer complies with requirements. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.
  - M. Research/Evaluation Reports: Prepare written evidence, from a model code organization acceptable to authorities having jurisdiction, that product complies with building code in effect for Project.
  - N. Maintenance Data: Prepare written and graphic instructions and procedures for operation and normal maintenance of products and equipment. Comply with requirements in Division 1 Section "Closeout Procedures."
  - O. Design Data: Prepare written and graphic information, including, but not limited to, performance and design criteria, list of applicable codes and regulations, and calculations. Include list of assumptions and other performance and design criteria and a summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Include page numbers.
  - P. Manufacturer's Instructions: Prepare written or published information that documents manufacturer's recommendations, guidelines, and procedures for installing or operating a product or equipment. Include name of product and name, address, and telephone number of manufacturer. Include the following, as applicable:
    - 1. Preparation of substrates.
    - 2. Required substrate tolerances.
    - 3. Sequence of installation or erection.
    - 4. Required installation tolerances.
    - 5. Required adjustments.
    - 6. Recommendations for cleaning and protection.
  - Q. Manufacturer's Field Reports: Prepare written information documenting factory-authorized service representative's tests and inspections. Include the following, as applicable:
    - 1. Name, address, and telephone number of factory-authorized service representative making report.
    - 2. Statement on condition of substrates and their acceptability for installation of product.
    - 3. Statement that products at Project site comply with requirements.
    - 4. Summary of installation procedures being followed, whether they comply with requirements and, if not, what corrective action was taken.
    - 5. Results of operational and other tests and a statement of whether observed performance complies with requirements.
    - 6. Statement whether conditions, products, and installation will affect warranty.
    - 7. Other required items indicated in individual Specification Sections.
  - R. Insurance Certificates and Bonds: Prepare written information indicating current status of insurance or bonding coverage. Include name of entity covered by insurance or bond, limits of coverage, amounts of deductibles, if any, and term of the coverage.
  - S. Material Safety Data Sheets: Submit information directly to Owner. If submitted to Architect, Architect will not review this information but will return it with no action taken.

**PART 3 - EXECUTION**

**3.1 CONTRACTOR'S REVIEW**

- A. Review each submittal and check for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Architect.
- B. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

**3.2 ARCHITECT'S AND DEVELOPMENT MANAGER'S ACTION**

- A. General: Architect will not review submittals that do not bear Contractor's approval stamp and will return them without action.
- B. Action Submittals: Architect will review each submittal, make marks to indicate corrections or modifications required, and return it. Architect will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action taken, as follows:
  - 1. Approved as submitted.
  - 2. Approved as noted.
  - 3. Resubmit item indicated.
- C. Submittals not required by the Contract Documents will not be reviewed and may be discarded.

END OF SECTION 01 33 00

## SECTION 01 42 00 – REFERENCES

## PART 1 - GENERAL

## 1.1 RELATED DOCUMENTS

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

## 1.2 DEFINITIONS

- A. General: Basic Contract definitions are included in the Conditions of the Contract. When using terms such as those in first two paragraphs below, do not extend Architect's responsibility into Contractor's area of means, methods, and techniques of construction. See Evaluations.
- B. "Approved": The term "approved," when used to convey Architect's action on Contractor's submittals, applications, and requests, is limited to Architect's duties and responsibilities as stated in the Conditions of the Contract.
- C. "Directed": Terms such as "directed," "requested," "authorized," "selected," "approved," "required," and "permitted" mean directed by Architect, requested by Architect, and similar phrases.
- D. "Indicated": The term "indicated" refers to graphic representations, notes, or schedules on Drawings or to other paragraphs or schedules in Specifications and similar requirements in the Contract Documents. Terms such as "shown," "noted," "scheduled," and "specified" are used to help the user locate the reference.
- E. "Regulations": The term "regulations" includes laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, as well as rules, conventions, and agreements within the construction industry that control performance of the Work.
- F. "Furnish": The term "furnish" means to supply and deliver to Project site, ready for unloading, unpacking, assembly, installation, and similar operations.
- G. "Install": The term "install" describes operations at Project site including unloading, temporarily storing, unpacking, assembling, erecting, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations.
- H. "Provide": The term "provide" means to furnish and install, complete and ready for the intended use.
- I. "Installer": An installer is the Contractor or another entity engaged by Contractor as an employee, Subcontractor, or Sub-subcontractor, to perform a particular construction operation, including installation, erection, application, and similar operations.
- J. The term "experienced," when used with an entity, means having successfully completed a minimum of five previous projects similar in size and scope to this Project; being familiar with special requirements indicated; and having complied with requirements of authorities having jurisdiction.
  - 1. Using a term such as "carpentry" does not imply that certain construction activities must be performed by accredited or unionized individuals of a corresponding generic name, such as "carpenter." It also does not imply that requirements specified apply exclusively to tradespeople of the corresponding generic name.
- K. "Project site" is the space available for performing construction activities. The extent of Project site is shown on Drawings and may or may not be identical with the description of the land on which Project is to

be built.

1.3 INDUSTRY STANDARDS

- A. Applicability of Standards: Unless the Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the Contract Documents to the extent referenced. Such standards are made a part of the Contract Documents by reference.
- B. Publication Dates: Comply with standards in effect as of date of the Contract Documents, unless otherwise indicated.
- C. Conflicting Requirements: If compliance with two or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement. Refer uncertainties and requirements that are different, but apparently equal, to Architect for a decision before proceeding.
  - 1. Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of requirements. Refer uncertainties to Architect for a decision before proceeding.
- D. Copies of Standards: Each entity engaged in construction on Project must be familiar with industry standards applicable to its construction activity. Copies of applicable standards are not bound with the Contract Documents.
  - 1. Where copies of standards are needed to perform a required construction activity, obtain copies directly from publication source and make them available on request.
- E. Abbreviations and Acronyms for Industry Organizations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities indicated in Gale Research's "Encyclopedia of Associations" or in Columbia Books' "National Trade & Professional Associations of the U.S."
- F. Abbreviations and Acronyms for Industry Organizations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list. Names, telephone numbers, and Web site addresses are subject to change and are believed to be accurate and up-to-date as of the date of the Contract Documents.

AA	Aluminum Association, Inc. (The)  www.aluminum.org	(202) 862-5100
AAMA	American Architectural Manufacturers Association  www.aamanet.org	(847) 303-5664
ACI	American Concrete Institute/ACI International  www.aci-int.org	(248) 848-3700
AIA	American Institute of Architects (The)  www.aiaonline.org	(202) 626-7300
AISC	American Institute of Steel Construction, Inc.	(800) 644-2400

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	<a href="http://www.aisc.org">www.aisc.org</a>	(312) 670-2400
AISI	American Iron and Steel Institute	(202) 452-7100
	<a href="http://www.steel.org">www.steel.org</a>	
ANSI	American National Standards Institute	(212) 642-4900
	<a href="http://www.ansi.org">www.ansi.org</a>	
ASCE	American Society of Civil Engineers	(800) 548-2723
	<a href="http://www.asce.org">www.asce.org</a>	(703) 295-6300
ASHRAE	American Society of Heating, Refrigerating and Air-Conditioning Engineers	(800) 527-4723
	<a href="http://www.ashrae.org">www.ashrae.org</a>	(404) 636-8400
ASME	The American Society of Mechanical Engineers	(800) 843-2763
	<a href="http://www.asme.org">www.asme.org</a>	
ASTM	American Society for Testing and Materials	(610) 832-9585
	<a href="http://www.astm.org">www.astm.org</a>	
AWI	Architectural Woodwork Institute	(800) 449-8811
	<a href="http://www.awinet.org">www.awinet.org</a>	(703) 733-0600
AWPA	American Wood-Preservers' Association	(817) 326-6300
	<a href="http://www.awpa.com">www.awpa.com</a>	
AWS	American Welding Society	(800) 443-9353
	<a href="http://www.aws.org">www.aws.org</a>	(305) 443-9353
BHMA	Builders Hardware Manufacturers Association	(212) 661-4261
	<a href="http://www.buildershardware.com">www.buildershardware.com</a>	
BIA	Brick Industry Association (The)	(703) 620-0010
	<a href="http://www.bia.org">www.bia.org</a>	
CRI	Carpet and Rug Institute (The)	(800) 882-8846
	<a href="http://www.carpet-rug.com">www.carpet-rug.com</a>	(706) 278-3176
CRSI	Concrete Reinforcing Steel Institute	(847) 517-1200
	<a href="http://www.crsi.org">www.crsi.org</a>	
CSC	Construction Specifications Canada	
	<a href="http://www.ccdc.org">www.ccdc.org</a>	



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CSI	Construction Specifications Institute (The) <a href="http://www.csinet.org">www.csinet.org</a>	(800) 689-2900 (703) 684-0300
DHI	Door and Hardware Institute <a href="http://www.dhi.org">www.dhi.org</a>	(703) 222-2010
FGMA	Flat Glass Marketing Association (See GANA)	
FM	Factory Mutual System (See FMG)	
GA	Gypsum Association <a href="http://www.gypsum.org">www.gypsum.org</a>	(202) 289-5440
GANA	Glass Association of North America (Formerly: FGMA) <a href="http://www.glasswebsite.com/gana">www.glasswebsite.com/gana</a>	(785) 271-0208
IEEE	Institute of Electrical and Electronics Engineers, Inc. (The) <a href="http://www.ieee.org">www.ieee.org</a>	(212) 419-7900
NCMA	National Concrete Masonry Association <a href="http://www.ncma.org">www.ncma.org</a>	(703) 713-1900
NECA	National Electrical Contractors Association <a href="http://www.necanet.org">www.necanet.org</a>	(301) 657-3110
NEMA	National Electrical Manufacturers Association <a href="http://www.nema.org">www.nema.org</a>	(703) 841-3200
NFPA	National Fire Protection Association <a href="http://www.nfpa.org">www.nfpa.org</a>	(800) 344-3555 (617) 770-3000
NRCA	National Roofing Contractors Association <a href="http://www.nrca.net">www.nrca.net</a>	(800) 323-9545 (847) 299-9070
RFCI	Resilient Floor Covering Institute	(Contact by mail only)
SMACNA	Sheet Metal and Air Conditioning Contractors' National Assoc. <a href="http://www.smacna.org">www.smacna.org</a>	(703) 803-2980
SSPC	SSPC: The Society for Protective Coatings <a href="http://www.sspc.org">www.sspc.org</a>	(800) 837-8303 (412) 281-2331
SWI	Steel Window Institute <a href="http://www.steelwindows.com">www.steelwindows.com</a>	(216) 241-7333
TCA	Tile Council of America, Inc.	(864) 646-8453

	www.tileusa.com	
UL	Underwriters Laboratories Inc.	(800) 704-4050
	www.ul.com	(847) 272-8800
USGBC	United States Green Building Council	(202) 828.7422
	www.usgbc.org	
WCMA	Window Covering Manufacturers Association	(212) 661-4261
	www.windowcoverings.org	
WDMA	Window & Door Manufacturers Association (formerly NWWDA)	(800) 223-2301
	www.wdma.com	

G. Abbreviations and Acronyms for Code Agencies: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list. Names, telephone numbers, and Web site addresses are subject to change and are believed to be accurate and up-to-date as of the date of the Contract Documents.

ICC International Code Council  
www.icc.org

NFPA National Fire Protection Association  
www.nfpa.org

H. Abbreviations and Acronyms for Federal Government Agencies: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list. Names, telephone numbers, and Web site addresses are subject to change and are believed to be accurate and up-to-date as of the date of the Contract Documents.

EPA	Environmental Protection Agency	(202) 260-2090
	www.epa.gov	
FS	Federal Specification	
	(Available from DOD, GSA, and NIBS)	
OSHA	Occupational Safety & Health Administration	(202) 219-5000
	(See CFR 29)	
	www.osha.gov	

END OF SECTION 01 42 00

SECTION 01 50 00 - TEMPORARY FACILITIES AND CONTROL

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes requirements for temporary facilities and controls, including temporary utilities, support facilities, and security and protection facilities.

1.3 DEFINITIONS

- A. Permanent Enclosure: As determined by Architect, permanent or temporary roofing is complete, insulated, and weathertight; exterior walls are insulated and weathertight; and all openings are closed with permanent construction or substantial temporary closures.

1.4 USE CHARGES

- A. General: Cost for installation of temporary facilities are not chargeable to Owner or Architect and shall be included in the Contract Sum; usage fees shall be paid by Owner. Allow other entities to use temporary services and facilities without cost, including, but not limited to, the following:

- 1. Owner's construction forces.
- 2. Architect.
- 3. Testing agencies.
- 4. Personnel of authorities having jurisdiction.

- B. Water Service:

- 1. The Owner has water service available on site for use by Contractor. Arrange for temporary connection, as necessary, to Owner's service.
- 2. Owner shall pay usage fees.

- C. Electric Power Service:

- 1. The Owner has power available on site for use by Contractor. Arrange for temporary connections, as necessary, to Owner's service.
- 2. Owner shall pay usage fees.

1.5 QUALITY ASSURANCE

- A. Standards: Comply with ANSI A10.6, NECA's "Temporary Electrical Facilities," and NFPA 241.
  - 1. Trade Jurisdictions: Assigned responsibilities for installation and operation of temporary utilities are not intended to interfere with trade regulations and union jurisdictions.
  - 2. Electric Service: Comply with NECA, NEMA, and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.

1.6 PROJECT CONDITIONS

- A. Conditions of Use: The following conditions apply to use of temporary services and facilities by all parties engaged in the Work:
  - 1. Keep temporary services and facilities clean and neat.
  - 2. Relocate temporary services and facilities as required by progress of the Work.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. General: Provide new materials. Undamaged, previously used materials in serviceable condition may be used if approved by Architect. Provide materials suitable for use intended.
- B. Water: Potable.

2.2 TEMPORARY FACILITIES

- A. Field Offices, Contractor:
  - 1. An on-site office trailer is not required. Conference Room within the building will be made available for required project meetings.
- B. Storage and Fabrication Sheds: Provide sheds sized, furnished, and equipped to accommodate materials and equipment for construction operations.
  - 1. Store combustible materials apart from building

2.3 EQUIPMENT

- A. General: Provide equipment suitable for use intended.
- B. Fire Extinguishers: Hand carried, portable, UL rated. Provide class and extinguishing agent as indicated or a combination of extinguishers of NFPA-recommended classes for exposures.
  - 1. Comply with NFPA 10 and NFPA 241 for classification, extinguishing agent, and size required by location and class of fire exposure.
- C. Self-Contained Toilet Units: Single-occupant units of chemical, aerated recirculation, or combustion type; vented; fully enclosed with a glass-fiber-reinforced polyester shell or similar nonabsorbent material.
- D. Drinking-Water Fixtures: Containerized, tap-dispenser, bottled-water drinking-water units, including paper cup supply.
- E. Heating Equipment: Existing permanent heating system will be operable and available use for the Contractor.
  - 1. Use of gasoline-burning space heaters, open-flame heaters, or salamander-type heating units is prohibited.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

- A. Locate facilities where they will serve Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required. Obtain approval of location from Architect prior to any installation.
- B. Provide each facility ready for use when needed to avoid delay. Maintain and modify as required. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

**3.2 TEMPORARY UTILITY INSTALLATION**

- A. General: The Contractor may use the Owner’s water and electrical service.
- B. Sanitary Facilities: Provide temporary toilets, wash facilities, and drinking-water fixtures. Comply with regulations and health codes for type, number, location, operation, and maintenance of fixtures and facilities.
  - Existing sanitary facilities within building are available for use by Contractor. Contractor shall be responsible for maintaining existing facilities in a clean and sanitary state at all times.
- C. Heating and Cooling: Existing permanent systems will be available for use by the Contractor. Contractor shall be responsible for maintaining systems while using them. Special attention shall be given to keeping air filters clean.
- D. Ventilation and Humidity Control: Existing permanent systems will be available for use by the Contractor.
- E. Electric Power Service: Power service exists and is available for Contractor’s use.
- F. Electric Distribution: Provide receptacle outlets adequate for connection of power tools and equipment.
  - 1. Provide waterproof connectors to connect separate lengths of electrical power cords if single lengths will not reach areas where construction activities are in progress. Do not exceed safe length-voltage ratio.
  - 2. Provide warning signs at power outlets other than 110 to 120 V.
  - 3. Provide metal conduit, tubing, or metallic cable for wiring exposed to possible damage. Provide rigid steel conduits for wiring exposed on grades, floors, decks, or other traffic areas.
- G. Lighting: Existing lighting is available for use by the Contractor.
- H. Telecommunication Service and electronic equipment:
  - 1. Provide wireless telephone service for Contractor’s field supervisor and project manager.
  - 2. Provide computer to be located in field office for use of field superintendent and project manager. Computer shall have the following:
    - a. Internet access
    - b. Email account access
    - c. Adobe Acrobat or Reader software
    - d. Word processor.
  - 3. Provide digital camera, with ability to download photos to computer and email images.

**3.3 SUPPORT FACILITIES INSTALLATION**

- A. General: Comply with the following:
  - 1. Locate field offices, storage sheds, sanitary facilities and other temporary construction and support facilities in rear parking lot and where approved by Architect.
  - 2. Maintain support facilities until near Substantial Completion. Remove before Substantial Completion. Personnel remaining after Substantial Completion will be permitted to use permanent

facilities, under conditions acceptable to Owner..

- B. Dewatering Facilities and Drains: Maintain Project site, excavations, and construction free of water.
  - 1. Dispose of rainwater in a lawful manner that will not result in flooding Project or adjoining property nor endanger permanent Work or temporary facilities.
  - 2. Before connection and operation of permanent drainage piping system, provide temporary drainage where roofing or similar waterproof deck construction is completed.
  - 3. Remove snow and ice as required to minimize accumulations.
- C. Project Identification and Temporary Signs
  - 1. Provide and install 4' x 8' project sign. Sign shall be single sheet of plywood, support on posts or framing of preservative-treated wood or steel.
  - 2. Architect will provide graphic design for sign. Sign will identify Project, Owner, Architect and General Contractor.
  - 3. No other free standing signs shall be allowed.
  - 4. Signage on trucks, job trailer, and material trailers shall be permitted.
- D. Waste Disposal Facilities: Provide waste-collection containers in sizes adequate to handle waste from construction operations. Containerize and clearly label hazardous, dangerous, or unsanitary waste materials separately from other waste.
- E. Field Office, Contractor:
  - 1. Field office not required, but if desired, locate as approved by Architect.
  - 2. Connect utilities as necessary to provide fully functioning office.
- F. Storage and Fabrication Sheds: Provide sheds sized, furnished, and equipped to accommodate materials and equipment involved, including temporary utility services. Sheds may be open shelters or fully enclosed spaces within building or elsewhere on-site.
- G. Lifts and Hoists: Provide facilities for hoisting materials and personnel. Truck cranes and similar devices used for hoisting materials are considered "tools and equipment" and not temporary facilities.

### 3.4 SECURITY AND PROTECTION FACILITIES INSTALLATION

- A. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction in ways and by methods that comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects. Avoid using tools and equipment that produce harmful noise. Restrict use of noisemaking tools and equipment to hours that will minimize complaints from persons or firms near Project site.
- B. Stormwater Control: Provide controls as indicated on the Storm Water Pollution Prevention Plan (SWPPP).
- C. Tree and Plant Protection: Install temporary fencing located as indicated or outside the drip line of trees to protect vegetation from construction damage. Protect tree root systems from damage, flooding, and erosion.
- D. Barricades, Warning Signs, and Lights: Comply with standards and code requirements for erecting structurally adequate barricades. Paint with appropriate colors, graphics, and warning signs to inform personnel and public of possible hazard. Where appropriate and needed, provide lighting, including flashing red or amber lights.
- E. Temporary Enclosures: Provide temporary enclosures for protection of construction, in progress and completed, from exposure, foul weather, other construction operations, and similar activities. Provide temporary weathertight enclosure for building exterior.
  - 1. Provide temporary enclosures at window or louver openings that are not closed up with replacement units at end of each day.

- F. Temporary Fire Protection: Until fire-protection needs are supplied by permanent facilities, install and maintain temporary fire-protection facilities of types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 241.
  - 1. Provide at least one portable fire extinguisher in areas where work is being performed.
    - a. Class ABC dry-chemical extinguishers or a combination of extinguishers of NFPA-recommended classes for exposures.
  - 2. Supervise welding operations, combustion-type temporary heating units, and similar sources of fire ignition.
  - 3. Develop and supervise an overall fire-prevention and first-aid fire-protection program for personnel at Project site. Review needs with local fire department and establish procedures to be followed. Instruct personnel in methods and procedures. Post warnings and information.

**3.5 OPERATION, TERMINATION, AND REMOVAL**

- A. Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.
- B. Maintenance: Maintain facilities in good operating condition until removal. Protect from damage caused by freezing temperatures and similar elements.
- C. Termination and Removal: Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.
  - 1. Materials and facilities that constitute temporary facilities are the property of Contractor. Owner reserves right to take possession of Project identification signs.
  - 2. Remove temporary paving not intended for or acceptable for integration into permanent paving. Where area is intended for landscape development, remove soil and aggregate fill that do not comply with requirements for fill or subsoil. Remove materials contaminated with road oil, asphalt and other petrochemical compounds, and other substances that might impair growth of plant materials or lawns. Repair or replace street paving, curbs, and sidewalks at temporary entrances, as required by authorities having jurisdiction.
  - 3. At Substantial Completion, clean and renovate permanent facilities used during construction period. Comply with final cleaning requirements in Division 1 Section "Closeout Procedures."

END OF SECTION 01 50 00



SECTION 01 60 00 - PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes the following administrative and procedural requirements: selection of products for use in Project; product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; product substitutions; and comparable products.
- B. Related Sections include the following:
  - 1. Section 01 42 00 - References for applicable industry standards for products specified.
  - 2. Section 01 77 00 - Closeout Procedures for submitting warranties for contract closeout.
  - 3. Divisions 2 through 33 Sections for specific requirements for warranties on products and installations specified to be warranted.

1.3 DEFINITIONS

- A. Products: Items purchased for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
  - 1. Named Products: Items identified by manufacturer's product name, including make or model number or other designation, shown or listed in manufacturer's published product literature, that is current as of date of the Contract Documents.
  - 2. New Products: Items that have not previously been incorporated into another project or facility.
  - 3. Comparable Product: Product that is demonstrated and approved through submittal process, or where indicated as a product substitution, to have the indicated qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics that equal or exceed those of specified product.
- B. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor.
- C. Basis-of-Design Product Specification: Where a specific manufacturer's product is named and accompanied by the words "basis of design," including make or model number or other designation, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics for purposes of evaluating comparable products of other named manufacturers.
- D. Manufacturer's Warranty: Preprinted written warranty published by individual manufacturer for a particular product and specifically endorsed by manufacturer to Owner.
- E. Special Warranty: Written warranty required by or incorporated into the Contract Documents, either to extend time limit provided by manufacturer's warranty or to provide more rights for Owner.

## 1.4 SUBMITTALS

- A. Substitution Requests: Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
1. Documentation: Show compliance with requirements for substitutions and the following, as applicable: Delete requirements below that are unnecessary or included in the Supplementary Conditions. Revise retained subparagraphs to suit Project.
    - a. Statement indicating why specified material or product cannot be provided.
    - b. Coordination information, including a list of changes or modifications needed to other parts of the Work and to construction performed by Owner and separate contractors, that will be necessary to accommodate proposed substitution.
    - c. Detailed comparison of significant qualities of proposed substitution with those of the Work specified. Significant qualities may include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
    - d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
    - e. Samples, where applicable or requested.
    - f. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners.
    - g. Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
    - h. Research/evaluation reports evidencing compliance with building code in effect for Project, from a model code organization acceptable to authorities having jurisdiction.
    - i. Detailed comparison of Contractor's Construction Schedule using proposed substitution with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating lack of availability or delays in delivery.
    - j. Cost information, including a proposal of change, if any, in the Contract Sum.
    - k. Contractor's certification that proposed substitution complies with requirements in the Contract Documents and is appropriate for applications indicated.
    - l. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.
  2. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within one week of receipt of a request for substitution. Architect will notify Contractor of acceptance or rejection of proposed substitution within 10 working days of receipt of request, or 5 working days of receipt of additional information or documentation, whichever is later.
    - a. Form of Acceptance: Change Order.
    - b. Use product specified if Architect cannot make a decision on use of a proposed substitution within time allocated.
- B. Basis-of-Design Product Specification Submittal: Comply with requirements in Division 1 Section "Submittal Procedures." Show compliance with requirements.

## 1.5 QUALITY ASSURANCE

- A. Compatibility of Options: If Contractor is given option of selecting between two or more products for use on Project, product selected shall be compatible with products previously selected, even if previously selected products were also options.
1. Each contractor is responsible for providing products and construction methods compatible with products and construction methods of other contractors.
  2. If a dispute arises between contractors over concurrently selectable but incompatible products, Architect will determine which products shall be used.

## 1.6 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft. Comply with manufacturer's written instructions.
  - 1. Schedule delivery to minimize long-term storage at Project site and to prevent overcrowding of construction spaces.
  - 2. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
  - 3. Deliver products to Project site in an undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
  - 4. Inspect products on delivery to ensure compliance with the Contract Documents and to ensure that products are undamaged and properly protected.
  - 5. Store products to allow for inspection and measurement of quantity or counting of units.
  - 6. Store materials in a manner that will not endanger Project structure.
  - 7. Store products that are subject to damage by the elements, under cover in a weathertight enclosure above ground, with ventilation adequate to prevent condensation.
  - 8. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
  - 9. Protect stored products from damage.
- B. Storage: Provide a secure location and enclosure at Project site for storage of materials and equipment by Owner's construction forces. Coordinate location with Owner.

#### 1.7 PRODUCT WARRANTIES

- A. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of the Contract Documents.
- B. Special Warranties: Prepare a written document that contains appropriate terms and identification, ready for execution. Submit a draft for approval before final execution.
  - 1. Manufacturer's Standard Form: Modified to include Project-specific information and properly executed.
  - 2. Specified Form: Forms are included with the Specifications. Prepare a written document using appropriate form properly executed.
  - 3. Refer to Divisions 2 through 16 Sections for specific content requirements and particular requirements for submitting special warranties.
- C. Submittal Time: Comply with requirements in Division 1 Section "Closeout Procedures."

## PART 2 - PRODUCTS

### 2.1 PRODUCT OPTIONS

- A. General Product Requirements: Provide products that comply with the Contract Documents, that are undamaged, and unless otherwise indicated, that are new at time of installation.
  - 1. Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.
  - 2. Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types that have been produced and used successfully in similar situations on other projects.
  - 3. Owner reserves the right to limit selection to products with warranties not in conflict with requirements of the Contract Documents.

4. Where products are accompanied by the term "as selected," Architect will make selection.
5. Where products are accompanied by the term "match sample," sample to be matched is Architect's.
6. Descriptive, performance, and reference standard requirements in the Specifications establish "salient characteristics" of products.
7. Or Equal: Where products are specified by name and accompanied by the term "or equal", "or approved equal" or "or approved", comply with provisions in "Comparable Products" article to obtain approval for use of an unnamed product.

**B. Product Selection Procedures:** Procedures for product selection include the following:

1. **Product:** Where Specification paragraphs or subparagraphs titled "Product" name a single product and manufacturer, provide the product named.
2. **Manufacturer/Source:** Where Specification paragraphs or subparagraphs titled "Manufacturer" or "Source" name single manufacturers or sources, provide a product by the manufacturer or from the source named that complies with requirements.
  - a. Substitutions may be considered.
3. **Products:** Where Specification paragraphs or subparagraphs titled "Products" introduce a list of names of both products and manufacturers, provide one of the products listed that complies with requirements.
  - a. Substitutions may be considered.
4. **Manufacturers:** Where Specification paragraphs or subparagraphs titled "Manufacturers" introduce a list of manufacturers' names, provide a product by one of the manufacturers listed that complies with requirements.
  - a. Substitutions may be considered.
5. **Available Products:** Where Specification paragraphs or subparagraphs titled "Available Products" introduce a list of names of both products and manufacturers, provide one of the products listed or another product that complies with requirements. Comply with provisions in "Comparable Products" Article to obtain approval for use of an unnamed product.
6. **Available Manufacturers:** Where Specification paragraphs or subparagraphs titled "Available Manufacturers" introduce a list of manufacturers' names, provide a product by one of the manufacturers listed or another manufacturer that complies with requirements. Comply with provisions in "Comparable Products" Article to obtain approval for use of an unnamed product.
7. **Product Options:** Where Specification paragraphs titled "Product Options" indicate that size, profiles, and dimensional requirements on Drawings are based on a specific product or system, provide either the specific product or system indicated or a comparable product or system by another manufacturer. Comply with provisions in "Product Substitutions" Article.
8. **Basis-of-Design Products:** Where Specification paragraphs or subparagraphs titled "Basis-of-Design Product[s]" are included and also introduce or refer to a list of manufacturers' names, provide either the specified product or a comparable product by one of the other named manufacturers. Drawings and Specifications indicate sizes, profiles, dimensions, and other characteristics that are based on the product named. Comply with provisions in "Comparable Products" Article to obtain approval for use of an unnamed product.
  - a. Substitutions may be considered.
9. **Visual Selection Specification:** Where Specifications include the phrase "as selected from manufacturer's colors, patterns, textures" or a similar phrase, select a product (and manufacturer) that complies with other specified requirements.
  - a. **Standard Range:** Where Specifications include the phrase "standard range of colors, patterns, textures" or similar phrase, Architect will select color, pattern, or texture from manufacturer's product line that does not include premium items.
  - b. **Full Range:** Where Specifications include the phrase "full range of colors, patterns, textures" or similar phrase, Architect will select color, pattern, or texture from manufacturer's product line that includes both standard and premium items.

10. Allowances: Refer to individual Specification Sections and "Allowance" provisions in Division 1 for allowances that control product selection and for procedures required for processing such selections.

## 2.2 PRODUCT SUBSTITUTIONS

- A. Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:
  1. Requested substitution offers Owner a substantial advantage in cost, time, energy conservation, or other considerations, after deducting additional responsibilities Owner must assume. Owner's additional responsibilities may include compensation to Architect for redesign and evaluation services, increased cost of other construction by Owner, and similar considerations.
  2. Requested substitution does not require extensive revisions to the Contract Documents.
  3. Requested substitution is consistent with the Contract Documents and will produce indicated results.
  4. Substitution request is fully documented and properly submitted.
  5. Requested substitution will not adversely affect Contractor's Construction Schedule.
  6. Requested substitution has received necessary approvals of authorities having jurisdiction.
  7. Requested substitution is compatible with other portions of the Work.
  8. Requested substitution has been coordinated with other portions of the Work.
  9. Requested substitution provides specified warranty.
  10. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.

## 2.3 COMPARABLE PRODUCTS

- A. Where products or manufacturers are specified by name, submit the following, in addition to other required submittals, to obtain approval of an unnamed product:
  1. Evidence that the proposed product does not require extensive revisions to the Contract Documents, that it is consistent with the Contract Documents and will produce the indicated results, and that it is compatible with other portions of the Work.
  2. Detailed comparison of significant qualities of proposed product with those named in the Specifications. Significant qualities include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
  3. Evidence that proposed product provides specified warranty.
  4. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners, if requested.
  5. Samples, if requested.

END OF SECTION 01 60 00

SECTION 01 70 00 - EXECUTION REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes general procedural requirements governing execution of the Work including, but not limited to, the following:
  - 1. Construction layout.
  - 2. Field engineering and surveying.
  - 3. General installation of products.
  - 4. Coordination of Owner-installed products.
  - 5. Progress cleaning.
  - 6. Starting and adjusting.
  - 7. Protection of installed construction.
  - 8. Correction of the Work.
- B. Related Sections: Not used.

1.3 SUBMITTALS

- A. Certified Surveys: Submit two copies signed by land surveyor.

1.4 QUALITY ASSURANCE

- A. Land Surveyor Qualifications: A professional land surveyor who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing land-surveying services of the kind indicated.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Existing Conditions: The existence and location of site improvements, utilities, and other construction indicated as existing are not guaranteed. Before beginning work, investigate and verify the existence and location of mechanical and electrical systems and other construction affecting the Work.
  - 1. Before construction, verify the location and points of connection of utility services.
- B. Existing Utilities: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning site work, investigate and verify the existence and location of underground utilities and other construction affecting the Work.

1. Before construction, verify the location and invert elevation at points of connection of sanitary sewer, storm sewer, and water-service piping; and underground electrical services.
  2. Furnish location data for work related to Project that must be performed by public utilities serving Project site.
- C. Acceptance of Conditions: Examine substrates, areas, and conditions, with Installer or Applicator present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.
1. Written Report: Where a written report listing conditions detrimental to performance of the Work is required by other Sections, include the following:
    - a. Description of the Work.
    - b. List of detrimental conditions, including substrates.
    - c. List of unacceptable installation tolerances.
    - d. Recommended corrections.
  2. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
  3. Examine roughing-in for mechanical and electrical systems to verify actual locations of connections before equipment and fixture installation.
  4. Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed.
  5. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

### 3.2 PREPARATION

- A. Existing Utility Information: Furnish information to local utility that is necessary to adjust, move, or relocate existing utility structures, utility poles, lines, services, or other utility appurtenances located in or affected by construction. Coordinate with authorities having jurisdiction.
- B. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:
1. Notify Architect not less than two days in advance of proposed utility interruptions.
  2. Do not proceed with utility interruptions without written permission.
- C. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
- D. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.
- E. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents, submit a request for information to Architect. Include a detailed description of problem encountered, together with recommendations for changing the Contract Documents.

### 3.3 CONSTRUCTION LAYOUT

- A. Verification: Before proceeding to lay out the Work, verify layout information shown on Drawings, in relation to the property survey and existing benchmarks. If discrepancies are discovered, notify Architect promptly.
- B. General: Engage a land surveyor to lay out the Work using accepted surveying practices.
1. Establish benchmarks and control points to set lines and levels at each story of construction and elsewhere as needed to locate each element of Project.

2. Establish dimensions within tolerances indicated. Do not scale Drawings to obtain required dimensions.
  3. Inform installers of lines and levels to which they must comply.
  4. Check the location, level and plumb, of every major element as the Work progresses.
  5. Notify Architect when deviations from required lines and levels exceed allowable tolerances.
  6. Close site surveys with an error of closure equal to or less than the standard established by authorities having jurisdiction.
- C. Site Improvements: Locate and lay out site improvements, including pavements, grading, fill and topsoil placement, utility slopes, and invert elevations.
- D. Record Log: Maintain a log of layout control work. Record deviations from required lines and levels. Include beginning and ending dates and times of surveys, weather conditions, name and duty of each survey party member, and types of instruments and tapes used. Make the log available to Architect.

### 3.4 INSTALLATION

- A. General: Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.
1. Make vertical work plumb and make horizontal work level.
  2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.
  3. Conceal pipes, ducts, and wiring in finished areas, unless otherwise indicated.
- B. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.
- C. Install products at the time and under conditions that will ensure the best possible results. Maintain conditions required for product performance until Substantial Completion.
- D. Conduct construction operations so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy.
- E. Tools and Equipment: Do not use tools or equipment that produce harmful noise levels.
- F. Anchors and Fasteners: Provide anchors and fasteners as required to anchor each component securely in place, accurately located and aligned with other portions of the Work.
1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by Architect.
  2. Allow for building movement, including thermal expansion and contraction.
- G. Joints: Make joints of uniform width. Where joint locations in exposed work are not indicated, arrange joints for the best visual effect. Fit exposed connections together to form hairline joints.
- H. Hazardous Materials: Use products, cleaners, and installation materials that are not considered hazardous.

### 3.5 OWNER-INSTALLED PRODUCTS

- A. Site Access: Provide access to Project site for Owner's construction forces.
- B. Coordination: Coordinate construction and operations of the Work with work performed by Owner's construction forces.
1. Construction Schedule: Inform Owner of Contractor's preferred construction schedule for Owner's portion of the Work. Adjust construction schedule based on a mutually agreeable timetable. Notify



Owner if changes to schedule are required due to differences in actual construction progress.

2. Preinstallation Conferences: Include Owner's construction forces at preinstallation conferences covering portions of the Work that are to receive Owner's work. Attend preinstallation conferences conducted by Owner's construction forces if portions of the Work depend on Owner's construction.

### 3.6 PROGRESS CLEANING

- A. General: Clean Project site and work areas daily, including common areas. Coordinate progress cleaning for joint-use areas where more than one installer has worked. Enforce requirements strictly. Dispose of materials lawfully.
  1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
  2. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.
- B. Site: Maintain Project site free of waste materials and debris.
- C. Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the Work.
  1. Remove liquid spills promptly.
  2. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.
- D. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.
- E. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.
- F. Exposed Surfaces: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.
- G. Waste Disposal: Burying or burning waste materials on-site will not be permitted. Washing waste materials down sewers or into waterways will not be permitted.
- H. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.
- I. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
- J. Limiting Exposures: Supervise construction operations to assure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

### 3.7 STARTING AND ADJUSTING

- A. Start equipment and operating components to confirm proper operation. Remove malfunctioning units, replace with new units, and retest.
- B. Adjust operating components for proper operation without binding. Adjust equipment for proper operation.

- C. Test each piece of equipment to verify proper operation. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.
- D. Manufacturer's Field Service: If a factory-authorized service representative is required to inspect field-assembled components and equipment installation, comply with qualification requirements in Division 1 Section "Quality Requirements."

**3.8 PROTECTION OF INSTALLED CONSTRUCTION**

- A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.
- B. Comply with manufacturer's written instructions for temperature and relative humidity.

**3.9 CORRECTION OF THE WORK**

- A. Repair or remove and replace defective construction. Restore damaged substrates and finishes. Comply with requirements in Division 1 Section "Cutting and Patching."
  - 1. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment.
- B. Restore permanent facilities used during construction to their specified condition.
- C. Remove and replace damaged surfaces that are exposed to view if surfaces cannot be repaired without visible evidence of repair.
- D. Repair components that do not operate properly. Remove and replace operating components that cannot be repaired.
- E. Remove and replace chipped, scratched, and broken glass or reflective surfaces.

END OF SECTION 01 70 00

SECTION 01 73 29 - CUTTING AND PATCHING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes procedural requirements for cutting and patching.
- B. Related Sections include the following:
  - 1. Divisions 2 through 33 Sections for specific requirements and limitations applicable to cutting and patching individual parts of the Work.

1.3 DEFINITIONS

- A. Cutting: Removal of existing construction necessary to permit installation or performance of other Work.
- B. Patching: Fitting and repair work required to restore surfaces to original conditions after installation of other Work.

1.4 SUBMITTALS

- A. Schedule of Work:
  - 1. Ten days prior to commencement of work, develop a plan in conjunction with Architect and Owner outlining the sequence of work, anticipated time schedule and duration of tasks. Indicate impacts on facility operations including circulation, access to supplies, noise, dust, and interruptions to utility service.

1.5 QUALITY ASSURANCE

- A. Structural Elements: Do not cut and patch structural elements in a manner that could change their load-carrying capacity or load-deflection ratio.
- B. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that results in increased maintenance or decreased operational life or safety.
- C. Visual Requirements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch construction exposed on the exterior or in occupied spaces in a manner that would, in Architect's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.
- D. Cutting and Patching Conference: Before proceeding, meet at Project site with parties involved in cutting and patching, including mechanical and electrical trades. Review areas of potential interference and conflict. Coordinate procedures and resolve potential conflicts before proceeding.

1.6 WARRANTY

- A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during cutting and patching operations, by methods and with materials so as not to void existing warranties.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. General: Comply with requirements specified in other Sections of these Specifications.
- B. Existing Materials: Use materials identical to existing materials. For exposed surfaces, use materials that visually fully match existing adjacent surfaces possible.
  - 1. If identical materials are unavailable or cannot be used, use materials that, when installed, will match the visual and functional performance of existing materials.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine surfaces to be cut and patched and conditions under which they are to be performed.
  - 1. Compatibility: Before patching, verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
  - 2. Proceed with installation only after unsafe or unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Temporary Support: Provide temporary support of Work to be cut.
- B. Protection: Protect existing construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.
- C. Adjoining Areas: Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.
- D. Existing Services: Where existing services are required to be removed, relocated, or abandoned, bypass such services before cutting to avoid interruption of services to occupied areas. If interruption of services is unavoidable, schedule disruption of service with Development Manager, and provide a minimum of 72 hours notice.

3.3 PERFORMANCE

- A. General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.
  - 1. Cut existing construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.
- B. Cutting: Cut existing construction by sawing, drilling, breaking, chipping, grinding, and similar operations,

including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.

1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots as small as possible, neatly to size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
  2. Existing Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
  3. Concrete and Masonry: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.
  4. Mechanical and Electrical Services: Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after cutting.
  5. Proceed with patching after construction operations requiring cutting are complete.
- C. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other Work. Patch with durable seams that are as invisible as possible. Provide materials and comply with installation requirements specified in other Sections of these Specifications.
1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate integrity.
  2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.
  3. Floors and Walls: Where walls or partitions that are removed extend one finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform finish, color, texture, and appearance. Remove existing floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.
    - a Where patching occurs on a painted surface, apply primer and intermediate paint coats over the patch and apply final paint coat over entire unbroken surface containing the patch. Provide additional coats until patch blends with adjacent surfaces.
  4. Ceilings: Patch, repair, or rehang existing ceilings as necessary to provide an even-plane surface of uniform appearance.
  5. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weathertight condition.

### 3.4 CLEANING

1. Clean areas and spaces where cutting and patching are performed as work is performed and at the end of each day. Completely remove paint, mortar, oils, putty, and similar materials.

END OF SECTION 01 73 29

SECTION 01 77 00 - CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:
  - 1 Inspection procedures.
  - 2 Project Record Documents.
  - 3 Operation and maintenance manuals.
  - 4 Warranties.
  - 5 Instruction of Owner's personnel.
  - 6 Final cleaning.
- B. Related Sections:
  - 1 Section 01 29 00 - Applications for Payment

1.3 SUBSTANTIAL COMPLETION

- A. Preliminary Procedures: Before requesting inspection for determining date of Substantial Completion, complete the following. List items below that are incomplete in request.
  - 1 Advise Owner of pending insurance changeover requirements.
  - 2 Submit specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
  - 3 Obtain and submit releases permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
  - 4 Prepare and submit Project Record Documents, operation and maintenance manuals, damage or settlement surveys, and similar final record information.
  - 5 Deliver tools, spare parts, extra materials, and similar items to location designated by Owner. Label with manufacturer's name and model number where applicable.
  - 6 Make final changeover of permanent locks and deliver keys to Owner. Advise Owner's personnel of changeover in security provisions.
  - 7 Complete startup testing of systems.
  - 8 Submit test/adjust/balance records.
  - 9 Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
  - 10 Advise Owner of changeover in heat and other utilities.
  - 11 Submit changeover information related to Owner's occupancy, use, operation, and maintenance.
  - 12 Complete final cleaning requirements, including touchup painting.
  - 13 Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.
- B. Inspection: Submit a written request for inspection for Substantial Completion. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items,

either on Contractor's list or additional items identified by Architect, that must be completed or corrected before certificate will be issued.

#### 1.4 FINAL COMPLETION

- A. Preliminary Procedures: Before requesting final inspection for determining date of Final Completion, complete the following:
  - 1 Submit a final Application for Payment according to Division 1 Section "Payment Procedures."
  - 2 Submit copy of Architect's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Architect. The copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
  - 3 Submit evidence of final, continuing insurance coverage complying with insurance requirements.
  - 4 Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems.
- B. Inspection: Submit a written request for final inspection for acceptance. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.

#### 1.5 PROJECT RECORD DOCUMENTS

- A. General: Do not use Project Record Documents for construction purposes. Protect Project Record Documents from deterioration and loss. Provide access to Project Record Documents for Architect's reference during normal working hours.
- B. Record Drawings: Maintain and submit one set of blue- or black-line white prints of Contract Drawings and Shop Drawings.
  - 1 Mark Record Prints to show the actual installation where installation varies from that shown originally. Require individual or entity who obtained record data, whether individual or entity is Installer, subcontractor, or similar entity, to prepare the marked-up Record Prints.
    - a. Give particular attention to information on concealed elements that cannot be readily identified and recorded later.
    - b. Accurately record information in an understandable drawing technique.
    - c. Record data as soon as possible after obtaining it. Record and check the markup before enclosing concealed installations.
    - d. Mark Contract Drawings or Shop Drawings, whichever is most capable of showing actual physical conditions, completely and accurately. Where Shop Drawings are marked, show cross-reference on Contract Drawings.
  - 2 Mark record sets with erasable, red-colored pencil. Use other colors to distinguish between changes for different categories of the Work at the same location.
  - 3 Mark important additional information that was either shown schematically or omitted from original Drawings.
  - 4 Note Construction Change Directive numbers, Change Order numbers, alternate numbers, and similar identification where applicable.
  - 5 Identify and date each Record Drawing; include the designation "PROJECT RECORD DRAWING" in a prominent location. Organize into manageable sets; bind each set with durable paper cover sheets. Include identification on cover sheets.
- C. Record Specifications: Submit one copy of Project's Specifications, including addenda and contract modifications. Mark copy to indicate the actual product installation where installation varies from that indicated in Specifications, addenda, and contract modifications.
  - 1 Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.

- 2 Mark copy with the proprietary name and model number of products, materials, and equipment furnished, including substitutions and product options selected.
  - 3 Note related Change Orders and Record Drawings where applicable.
- D. Record Product Data: Submit one copy of each Product Data submittal. Mark one set to indicate the actual product installation where installation varies substantially from that indicated in Product Data.
- 1 Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
  - 2 Include significant changes in the product delivered to Project site and changes in manufacturer's written instructions for installation.
  - 3 Note related Change Orders, Record Drawings, and Record Specifications where applicable.
- E. Miscellaneous Record Submittals: Assemble miscellaneous records required by other Specification Sections for miscellaneous record keeping and submittal in connection with actual performance of the Work. Bind or file miscellaneous records and identify each, ready for continued use and reference.

### 1.6 OPERATION AND MAINTENANCE MANUALS

- A. Assemble two complete sets of operation and maintenance data indicating the operation and maintenance of each system, subsystem, and piece of equipment not part of a system. Include operation and maintenance data required in individual Specification Sections and as follows:
- 1 Provide (2) hard copies of data and (1) electronic version with files in Adobe PDF format.
  - 2 Operation Data:
    - a. Emergency instructions and procedures.
    - b. System, subsystem, and equipment descriptions, including operating standards.
    - c. Operating procedures, including startup, shutdown, seasonal, and weekend operations.
    - d. Description of controls and sequence of operations.
    - e. Piping diagrams.
  - 3 Maintenance Data:
    - a. Manufacturer's information, including list of spare parts.
    - b. Name, address, and telephone number of Installer or supplier.
    - c. Maintenance procedures.
    - d. Maintenance and service schedules for preventive and routine maintenance.
    - e. Maintenance record forms.
    - f. Sources of spare parts and maintenance materials.
    - g. Copies of maintenance service agreements.
    - h. Copies of warranties and bonds.
- B. Organize operation and maintenance manuals into suitable sets of manageable size. Bind and index data in heavy-duty, 3-ring, vinyl-covered, loose-leaf binders, in thickness necessary to accommodate contents, with pocket inside the covers to receive folded oversized sheets. Identify each binder on front and spine with the printed title "OPERATION AND MAINTENANCE MANUAL," Project name, and subject matter of contents.
- 1 Provide (2) hard copies of data.
  - 2 Provide (1) electronic version with files in Adobe PDF format.

### 1.7 WARRANTIES

- A. Submittal Time: Submit written warranties on request of Architect for designated portions of the Work where commencement of warranties other than date of Substantial Completion is indicated.
- B. Partial Occupancy: Submit properly executed warranties within 15 calendar days of completion of designated portions of the Work that are completed and occupied or used by Owner during construction period by separate agreement with Contractor.



- C. Organize warranty documents into an orderly sequence based on the table of contents of the Project Manual.
  - 1 Bind warranties and bonds in heavy-duty, 3-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch paper.
  - 2 Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address, and telephone number of Installer.
  - 3 Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project name, and name of Contractor.
- D. Provide additional copies of each warranty to include in operation and maintenance manuals.

## PART 2 - PRODUCTS

### 2.1 MATERIALS

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

## PART 3 - EXECUTION

### 3.1 DEMONSTRATION AND TRAINING

- A. Instruction: Instruct Owner's personnel to adjust, operate, and maintain systems, subsystems, and equipment not part of a system
  - 1 Provide instructors experienced in operation and maintenance procedures.
  - 2 Provide instruction at mutually agreed-on times. For equipment that requires seasonal operation, provide similar instruction at the start of each season.
  - 3 Schedule training with Owner with at least seven days' advance notice.
  - 4 Coordinate instructors, including providing notification of dates, times, length of instruction, and course content.
- B. Program Structure: Include instruction for the following:
  - 1 System design and operational philosophy.
  - 2 Review of documentation.
  - 3 Operations.
  - 4 Adjustments.
  - 5 Troubleshooting.
  - 6 Maintenance.
  - 7 Repair.

### 3.2 FINAL CLEANING

- A. General: Provide final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.
- B. Final cleaning: products used shall be Green Seal Certified.
- C. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.

- 1 Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a portion of Project:
  - a. Clean Project site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
  - b. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
  - c. Rake grounds that are neither planted nor paved to a smooth, even-textured surface.
  - d. Remove tools, construction equipment, machinery, and surplus material from Project site.
  - e. Remove snow and ice to provide safe access to building.
  - f. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
  - g. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
  - h. Sweep concrete floors broom clean in unoccupied spaces.
  - i. Vacuum carpet and similar soft surfaces, removing debris and excess nap; shampoo if visible soil or stains remain.
  - j. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other noticeable, vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials. Polish mirrors and glass, taking care not to scratch surfaces.
  - k. Remove labels that are not permanent.
  - l. Touch up and otherwise repair and restore marred, exposed finishes and surfaces. Replace finishes and surfaces that cannot be satisfactorily repaired or restored or that already show evidence of repair or restoration.
    - 1) Do not paint over "UL" and similar labels, including mechanical and electrical nameplates.
  - m. Wipe surfaces of mechanical and electrical equipment, elevator equipment, and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
  - n. Replace parts subject to unusual operating conditions.
  - o. Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.
  - p. Replace disposable air filters and clean permanent air filters. Clean exposed surfaces of diffusers, registers, and grills.
  - q. Clean ducts, blowers, and coils if units were operated without filters during construction.
  - r. Clean light fixtures, lamps, globes, and reflectors to function with full efficiency. Replace burned-out bulbs, and those noticeably dimmed by hours of use, and defective and noisy starters in fluorescent and mercury vapor fixtures to comply with requirements for new fixtures.
  - s. Leave Project clean and ready for occupancy.
- D. Pest Control: Engage an experienced, licensed exterminator to make a final inspection and rid Project of rodents, insects, and other pests. Prepare a report.
- E. Comply with safety standards for cleaning. Do not burn waste materials. Do not bury debris or excess materials on Owner's property. Do not discharge volatile, harmful, or dangerous materials into drainage systems. Remove waste materials from Project site and dispose of lawfully.

END OF SECTION 01 77 00