

Addendum No. 1
Pratt Park Improvements
City of Prattville Bid No. 022-010
City of Prattville
Civil Southeast Project No. 22P2403

This Addendum forms a part of the Contract Documents and modifies the original Contract Documents as described. Acknowledge receipt of this Addendum in the space provided in the Proposal.

JUN17 22 3:32PM

Revised Proposal Attached

- The Contractor shall replace the existing Proposal (Page 010) of the Specifications, Proposal and Contract Documents for Pratt Park Improvements with the attached revised Proposal.
- **Revised Proposal Clarification:** A Materials Testing Allowance of \$10,000.00 has been added to the Revised Proposal. This allowance shall be controlled by the Engineer and shall be billed to the Contractor as required.

Clarifications:

The following project specifications have been added to further clarify expectations for this project and are attached to this Addendum:

- Section 01-1100 – PROJECT PROCEDURES
- Section 01-3000 – SUBMITTALS
- Section 01-4000 – QUALITY CONTROL SERVICES
- Section 01-4217 – DEFINITIONS AND STANDARDS
- Section 01-4500 – CUTTING AND PATCHING
- Section 01-5000 – TEMPORARY FACILITIES AND CONTROLS
- Section 01-6100 – MATERIALS AND EQUIPMENT
- Section 01-7000 – EXECUTION AND CLOSEOUT REQUIREMENTS
- Section 01-7700 – PROJECT CLOSEOUT
- Section 01-7800 – CLOSEOUT SUBMITTALS
- Section 02-4100 – DEMOLITION

These additional specifications shall all be subsidiary to the bid items currently listed in the attached proposal.

The Contractor is to acknowledge receipt of this addendum on Page 009 of the Specifications, Proposal and Contract Documents for Pratt Park Improvements.

Issued by:



Will Barrett, P.E.
Project Manager
Civil Southeast, LLC

***PROPOSAL
PRATT PARK IMPROVEMENTS
CITY OF PRATTVILLE**

Base Bid

	ITEM	QTY	UNIT	UNIT PRICE	AMOUNT BID
1.	Mobilization	1	LS		
2.	Demolition	1	LS		
3.	Tree Removal	1	LS		
4.	New Public Restroom	1	LS		
5.	Ornamental Fencing	760	LF		
6.	4" Concrete Sidewalk	620	SY		
7.	Curb and Gutter, Type C (Modified)	125	LF		
8.	12" Concrete Headwall	3	EA		
9.	Asphalt Surface Removal	450	SY		
10.	Topsoil (Remove and Reuse on Site)	400	CY		
11.	Topsoil	200	CY		
12.	Unclassified Excavation	150	CY		
13.	Select Backfill	400	CY		
14.	Silt Fence	750	LF		
15.	Wattle	150	LF		
16.	Sod (Bermuda)	2,500	SY		
17.	Materials Testing Allowance	1	LS	\$10,000.00	\$10,000.00
18.	ADEM Stormwater Permitting	1	LS	\$7,500.00	\$7,500.00

BASE BID SUBTOTAL: _____

Additive Alternate

	ITEM	QTY	UNIT	UNIT PRICE	AMOUNT BID
A-1	Existing Pratt Park Restroom Renovations				
A-1a	Paint Interior of Existing Pratt Park Restroom	1	LS		
A-1b	Replace Toilet Partitions and Baby Changing Station	1	LS		
A-1c	Replace Existing Pratt Park Restroom Lighting	1	LS		
A-1d	Replace Existing Pratt Park Restroom Doors	1	LS		
A-1e	Exterior Painting	1	LS		

ADDITIVE ALTERNATE SUBTOTAL: _____

BASE BID + ADDITIVE ALTERNATE BID TOTAL: _____

SECTION 01 1100 - PROJECT PROCEDURES

PART 1 GENERAL

1.01 SUMMARY

- A. Work of this section includes project requirements for:
 - 1. Cutting and patching
 - 2. Submittals.
 - 3. Schedules.
 - 4. Temporary facilities and controls.
 - 5. Material and equipment.
 - 6. Product options and substitutions.
 - 7. Contract closeout.
 - 8. Cleaning up.
 - 9. Selective demolition
- B. Special project restrictions:
 - 1. Noise-producing operations shall be restricted to time limits as directed by Building Management. Contractor shall coordinate with and receive permission from facility management a minimum of 24 hours in advance of operations, so as not to interfere with Owner operations.
 - 2. No materials or equipment shall be moved through occupied or finished space.
 - 3. Contractor shall review specific guidelines and restrictions for work in and around building in the preconstruction meeting with the Architect/Consultant.

1.02 CUTTING AND PATCHING:

- A. Summary:
 - 1. Contractor's responsibilities:
 - a. Contractor shall be responsible for cutting, fitting and patching required to complete the work and as follows:
 - b. Make new and existing parts fit together.
 - c. In addition to Contract requirements, perform the following:

- d. Uncover work to provide for observation of covered work.
 - e. Remove samples of existing installed materials for testing and for matching of new materials.
 - f. Remove work to provide for alteration, restoration or refinishing of existing work.
 - g. Do not endanger work by cutting or altering work.
 - h. Do not cut or alter work not of this Contract without written consent of Architect/Consultant.
2. Costs incurred for ill-timed work or uncovering of work shall include costs for Architect and Consultant.

B. Cutting/Patching request:

1. For work affecting the following, not addressed in the Contract Documents, submit a written request to Architect, well in advance of executing cutting or alteration:
 - a. Structural value or integrity of any element of project.
 - b. Integrity of effectiveness of weather-exposed or moisture-resistant elements or systems.
 - c. Efficiency, operational life, maintenance or safety of operational elements.
 - d. Visual qualities of sight-exposed elements.
2. Request shall include:
 - a. Identification of project.
 - b. Description of proposed work:
 - c. Description of cutting, patching or alteration.
 - d. Trades who will execute the work.
 - e. Products proposed to be used.
 - f. Extent of work to be done.
 - g. Necessity of cutting or alteration.
 - h. Effect of work on Park or separate Contract, or on structural or weatherproof integrity of project.

- i. Alternatives to cutting and patching.
 - j. Cost proposal, when applicable.
 - k. Written permission of separate Contractors whose work will be affected.
3. Should conditions of the work or the schedule indicate a change of products from the original installation, Contractor shall submit a request for substitution as herein specified.
 4. Submit a written notice to Architect and Owner designating date and time work will be uncovered.

1.03 SUBMITTALS:

A. General provisions:

1. Provisions specified are mandatory procedures for preparing and submitting specified submittals.
2. Submittals shall be in orderly sequence and timed to cause no delay in the Work.
3. Job delays occasioned by requirement of resubmission of submittals not in accord with Contract Documents are Contractor's responsibility and will not be considered valid justification for extension of Contract time.
4. Commence no portion of work requiring submittals until submittal has been reviewed and accepted by Architect.
5. During course of the Work, maintain an updated submittal schedule showing status of all submittals.

B. Sample preparation:

1. Prepare samples in sizes, shapes and finishes in accord with provisions of individual specification sections. Provide mock up of each portion of the work to be approved by the Architect prior to production work.
2. Samples furnished under this section are not to be confused with full size, on-the site "mock-ups" or "sample panels" called for in some specification sections.
3. The number of samples submitted shall be the number required by Contractor, plus one which will be retained by Architect and one which will be retained by this Owner, unless otherwise indicated.

C. Product data preparation:

1. Include product manufacturer's standard printed material, dated, with product description and installation instructions indicated. Product data may also contain test and performance data, illustrations and special details.
2. Form: Number of copies submitted shall be the number required by Contractor, plus one which will be retained by Architect/Engineer, plus one which will be retained by the Architect.
3. Data not related to this project shall be deleted from manufacturer's standard data.

D. Shop drawing preparation:

1. Drawings shall conform to the following requirements:
 - a. Number drawings consecutively.
 - b. Indicate working and erection dimensions and relationships to adjacent work.
 - c. Show arrangements and sectional views, where applicable.
 - d. Indicate material, gauges, thicknesses, finishes and characteristics.
 - e. Indicate anchoring and fastening details, including information for making connections to adjacent work.
 - f. Contract documents prepared by the Architect/Engineer will not be acceptable as shop drawing submittals.
2. Form: Submit blue line copies of shop drawings. Number of copies required shall be the number required by Contractor for coordination and execution of the work, one copy for Architect's file and one copy to be retained by Architect's Engineer.

E. Contractor's review:

1. Review, stamp with approval and submit to the Architect/Construction Consultant submittals required by the Contract Documents with reasonable promptness and in such sequence as to cause no delay in the Work or in the activities of the Architect or of separate contractors. Submittals made by the Contractor which are not required by the Contract Documents will be returned without action.
2. By approving and submitting submittals, Contractor represents that he has determined and verified materials, field measurements, and field construction criteria related thereto, or will do so, and has checked and coordinated the information contained within such submittals with the requirements of the work and of the Contract Documents.

3. The Contractor shall not be relieved of responsibility for deviations from requirements of the Contract Documents by the Architect/Engineer's review of submittals unless the Contractor has specifically informed the Architect/Engineer in writing of such deviation at the time of submittal and the Architect/Engineer has given written acceptance to the specific deviation. The Contractor shall not be relieved of responsibility for errors or omissions in shop drawings, product data, samples or similar submittals by the Architect/Engineer's review thereof.
4. The Contractor shall direct specific attention, in writing or on resubmitted submittals, to revisions other than those requested by the Architect/Engineer on previous submittals.
5. When professional certification of performance criteria of materials, systems or equipment is required by the Contract Documents, the Architect/Engineer shall be entitled to rely upon the accuracy and completeness of such calculations and certifications.
6. Where work is indicated "By Others," Contractor shall indicate responsibility for providing and coordinating such work, whether by Subcontractors or under separate contracts.
7. Contractor agrees that submittals processed by Architect/Engineer are not Construction Change Directives or Change Orders; that purpose of submittals by Contractor is to demonstrate that Contractor understands design concept; that he demonstrates his understanding by indicating which equipment and material he intends to furnish and install and by detailing fabrication and installation methods he intends to use.
8. Contractor represents by submitting submittals that he has complied with provisions herein specified. Submissions made without Contractor's approval indicated thereon will be returned without being reviewed for compliance with this requirement.
9. Date each submittal and indicate name of Project, Architect, Contractor, Subcontractor, as applicable, description or name of equipment, material or product, and identify location at which it is to be used in the Work.
10. Accompany submittal with transmittal letter containing project name, Contractor's name, number and type of submittals, titles and other pertinent data. Transmittal shall outline deviations, if any, in submittals from requirements of Contract Documents.
11. Perform no portion of the Work requiring submittal and review of submittals until the respective submittal has been reviewed and accepted by the Architect/Construction Consultant.

F. Architect/Construction Consultant's review:

1. Architect/Construction Consultant will review each submittal, mark it with appropriate action, and return it to Contractor with reasonable promptness, except where it must be held for coordination and the Contractor is so advised.
2. Architect/Engineer's review or other appropriate action is only for checking for conformance with information given and the concepts expressed in the Contract Documents. Architect/Engineer's acceptance of a specific item shall not indicate acceptance of an assembly in which item is a component.
3. Architect/Engineer's review of submittals shall not relieve Contractor of responsibility for deviation from requirements of Contract Documents unless Contractor has informed Architect/Engineer in writing of such deviation at time of submission and Architect/Engineer has given written acceptance to the specific deviation. Architect/Engineer's review shall not relieve Contractor from responsibility for errors or omissions in submittals.
4. Submittals required to be submitted "For Information Only" are required to demonstrate that the Work complies with performance requirements of the Contract Documents. Such submittals, if acceptable to Architect/Engineer, will not be returned to Contractor.
5. Architect/Engineer will return submittals to Contractor for distribution to appropriate parties.

G. Resubmission:

1. Make corrections and changes indicated for unacceptable submittals, and resubmit in same manner as specified above until Architect/Engineer's acceptance is obtained.
2. On resubmittal transmittal, direct specific attention to revisions other than corrections requested by Architect/Engineer on previous submittals, if any.

H. Distribution:

1. Contractor is responsible for obtaining and distributing copies of submittals to his subcontractors and material suppliers after, as well as before, final acceptance.
2. For duration of project, Contractor shall maintain a file of accepted submittals which shall be delivered to Architect as a part of project closeout documents.

1.04 SCHEDULES:

- A. Form of schedules: Prepare schedule in form of Bar Chart.

1. Provide separate horizontal breakdown of each element of work.
 2. Order: Chronological order of beginning of each item of work.
 3. Identify each element of work by area.
 4. Horizontal time scale: By calendar day.
- B. Content of schedules; provide complete sequence of construction by activity:
1. Submittal data.
 2. Decision dates for selections and approvals.
 3. Product procurement and delivery dates.
 4. Beginning and completion of each element of work by area, day and duration.
 5. Indication number of men by crew by day and duration.
- C. Updating:
1. Show all changes since previous submittal of updated schedule.
 2. Indicate progress of each activity, show duration by days. Include the following:
 - a. Planned status.
 - b. Present status.
 - c. Weather and other delays.
 - d. Major changes in scope.
 - e. Activities modified since previous updating.
 - f. Revised projections due to changes.
- D. Submittals:
1. Submit initial schedule within five calendar days after execution of agreement.
 2. Submit update schedules accurately depicting progress no less than every two weeks.
 3. Submit weekly schedule indicating what type of work in what areas will be accomplished in the next two weeks.
 4. Distribute reviewed schedules to:

- a. City of Montgomery Engineering Department, if required.
- b. Architect/Engineer.

1.05 TEMPORARY FACILITIES AND CONTROLS:

- A. Site access and parking: Parking for construction personnel shall be in locations acceptable to the Owner.
- B. Storage and staging areas: Provide at locations acceptable to the Owner.
- C. Signs:
 1. No project or advertising signs of any description will be allowed.
 2. Provide directional and warning signs at protective barricades to assure safe passage of pedestrians and vehicles in and near areas of work.
- D. Temporary utilities:
 1. Power and water: The General Contractor will provide power and water for the duration of the project. The Contractor shall pay all costs of modifications to existing system or shall obtain separate services.
 2. Voice communications: Provide two way radio or portable telephone service for communication at all times that work is being performed. If radio, provide one radio to Architect and one to Owner.
 3. Sanitary toilet facilities: Provide and maintain temporary toilet facilities for construction personnel. Existing facilities may not be used by personnel.
- E. Controls: Because this is an occupied facility, the Contractor shall be responsible for the proper attire and actions of all workmen at all times. Any improper attire or action is cause for immediate dismissal from the site and project.
- F. Temporary hoist and staging equipment: Provide temporary equipment for transportation of personnel, materials and equipment.
 1. Provide protection devices during equipment use.
 2. Do not overload structural system with temporary equipment; do not overload hoisting equipment or staging.
- G. Security: Maintain existing security; comply with Owner's requirements.
- H. Building access:

1. The Contractor shall generally be prohibited from entering areas of the building except where work is in progress. Access to work areas through the Building shall be approved by and coordinated with the Architect and Owner. Work and access shall cause no disruption to occupants. The Contractor shall give a minimum of 72 hours advance notice and receive permission from the Architect for any access other than during normal business hours.
 2. Schedule the Work and arrange material storage in a manner which leaves the work areas and project site as unencumbered as possible. Provide temporary barriers and enclosures, and maintain the site in clean condition. Loading dock areas shall not be blocked.
 3. The Contractor shall be responsible for correcting damages to the facility/property caused by his work or passage. Soiled or damaged materials shall be replaced or repaired to satisfaction of the Architect and Owner.
- I. Special protection requirements:
1. Protect property and components from damage, staining or defacing due to the Work. Correct or replace damaged materials or finishes to satisfaction of the Architect.
 2. Protect from rain or water leakage during the course of the Work. Do not open joints to extent that openings cannot be recaulked and protected from inclement weather. Openings shall not be left unprotected overnight.
 3. Provide explanatory/directional signage, barricades and protective enclosures at entrances and exterior walkways to protect building occupants. Coordinate placement and location of all protective enclosures with the Architect. Entrances and exits shall not be made inaccessible unless approved in advance by Architect and local fire officials.
 4. Provide protection against overspray of cleaning and other materials contacting building occupants or vehicles in drives or parking areas. Drives shall not be blocked to extent of restricting vehicular access, and parking area restrictions shall be kept to a minimum. Barriers and restrictions shall be approved in advance by the Architect. Do not work with materials subject to being wind blown during times of high winds.
 5. Protect surfaces of products from damage or discoloration due to rain, dust or physical damage. Replace damaged or defaced materials which cannot be restored to satisfaction of the Architect.
 6. Protect landscape planting from damage, including toxic overspray or run-off from cleaning materials. Damaged or ruined planting shall be replaced by the Contractor

with plants of identical variety, size and configurations. Replace damaged ground cover materials to match existing.

7. Protect existing construction from damages during the work of this project.
8. Provide reinforced polyethylene and wood framing necessary to protect interiors where exterior construction is complete.
9. Damages to exterior and resultant damages to interior materials and finishes due to leaks resulting from work of this project shall be corrected by Contractor to satisfaction of and at no additional cost to the Architect.

J. Relocation and removal:

1. Relocate temporary facilities during construction as required by progress of the Work at no additional cost to the Architect.
2. At completion of the Work or at the time of permanent utility connections, as applicable, remove temporary facilities, including connections and debris resulting from temporary installation.

1.06 MATERIAL AND EQUIPMENT:

A. Delivery, storage and handling:

1. Deliver manufactured products to project site in manufacturer's original packaging with labels and seals intact. Labels shall indicate manufacturer and product name, description, mixing and application instructions. Where applicable, labels shall indicate fire resistive classifications.
2. Inspect materials upon delivery to ensure proper material, color, type and quantity.
3. Store materials and equipment under cover, off ground at least 6" and protected from excessive heat and freezing, except for materials not subject to damage or deterioration by contact with environmental conditions. Observe manufacturer's recommendations for positioning, separation and ventilation, as applicable.
4. Prevent corrosion, soiling or breakage of materials or contact with deleterious materials.
5. Handle materials and equipment to prevent damage, deterioration or contamination. Install no materials which are physically damaged or stained prior to time for installation.
6. Store and handle coatings, cleaners, sealants and products subject to spillage in areas where spills will not deface finished surfaces or other work.

7. Flammable or hazardous materials:
 - a. Store minimum quantities in protected areas.
 - b. Provide appropriate type fire extinguishers near storage areas.
 - c. Observe manufacturer's precautions and applicable ordinances and regulations.
 8. Comply with manufacturer's instructions and recommendations for product storage and handling.
 9. Comply with manufacturer's product data in all aspects of basic material usage, handling, installation and substrate preparation, except where more stringent requirements are specified.
- B. Materials containing hazardous substances:
1. The intent of the Contract Documents is to exclude all materials which contain known hazardous substances, including materials containing asbestos, polychlorinated biphenyl (PCB), or any other known substances determined to be a health hazard by the United States Environmental Protection Agency (EPA) and other recognized agencies.
 - a. In studying the Contract Documents and at any time during execution of the Work, the Contractor shall at once report to the Architect/Owner any materials containing hazardous substances that he may discover.
 - b. Do not proceed with installation of materials containing known hazardous substances.
 2. Where products are specified by product, by manufacturer, by reference standard or in descriptive manner without manufacturer's name, model number or trade name, Contractor shall select materials meeting specified requirements which do not contain known hazardous substances in any form.
 3. In making requests for substitution, Contractor shall be responsible for determining that materials requested for substitution are free of known hazardous substances in any form.
- C. Substrate conditions:
1. Verify and obtain substrate conditions, tolerances and material alignments to receive applied or attached materials and construction.
 2. Substrates shall be sound, clean, dry and free of imperfections and conditions which would be detrimental to receipt of applied materials and finishes.

3. Align materials to give smooth, uniform surface planes within specified tolerances and straight, level and plumb surfaces.
4. Inspect substrates prior to installation of applied materials and finishes. Correct unacceptable conditions prior to proceeding with work.
5. Existing subsurfaces receiving new finishes shall have existing finish removed or, if sound, prepared in accord with manufacturer's product data to receive new specified finish.

D. Finished surfaces:

1. Finished surfaces shall be clean, uniform and free of damages, soiling or defects in material and finish.
2. Protection:
 - a. Protect finished surfaces from damage and soiling during application, drying or curing, as applicable.
 - b. Provide temporary protective coverings or barriers.

1.07 PRODUCT OPTIONS AND SUBSTITUTIONS:

- A. Products are specified by reference standards, performance and manufacturer's name and model number or trade name.
 1. When specified only by reference standard or performance, Contractor may select any product meeting specified standards or performance requirements, by any manufacturer.
 2. When several products or manufacturers are specified as being acceptable, Contractor has the option of choosing among those named.
 3. When one product or manufacturer is specified or indicated as the "basis of design", "basis of selection" or "scheduled", Contractor shall bear costs associated with changes required for application or installation of other products or assemblies.
 4. When proprietary products are specified, substitutions will be allowed only by substitution provisions specified herein, unless it is specifically stated that no substitutions are allowed.
- B. If it is desired to use products different from those indicated in the Contract Documents, the party requesting the substitution shall make written application as described herein. The burden of proving equality of proposed substitutions rests with the party making the request for substitution.

1. Requests for substitution shall reach the Architect not less than five days prior to the date set for opening of bids. Requests received by Architect Consultant after this date may not be considered.
 2. Contractor shall be responsible for payment of time for research, evaluation, selection and re-design costs incurred by Architect/Engineer and his consultants for substitutions.
 3. Requests for substitution shall be accompanied by such technical data and samples as the party making the request desires to submit. Architect/Engineer will consider reports from independent testing laboratories, verified experience records from previous users, and other printed or written information valid in the circumstances.
 4. Requests for substitution shall indicate in what respects proposed materials or products differ from those specified and the effect on interfacing or related work.
 5. Requests for substitution shall be accompanied by the manufacturer's dated product data describing the installation, use and care, as applicable, of proposed substitution. Include reference standards, test data and clarification drawings.
 6. Requests for substitution shall be accompanied by complete cost data indicating material cost, installed cost and savings, if any, resulting from proposed substitution.
 7. Determination as to acceptability of proposed substitutions will be made based only on data submitted.
 8. Contractor shall coordinate installation of accepted substitutions with interfacing work, bearing evaluation and re-design costs and making approved changes in the Work to properly incorporate the substitutions, and shall waive all claims for additional costs related to use of acceptable substitutions which become apparent following acceptance.
- C. In the event that specified items cannot be delivered to the jobsite and incorporated into the Work at such times and in such quantities as to cause no delay, then Contractor may request a substitution in the manner described above. Should the accepted substitution provide a cost savings, the Contract price will be adjusted by Change Order, with the Architect receiving the benefit of the net savings. No increase in the Contract price will be allowed on substitutions made after the receipt of Bids, except where the Contractor can verify a timely placement of orders appropriate to the materials and conditions involved.
- D. Inability to obtain specified items due to Contractor's failure to place timely orders will not be considered reason for authorizing substitutions.

1.08 CONTRACT CLOSEOUT:

A. Closeout timing:

1. Contractor shall prepare, assemble and transmit the items listed herein to the Architect.
2. Unless additional quantities are specified elsewhere, submit items in duplicate.
3. Documents, tools, equipment, demonstrations and other closing requirements shall be submitted or performed and accepted prior to Date of Final Acceptance.

B. Detail requirements:

1. Inspection reports: Submit certificates from applicable local governmental agencies that the construction has been inspected as required by laws or ordinances and that the facility is approved for occupancy.
2. Warranties:
 - a. Contractor shall furnish his installer's warranty, in writing, on the forms provided herein. Assemble, bind, label and transmit warranties as required for other manuals above. Unless specifically indicated otherwise in individual sections, the period for warranties shall begin on the Date of Substantial Completion and shall continue for five years. Warranties shall state the Date of Substantial Completion and the date on which the warranty expires.
 - b. Contractor shall forward manufacturers' material warranty as specified in the individual specification sections. Assemble, bind, label and transmit warranties as required for other manuals above. Unless specifically indicated otherwise in individual sections, the period for warranties shall begin on the Date of Substantial Completion. Warranties shall state the Date of Substantial Completion and the date on which the warranty expires.

1.09 CLEANING UP:

A. General requirements:

1. Contractor shall keep the project site free from accumulation of waste materials and rubbish at all times during the construction period. At completion of the Work, he shall remove all waste materials and rubbish from and about the project, as well as his tools, construction equipment, machinery and surplus materials, except those specifically required by the Contract Documents to be left for the Architect/Owner's Management.

2. If Contractor fails to keep project clean or to clean up prior to Date of Substantial Completion, the Architect may do so, and the cost will be charged to the Contractor.

B. Safety requirements:

1. Store volatile waste in covered metal containers. Remove from project site daily.
 - a. Allow no volatile wastes to accumulate on project site.
 - b. Provide adequate ventilation during use of volatile substances.
2. Do not burn or bury waste materials or rubbish on project site. Comply with governmental and environmental regulatory requirements for disposal of waste.
3. Dispose of no volatile wastes such as mineral spirits, oil or paint thinner in storm or sanitary drains, on pavements, in gutters or on project site.
4. Dispose of no waste or cleaning materials containing materials harmful to plant growth on project site. As quickly as possible, clean up materials which are accidentally spilled.

C. Cleanup during construction:

1. Execute cleaning procedures to ensure that building, project site, and adjacent properties are maintained free from debris and rubbish.
2. Wet down materials subject to blowing. Throw no waste materials from heights, scaffolding or roof.
3. Provide covered on-site containers for waste collection. Place all waste materials and rubbish in containers in an expeditious manner to prevent accumulation.
4. Remove waste from project site when containers become full.
5. Legally dispose of all waste materials, rubbish, volatile materials and cleaning materials off project site.
6. Dispose of no materials in waterways.
7. Protect newly finished and clean surfaces from contamination during cleaning operations.
8. Allow no accumulation of debris contributing to survival or spread of rodents, roaches or other pests. On a daily basis, remove debris containing food scraps.

D. Final cleanup:

1. Clean all finished surfaces in accord with manufacturer's product data and requirements specified in specification sections, prior to Date of Substantial Completion. All general and specific cleaning shall be performed prior to Contractor's request that the project or portion thereof be inspected for Substantial Completion.
2. Remove dust, debris, oils, stains, fingerprints and labels from exposed finish surfaces.
3. Repair, patch and touch up marred surfaces to match adjacent finishes. Replace materials which cannot be repaired or patched.
4. Clean disturbed areas of project site of debris.
5. Touch up coating between typical terminations and remove 100% of any misplaced paints or coatings.

1.10 SELECTIVE DEMOLITION:

- A. Work to be performed: Remove existing sealants, backers, gaskets, and coatings necessary to complete work.
- B. Delivery, storage and handling:
 1. Store materials used in locations acceptable to the Architect.
 2. Maintain neat, clean conditions in storage areas' remove rags and waste materials at end of each day's work.
- C. Job conditions:
 1. During demolition operations, should suspect asbestos or asbestos-containing materials, or any other material listed as a hazardous material by the Environmental Protection Agency be discovered, notify Architect/Owner and discontinue that portion of the work until further instructed.
 2. Conduct demolition operations and the removal of debris to ensure minimum interference with roads, streets, walks and facilities.
 3. Do not close or obstruct streets or walks without permission from authorities having jurisdiction. Provide flagman where public thoroughfares are used for debris removal. Maintain thoroughfares free of dirt and debris caused by demolition or hauling operations.
 4. Conduct demolition operations to minimize disruption or interference with building occupants and operation, and the use of facilities not included in the work. Coordinate phasing of work with the Architect.

5. Protect existing building. Repair or replace portions of building and grounds damaged by this work, at no additional cost.
6. Provide temporary enclosures or other methods to limit dust transmission to adjacent areas. Provide temporary weatherproof enclosures for portions of work exposed to weather. Provide temporary noise reduction barriers to separate work areas from adjacent occupied areas.
7. Maintain building and grounds security. Equip doors with locks. Secure construction area during non-working hours.
8. Do not remove or alter any structural members.
9. Provide temporary protective walkways or covering on existing roof surfaces. Provide plywood walkways where machinery is moved or operated.
10. Schedule high noise level operations to approved hours as acceptable to the Architect.
11. Limit exterior dust by sprinkling or other acceptable methods.

PART 2 EXECUTION

2.01 EXAMINATION AND PRE-CONSTRUCTION CONFERENCE:

A. Examination:

1. Visit project site and compare locations of equipment, electrical and mechanical work with indications in Contract Documents. Report any discrepancies discovered for resolution.
2. Examine existing conditions of the project, including elements subject to damage or to movement during cutting and patching.
3. After uncovering work, inspect conditions affecting installation of products or performance of work.
4. Report unsatisfactory or questionable conditions to Architect in writing; do not proceed with work until Architect has provided further instructions.

B. Preparation:

1. Provide adequate temporary support to ensure the structural value or integrity of the affected portion of the work.
2. Provide devices and methods to protect other portions of the project from damage.

3. Provide protection from the elements for that portion of the project which may be exposed by demolition or cutting and patching work.
- C. Prior to beginning work, a pre-construction conference will be held to review work to be accomplished and to inventory existing conditions.
1. Contractor, Architect, and Owner shall be present.
 2. Contractor shall notify Architect/Construction Consultant and Owner at least seven days prior to time of conference.
 3. Work to be performed, existing damages to work to remain and items to be removed shall be reviewed at conference. Contractor shall make list of inventoried items to be removed shall be reviewed at conference. Contractor shall make list of inventoried items to be removed, reused or stored. Distribute copies of list to all participants.

2.02 PREPARATION:

- A. Plan scheduling and phasing of the work to minimize interference with Architect/Owner's existing operations that will remain in use during the work. Minimize disruption of facility operations and use of adjacent facilities.
- B. During normal business hours, make mechanical and electrical connections without disruption of service to occupied areas or overloading of existing systems. For other times, coordinate with and secure approval from the Architect/Owner a minimum of 24 hours in advance, for disconnect or disruption of electrical and mechanical services.
- C. Security:
1. Contractor shall provide safe access to occupied areas during the course of the work.
 2. Provide fences, enclosures or partitions to segregate work areas from occupied and used areas.
 3. Provide guards or lockable closures for off-hours to secure occupied and used areas of Library.
- D. Comply with governing regulations pertaining to environmental protection. Do not use water when it may create hazardous or objectionable conditions such as ice, flooding and pollution.

2.03 DEMOLITION:

- A. Demolition: Remove construction and finishes as required for new construction and to not greater than limits indicated and specified. Comply with project restrictions for all

facets of the work.

- B. Proceed with demolition in accord with approved schedule. Locate demolition equipment throughout the structure and remove materials so as not to impose excessive loads to supporting walls, floors or framing.
- C. During demolition, protect adjoining work from damage. Observe and monitor adjacent structural elements. Stop work and notify Architect for instructions if changes are noted. Cracks or structural damage resulting from demolition shall be repaired at no expense to the Architect/Owner's satisfaction.
- D. Remove existing brick work without damage to substrates or adjacent surfaces. Include removal of mechanical and electrical work as applicable.
- E. Where work is to be cut or removed to accommodate new work, form neat, uniform and smooth edges or terminations. Grind existing brick and stone edges to remain and appear new.
- F. Except for items designated to be removed and reused in the work or items retained by Owner for storage, all material resulting from this work shall become property of Contractor and shall be promptly removed from site. Storage or sale of removed materials will not be permitted on project site.
- G. Prepare an itemized list of material or equipment for reuse or storage. List quantities, condition and location. Submit copies to Owner within seven days of removal of item.
- H. Provide all necessary shoring and bracing to maintain structural integrity of the building and grounds during demolition operations. Remove only after new structure is in place and capable of supporting braced or shored parts.
- I. Materials resulting from demolition become the property of the Contractor except as follows:
 - 1. Equipment belonging to utility or public service companies unless abandoned by such companies.
 - 2. Hidden valuable items, buried items and property of third persons.
 - 3. Salvaged equipment and materials noted for reuse.
 - 4. Other items indicated or otherwise identified by Architect or Owner.
- J. Disposal of demolished materials:
 - 1. Remove debris, rubbish and other materials resulting from demolition operations from the site. Do not stockpile debris on project site.

2. Burning of removed materials from demolished structures will not be permitted on the site.
3. Transport materials removed from demolished structures and dispose of off the site.
4. Chute and load debris and materials within confines of existing open spaces on site. Chuting and loading in streets surrounding site is prohibited when such operations can be executed on the site. Immediately remove debris or materials that fall onto streets or walks surrounding site.

2.04 CUTTING AND PATCHING :

A. Performance:

1. Execute cutting, patching and demolition by methods which will prevent damage to other work and will provide surfaces to receive installation of repairs.
2. Execute work by methods which will prevent settlement or damage to other work. Temporarily shore limestone as required to support remaining masonry to allow for new flashing assemblies and reinstalling watertight louvers. See Sealants 07 9005.
3. Elements of a structural or support nature, including concealed elements exposed by the removal of existing elements of the work, shall be inspected and the Architect/Engineer notified should additional work be indicated due to loss of structural integrity, rot, rust, corrosion or other similar condition.
4. Execute fitting and adjustment of products to provide a finished installation to comply with specified products, functions, tolerances and finishes.
5. Restore work which has been cut or removed; install new products to provide complete work in accord with requirements of Contract Documents.
6. Fit work airtight to pipes, sleeves, ducts, conduit and other penetrations through surfaces.
7. Repair damaged adjacent surfaces and finishes to original condition.

END OF SECTION 01110 01 1100

SECTION 01 3000 - SUBMITTALS

1. GENERAL

1.01 RELATED DOCUMENTS

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

1.02 SUMMARY

- A. This Section specifies administrative and procedural requirements for submittals required for performance of the Work, including;
 - 1. Contractor's construction schedule.
 - 2. Submittal schedule.
 - 3. Daily construction reports.
 - 4. Shop Drawings.
 - 5. Product Data.
 - 6. Samples.
- B. Administrative Submittals: Refer to other Division-1 Sections and other Contract Documents for requirements for administrative submittals. Such submittals include, but are not limited to:
 - 1. Permits.
 - 2. Applications for payment.
 - 3. Performance and payment bonds.
 - 4. Insurance certificates.
 - 5. List of Subcontractors.
- C. The Schedule of Values submittal is included in Section "Applications for Payment."
- D. Inspection and test reports are included in Section "Quality Control Services."
- E. Submittal of Project photographs is included under Section "Construction Photographs."

1.03 SUBMITTAL PROCEDURES

- A. Coordination: Coordinate preparation and processing of submittals with performance of construction activities. Transmit each submittal sufficiently in advance of performance of related construction activities to avoid delay.
- B. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals and related activities that require sequential activity.
- C. Coordinate transmittal of different types of submittals for related elements of the Work so processing will not be delayed by the need to review submittals concurrently for coordination.
- D. The Architect reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- E. Processing: Allow sufficient review time so that installation will not be delayed as a result of the time required to process submittals, including time for resubmittals.
- F. Allow two weeks for initial review. Allow additional time if processing must be delayed to permit coordination with subsequent submittals. The Architect will promptly advise the Contractor when a submittal being processed must be delayed for coordination.
- G. If an intermediate submittal is necessary, process the same as the initial submittal.
- H. Allow two weeks for reprocessing each submittal.
- I. No extension of Contract Time will be authorized because of failure to transmit submittals to the Architect sufficiently in advance of the Work to permit processing.
- J. Submittal Preparation: Place a permanent label or title block on each submittal for identification. Indicate the name of the entity that prepared each submittal on the label or title block.
- K. Provide a space approximately 4" x 5" on the label or beside the title block on Shop Drawings to record the Contractor's review markings and the action taken.
- L. Include the following information on the label for processing and recording action taken.
 - 1. Project name.
 - 2. Date.
 - 3. Name and address of Architect.
 - 4. Name and address of Contractor.

5. Name and address of subcontractor.
 6. Name and address of supplier.
 7. Name of manufacturer.
 8. Number and title of appropriate Specification Section.
 9. Drawing number and detail references, as appropriate.
- M. Submittal Transmittal: Package each submittal appropriately for transmittal and handling. Transmit each submittal from Contractor to Architect using a transmittal form. Submittals received from sources other than the Contractor will be returned without action.
- N. On the transmittal Record relevant information and requests for data. On the form, or separate sheet, record deviations from Contract Document requirements, including minor variations and limitations. Include Contractor's certification that information complies with Contract Document requirements.
- O. Transmittal Form: Contractor's Standard Form.

1.04 CONTRACTOR'S CONSTRUCTION SCHEDULE – Use Primavera, Suretrack or equal program.

- A. Special Scheduling Requirements are to become a part of the contract requirements. Within sixty days of notice to proceed, the contractor shall submit a project critical path incorporating the following criteria:
1. Interruptions in power require forty-eight hours notice and may not occur at any time during normal operating hours.
 2. Work required for landscaping, may not start until all other work is complete.
 3. Work with owner on parking lot restrictions due.
- B. Bar-Chart Schedule: Prepare a fully developed Progress Schedule and horizontal bar-chart type Contractor's construction schedule. Submit within 30 days of the date established for "Commencement of the Work". Update each pay request.
1. Provide a separate time bar for each significant construction activity. Provide a continuous vertical line to identify the first working day of each week. Use the same breakdown of units of the Work as indicated in the "Schedule of Values".
 2. Within each time bar indicate estimated completion percentage in 10 percent increments. As Work progresses, place a contrasting mark in each bar to indicate Actual Completion.

3. Prepare the schedule on a sheet, or series of sheets, of stable transparency, or other reproducible media, of sufficient width to show data for the entire construction period.
 4. Secure time commitments for performing critical elements of the Work from parties involved. Coordinate each element on the schedule with other construction activities; include minor elements involved in the sequence of the Work. Show each activity in proper sequence. Indicate graphically sequences necessary for completion of related portions of the Work.
 5. Coordinate the Contractor's construction schedule with the schedule of values, list of subcontracts, submittal schedule, progress reports, payment requests and other schedules.
 6. Indicate completion in advance of the date established for Substantial Completion. Indicate Substantial Completion on the schedule to allow time for the Architect's procedures necessary for certification of Substantial Completion.
- C. Phasing: Provide notations on the schedule to show how the sequence of the Work is affected by requirements for phased completion to permit Work by separate Contractors and partial occupancy by the Owner prior to Substantial Completion.
- D. Work Stages: Indicate important stages of construction for each major portion of the Work, including testing and installation. Refer to special phasing requirements in Section 01010.
- E. Cost Correlation: At the head of the schedule, provide a two item cost correlation line, indicating "precalculated" and "actual" costs. On the line show dollar-volume of Work performed as of the dates used for preparation of payment requests.
1. Refer to Section "Applications for Payment" for cost reporting and payment procedures.
- F. Distribution: Following response to the initial submittal, print and distribute copies to the Architect, Owner, subcontractors, and other parties required to comply with scheduled dates. Post copies in the Project meeting room and temporary field office.
1. When revisions are made, distribute to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in construction activities.
- G. Schedule Updating: Revise the schedule after each meeting or activity, where revisions have been recognized or made. Issue the updated schedule concurrently with report of each meeting.

1.05 SUBMITTAL SCHEDULE

- A. After development and acceptance of the Contractor's construction schedule, prepare a complete schedule of submittals. Submit the schedule within 10 days of the date required for establishment of the Contractor's construction schedule.
 1. Coordinate submittal schedule with the list of subcontracts, schedule of values and the list of products as well as the Contractor's construction schedule.
 2. Prepare the schedule in chronological order; include submittals required during the first 90 days of construction. Provide the following information:
 - a. Scheduled date for the first submittal.
 - b. Related Section number.
 - c. Submittal category.
 - d. Name of subcontractor.
 - e. Description of the part of the Work covered.
 - f. Scheduled date for resubmittal
 - g. Scheduled date the Architect's final release or approval.
- B. Distribution: Following response to initial submittal, print and distribute copies to the Architect, Owner, subcontractors, and other parties required to comply with submittal dates indicated. Post copies in the Project meeting room and field office.
 1. When revisions are made, distribute to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in construction activities.
- C. Schedule Updating: Revise the schedule after each meeting or activity, where revisions have been recognized or made. Issue the updated schedule concurrently with report of each meeting.

1.06 SHOP DRAWINGS

- A. Submit newly prepared information, drawn to accurate scale. Highlight, encircle, or otherwise indicate deviations from the Contract Documents. Do not reproduce Contract Documents or copy standard information as the basis of Shop Drawings. Standard information prepared without specific reference to the Project is not considered Shop Drawings.
- B. Shop Drawings include fabrication and installation drawings, setting diagrams, schedules, patterns, templates and similar drawings. Include the following information:

1. Dimensions.
 2. Identification of products and materials included.
 3. Compliance with specified standards.
 4. Notation of coordination requirements.
 5. Notation of dimensions established by field measurement.
- C. Sheet Size: Except for templates, patterns and similar full-size Drawings, submit Shop Drawings on sheets at least 8-1/2" x 11" but no larger than 30" x 42".
- D. Initial Submittal: Submit one correctable translucent reproducible print and one blue- or black-line print for the Architect's review; the reproducible print will be returned. All mark-ups shall be of reproducible quality.
- E. Final Submittal: Submit 4 corrected blue- or black-line prints plus number required for Contractor's job use; submit additional conformed prints where required for maintenance manuals. Three prints will be retained (one for Architect, Owner, Consultant); the remainder will be returned.
1. One of the prints returned shall be marked-up and maintained as a "Record Document".
- F. Do not use Shop Drawings without an appropriate final stamp indicating action taken in connection with construction.
- G. Coordination drawings are a special type of Shop Drawing that show the relationship and integration of different construction elements that require careful coordination during fabrication or installation to fit in the space provided or function as intended.
1. Preparation of coordination Drawings is specified in section "Project Coordination" and may include components previously shown in detail on Shop Drawings or Product Data.
 2. Submit coordination Drawings for integration of different construction elements. Show sequences and relationships of separate components to avoid conflicts in use of space.

1.07 PRODUCT DATA

- A. Collect Product Data into a single submittal for each element of construction or system. Product Data includes printed information such as manufacturer's installation instructions, catalog cuts, specified and coincidental product warranty forms, standard color charts, roughing-in diagrams and templates, standard wiring diagrams and performance curves. Where Product Data must be specially prepared because standard

printed data is not suitable for use, submit as "Shop Drawings."

1. Mark each copy to show applicable choices and options. Where printed Product Data includes information on several products, some of which are not required, mark copies to indicate the applicable information. Include the following information:
 - a. Manufacturer's printed recommendations.
 - b. Compliance with recognized trade association standards.
 - c. Compliance with recognized testing agency standards.
 - d. Application of testing agency labels and seals.
 - e. Notation of dimensions verified by field measurement.
 - f. Notation of coordination requirements.
 2. Do not submit Product Data until compliance with requirements of the Contract Documents has been confirmed.
- B. Preliminary Submittal: Submit a preliminary single-copy of Product Data where selection of options is required.
- C. Submittals: Submit 7 copies of each required submittal; plus amount of additional conformed copies required for maintenance manuals (4 sets are for Architect/Engineer and Owner and 3 sets returned to Contractor marked with action taken and corrections or modifications required).
1. Unless noncompliance with Contract Document provisions is observed, the submittal may serve as the final submittal.
- D. Distribution: Furnish copies of final submittal to installers, subcontractors, suppliers, manufacturers, fabricators, and others required for performance of construction activities. Show distribution on transmittal forms.
1. Do not proceed with installation until an applicable copy of Product Data applicable is in the installer's possession.
 2. Do not permit use of unmarked copies of Product Data in connection with construction.

1.08 SAMPLES

- A. Submit full-size, fully fabricated Samples cured and finished as specified and physically identical with the material or product proposed. Samples include partial

sections of manufactured or fabricated components, cuts or containers of materials, color range sets, and swatches showing color, texture and pattern.

1. Mount, display, or package Samples in the manner specified to facilitate review of qualities indicated. Prepare Samples to match the Architect's Sample. Include the following:
 - a. Generic description of the Sample.
 - b. Sample source.
 - c. Product name or name of manufacturer.
 - d. Compliance with recognized standards.
 - e. Availability and delivery time.
- B. Submit Samples for review of kind, color, pattern, and texture, for a final check of these characteristics with other elements, and for a comparison of these characteristics between the final submittal and the actual component as delivered and installed.
 1. Where variation in color, pattern, texture or other characteristics are inherent in the material or product represented, submit multiple units (not less than 3), that show approximate limits of the variations.
 2. Refer to other Specification Sections for requirements for Samples that illustrate workmanship, fabrication techniques, details of assembly, connections, operation and similar construction characteristics.
- C. Preliminary submittals: Where Samples are for selection of color, pattern, texture or similar characteristics from a range of standard choices, submit a full set of choices for the material or product.
 1. Preliminary submittals will be reviewed and returned with the Architect's mark indicating selection and other action.
- D. Submittals: Except for Samples illustrating assembly details, workmanship, fabrication techniques, connections, operation and similar characteristics, submit 3 sets; one will be returned marked with the action taken.
- E. Maintain sets of Samples, as returned, at the Project site, for quality comparisons throughout the course of construction.
 1. Unless noncompliance with Contract Document provisions is observed, the submittal may serve as the final submittal.

2. Sample sets may be used to obtain final acceptance of the construction associated with each set.
- F. Distribution of Samples: Prepare and distribute additional sets to subcontractors, manufacturers, fabricators, suppliers, installers, and others as required for performance of the Work. Show distribution on transmittal forms.
- G. Field Samples specified in individual Sections are special types of Samples. Field Samples are full-size examples erected on site to illustrate finishes, coatings, or finish materials and to establish the standard by which the Work will be judged.
1. Comply with submittal requirements to the fullest extent possible. Process transmittal forms to provide a record of activity.

1.09 ARCHITECT'S ACTION

- A. Except for submittals for record, information or similar purposes, where action and return is required or requested, the Architect will review each submittal, mark to indicate action taken, and return promptly.
1. Compliance with specified characteristics is the Contractor's responsibility
- B. Action Stamp: The Architect will stamp each submittal with a uniform, self-explanatory action stamp. The stamp will be appropriately marked, as follows, to indicate the action taken:
1. Final Unrestricted Release: Where submittals are marked "Reviewed," that part of the Work covered by the submittal may proceed provided it complies with requirements of the Contract Documents; final acceptance will depend upon that compliance.
 2. Final-But-Restricted Release: When submittals are marked "Furnish as Corrected," that part of the Work covered by the submittal may proceed provided it complies with notations or corrections on the submittal and requirements of the Contract Documents; final acceptance will depend on that compliance.
- C. Returned for Resubmittal: When submittal is marked "Rejected, Revise and Resubmit," do not proceed with that part of the Work covered by the submittal, including purchasing, fabrication, delivery, or other activity. Revise or prepare a new submittal in accordance with the notations; resubmit without delay. Repeat if necessary to obtain a different action mark.
1. Do not permit submittals marked "Rejected, Revise and Resubmit" to be used at the Project site, or elsewhere where Work is in progress.

- D. Other Action: Where a submittal is primarily for information or record purposes, special processing or other activity, the submittal will be returned, marked "Action Not Required".
- E. As built documentation: The Contractor shall maintain a reproducible field set of project contract documents. Changes to the project shall be updated on the field set daily as they occur. Prior to substantial completion, the Contractor shall illustrate these changes by revising the digital files of the project contract documents and submit 2 copies of the digital files on CDRW MEDIA and one copy of full size mylar plots of the revised files.

1.10 PRODUCTS (Not Applicable).

1.11 EXECUTION (Not Applicable).

END OF SECTION 01300 01 3000

SECTION 01 4000 - QUALITY CONTROL SERVICES

GENERAL

1.01 RELATED DOCUMENTS

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

1.02 SUMMARY

- A. This Section specifies administrative and procedural requirements for quality control services.
- B. Quality control services include inspections and tests and related actions including reports, performed by independent agencies, governing authorities, and the Contractor. They do not include Contract enforcement activities performed by the Architect.
- C. Inspection and testing services are required to verify compliance with requirements specified or indicated. These services do not relieve the Contractor of responsibility for compliance with Contract Document requirements.
- D. Requirements of this Section relate to customized fabrication and installation procedures, not production of standard products.
 1. Specific quality control requirements for individual construction activities are specified in the Sections that specify those activities. Those requirements, including inspections and tests, cover production of standard products as well as customized fabrication and installation procedures.
 2. Inspections, test and related actions specified are not intended to limit the Contractor's quality control procedures that facilitate compliance with Contract Document requirements.
 3. Requirements for the Contractor to provide quality control services required by the Architect, Owner, or authorities having jurisdiction are not limited by provisions of this Section.

1.03 RESPONSIBILITIES

- A. Contractor Responsibilities:
 1. The Contractor shall provide inspections, tests and similar quality control services, specified in individual Specification Sections and required by governing authorities, except where they are specifically indicated to be the Owner's responsibility, or are provided by another identified entity; these services include those specified to be performed by an independent agency and not by the

Contractor. Costs for these services shall be included in the Contract Sum.

2. The Contractor shall employ and pay an independent agency, to perform specified quality control services.
 3. Where the Owner has engaged a testing agency or other entity for testing and inspection of a part of the Work, and the Contractor is also required to engage an entity for the same or related element, the Contractor shall not employ the entity engaged by the Owner, unless otherwise agreed in writing with the Owner.
- B. Retesting: The Contractor is responsible for retesting where results of required inspections, tests or similar services prove unsatisfactory and do not indicate compliance with Contract Document requirements, regardless of whether the original test was the Contractor's responsibility.
1. Cost of retesting construction revised or replaced by the Contractor is the Contractor's responsibility, where required tests were performed on original construction.
- C. Associated Services: The Contractor shall cooperate with agencies performing required inspections, tests and similar services and provide reasonable auxiliary services as requested. Notify the agency sufficiently in advance of operations to permit assignment of personnel. Auxiliary services required include but are not limited to:
1. Providing access to the Work and furnishing incidental labor and facilities necessary to facilitate inspections and tests.
 2. Taking adequate quantities of representative samples of materials that require testing or assisting the agency in taking samples.
 3. Providing facilities for storage and curing of test samples, and delivery of samples to testing laboratories.
 4. Providing the agency with a preliminary design mix proposed for use for materials mixes that require control by the testing agency.
 5. Security and protection of samples and test equipment at the Project site.
- D. Owner Responsibilities: The Owner will provide inspections, tests and similar quality control services specified to be performed by independent agencies and not by the Contractor, except where they are specifically indicated as the Contractor's responsibility or are provided by another identified entity. Costs for these services are not included in the Contract Sum.
1. The Owner will employ and pay for the services of an independent agency, testing laboratory or other qualified firm to perform services which are the Owner's

responsibility.

- E. Coordination: The Contractor and each agency engaged to perform inspections, tests and similar services shall coordinate the sequence of activities to accommodate required services with a minimum of delay. In addition the Contractor and each agency shall coordinate activities to avoid the necessity of removing and replacing construction to accommodate inspections and tests.
1. The Contractor is responsible for scheduling times for inspections, tests, taking samples and similar activities.

1.04 SUBMITTALS

- A. The independent testing agency shall submit a certified written report of each inspection, test or similar service, to the Architect, in duplicate, unless the Contractor is responsible for the service. If the Contractor is responsible for the service, submit a certified written report of each inspection, test or similar service through the Contractor, in duplicate.
1. Submit additional copies of each written report directly to the governing authority, when the authority so directs.
 2. Report Data: Written reports of each inspection, test or similar service shall include, but not be limited to:
 - a. Date of issue.
 - b. Project title and number.
 - c. Name, address and telephone number of testing agency.
 - d. Dates and locations of samples and tests or inspections.
 - e. Names of individuals making the inspection or test.
 - f. Designation of the Work and test method.
 - g. Identification of product and Specification Section.
 - h. Complete inspection or test data.
 - i. Test results and an interpretation of test results.
 - j. Ambient conditions at the time of sample-taking and testing.
 - k. Comments or professional opinion as to whether inspected or tested Work complies with Contract Document requirements.

- l. Name and signature of laboratory inspector.
- m. Recommendations on retesting.

1.05 QUALITY ASSURANCE

- A. Qualification for Service Agencies: Engage inspection and testing service agencies, including independent testing laboratories, which are pre-qualified as complying with "Recommended Requirements for Independent Laboratory Qualification" by the American Council of Independent Laboratories, and which specialize in the types of inspections and tests to be performed.
 1. Each independent inspection and testing agency engaged on the Project shall be authorized by authorities having jurisdiction to operate in the State in which the Project is located.

1.06 PRODUCTS (Not Applicable).

1.07 EXECUTION

A. REPAIR AND PROTECTION

1. General: Upon completion of inspection, testing, sample-taking and similar services, repair damaged construction and restore substrates and finishes to eliminate deficiencies, including deficiencies in visual qualities of exposed finishes. Comply with Contract Document requirements for "Cutting and Patching".
2. Protect construction exposed by or for quality control service activities, and protect repaired construction.
3. Repair and protection is the Contractor's responsibility, regardless of the assignment of responsibility for inspection, testing or similar services.

END OF SECTION 01400 01 4000

SECTION 01 4217 - DEFINITIONS AND STANDARDS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

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

1.02 DEFINITIONS

- A. General: Basic Contract definitions are included in the General Conditions.
- B. Indicated refers to graphic representations, notes or schedules on the Drawings, or other Paragraphs or Schedules in Specifications, and similar requirements in Contract Documents. Where terms such as "shown," "noted," "scheduled," and "specified" are used, it is to help locate the reference; no limitation on location is intended except as specifically noted.
- C. Directed: Terms such as "directed", "requested", "authorized", "selected", "approved", "required", and "permitted" mean "directed by the Architect", "requested by the Architect", and similar phrases. However, no implied meaning shall be interpreted to extend the Architect's responsibility into the Contractor's area of construction supervision.
- D. A.D.A.--American Disabilities Act of July 26, 1991 and all revisions to date.
- E. Approve: The term "approved," where used in conjunction with the Architect's action on the Contractor's submittals, applications, and requests, is limited to the duties and responsibilities of the Architect as stated in General and Supplementary Conditions. Such approval shall not release the Contractor from responsibility to fulfill Contract requirements unless otherwise provided in the Contract Documents.
- F. Furnish: The term "furnish" is used to mean "supply and deliver to the Project site, ready for unloading, unpacking, assembly, installation, and similar operations."
- G. Install: The term "install" is used to describe operations at project site including the actual "unloading, unpacking, assembly, erection, 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 an entity engaged by the Contractor, either as an employee, subcontractor, or sub-subcontractor for performance of a particular construction activity, including installation, erection, application, and similar

operations. Installers are required to be experienced in the operations they are engaged to perform.

- J. The term "experienced," when used with the term "Installer" means having a minimum of 5 previous Projects similar in size and scope to this Project, being familiar with the precautions required, and having complied with requirements of the authority having jurisdiction.
- K. Project Site is the space available to the Contractor for performance of construction activities, either exclusively or in conjunction with others performing other construction activities as part of the Project. The extent of the Project Site is shown on the Drawings and may or may not be identical with the description of the land upon which the Project is to be built.
- L. Testing Laboratories: A "testing laboratory" is an independent entity engaged to perform specific inspections or tests, either at the Project Site or elsewhere, and to report on and, if required, to interpret results of those inspections or tests.

1.03 SPECIFICATION FORMAT AND CONTENT EXPLANATION

- A. Specification Format: These Specifications are organized into Divisions and Sections based on the Construction Specifications Institute's format and MASTERFORMAT numbering system.
- B. Specification Content: This Specification uses certain conventions in the use of language and the intended meaning of certain terms, words, and phrases when used in particular situations or circumstances. These conventions are explained as follows:
- C. Abbreviated Language: Language used in the Specifications and other Contract Documents is the abbreviated type. Implied words and meanings will be appropriately interpreted. Singular words will be interpreted as plural and plural words interpreted as singular where applicable and where the full context of the Contract Documents so indicates.
- D. Imperative and streamlined language is used generally in the Specifications. Requirements expressed in the imperative mood are to be performed by the Contractor. At certain locations in the text, for clarity, subjective language is used to describe responsibilities that must be fulfilled indirectly by the Contractor, or by others when so noted.

1.04 INDUSTRY STANDARDS

- A. Applicability of Standards: Except where 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. Such standards

are made a part of the Contract Documents by reference.

- B. **Conflicting Requirements:** Where compliance with two or more standards is specified, and they establish different or conflicting requirements for minimum quantities or quality levels, the most stringent requirement will be enforced, unless the Contract Documents indicate otherwise. Refer requirements that are different, but apparently equal, and uncertainties as to which quality level is more stringent to the Architect for a decision before proceeding
- C. **Abbreviations and Names:** Trade association names and titles of general standards are frequently abbreviated. Where such acronyms or abbreviations are used in the Specifications or other Contract Documents, they mean the recognized name of the trade association, standards generating organization, authority having jurisdiction, or other entity applicable to the context of the text provision. Refer to the "Encyclopedia of Associations," published by Gale Research Co., available in most libraries.

END OF SECTION 01090 01 4217

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SECTION 01 4500 - CUTTING AND PATCHING

1. GENERAL

1.01 RELATED DOCUMENTS

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

1.02 SUMMARY

- A. This Section specifies administrative and procedural requirements for cutting and patching.
- B. Refer to other Sections for specific requirements and limitations applicable to cutting and patching individual parts of the Work.
 - 1. Requirements of this Section apply to mechanical and electrical installations. Refer to related Mechanical and Electrical Sections for other requirements and limitations applicable to cutting and patching mechanical and electrical installations.

1.03 SUBMITTALS

- A. Cutting and Patching Proposal: Where approval of procedures and/or phasing for cutting and patching is required before proceeding, submit a proposal describing procedures well in advance of the time cutting and patching will be performed and request approval to proceed. Include the following information, as applicable, in the proposal:
- B. Describe the extent of cutting and patching required and how it is to be performed; indicate why it cannot be avoided.
- C. Describe anticipated results in terms of changes to existing construction; include changes to structural elements and operating components as well as changes in the building's appearance and other significant visual elements.
- D. List products to be used and firms or entities that will perform Work.
- E. Indicate dates when cutting and patching is to be performed.
- F. List utilities that will be disturbed or affected, including those that will be relocated and those that will be temporarily out-of-service. Indicate how long service will be disrupted.
- G. Where cutting and patching involves addition of reinforcement to structural elements, submit details and engineering calculations to show how reinforcement is integrated

with the original structure.

- H. Approval by the Owner to proceed with cutting and patching does not waive the Owner's right to later require complete removal and replacement of a part of the Work found to be unsatisfactory.

1.04 QUALITY ASSURANCE

- A. Requirements for Structural Work: Do not cut and patch structural elements in a manner that would reduce their load-carrying capacity or load-deflection ratio.
- B. Obtain approval of the cutting and patching proposal before cutting and patching the following structural elements:
 - 1. Foundation construction.
 - 2. Bearing and retaining walls.
 - 3. Structural concrete.
 - 4. Structural steel.
 - 5. Lintels.
 - 6. Timber and primary wood framing.
 - 7. Structural decking.
 - 8. Stair systems.
 - 9. Miscellaneous structural metals.
 - 10. Exterior curtain wall construction.
 - 11. Equipment supports.
 - 12. Piping, ductwork, vessels and equipment.
 - 13. Structural systems of special construction in Division-13.
- C. Operational and Safety Limitations: Do not cut and patch operating elements or safety related components in a manner that would result in reducing their capacity to perform as intended, or result in increased maintenance, or decreased operational life or safety.
 - 1. Obtain approval of the cutting and patching proposal before cutting and patching the following operating elements or safety related systems:
 - a. Primary operational systems and equipment.

- b. Membranes and flashings.
- c. Fire protection systems.
- d. Communication systems.
- e. Electrical wiring systems.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Use materials that are identical to existing materials. If identical materials are not available or cannot be used where exposed surfaces are involved, use materials that match existing adjacent surfaces to the fullest extent possible with regard to visual effect. Use materials whose installed performance will equal or surpass that of existing materials.

PART 3 EXECUTION

3.01 INSPECTION

- A. Before cutting existing surfaces, examine surfaces to be cut and patched and conditions under which cutting and patching is to be performed. Take corrective action before proceeding, if unsafe or unsatisfactory conditions are encountered.
 - 1. Before proceeding, meet at the 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.

3.02 PREPARATION

- A. Temporary Support: Provide temporary support of Work to be cut.
- B. 3.2.2 Protection: Protect existing construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of the Project that might be exposed during cutting and patching operations.
- C. Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.
- D. Take all precautions necessary to avoid cutting existing pipe, conduit or ductwork serving the building, but scheduled to be removed or relocated until provisions have been made to bypass them.

3.03 PERFORMANCE

- A. General: Employ skilled workmen 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 activities and the subsequent fitting and patching required to restore surfaces to their original condition.

- B. Cutting: Cut existing construction using methods least likely to damage elements to be retained or adjoining construction. Where possible review proposed procedures with the original installer; comply with the original installer's recommendations.
 - 1. In general, where cutting is required use hand or small power tools designed for sawing or grinding, not hammering and chopping. Cut holes and slots neatly to size required with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
 - 2. To avoid marring existing finished surfaces, cut or drill from the exposed or finished side into concealed surfaces.
 - 3. Cut through concrete and masonry using a cutting machine such as a carborundum saw or diamond core drill.
 - 4. Comply with requirements of applicable Sections of Division-2 where cutting and patching requires excavating and backfilling.
 - 5. By-pass utility services such as pipe or conduit, before cutting, where services are shown or required to be removed, relocated or abandoned. Cut-off pipe or conduit in walls or partitions to be removed. Cap, valve or plug and seal the remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after by-passing and cutting.

- C. Patching: Patch with durable seams that are as invisible as possible. Comply with specified tolerances.
 - 1. Where feasible, inspect and test patched areas to demonstrate integrity of the installation.
 - 2. 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. Where removal of walls or partitions extends one finished area into another, patch and repair floor and wall surfaces in the new space to provide an even surface of uniform color 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 in a smooth painted surface, extend final paint coat over entire unbroken containing the patch, after the patched area has received primer and second coat.
4. Patch, repair or rehang existing ceilings as necessary to provide an even plane surface of uniform appearance.

3.04 CLEANING

- A. Thoroughly clean areas and spaces where cutting and patching is performed or used as access. Remove completely paint, mortar, oils, putty and items of similar nature. Thoroughly clean piping, conduit and similar features before painting or other finishing is applied. Restore damaged pipe covering to its original condition.

END OF SECTION 01045 01 4500

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SECTION 01 5000 - TEMPORARY FACILITIES AND CONTROLS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Temporary utilities.
- B. Temporary telecommunications services.
- C. Temporary sanitary facilities.
- D. Temporary Controls: Barriers, enclosures, and fencing.
- E. Security requirements.
- F. Vehicular access and parking.
- G. Waste removal facilities and services.

1.02 RELATED REQUIREMENTS

- A. Section 01 5100 - Temporary Utilities.
- B. All current and applicable standards associated with the Code of Federal Regulations and the Occupational Safety and Health Standards.

1.03 TEMPORARY UTILITIES

- A. The Contractor will provide and pay for all electrical power and water required for construction purposes.
- B. Use trigger-operated nozzles for water hoses, to avoid waste of water.

1.04 TELECOMMUNICATIONS SERVICES

- A. Provide, maintain, and pay for telecommunications services to field office at time of project mobilization thru completion of the project.
- B. Telecommunications services shall include:
 - 1. Windows-based personal computer dedicated to project telecommunications, with necessary software and laser printer.
 - 2. Internet Connections: Minimum of one; DSL modem or faster.
 - 3. Email: Account/address reserved for project use.
 - 4. Facsimile Service: Minimum of one dedicated fax machine/printer, with dedicated phone line.

5. Job Telephone.

1.05 TEMPORARY SANITARY FACILITIES

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

1.06 BARRIERS

- A. Provide barriers to prevent unauthorized entry to construction areas, to prevent access to areas that could be hazardous to workers or the public and to protect existing facilities and adjacent properties from damage from construction operations and demolition.
- B. Provide barricades and covered walkways required by governing authorities for public rights-of-way and for public access to existing building.
- C. Provide protection for plants designated to remain. Replace damaged plants.
- D. Protect non-owned vehicular traffic, stored materials, site, and structures from damage.
- E. Traffic Controls: Per City of Prattville, AL requirements.
- F. Provide barribades around open excavations, obstructions, and other potential danger sources as may be required by applicable codes.
- G. Provide all O.S.H.A. required Barriers

1.07 FENCING

- A. Construction: Commercial grade chain link fence.
- B. Provide a minimum of 6 foot (1.8 m) high fence around construction site; equip with vehicular and pedestrian gates with locks. Provide additional fencing as may be deemed appropriate by Contractor for protection of the site and public.

1.08 SECURITY

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

1.09 VEHICULAR ACCESS AND PARKING

- A. Comply with regulations relating to use of streets and sidewalks, access to emergency facilities, and access for emergency vehicles.

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

1.10 WASTE REMOVAL

- A. Provide waste removal facilities and services as required to maintain the site in clean and orderly condition.
- B. Provide containers with lids. Remove trash from site periodically.
- C. Open free-fall chutes are not permitted. Terminate closed chutes into appropriate containers with lids.

1.11 PROJECT SIGNS

- A. Refer to requirements of the General Conditions of the Contract for Construction.

1.12 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

- A. Remove temporary utilities, equipment, facilities, materials, prior to Date of Substantial Completion inspection.
- B. Clean and repair damage caused by installation or use of temporary work.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION 01 5000

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SECTION 01 6100 - MATERIALS AND EQUIPMENT

1. GENERAL

1.01 RELATED DOCUMENTS

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

1.02 SUMMARY

- A. This Section specifies administrative and procedural requirements governing the Contractor's selection of products for use in the Project.
- B. The Contractor's Construction Schedule and the Schedule of Submittals are included under Section "Submittals."
- C. Standards: Refer to Section "Definitions and Standards" for applicability of industry standards to products specified.
- D. Administrative procedures for handling requests for substitutions made after award of the Contract are included under Section "Product Substitutions."

1.03 DEFINITIONS

- A. Definitions used in this Article are not intended to change the meaning of other terms used in the Contract Documents, such as "specialties," "systems," "structure," "finishes," "accessories," and similar terms. Such terms such are self-explanatory and have well recognized meanings in the construction industry.
 - 1. "Products" are items purchased for incorporation in the Work, whether purchased for the Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
 - 2. "Named Products" are items identified by manufacturer's product name, including make or model designation, indicated in the manufacturer's published product literature, that is current as of the date of the Contract Documents.
 - 3. "Materials" are products that are substantially shaped, cut, worked, mixed, finished, refined or otherwise fabricated, processed, or installed to form a part of the Work.
 - 4. "Equipment" is a product with operational parts, whether motorized or manually operated, that requires service connections such as wiring or piping.

1.04 SUBMITTALS

- A. Product List Schedule: Generate a list of products requiring submittals by the specifications. Prepare a schedule in tabular form showing each product listed. Include the manufacturer's name and proprietary product names for each item listed.
- B. Product List Schedule: Prepare a schedule showing products specified in a tabular form acceptable to the Architect. Include generic names of products required. Include the manufacturer's name and proprietary product names for each item listed.
 1. Coordinate the product list schedule with the Contractor's Construction Schedule and the Schedule of Submittals.
 2. Form: Prepare the product listing schedule with information on each item tabulated under the following column headings:
 - a. Related Specification Section number.
 - b. Generic name used in Contract Documents.
 - c. Proprietary name, model number and similar designations.
 - d. Manufacturer's name and address.
 - e. Projected delivery date.
 3. Initial Submittal: Within 15 days after date of commencement of the Work, submit 3 copies of an initial product list schedule. Provide a written explanation for omissions of data, and for known variations from Contract requirements.
 - a. At the Contractor's option, the initial submittal may be limited to product selections and designations that must be established early in the Contract period.
- C. Completed Schedule: Within 30 days after date of commencement of the Work, submit 3 copies of the completed product list schedule. Provide a written explanation for omissions of data, and for known variations from Contract requirements.
- D. Architect's Action: The Architect will respond in writing to the Contractor within 2 weeks of receipt of the completed product list schedule. No response within this time period constitutes no objection to listed manufacturers or products, but does not constitute a waiver of the requirement that products comply with Contract Documents. The Architect's response will include the following:
 1. A list of unacceptable product selections, containing a brief explanation of reasons for this action.

1.05 QUALITY ASSURANCE

- A. Source Limitations: To the fullest extent possible, provide products of the same kind, from a single source.
- B. Compatibility of Options: When the Contractor is given the option of selecting between two or more products for use on the Project, the product selected shall be compatible with products previously selected, even if previously selected products were also options.
 - 1. Each prime Contractor is responsible for providing products and construction methods that are compatible with products and construction methods of other prime or separate Contractors.
 - 2. If a dispute arises between prime Contractors over concurrently selectable, but incompatible products, the Architect will determine which products shall be retained and which are incompatible and must be replaced.
- C. Nameplates: Except for required labels and operating data, do not attach or imprint manufacturer's or producer's nameplates or trademarks on exposed surfaces of products which will be exposed to view in occupied spaces or on the exterior.
 - 1. Labels: Locate required product labels and stamps on a concealed surface or, where required for observation after installation, on an accessible surface that is not conspicuous.
 - 2. Equipment Nameplates: Provide a permanent nameplate on each item of service-connected or power-operated equipment. Locate on an easily accessible surface which is inconspicuous in occupied spaces. The nameplate shall contain the following information and other essential operating data:
 - a. Name of product and manufacturer.
 - b. Model and serial number.
 - c. Capacity.
 - d. Speed.
 - e. Ratings.

1.06 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store and handle products in accordance with the manufacturer's recommendations, using means and methods that will prevent damage, deterioration and loss, including theft.
 - 1. Schedule delivery to minimize long-term storage at the 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 the site in the manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting and installing.
4. Inspect products upon delivery to ensure compliance with the Contract Documents, and to ensure that products are undamaged and properly protected.
5. Store products at the site in a manner that will facilitate inspection and measurement of quantity or counting of units.
6. Store heavy materials away from the Project structure in a manner that will not endanger the supporting construction.
7. Store products subject to damage by the elements above ground, under cover in a weathertight enclosure, with ventilation adequate to prevent condensation. Maintain temperature and humidity within range required by manufacturer's instructions.

2. PRODUCTS

2.01 PRODUCT SELECTION

- A. General Product Requirements: Provide products that comply with the Contract Documents, that are undamaged and, unless otherwise indicated, unused at the time of installation.
 1. Provide products complete with all accessories, trim, finish, safety guards and other devices and details needed for a complete installation and for the intended use and effect.
 2. Standard Products: Where available, provide standard products of types that have been produced and used successfully in similar situations on other projects.
- B. Product Selection Procedures: Product selection is governed by the Contract Documents and governing regulations, not by previous Project experience. Procedures governing product selection include the following:
 1. Where products or manufacturers are specified by name, accompanied by the term "or equal," or "or approved equal" comply with the Contract Document provisions concerning "substitutions" to obtain approval for use of an unnamed product, unless noted otherwise in specific specification section.

2. **Non-Proprietary Specifications:** When the Specifications list products or manufacturers that are available and may be incorporated in the Work, but do not restrict the Contractor to use of these products only, the Contractor may propose any available product that complies with Contract requirements. Comply with Contract Document provisions concerning "substitutions" to obtain approval for use of an unnamed product.
3. **Descriptive Specification Requirements:** Where Specifications describe a product or assembly, listing exact characteristics required, with or without use of a brand or trade name, provide a product or assembly that provides the characteristics and otherwise complies with Contract requirements.
4. **Compliance with Standards, Codes and Regulations:** Where the Specifications only require compliance with an imposed code, standard or regulation, select a product that complies with the standards, codes or regulations specified.
5. **Visual Matching:** Where Specifications require matching an established Sample, the Architect's decision will be final on whether a proposed product matches satisfactorily.
 - a. Where no product available within the specified category matches satisfactorily and also complies with other specified requirements, comply with provisions of the Contract Documents concerning "substitutions" for selection of a matching product in another product category, or for noncompliance with specified requirements.
6. **Visual Selection:** Where specified product requirements include the phrase "...as selected from manufacturer's standard colors, patterns, textures..." or a similar phrase, select a product and manufacturer that complies with other specified requirements. The Architect will select the color, pattern and texture from the product line selected.

3. EXECUTION

3.01 INSTALLATION OF PRODUCTS:

- A. Comply with manufacturer's instructions and recommendations for installation of products in the applications indicated. Anchor each product securely in place, accurately located and aligned with other Work.
 1. Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.

END OF SECTION 01610 01 6100

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SECTION 01 7000 - EXECUTION AND CLOSEOUT REQUIREMENTS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Examination, preparation, and general installation procedures.
- B. Requirements for alterations work, including selective demolition.
- C. Pre-installation meetings.
- D. Cutting and patching.
- E. Surveying for laying out the work.
- F. Cleaning and protection.
- G. Starting of systems and equipment.
- H. Demonstration and instruction of Owner personnel.
- I. Closeout procedures, including Contractor's Correction Punch List, except payment procedures.
- J. General requirements for maintenance service.

1.02 RELATED REQUIREMENTS

- A. Section 01 1000 - Summary: Limitations on working in existing building; continued occupancy; work sequence; identification of salvaged and relocated materials.
- B. Section 01 4000 - Quality Requirements: Testing and inspection procedures.
- C. Section 01 5000 - Temporary Facilities and Controls: Temporary exterior enclosures.
- D. Section 01 7800 - Closeout Submittals: Project record documents, operation and maintenance data, warranties, and bonds.
- E. Section 02 4100 - Demolition: Demolition of whole structures and parts thereof; site utility demolition.

1.03 REFERENCE STANDARDS

- A. NFPA 241 - Standard for Safeguarding Construction, Alteration, and Demolition Operations 2022.

1.04 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.

- B. Demolition Plan: Submit demolition plan as specified by OSHA and local authorities.
 - 1. Indicate extent of demolition, removal sequence, bracing and shoring, and location and construction of barricades and fences. Include design drawings and calculations for bracing and shoring.
 - 2. Identify demolition firm and submit qualifications.
 - 3. Include a summary of safety procedures.
- C. Cutting and Patching: Submit written request in advance of cutting or alteration that affects:
 - 1. Structural integrity of any element of Project.
 - 2. Integrity of weather exposed or moisture resistant element.
 - 3. Efficiency, maintenance, or safety of any operational element.
 - 4. Visual qualities of sight exposed elements.
 - 5. Work of Owner or separate Contractor.
- D. Project Record Documents: Accurately record actual locations of capped and active utilities.

1.05 PROJECT CONDITIONS

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

PART 2 PRODUCTS

2.01 PATCHING MATERIALS

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

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that existing site conditions and substrate surfaces are acceptable for subsequent work. Start of work means acceptance of existing conditions.
- B. Verify that existing substrate is capable of structural support or attachment of new work being applied or attached.
- C. Examine and verify specific conditions described in individual specification sections.
- D. Take field measurements before confirming product orders or beginning fabrication, to minimize waste due to over-ordering or misfabrication.
- E. Verify that utility services are available, of the correct characteristics, and in the correct locations.
- F. Prior to Cutting: Examine existing conditions prior to commencing work, including elements subject to damage or movement during cutting and patching. After uncovering existing work, assess conditions affecting performance of work. Beginning of cutting or patching means acceptance of existing conditions.

3.02 PREPARATION

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

3.03 PREINSTALLATION MEETINGS

- A. When required in individual specification sections, convene a preinstallation meeting at the site prior to commencing work of the section.

- B. Require attendance of parties directly affecting, or affected by, work of the specific section.
- C. Notify Architect four days in advance of meeting date.
- D. Prepare agenda and preside at meeting:
 - 1. Review conditions of examination, preparation and installation procedures.
 - 2. Review coordination with related work.
- E. Record minutes and distribute copies within two days after meeting to participants, with two copies to Architect, Owner, participants, and those affected by decisions made.

3.04 GENERAL INSTALLATION REQUIREMENTS

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

3.05 ALTERATIONS

- A. Drawings showing existing construction and utilities are based on casual field observation and existing record documents only.
 - 1. Verify that construction and utility arrangements are as indicated.
 - 2. Report discrepancies to Architect before disturbing existing installation.
 - 3. Beginning of alterations work constitutes acceptance of existing conditions.
- B. Maintain weatherproof exterior building enclosure except for interruptions required for replacement or modifications; take care to prevent water and humidity damage.
 - 1. Where openings in exterior enclosure exist, provide construction to make exterior enclosure weatherproof.

- C. Remove existing work as indicated and as required to accomplish new work.
 - 1. Remove items indicated on drawings.
 - 2. Relocate items indicated on drawings.
 - 3. Where new surface finishes are to be applied to existing work, perform removals, patch, and prepare existing surfaces as required to receive new finish; remove existing finish if necessary for successful application of new finish.
 - 4. Where new surface finishes are not specified or indicated, patch holes and damaged surfaces to match adjacent finished surfaces as closely as possible.

- D. Services (Including but not limited to HVAC, Plumbing, Fire Protection, Electrical, and Telecommunications): Remove, relocate, and extend existing systems to accommodate new construction.
 - 1. Verify that abandoned services serve only abandoned facilities.
 - 2. Remove abandoned pipe, ducts, conduits, and equipment, including those above accessible ceilings; remove back to source of supply where possible, otherwise cap stub and tag with identification; patch holes left by removal using materials specified for new construction.

- E. Protect existing work to remain.
 - 1. Prevent movement of structure; provide shoring and bracing if necessary.
 - 2. Perform cutting to accomplish removals neatly and as specified for cutting new work.
 - 3. Repair adjacent construction and finishes damaged during removal work.

- F. Adapt existing work to fit new work: Make as neat and smooth transition as possible.
 - 1. When existing finished surfaces are cut so that a smooth transition with new work is not possible, terminate existing surface along a straight line at a natural line of division and make recommendation to Architect.
 - 2. Where removal of partitions or walls results in adjacent spaces becoming one, rework floors, walls, and ceilings to a smooth plane without breaks, steps, or bulkheads.
 - 3. Where a change of plane of 1/4 inch (6 mm) or more occurs in existing work, submit recommendation for providing a smooth transition for Architect review and request instructions.

4. Trim existing wood doors as necessary to clear new floor finish. Refinish trim as required.
- G. Patching: Where the existing surface is not indicated to be refinished, patch to match the surface finish that existed prior to cutting. Where the surface is indicated to be refinished, patch so that the substrate is ready for the new finish.
- H. Refinish existing surfaces as indicated:
 1. Where rooms or spaces are indicated to be refinished, refinish all visible existing surfaces to remain to the specified condition for each material, with a neat transition to adjacent finishes.
 2. If mechanical or electrical work is exposed accidentally during the work, re-cover and refinish to match.
- I. Clean existing systems and equipment.
- J. Remove demolition debris and abandoned items from alterations areas and dispose of off-site; do not burn or bury.
- K. Do not begin new construction in alterations areas before demolition is complete.
- L. Comply with all other applicable requirements of this section.

3.06 CUTTING AND PATCHING

- A. Whenever possible, execute the work by methods that avoid cutting or patching.
- B. See Alterations article above for additional requirements.
- C. Perform whatever cutting and patching is necessary to:
 1. Complete the work.
 2. Fit products together to integrate with other work.
 3. Provide openings for penetration of mechanical, electrical, and other services.
 4. Match work that has been cut to adjacent work.
 5. Repair areas adjacent to cuts to required condition.
 6. Repair new work damaged by subsequent work.
 7. Remove samples of installed work for testing when requested.
 8. Remove and replace defective and non-complying work.

- D. Do not cut and patch structural elements in a manner that would reduce their load-carrying capacity or load-deflection ratio.
- E. Obtain approval of the cutting and patching proposal before cutting and patching the following structural elements:
 - 1. Foundation construction.
 - 2. Bearing and retaining walls.
 - 3. Structural concrete.
 - 4. Structural steel.
 - 5. Lintels.
 - 6. Timber and primary wood framing.
 - 7. Structural decking.
 - 8. Stair systems.
 - 9. Miscellaneous structural metals.
 - 10. Exterior curtain wall construction.
 - 11. Equipment supports.
 - 12. Piping, ductwork, vessels and equipment.
 - 13. Structural systems of special construction in Division-13.
- F. Contractor to provide insect control and vapor tight at structure (example: exterior cuts - patching of vapor retarder). All openings or penetrations made to be well-sealed from insect or rodents with plaster, “play” sand, copper gauze - contractor to adhere to all applicable fire ratings.
- G. Operational and Safety Limitations: Do not cut and patch operating elements or safety related components in a manner that would result in reducing their capacity to perform as intended, or result in increased maintenance, or decreased operational life or safety.
- H. Obtain approval of the cutting and patching proposal before cutting and patching the following operating elements or safety related systems:
 - 1. Primary operational systems and equipment.
 - 2. Membranes and flashings.
 - 3. Fire protection systems.

4. Communication systems.
5. Electrical wiring systems.
- I. Execute work by methods that avoid damage to other work and that will provide appropriate surfaces to receive patching and finishing. In existing work, minimize damage and restore to original condition.
- J. Employ skilled and experienced installer to perform cutting for weather exposed and moisture resistant elements, and sight exposed surfaces.
- K. Cut rigid materials using masonry saw or core drill. Pneumatic tools not allowed without prior approval.
- L. Restore work with new products in accordance with requirements of Contract Documents.
- M. Fit work air tight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
- N. At penetrations of fire rated walls, partitions, ceiling, or floor construction, completely seal voids with fire rated material in accordance with Section 07 8400, to full thickness of the penetrated element.
- O. To avoid marring existing finished surfaces, cut or drill from the exposed or finished side into concealed surfaces.
- P. Patching:
 1. Finish patched surfaces to match finish that existed prior to patching. On continuous surfaces, refinish to nearest intersection or natural break. For an assembly, refinish entire unit.
 2. Match color, texture, and appearance.
 3. Repair patched surfaces that are damaged, lifted, discolored, or showing other imperfections due to patching work. If defects are due to condition of substrate, repair substrate prior to repairing finish.

3.07 PROGRESS CLEANING

- A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.
- B. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, prior to enclosing the space.

- C. Broom and vacuum clean interior areas prior to start of surface finishing, and continue cleaning to eliminate dust.
- D. Collect and remove waste materials, debris, and trash/rubbish from site periodically and dispose off-site; do not burn or bury.

3.08 PROTECTION OF INSTALLED WORK

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

3.09 SYSTEM STARTUP

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

- G. Submit a written report that equipment or system has been properly installed and is functioning correctly.

3.10 DEMONSTRATION AND INSTRUCTION

- A. Demonstrate start-up, operation, control, adjustment, trouble-shooting, servicing, maintenance, and shutdown of each item of equipment at scheduled time, at equipment location.
- B. For equipment or systems requiring seasonal operation, perform demonstration for other season within six months.
- C. Provide a qualified person who is knowledgeable about the Project to perform demonstration and instruction of Owner's personnel.
- D. Utilize operation and maintenance manuals as basis for instruction. Review contents of manual with Owner's personnel in detail to explain all aspects of operation and maintenance.
- E. Prepare and insert additional data in operations and maintenance manuals when need for additional data becomes apparent during instruction.

3.11 ADJUSTING

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

3.12 FINAL CLEANING

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

3.13 CLOSEOUT PROCEDURES

- A. Accompany Project Coordinator on preliminary inspection to determine items to be listed for completion or correction in the Contractor's Correction Punch List for Contractor's Notice of Substantial Completion.
- B. Refer to requirements of General Conditions of the Contract for Construction.
- C. Substantial Completion
 - 1. Notify Architect when work is considered ready for Architect's Substantial Completion inspection.
 - 2. Submit written certification containing Contractor's Correction Punch List, that Contract Documents have been reviewed, work has been inspected, and that work is complete in accordance with Contract Documents and ready for Architect's Substantial Completion inspection.
 - 3. Notify Architect of intended date of Substantial Completion as early as is feasibly possible. Architect will schedule Final Inspection of the work with Owner, Architect's Consultants, and the Alabama Building Commission Inspector. Contractor shall coordinate attendance of the Final Inspection by local Fire Department and other code officials requiring attendance.
 - 4. Upon completion of the Final Inspection, if the work is deemed substantially complete, the Architect will distribute a Certificate of Substantial Completion with "Punch List" of items required to be corrected by the Contractor prior to Final Acceptance of the Work.
- D. Final Acceptance
 - 1. Correct items of work listed in executed Certificates of Substantial Completion.
 - 2. Notify Architect when work is considered finally complete.
 - 3. Submit a certified copy of the Architect's final inspection list of items to be completed or corrected, stating that each item has been completed or otherwise resolved for acceptance, and the list has been endorsed and dated by the Architect.
 - 4. Upon completion of reinspection, the Architect will prepare a certificate of final acceptance, or advise the Contractor of Work that is incomplete or of obligations that have not been fulfilled but are required for final acceptance.
 - 5. If necessary, reinspection will be repeated until all items of work are completed.
 - 6. Submit evidence of final, continuing insurance coverage complying with insurance requirements.

7. Submit the final payment request with releases and supporting documentation as outlined in the General Conditions of the Contract for Construction.
- E. Conduct Substantial Completion inspection and create Final Correction Punch List containing Architect's and Contractor's comprehensive list of items identified to be completed or corrected and submit to Architect.
- F. Notify Architect when work is considered finally complete and ready for Architect's Substantial Completion final inspection.

3.14 MAINTENANCE

- A. Provide service and maintenance of components indicated in specification sections.
- B. Maintenance Period: As indicated in specification sections or, if not indicated, not less than one year from the Date of Substantial Completion or the length of the specified warranty, whichever is longer.
- C. Examine system components at a frequency consistent with reliable operation. Clean, adjust, and lubricate as required.
- D. Include systematic examination, adjustment, and lubrication of components. Repair or replace parts whenever required. Use parts produced by the manufacturer of the original component.
- E. Maintenance service shall not be assigned or transferred to any agent or subcontractor without prior written consent of the Owner.

END OF SECTION 01 7000

SECTION 01 7700 - PROJECT CLOSEOUT

PART 1 GENERAL

1.01 RELATED DOCUMENTS

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

1.02 SUMMARY

- A. This Section specifies administrative and procedural requirements for project closeout, including but not limited to:
 1. Inspection procedures.
 2. Project record document submittal.
 3. Operating and maintenance manual submittal.
 4. Submittal of warranties.
 5. Final cleaning.
 6. Closeout requirements for specific construction activities are included in the appropriate Sections in Divisions-2 through -48.

1.03 SUBSTANTIAL COMPLETION

- A. Preliminary Procedures: Before requesting inspection for certification of Substantial Completion, complete the following. List exceptions in the request.
 1. In the Application for Payment that coincides with, or first follows, the date Substantial Completion is claimed, show 100 percent completion for the portion of the Work claimed as substantially complete. Include supporting documentation for completion as indicated in these Contract Documents and a statement showing an accounting of changes to the Contract Sum.
 - a. If 100 percent completion cannot be shown, include a list of incomplete items, the value of incomplete construction, and reasons the Work is not complete.
 - b. Advise Owner of pending insurance change-over requirements.
 - c. Submit specific warranties, workmanship bonds, maintenance agreements, final certifications as built drawings as required in Section 01 3000 Administrative Requirements and similar documents.

- d. Obtain and submit releases enabling the Owner unrestricted use of the Work and access to services and utilities; include occupancy permits, operating certificates and similar releases.
- e. Submit record drawings, maintenance manuals, final project photographs, damage or settlement survey, property survey, and similar final record information.
- f. Deliver tools, spare parts, extra stock, and similar items.
- g. Make final change-over of permanent locks and transmit keys to the Owner. Advise the Owner's personnel of change-over in security provisions.
- h. Complete start-up testing of systems, and instruction of the Owner's operating and maintenance personnel. Discontinue or change over and remove temporary facilities from the site, along with construction tools, mock-ups, and similar elements.
- i. Complete final clean up requirements, including touch-up painting. Touch-up and otherwise repair and restore marred exposed finishes.
- j. Inspection Procedures: On receipt of a request for inspection, the General Contractor shall submit in writing to the Architect a detailed punch list of all incomplete items in all trades. In addition, he shall give written notice that all plumbing, mechanical, electrical and all other building systems are complete and fully operable. Refer to general conditions. The Architect will prepare the Certificate of Substantial Completion following inspection, or advise the Contractor of construction that must be completed or corrected before the certificate will be issued.
 - 1) The Architect will repeat inspection when requested and assured that the Work has been substantially completed.
 - 2) Results of the completed inspection will form the basis of requirements for final acceptance.

1.04 FINAL ACCEPTANCE

- A. Preliminary Procedures: Before requesting final inspection for certification of final acceptance and final payment, complete the following. List exceptions in the request.
 1. Submit the final payment request with releases and supporting documentation not previously submitted and accepted. Include certificates of insurance for products and completed operations where required.

2. Submit a certified copy of the Architect's final inspection list of items to be completed or corrected, stating that each item has been completed or otherwise resolved for acceptance, and the list has been endorsed and dated by the Architect.
 3. Submit final meter readings for utilities and similar data as of the date of Substantial Completion.
 4. Submit consent of surety to final payment.
 5. Submit evidence of final, continuing insurance coverage complying with insurance requirements.
- B. Reinspection Procedure: The Architect will reinspect the Work upon receipt of notice that the Work, including inspection list items from earlier inspections, has been completed, except items whose completion has been delayed because of circumstances acceptable to the Architect.
1. Upon completion of reinspection, the Architect will prepare a certificate of final acceptance, or advise the Contractor of Work that is incomplete or of obligations that have not been fulfilled but are required for final acceptance.
 2. If necessary, reinspection will be repeated.

1.05 RECORD DOCUMENT SUBMITTALS

- A. General: Do not use record documents for construction purposes; protect from deterioration and loss in a secure, fire-resistive location; provide access to record documents for the Architect's reference during normal working hours.
- B. Record Drawings: Upon completion and acceptance of the project, the Contractor to provide to the Architect one paper copy and one digital copy in Autocad format in the latest edition on compact disc. All noted changes to be clouded.
- C. Record Specifications: Maintain three (3) complete hard copies and three (3) scanned image copies on compact discs (CD) of the Project Manual, including addenda, and three (3) copies of other written construction documents such as Change Orders and modifications issued in printed form during construction. Mark these documents to show substantial variations in actual Work performed in comparison with the text of the Specifications and modifications. Give particular attention to substitutions, selection of options and similar information on elements that are concealed or cannot otherwise be readily discerned later by direct observation. Note related record drawing information and Product Data.
 1. Upon completion of the Work, submit record Specifications to the Architect for the Owner's records.

2. Record Product Data: Maintain one copy of each Product Data submittal. Mark these documents to show significant variations in actual Work performed in comparison with information submitted. Include variations in products delivered to the site, and from the manufacturer's installation instructions and recommendations. Give particular attention to concealed products and portions of the Work which cannot otherwise be readily discerned later by direct observation. Note related Change Orders and mark-up of record drawings and Specifications.
 - a. Upon completion of mark-up, submit complete set of record Product Data to the Architect for the Owner's records.
- D. Maintenance Manuals: Provide three (3) complete hard copy sets and three (3) digital copies on CDs. Organize operating and maintenance data into suitable sets of manageable size. Bind properly indexed data in individual heavy-duty 2-inch, 3-ring vinyl-covered binders, with pocket folders for folded sheet information. Mark appropriate identification on front and spine of each binder. Include the following types of information:
1. Emergency instructions.
 2. Spare parts list.
 3. Copies of warranties.
 4. Wiring diagrams.
 5. Recommended "turn around" cycles.
 6. Inspection procedures.
 7. Shop Drawings and Product Data.

PART 2 PRODUCTS (NOT APPLICABLE)

PART 3 EXECUTION

3.01 CLOSEOUT PROCEDURES

- A. Operating and Maintenance Instructions: Arrange for each installer of equipment that requires regular maintenance to meet with the Owner's personnel to provide instruction in proper operation and maintenance. If installers are not experienced in procedures, provide instruction by manufacturer's representatives. Include a detailed review of the following items:
 1. Maintenance manuals.
 2. Record documents.

3. Spare parts and materials.
 4. Tools.
 5. Identification systems.
 6. Control sequences.
 7. Hazards.
 8. Cleaning.
 9. Warranties and bonds.
 10. Maintenance agreements and similar continuing commitments.
- B. As part of instruction for operating equipment, demonstrate the following procedures:
1. Start-up.
 2. Shutdown.
 3. Emergency operations.
 4. Noise and vibration adjustments.
 5. Safety procedures.
 6. Economy and efficiency adjustments.
 7. Effective energy utilization.
- C. See Security Specification Sections for additional training, adjusting, and support requirements.

3.02 FINAL CLEANING

- A. General: General cleaning during construction is required by the General Conditions and included in Section "Temporary Facilities".
- B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to the condition expected in a normal, commercial building cleaning and maintenance program. Comply with manufacturer's instructions.
1. Complete the following cleaning operations before requesting inspection for Certification of Substantial Completion.
 - a. Remove labels that are not permanent labels.

- b. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compound and other substances that are noticeable vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials.
 - c. Clean exposed exterior and interior hard-surfaced finishes to a dust-free condition, free of stains, films and similar foreign substances. Restore reflective surfaces to their original reflective condition. Leave concrete floors broom clean. Vacuum carpeted surfaces.
 - d. Wipe surfaces of mechanical and electrical equipment. Remove excess lubrication and other substances. Clean plumbing fixtures to a sanitary condition. Clean light fixtures and lamps.
 - e. Clean the site, including landscape development areas, of rubbish, litter and other foreign substances. Sweep paved areas broom clean; remove stains, spills and other foreign deposits. Rake grounds that are neither paved nor planted, to a smooth even-textured surface.
- C. Removal of Protection: Remove temporary protection and facilities installed for protection of the Work during construction.
- D. Compliance: Comply with regulations of authorities having jurisdiction and safety standards for cleaning. Do not burn waste materials. Do not bury debris or excess materials on the Owner's property. Do not discharge volatile, harmful or dangerous materials into drainage systems. Remove waste materials from the site and dispose of in a lawful manner.

Where extra materials of value remaining after completion of associated Work have become the Owner's property, arrange for disposition of these materials as directed.

END OF SECTION 01 7700

SECTION 01 7800 - CLOSEOUT SUBMITTALS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Project Record Documents.
- B. Operation and Maintenance Data.
- C. Warranties and bonds.

1.02 RELATED REQUIREMENTS

- A. Section 01 3000 - Administrative Requirements: Submittals procedures, shop drawings, product data, and samples.
- B. Section 01 7000 - Execution and Closeout Requirements: Contract closeout procedures.
- C. Individual Product Sections: Warranties required for specific products or Work.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 PROJECT RECORD DOCUMENTS

- A. Maintain on site one set of the following record documents; record actual revisions to the Work:
 - 1. Drawings.
 - 2. Specifications.
 - 3. Addenda.
 - 4. Change Orders and other modifications to the Contract.
 - 5. Reviewed shop drawings, product data, and samples.
 - 6. Manufacturer's instruction for assembly, installation, and adjusting.
- B. Ensure entries are complete and accurate, enabling future reference by Owner.
- C. Store record documents separate from documents used for construction.
- D. Record information concurrent with construction progress.

1. Architect will review record documents with Contractor's project manager after each progress meeting, or at intervals appropriate to the project, to ensure record documents are being kept accurate and up to date with the progress of the project.
- E. Specifications: Legibly mark and record at each product section description of actual products installed, including the following:
 1. Manufacturer's name and product model and number.
 2. Product substitutions or alternates utilized.
 3. Changes made by Addenda and modifications.
- F. Record Drawings and Shop Drawings: Legibly mark each item to record actual construction including:
 1. Field changes of dimension and detail.
 2. Details not on original Contract drawings.
- G. Record Drawings: Contractor to provide one paper copy and three digital copies PDF format on compact disc. All noted changes to be clouded.
- H. Source Data: For each product or system, list names, addresses and telephone numbers of Subcontractors and suppliers, including local source of supplies and replacement parts.

3.02 OPERATION AND MAINTENANCE DATA FOR MATERIALS AND FINISHES

- A. For Each Product, Applied Material, and Finish:
 1. Product data, with catalog number, size, composition, and color and texture designations.
 2. Information for re-ordering custom manufactured products.
- B. Instructions for Care and Maintenance: Manufacturer's recommendations for cleaning agents and methods, precautions against detrimental cleaning agents and methods, and recommended schedule for cleaning and maintenance.
- C. Moisture protection and weather-exposed products: Include product data listing applicable reference standards, chemical composition, and details of installation. Provide recommendations for inspections, maintenance, and repair.
- D. Additional information as specified in individual product specification sections.
- E. Where additional instructions are required, beyond the manufacturer's standard printed instructions, have instructions prepared by personnel experienced in the operation and

maintenance of the specific products.

- F. Provide a listing in Table of Contents for design data, with tabbed fly sheet and space for insertion of data.
- G. Contractor to provide three paper copies / binders and three digital copies PDF format on compact disc. All noted changes to be clouded.

3.03 ASSEMBLY OF OPERATION AND MAINTENANCE MANUALS

- A. Assemble operation and maintenance data into durable manuals for Owner's personnel use, with data arranged in the same sequence as, and identified by, the specification sections.
- B. Where systems involve more than one specification section, provide separate tabbed divider for each system.
- C. Prepare instructions and data by personnel experienced in maintenance and operation of described products.
- D. Prepare data in the form of an instructional manual.
- E. Binders: Commercial quality, 8-1/2 by 11 inch (216 by 280 mm) three D side ring binders with durable plastic covers; 4 inch (101.6 mm) maximum ring size. When multiple binders are used, correlate data into related consistent groupings.
- F. Cover: Identify each binder with typed or printed title OPERATION AND MAINTENANCE INSTRUCTIONS; identify title of Project; identify subject matter of contents.
- G. Project Directory: Title and address of Project; names, addresses, and telephone numbers of Architect, Consultants, Contractor and subcontractors, with names of responsible parties.
- H. Tables of Contents: List every item separated by a divider, using the same identification as on the divider tab; where multiple volumes are required, include all volumes Tables of Contents in each volume, with the current volume clearly identified.
- I. Dividers: Provide tabbed dividers for each separate product and system; identify the contents on the divider tab; immediately following the divider tab include a description of product and major component parts of equipment.
- J. Text: Manufacturer's printed data, or typewritten data on 24 pound paper.
- K. Drawings: Provide with reinforced punched binder tab. Bind in with text; fold larger drawings to size of text pages.

- L. Arrange content by systems under section numbers and sequence of Table of Contents of this Project Manual.
- M. Contents: Prepare a Table of Contents for each volume, with each product or system description identified, in three parts as follows:
 - 1. Part 1: Directory, listing names, addresses, and telephone numbers of Architect, Contractor, Subcontractors, and major equipment suppliers.
 - 2. Part 2: Operation and maintenance instructions, arranged by system and subdivided by specification section. For each category, identify names, addresses, and telephone numbers of Subcontractors and suppliers. Identify the following:
 - a. Significant design criteria.
 - b. List of equipment.
 - c. Parts list for each component.
 - d. Maintenance instructions for special finishes, including recommended cleaning methods and materials, and special precautions identifying detrimental agents.
 - 3. Part 3: Project documents and certificates, including the following:
 - a. Shop drawings and product data.
- N. Table of Contents: Provide title of Project; names, addresses, and telephone numbers of Architect, Consultants, and Contractor with name of responsible parties; schedule of products and systems, indexed to content of the volume.
- O. Contractor to provide three paper copies / binders and three digital copies PDF format on compact disc.

3.04 WARRANTIES AND BONDS

- A. Obtain warranties and bonds, executed in duplicate by responsible Subcontractors, suppliers, and manufacturers, within 10 days after completion of the applicable item of work. Except for items put into use with Owner's permission, leave date of beginning of time of warranty until Date of Substantial completion is determined.
- B. Verify that documents are in proper form, contain full information, and are notarized.
- C. Co-execute submittals when required.
- D. Retain warranties and bonds until time specified for submittal.

- E. Manual: Bind in commercial quality 8-1/2 by 11 inch (216 by 279 mm) three D side ring binders with durable plastic covers.
- F. Cover: Identify each binder with typed or printed title WARRANTIES AND BONDS, with title of Project; name, address and telephone number of Contractor and equipment supplier; and name of responsible company principal.
- G. Table of Contents: Neatly typed, in the sequence of the Table of Contents of the Project Manual, with each item identified with the number and title of the specification section in which specified, and the name of product or work item.
- H. Separate each warranty or bond with index tab sheets keyed to the Table of Contents listing. Provide full information, using separate typed sheets as necessary. List Subcontractor, supplier, and manufacturer, with name, address, and telephone number of responsible principal.
- I. Contractor to provide three paper copies / binders and three digital copies PDF format on compact disc.

END OF SECTION 01 7800

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SECTION 02 4100 - DEMOLITION

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Selective demolition of building elements for alteration purposes.

1.02 RELATED REQUIREMENTS

- A. Section 01 5000 - Temporary Facilities and Controls: Site fences, security, protective barriers, and waste removal.
- B. Section 01 7000 - Execution and Closeout Requirements: Project conditions; protection of bench marks, survey control points, and existing construction to remain; reinstallation of removed products; temporary bracing and shoring.

PART 3 EXECUTION

2.01 GENERAL PROCEDURES AND PROJECT CONDITIONS

- A. Comply with applicable codes and regulations for demolition operations and safety of adjacent structures and the public.
 - 1. Obtain required permits.
 - 2. Take precautions to prevent catastrophic or uncontrolled collapse of structures to be removed; do not allow worker or public access within range of potential collapse of unstable structures.
 - 3. Provide, erect, and maintain temporary barriers and security devices.
 - 4. Conduct operations to minimize effects on and interference with adjacent structures and occupants.
 - 5. Do not close or obstruct roadways or sidewalks without permit.
 - 6. Conduct operations to minimize obstruction of public and private entrances and exits; do not obstruct required exits at any time; protect persons using entrances and exits from removal operations.
 - 7. Obtain written permission from owners of adjacent properties when demolition equipment will traverse, infringe upon or limit access to their property.
- B. Do not begin removal until receipt of notification to proceed from Owner.
- C. Protect existing structures and other elements that are not to be removed.

1. Provide bracing and shoring.
2. Prevent movement or settlement of adjacent structures.
3. Stop work immediately if adjacent structures appear to be in danger.

2.02 EXISTING UTILITIES

- A. Coordinate work with utility companies; notify before starting work and comply with their requirements; obtain required permits.
- B. Protect existing utilities to remain from damage.
- C. Do not disrupt public utilities without permit from authority having jurisdiction.
- D. Do not close, shut off, or disrupt existing life safety systems that are in use without at least 7 days prior written notification to Owner.
- E. Do not close, shut off, or disrupt existing utility branches or take-offs that are in use without at least 3 days prior written notification to Owner.
- F. Locate and mark utilities to remain; mark using highly visible tags or flags, with identification of utility type; protect from damage due to subsequent construction, using substantial barricades if necessary.
- G. Remove exposed piping, valves, meters, equipment, supports, and foundations of disconnected and abandoned utilities.

2.03 SELECTIVE DEMOLITION FOR ALTERATIONS

- A. Drawings showing existing construction and utilities are based on casual field observation and existing record documents only.
 1. Verify that construction and utility arrangements are as indicated.
 2. Report discrepancies to Architect before disturbing existing installation.
 3. Beginning of demolition work constitutes acceptance of existing conditions that would be apparent upon examination prior to starting demolition.
- B. Remove existing work as indicated and as required to accomplish new work.
 1. Remove items indicated on drawings.
- C. Services (Including but not limited to HVAC, Plumbing, Fire Protection, Electrical, and Telecommunications): Remove existing systems and equipment as indicated.

1. Maintain existing active systems that are to remain in operation; maintain access to equipment and operational components.
 2. Where existing active systems serve occupied facilities but are to be replaced with new services, maintain existing systems in service until new systems are complete and ready for service.
 3. Verify that abandoned services serve only abandoned facilities before removal.
 4. Remove abandoned pipe, ducts, conduits, and equipment, including those above accessible ceilings; remove back to source of supply where possible, otherwise cap stub and tag with identification.
- D. Protect existing work to remain.
1. Prevent movement of structure; provide shoring and bracing if necessary.
 2. Perform cutting to accomplish removals neatly and as specified for cutting new work.
 3. Repair adjacent construction and finishes damaged during removal work.
 4. Patch as specified for patching new work.

2.04 DEBRIS AND WASTE REMOVAL

- A. Remove debris, junk, and trash from site.
- B. Leave site in clean condition, ready for subsequent work.
- C. Clean up spillage and wind-blown debris from public and private lands.

END OF SECTION 02 4100

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